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IGS 62nd Annual and Scientific Meeting, 9-11 October 2014,
Radisson Blu Hotel, Galway

Science for Healthy & Active Ageing

Meeting Programme & Abstracts

Radisson Blu Hotel, Galway

9th, 10th & 11th October 2014

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Irish Gerontological Society
In partnership with NUI Galway
and West/North West Hospitals Group



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Science for Healthy & Active Ageing

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Céad Míle Fáilte

It is with great pleasure that I welcome you on behalf of the Scientific Committee to the 62nd Annual Scientific Meeting of the Irish Gerontological Society. This year's event is being jointly hosted with National University of Ireland Galway and West/NorthWest Hospital Group.

The theme this year is “Healthy and Active Ageing” and we are delighted to present an extensive programme that highlights many of the innovations, new thinking and research across all the pillars of gerontology. As always, the range and depth of the submissions received was impressive, with increasing numbers from the biological and behavioural/social sciences. There are 66 oral presentations over the 2 days, along with the 200 posters to be viewed.

This year's programme provides a platform for a range of new and exciting studies to be shared. These will be presented during the sessions which cover: Active and Healthy Ageing in the Community, Stroke & Rehabilitation, Hips & Bones & Falls, Rehabilitation & Frailty, Policy and Demography, New Approaches in Long Term Care, Dementia, Cognition & Ageing, Acute Hospital Care and Caring in Our Society.

We are delighted that the Willie Bermingham Memorial Lecture will be delivered by Professor Eamon O'Shea, Personal Professor in Economics at the National University of Ireland Galway and Research Professor at the Irish Centre for Social Gerontology. The Lecture is titled “Psychosocial Interventions for People with Dementia”.

Our four keynote speakers this year will be Professor Marion McMurdo speaking about “The Quest for the Holy Grail of Exercise”, Prof. Gearóid Ó Laighin on “Designing Connected Health Systems for Older People”, and Dr. Shaun O'Keeffe on “Cant and Kant: Capacity and Consent Don't Matter That Much”.

These all promise to be diverse and thought-provoking talks.

My thanks to the organising committee in NUIG/West NorthWest Hospital Group, to Miriam Ahern and Lucette Murray and to the IGS Executive committee for their considerable work in bringing this meeting together.

We all hope you have a wonderful time with lots of networking, knowledge sharing and craic!

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Mo Flynn,

Honorary Secretary, on behalf of the Scientific Committee

IGS 62nd Annual and Scientific Meeting *Science for Healthy & Active Ageing*

Thursday 9th October 2014

- 19.00–21.00 **Sponsored Symposium**
 Venue: Radisson Blu Hotel, Marina's Restaurant Private Section
Parkinson's Disease in the Older Person
 Mr. Paddy Browne, Clinical Nurse Specialist, University College Hospital, Galway
Rehabilitation of Parkinson's Disease in the Older Patient using LSVT BIG
 Mr. Paul Diamond, Occupational Therapist, The Royal Hospital, Donnybrook, Dublin

Friday 10th October 2014

- From 07.30 **Registration**
- 08.00–09.00 **Sponsored Symposium**
 Venue: Radisson Blu Hotel, Marina's Restaurant Private Section
Update in the Management of COPD, Incorporating Advances in Medication and new Treatment Options
 Dr. Anthony O'Regan, Consultant in Respiratory & Internal Medicine, University College Hospital, Galway & National University of Ireland, Galway
- 09.30–09.40 **Welcome Address: Professor J. Bernard Walsh**, President, Irish Gerontological Society, Clinical Professor, Trinity College and St James's Hospital, Dublin
 (Inis Mór 2, with live AV feed to Inis Mór 3)
- Session 1**
- Inis Mór 2**
 Co-chairs:
 Dr. Shaun O'Keeffe, Consultant Geriatrician, University Hospital Galway/National University of Ireland, Galway
 Dr. Gerry O'Mara, Consultant Geriatrician, Roscommon Hospital
- Inis Mór 3**
 Co-chairs:
 Mo Flynn, Chief Executive Officer, Our Lady's Hospice and Care Services
 Elaine O'Connor, Senior Occupational Therapist, Connolly Hospital, Dublin
- 09.40–11.00 **Stroke & Rehabilitation (Inis Mór 2)**
- O1 Acute Post-Stroke Blood Pressure Relative to Pre-morbid Levels in Intracerebral Haemorrhage versus Major Ischaemic Stroke: Population-Based Study**
- O2 High Prevalence of Atrial Fibrillation in Acute Stroke in a Rural Population**
- O3 The Management of Atrial Fibrillation and the Use of Oral Anticoagulation for Stroke Prevention in Long-Term Care**
- O4 An Investigation of the Relationship Between Orthostatic Blood Pressure Recovery Patterns and Visual Function**
- O5 Stroke Awareness before, during and after the Irish National Stroke Awareness "FAST" Campaign**
- O6 The 18 Month Journey of Thrombolysis in a University Hospital**
- O7 Stroke Thrombolysis in Older Adults Attending a University Hospital: Audit of Results between 2008–2014. Has the F.A.S.T Campaign Improved Delivery in Clinical Practice?**
- Policy & Demography (Inis Mór 3)**
- O8 The Changing Physical Health of the Over-50s (2009–2012): Findings from The Irish Longitudinal Study on Ageing**
- O9 Mapping Health Services to Meet the Needs of an Ageing Community: The Local Asset Mapping Project (LAMP)**
- O10 Constructing Home Over the Life Course: Toward a Model of At-Oneness**
- O11 Socioeconomic Deprivation and Risk of Age-related Cognitive Dysfunction in Older Irish Adults**
- O12 Irish National Dementia Educational Needs Analysis 2014**
- O13 Mapping an Integrated Dementia Care Pathway**
- O14 Older Prisoners in Ireland: Policy Implications of a Growing Cohort**

- 11.00–11.30 Tea/Coffee, poster viewing, marking and exhibition
- 11.30–12.00 **Keynote Update: *Designing Connected Health Systems for Older People***
Professor Gearóid Ó Laighin,
 Department of Electronic Engineering, Principal Investigator, National Centre for Biomedical Engineering Science,
 National University of Ireland, Galway
 (Inis Mór 2, with live AV feed to Inis Mór 3)
- Session 2**
- Inis Mór 2**
 Co-chairs:
 Dr. Tom Lee, Consultant Geriatrician, Mayo General Hospital
 Pauline Burke, Occupational Therapist Manager, Galway University Hospitals
- Inis Mór 3**
 Co-chairs:
 Dr. Rose Galvin, Programme Leader HRB Centre for Primary Care Research, Department of General Practice & HRB
 Centre for Primary Care Research, Royal College of Surgeons in Ireland
 Dr. Tom O'Malley, Consultant Geriatrician, Mayo General Hospital
- 12.00–13.30 ***Rehabilitation & Frailty (Inis Mór 2)***
- O15 A Hard Pill to Swallow? Assessment of Swallow Function Following an Acute Stroke**
- O16 Physical and Psychosocial Adjustment Post-Stroke**
- O17 Facilitators and Barriers of Getting Back to Active Living Post-Stroke: Results of a National Survey**
- O18 Frailty and Disability across the North and South of Ireland: A Data Harmonisation Study**
- O19 The Impact of Frailty on Post-acute Rehabilitation Outcomes in Older Adults**
- O20 Frailty and its Association with Rehabilitation Outcomes: A Prospective Cohort Study of a Post-Acute Frail Older Population**
- O21 Prediction of Fracture Leading to Hospital Admission in Community-Dwelling Older Adults**
- Healthy Older People in the Community (Inis Mór 3)***
- O22 An Exploratory Study of Club-Based Sports Participation by Older People in Ireland, Australia and Japan**
- O23 “Words Open Windows”: Older Women’s Experiences of Adult Literacy Services**
- O24 Exploring Perceptions of Ageing and Health Amongst Mid-Life Women in Connemara**
- O25 Attitudes of First Year Medical Students to Ageing and to Older People**
- O26 Food Enjoyment is Associated with Nutritional Status Among Irish Older Adults Living Alone**
- O27 Risk Instrument for Screening in the Community (RISC): Predicting Adverse Outcomes in Older Adults**
- O28 Do we Tell GPs What they Need to Know? A Quality Assessment Review of GP Correspondence from a Medicine for the Elderly Outpatient Clinic**
- 13.30–14.30 Lunch, poster viewing, marking and exhibition
- 14.00–14.30 **IGS Annual General Meeting: Inis Mór 2**
- 14.30–15.15 **Willie Bermingham Lecture:**
Psychosocial Interventions for People with Dementia
Professor Eamon O’Shea,
 Personal Professor in Economics, Research Professor at the Irish Centre for Social Gerontology, National University of
 Ireland, Galway
 (Inis Mór 2, with live AV feed to Inis Mór 3)

- Session 3**
- Inis Mór 2**
Co-chairs:
Dr. Jose Miranda, Consultant Geriatrician, Letterkenny General Hospital
Dr. Ken Mulpeter, Consultant Geriatrician, Letterkenny General Hospital
- Inis Mór 3**
Co-chairs:
Dr. Frances Horgan, Senior Lecturer in Physiotherapy, Royal College of Surgeons in Ireland
Mary J. Foley, Advanced Nurse Practitioner, Rehabilitation of the Older Adult, St. Finbarr's Hospital, Cork
- 15.15–16.15 **Hips & Bones & Falls (Inis Mór 2)**
O29 The Irish Hip Fracture Database: Results from the Preliminary Report 2014
- O30 Human Factors & AFFINITY: National Falls Prevention and Bone Health Project**
- O31 Alert Chart-Improving Communication within the MDT & Reducing Risk of Falls**
- O32 Resource Utilisation in Older Patients Presenting with Falls to the Emergency Room**
- O33 Is Low Skeletal Muscle Mass Synonymous with Sarcopenia?**
- New Approaches in Long-term Care (Inis Mór 3)**
O34 Making it Better or Worse? Organisational Influences on Person-Centred Care
- O35 Using “Communication Ramps” to Enable Participation in a Survey and Increase Response Rate**
- O36 Dysphagia and Pneumonia in Nursing Home Residents: Which Side Are You on?**
- O37 Multidisciplinary Team (MDT) Approach in Healing a Grade Four Pressure Ulcer in an Octogenarian Patient with End Stage Dementia**
- O38 The Use of Adjunct Therapies for Chronic Wound Management in Older Adults in a Teaching Hospital**
- 16.15–16.45 Tea/Coffee, poster viewing, exhibition
- 16.45–17.15 **Keynote Update: *The Quest for the Holy Grail of Exercise***
Professor Marion McMurdo,
Head of Ageing & Health, University of Dundee
(Inis Mór 2, with live AV feed to Inis Mór 3)
- 17.30 **Irish Society of Physicians in Geriatric Medicine (ISPGM) Meeting**,
Marina's Restaurant Private Section
- 19.30 **IGS Gala Dinner at Radisson Blu Hotel, Inis Mór Suite**

Saturday 11th October 2014

- Session 4**
- Inis Mór 2**
Co-chairs:
Dr. Michael O'Connor, Consultant Geriatrician, Cork University Hospital
Ciara Breen, Senior Occupational Therapist & Early Supported Discharge Co-ordinator, University College Hospital, Galway
- Inis Mór 3**
Co-chairs:
Professor Tom Scharf, Director, Irish Centre for Social Gerontology, National University of Ireland, Galway
Professor Martin O'Donnell, Professor of Translational Medicine, National University of Ireland, Galway, Consultant Geriatrician

- 09.30–11.00 **Dementia (Inis Mór 2)**
O39 Irish National Audit of Dementia Care in Acute Hospitals
O40 Changing Patient Demographics and Diagnostic Profiles Attending a National Memory Clinic: a Retrospective Review
O41 Audit of Early Clinical Diagnosis of Dementia Incorporating FDGPETCT Scanning
O42 Opinions towards a Consensus on Use of Medications in Advanced Dementia
O43 Acute Dementia Care: A Review of Hospital Activity Attributable to the Care of Patients with Dementia
O44 Dementia's Influence on Hospital Length of Stay of Older People may be Overstated and Mainly Relates to Delays in Discharge to Long-term Care
O45 End of Life Dementia Care in Acute Hospitals
- Cognition & Ageing (Inis Mór 3)**
O46 Environmental Risk Factors for Cognitive Ageing: Geographical Location, Social Engagement and Lifestyle
O47 Negative Perceptions of Ageing Predict Longitudinal Decline in Executive Function
O48 Cognitive Screening Tests Need to be Adjusted for Age and Education in Patients Presenting with Symptomatic Memory Loss
O49 Delayed recovery of blood pressure after orthostasis in individuals with supine hypertension is associated with poorer global cognition at 2-year follow-up in a sample of community dwelling older adults
O50 B-vitamin Status in Relation to Cognitive Decline over 4 years in Healthy Older Adults
O51 Is There a Cognitive Prodrome to Delirium?
O52 Baseline Predictors of Delirium in Medical Inpatients
- 11.00–11.30 **Keynote Update: *Cant and Kant: Capacity and Consent Don't Matter That Much***
Dr. Shaun O'Keeffe,
 Consultant Physician and Geriatrician, University Hospital Galway/National University of Ireland, Galway
 (Inis Mór 2, with live AV feed to Inis Mór 3)
- 11.30–12.00 Coffee/tea, refreshments, poster viewing and exhibition
- Session 5**
- Inis Mór 2**
 Co-chairs:
 Professor Eamon Mulkerrin, Consultant Physician & Geriatrician, National University of Ireland, Galway
 Professor J. Bernard Walsh, President, Irish Gerontological Society, Clinical Professor, Trinity College and St James's Hospital, Dublin
- Inis Mór 3**
 Co-chairs:
 Clare O'Sullivan, Director of Postgraduate Education for the School of Clinical Therapies, Department of Occupational Therapy, University College Cork
 Dr. Áine Ní Léime, Post-Doctoral Researcher, Irish Centre for Social Gerontology, National University of Ireland, Galway

- 12.00–13.30 *Acute Hospital Care (Inis Mór 2)*
- O53 The Impact of the National Clinical Programme for Older People on Older Re-Attenders to the Emergency Department**
 - O54 Characteristics and Outcomes of Older Patients Attending an Acute Medical Assessment Unit**
 - O55 Symptom Presentation in Myocardial Infarction (MI) Patients: a Regression Model Exploring if it is Different in the Aged**
 - O56 The Utility of FDG PET Brain in the Diagnosis of Neurodegenerative Conditions**
 - O57 An Audit of Elderly Hospitalised Patients' Attitudes and Understanding of Pain**
 - O58 Occult Complexities in Geriatric Inpatient Consultations**
 - O59 Smoking Prevalence in an Elderly Inpatient Population**
- Caring in our Society (Inis Mór 3)*
- O60 The Experiences of Family Caregiving: Making Sense of Dementia from Both Cared For and Caregiver Perspectives**
 - O61 The Impact of Caring for Spouses on Depression and Health Behaviours in Over 50s in Ireland, The Irish Longitudinal Study on Ageing**
 - O62 Carer Burden and Potentially Harmful Behaviours Engaged in by Carers of Older People: Results of a National Survey**
 - O63 Survey of Healthcare Workers Suggests Unmet Palliative Care Needs in Parkinson's Disease**
 - O64 Factors Associated with Place of Death among Older Irish Adults: Results from The Irish Longitudinal Study on Ageing**
 - O65 The Influence of Dementia on one-year Mortality Following Hospital Admission, and Place and Cause of Death**
 - O66 Dying to Talk: Initiating End of Life Care Discussions with People Who Have Dementia**
- 13.45–14.00 **Awards and Close of Conference (Inis Mór 2)**

PLATFORM PRESENTATIONS

O1 Acute Post-Stroke Blood Pressure Relative to Pre-Morbid Levels in Intracerebral Haemorrhage Versus Major Ischaemic Stroke: Population-Based Study

Marie Therese Cooney¹, Urs Fischer¹, Linda Bull¹, Louise Silver¹, John Chalmers², Craig Anderson², Ziyah Mehta¹, Peter Rothwell¹
¹Stroke Prevention Research Unit, Nuffield Department Clinical Neurosciences, University of Oxford, Oxford, UK, ²The George Institute for Global Health, University of Sydney, Sydney, Australia

O2 High prevalence of Atrial Fibrillation in Acute Stroke in a Rural Population

Ikwain Marion, Padraic McDonagh, Niamh Murtagh, Tom Lee, Tom O'Malley
 Mayo General Hospital, Castlebar, Ireland

O3 The management of Atrial Fibrillation and the Use of Oral Anticoagulation for Stroke Prevention in long-term care

Rónán O'Caomh¹, Estera Igras², Abdul Ramesh², Ber Power³, Richard Liston²
¹Gerontology and Rehabilitation, St Finbarr's Hospital, Cork City, Ireland, ²Kerry General Hospital, Tralee, Co Kerry, Ireland, ³St. Columbanus Home & Killarney Community Hospital, Killarney, Co Kerry, Ireland

O4 An Investigation of the Relationship between Orthostatic Blood Pressure Recovery Patterns and Visual Function

Bláithín Ní Bhuachalla¹, Christine McGarrigle², Stephen Beatty³, Rose Anne Kenny¹
¹Discipline of Medical Gerontology, Trinity College Dublin, Dublin, Ireland, ²The Irish Longitudinal Study on Ageing, Trinity College Dublin, Dublin, Ireland, ³Macular Pigment Research Group, Vision Research Centre, Waterford Institute of Technology, Waterford, Ireland

O5 Stroke Awareness before, during and after the Irish National Stroke Awareness "FAST" Campaign

Ruth Dwyer, Breffni Drumm, Robert Briggs, Des O'Neill, Tara Coughlan, Ronan Collins
 AMNCH, Tallaght, Dublin 24, Ireland

O6 The 18 Month Journey of Thrombolysis in a University Hospital

Nora Cunningham, Fiona O'Sullivan, Peter Boers, Catherine Peters, Declan Lyons, John McManus, Elijah Chaila
 University Hospital, Limerick, Ireland

O7 Stroke Thrombolysis in Older Adults Attending a University Hospital: Audit of Results Between 2008–2014. Has the F.A.S.T Campaign Improved Delivery in Clinical Practice?

Rónán O'Caomh, Amanda H Lavan, Glen Arrigan, Mary Buckley, Norma Harnedy, Paidrigin O'Sullivan, Denis O'Mahony, Mike O'Connor
 Cork University Hospital, Cork City, Ireland

O8 The Changing Physical Health of the Over 50s (2009–2012): Findings from The Irish Longitudinal Study on Ageing

Ciaran Finucane², Joanne Feeney¹, Hugh Nolan¹, Claire O'Regan¹, Hilary Cronin¹, Rose Anne Kenny¹
¹TILDA, TCD, Dublin, Ireland, ²St. James's Hospital, Dublin, Ireland

O9 Mapping Health Services to Meet the Needs of an Ageing Community: The Local Asset Mapping Project (LAMP)

David Robinson¹, Gerard Boyle¹, Jennifer Feighan¹, Chris Soraghan¹, Luis Dominguez-Villoria¹, Darren Clarke², Jan Rigby², Stacey Lindau³, Rose Anne Kenny¹
¹St. James's Hospital, Dublin, Ireland, ²National University of Ireland, Maynooth, Meath, Ireland, ³University of Chicago, Chicago, USA

O10 Constructing Home Over the Life Course: Toward a Model of At-Oneness

Kieran Walsh¹, Thomas Scharf¹, Graham Rowles²
¹Irish Centre for Social Gerontology, NUI Galway, Galway, Ireland, ²Graduate Center for Gerontology, University of Kentucky, Lexington, KY, USA

O11 Socioeconomic Deprivation and Risk of age-related Cognitive Dysfunction in older Irish Adults

Leane Hoey¹, Adrian McCann¹, Helene McNulty¹, Anne M Molloy², Conal Cunningham³, Miriam C Casey³, Catherine F Hughes¹, Jan E Rigby⁴, Adrian Moore¹
¹University of Ulster, Co. Londonderry, UK, ²Trinity College Dublin, Dublin, Ireland, ³Mercer's Institute for Research on Ageing, Dublin, Ireland, ⁴NUI Maynooth, Co. Kildare, Ireland

O12 Irish National Dementia Educational Needs Analysis 2014

Kate Irving¹, Paulina Piasek¹, AnnMarie Coen¹, Sophia Kilcullen¹, Mary Manning²
¹Dublin City University, Dublin, Ireland, ²Health Service Executive, Dublin, Ireland

O13 Mapping an Integrated Dementia Care Pathway

Daniel Regan¹, Patrick Slevin¹, James Fullam¹, Sarah Cosgrave³, Denis Curtin², Dermot Power², Diarmuid O'Shea³, Gerardine Doyle¹
¹University College Dublin, Dublin, Ireland, ²Mater Misericordiae University Hospital, Dublin, Ireland, ³St. Vincent's University Hospital, Dublin, Ireland

O14 Older Prisoners in Ireland: Policy Implications of a Growing Cohort

Gillian Smith

Trinity College Dublin, Dublin, Ireland

O15 A Hard Pill to Swallow? Assessment of Swallow Function Following an Acute StrokeGabriel Beecham, David Brennan, Colm Staunton, Nicholas Ng, Vishnu Pradeep, Michael Cotter, Martin Mulroy
Our Lady of Lourdes Hospital, Drogheda, Co. Louth, Ireland**O16 Physical and Psychosocial Adjustment Post-Stroke**Irene Hartigan, Geraldine McCarthy, Josephine Hegarty, Vicki Livingstone
School of Nursing and Midwifery, University College Cork, Cork, Ireland**O17 Facilitators and Barriers of Getting Back to Active Living Post-Stroke: Results of a National Survey**Mary Walsh¹, Rose Galvin¹, Cliona Loughmane², Chris Macey², Frances Horgan¹¹Royal College of Surgeons in Ireland, Dublin, Ireland, ²Irish Heart Foundation, Dublin, Ireland**O18 Frailty and Disability across the North and South of Ireland: A Data Harmonisation Study**

Siobhan Scarlett, Bellinda King-Kallimanis, Jonathan Briody, Rose Anne Kenny, Matthew O'Connell

The Irish Longitudinal Study on Ageing, Department of Medical Gerontology, Chemistry Extension Building, Trinity College, Dublin, Ireland

O19 The Impact of Frailty on Post-Acute Rehabilitation Outcomes in Older Adults

Lisa Cogan, Caitriona Tiernan, Roman Romero-Ortuno

The Royal Hospital Donnybrook, Dublin, Ireland

O20 Frailty and its Association with Rehabilitation Outcomes: A Prospective Cohort Study of a Post-Acute Frail Older PopulationMary Nolan¹, Dermot Power², Jill Long¹, Frances Horgan³¹Cappagh National Orthopaedic Hospital, Dublin, Ireland, ²Mater Misericordiae and Cappagh National Orthopaedic Hospitals, Dublin, Ireland,³Royal College of Surgeons in Ireland, Dublin, Ireland**O21 Prediction of Fracture Leading to Hospital Admission in Community Dwelling Older Adults**Rosaleen Lannon¹, Avril Beirne², Kevin McCarroll², Cathal Walsh³, Conal Cunningham², JB Walsh¹, Miriam Casey¹¹Bone Health Unit, Mercer's Institute for Research on Ageing, St James's Hospital, Dublin 8, Ireland, ²Mercer's Institute for Research on Ageing, St James's Hospital, Dublin 8, Ireland, ³Dept of Biostatistics, Trinity College Dublin, Dublin 2, Ireland**O22 An Exploratory Study of Club-based Sports Participation by Older People in Ireland, Australia and Japan**

Yoshio Oro

Trinity College Dublin, Dublin, Ireland

O23 "Words open windows": Older Women's Experiences of Adult Literacy Services

Catherine O'Dare

Trinity College, Dublin, Ireland

O24 Exploring Perceptions of Ageing and Health amongst Mid-Life Women in Connemara

Alison Herbert

National University of Ireland, Galway, Ireland

O25 Attitudes of First Year Medical Students to Ageing and to Older PeopleSimon Piggott¹, Christopher Thong Zi Yi¹, Elizabeth Macken¹, Ben Mulholland¹, Caitriona McKennedy¹, Nur Anis Atika Zainal Abidin¹, Nur Farhana Ahmad Hourmain¹, Aisling O'Reilly¹, Triona Clerkin¹, Aoife Kilby¹, Stephanie Robinson², Michelle Canavan², Eamon Mulkerin², Martin O'Donnell³, First Year NUIG Medicine Nursing Home Special Study Module Group 2014¹¹National University of Ireland, Galway, Ireland, ²University Hospital, Galway, Ireland, ³Clinical Research Facility, National University of Ireland, Galway, Ireland**O26 Food Enjoyment is associated with Nutritional Status among Irish Older Adults living alone**

Joanna McHugh, Olga Lee, Niamh Aspell, Emma McCormack, Michelle Loftus, Sabina Brennan, Brian Lawlor

NEIL Program, Institute of Neuroscience, Trinity College, Dublin, Ireland

O27 Risk Instrument for Screening in the Community (RISC): Predicting Adverse Outcomes in Older AdultsChristine FitzGerald¹, Rónán O'Caomh¹, Elizabeth Healy², Elizabeth O'Connell³, Gabrielle O'Keefe⁴, Una Cronin¹, Eileen O'Herlihy¹,Nicola Cornally¹, Roger Clarnette⁵, Sarah Coveney¹, Francesc Orfila⁶, Constança Paúl⁷, Marina Lupari⁸, D. William Molloy¹¹Centre for Gerontology and Rehabilitation, UCC, Cork, Ireland, ²Centre for Public Health Nursing, Ballincollig and Bishopstown, Cork, Ireland,³Centre for Public Health Nursing, Mahon and Ballintemple, Cork, Ireland, ⁴Health Service Executive South, Ireland, ⁵Faculty of Medicine,Dentistry and Health Sciences, University of Western Australia, Australia, ⁶IDIAPI Jordi Gol, Barcelona, Spain, ⁷ICBAS, University of Porto,Porto, Portugal, ⁸Northern Health & Social Care Trust, Northern Ireland, UK

O28 Do We Tell GPs What They Need to Know? A Quality Assessment Review of GP Correspondence from a Medicine for the Elderly Outpatient Clinic

Avril M Beirne, Aisling Byrne, David J Robinson
Department of Medicine for the Elderly, St James's Hospital, Dublin 8, Ireland

O29 The Irish Hip Fracture Database: Results from the Preliminary Report 2014

Louise Brent¹, Emer Ahern¹, Conor Hurson¹
¹University Hospital Waterford, Waterford, Ireland, ²St. Luke's Hospital, Kilkenny, Ireland, ³St. Vincent's Hospital, Dublin, Ireland

O30 Human Factors & AFFINITY: National Falls Prevention and Bone Health Project

Irene O'Byrne-Maguire
State Claims Agency, Dublin, Ireland

O31 Alert Chart-Improving Communication within the MDT & Reducing Risk of Falls

Eimear Horan, Diarmuid O'Shea, Catherine McLoughlin, Ashling Kinahan
St. Vincent's University Hospital, Dublin, Ireland

O32 Resource Utilisation in Older Patients Presenting with Falls to the Emergency Room

Patricia Hall¹, Jaspreet Bhangu¹, Ciara Rice¹, Geraldine McMahon¹, Rose Ann Kenny²
¹St. James's Hospital, Dublin, Ireland, ²Trinity College, Dublin, Ireland

O33 Is Low Skeletal Muscle Mass Synonymous with Sarcopenia?

Edric Leung¹, Fiona O'Sullivan², Margaret O'Connor², Declan Lyons², Catherine Peters², Grainne O'Malley², Jean Saunders⁴, Eileen Humphreys³
¹Graduate Entry Medical School, University of Limerick, Limerick, Ireland, ²Division of Ageing and Therapeutics, University Hospital Limerick, Limerick, Ireland, ³Department of Sociology, University of Limerick, Limerick, Ireland, ⁴Statistical Consulting Unit, University of Limerick, Limerick, Ireland

O34 Making it Better or Worse? Organisational Influences on Person-Centred Care

Ann Coyle¹, Kathy Murphy¹, Eamon O'Shea¹
¹NUI Galway, Galway, Ireland, ²Health Services Executive, Louth Meath Primary Care Services, Ireland

O35 Using "Communication Ramps" to Enable Participation in a Survey and Increase Response Rate

Julie Scott, Olivia Sinclair, Marie Haughey, Orla Boyle, Martina O'Connor, Andrea Caffrey
The Royal Hospital Donnybrook, Dublin, Ireland

O36 Dysphagia and Pneumonia in Nursing Home Residents: Which Side Are You On?

Colette Gill, Jonathan O'Keeffe, Joseph Browne, Graham Hughes, Diarmuid O'Shea, Fionnuala Duffy
St. Vincent's University Hospital, Elm Park, Dublin 4, Ireland

O37 Multidisciplinary Team (MDT) Approach in Healing a Grade Four Pressure Ulcer in an Octogenarian Patient with End Stage Dementia

Catherine Dunleavy, Tomasz Tomasiuk, Rosamma Jacob
Tara Winthrop Private Clinic, Dublin, Ireland

O38 The Use of Adjunct Therapies for Chronic Wound Management in Older Adults in a Teaching Hospital

Julie Jordan-O'Brien¹, Stuart Lee², Daragh Moneley³, Ciaran Donegan²
¹Tissue Viability Service, Beaumont Hospital, Dublin, Ireland, ²Department of Geriatric and Stroke Medicine, Beaumont Hospital, Dublin, Ireland, ³Department of Vascular Surgery, Beaumont Hospital, Dublin, Ireland

O39 Irish National Audit of Dementia Care in Acute Hospitals

Suzanne Timmons¹, Emma O'Shea¹, Anna de Siun¹, Paul Gallagher¹, Sean Kennelly², Denise McArdle³, Patricia Gibbons³, Desmond O'Neill²
¹University College Cork, Cork, Ireland, ²Trinity College Dublin, Dublin, Ireland, ³Quality and Patient Safety Directorate (Audit Services), Ireland, Ireland

O40 Changing Patient Demographics and Diagnostic Profiles Attending a National Memory Clinic: A Retrospective Review

Avril M Beirne, Irene Bruce, Robert Coen, Kevin McCarroll, David J Robinson, Brian A Lawlor, Conal J Cunningham
Mercer's Institute for Research on Ageing, St James's Hospital, Dublin 8, Ireland

O41 Audit of Early Clinical Diagnosis of Dementia Incorporating FDGPETCT Scanning

David Middleton, Emma Cunningham, Tom Lynch, AP Passmore
Belfast Trust, Belfast, UK

O42 Opinions Towards a Consensus on Use of Medications in Advanced Dementia

Rónán O’Caoimh¹, Nicola Cornally¹, Eileen O’Herlihy¹, Yang Gao¹, Una Cronin¹, Sarah Coveney¹, Roger Clarnette², Ciara McGlade³, William Molloy¹

¹Centre for Gerontology and Rehabilitation, St Finbarr’s Hospital, Cork City, Ireland, ²Fremantle Hospital, Fremantle, Australia, ³Mallow General Hospital, Mallow, Co Cork, Ireland

O43 Acute Dementia Care: A Review of Hospital Activity Attributable to the Care of Patients with Dementia

R Coary, R Briggs, S Kennelly

Department of Age Related Health Care, Tallaght, Ireland

O44 Dementia’s Influence on Hospital Length of Stay of Older People may be Overstated and Mainly Relates to Delays in Discharge to Long-Term Care

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O45 End of Life Dementia Care in Acute Hospitals

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O46 Environmental Risk Factors for Cognitive Ageing: Geographical Location, Social Engagement and Lifestyle

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O47 Negative Perceptions of Ageing Predict Longitudinal Decline in Executive Function

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O48 Cognitive Screening Tests Need to be Adjusted for Age and Education in Patients Presenting with Symptomatic Memory Loss

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O49 Delayed recovery of blood pressure after orthostasis in individuals with supine hypertension is associated with poorer global cognition at 2-year follow-up in a sample of community dwelling older adults

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O50 B-Vitamin Status in Relation to Cognitive Decline Over 4 Years in Healthy Older Adults

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O51 Is There a Cognitive Prodrome to Delirium?

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O52 Baseline Predictors of Delirium in Medical Inpatients

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O53 The Impact of the National Clinical Programme for Older People on Older Re-Attenders to the Emergency Department

Colm Byrne, Mich Vartulli, Toddy Daly, Lorraine Kyne, Joseph Duggan, Chie Wei Fan

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O54 Characteristics and Outcomes of Older Patients Attending an Acute Medical Assessment Unit

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O55 Symptom Presentation in Myocardial Infarction (MI) Patients: A Regression Model Exploring if it is Different in the Aged

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O56 The Utility of FDG PET Brain in the Diagnosis of Neurodegenerative Conditions

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O57 An Audit of Elderly Hospitalised Patients' Attitudes and Understanding of Pain

Fiona Roberts, Aoiffe Lemasney, Pdraig Bambrick, Riona Mulcahy, George Pope
 Waterford Regional Hospital, Waterford, Ireland

O58 Occult Complexities in Geriatric Inpatient Consultations

Joseph Browne, Rory Durcan, Nicholas Power, Morgan Crowe, JJ Barry, Graham Hughes, Diarmuid O'Shea
 St Vincent's University Hospital, Dublin 4, Ireland

O59 Smoking Prevalence in an Elderly Inpatient Population

Breda Cushen, Kristina Lukjanova, Emer Ahern
 St. Luke's General Hospital, Kilkenny, Ireland

O60 The Experiences of Family Caregiving: Making Sense of Dementia from Both Cared For and Caregiver Perspectives

Mary Galvin
 University College Cork, Cork, Ireland

O61 The Impact of Caring for Spouses on Depression and Health Behaviours in Over 50s in Ireland, The Irish Longitudinal Study on Ageing

Christine A McGarrigle, Cathal McCrory, Rose Anne Kenny
 Trinity College Dublin, Dublin, Ireland

O62 Carer Burden and Potentially Harmful Behaviours Engaged in by Carers of Older People: Results of a National Survey

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O63 Survey of Healthcare Workers Suggests Unmet Palliative Care Needs in Parkinson's Disease

Siobhan Fox¹, Elizabeth Gannon¹, Alison Cashell², W. George Kernohan³, Marie Lynch⁴, Ciara McGlade¹, Tony O'Brien⁶, Sean O'Sullivan⁵, Catherine Sweeney⁶, Suzanne Timmons¹
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O64 Factors Associated with Place of Death among Older Irish Adults: Results from The Irish Longitudinal Study on Ageing

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O65 The Influence of Dementia on One-Year Mortality Following Hospital Admission, and Place and Cause of Death

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O66 Dying to Talk: Initiating End of Life Care Discussions with People Who Have Dementia

Carmel Collins, Jean Barber, Marie Lynch, Lasarina Maguire, Deirdre Shanagher, Suzanne Timmons, Ann Quinn
 Irish Hospice Foundation, Dublin, Ireland

POSTERS**BIOLOGY of AGEING****P1 A Prospective Study of Mortality in the Trinity University of Ulster and Department of Agriculture (TUDA) Cohort**

Avril M Beirne¹, Kevin McCarroll¹, Miriam C Casey¹, Helene McNulty⁴, Eamon Laird², Cathal Walsh⁵, J Bernard Walsh¹, Mary Ward⁴, Leane Hoey⁴, Ann Molloy², Martin Healy³, JJ Strain⁴, Conal J Cunningham¹

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P2 Limb-Shaking Transient Ischaemic Attacks

Mary Buckley, Joe Jordan, Pat Barry
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P3 Combining the Active Stand Test and Pattern Recognition Enables Vasovagal Syncope Prediction

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P4 A Cross-Sectional Assessment of Vascular Health and Orthostatic Blood Pressure Fluctuation in Older Adults without Vascular Comorbidity

John Cooke², Sheila Carew¹, Margaret O'Connor¹, Catherine Peters¹, Colin Quinn², Christine Sheehy¹, Aine Costelloe¹, Jean Saunders³, Paul Finucane², Declan Lyons¹
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P5 Is Short-Duration Orthostatic BP Decay in Asymptomatic Older Adults Associated with Cerebral Hypoperfusion?

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P6 Ambulatory Blood Pressure Variables in the Older Irish Adult: APSI Study

Kirstyn James, Eamon Dolan
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P7 Prospective Characterisation of Body Composition After a Short Term Training Programme Using Dual-Energy X-Ray Absorptiometry in an Active Rehabilitation Unit

Laura Ann Lambert, Simon Clifford, Siobhan Forman, Aoife Kilcoyne, Stephen Eustace, Dermot Power
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P8 Single Institution Functional Imaging in Aiding Diagnosis and Communication in People Presenting with Memory Problems

Mark Murphy, Lisa Lavelle, Diarmuid O'Shea, Ronan Killeen, Orla Collins, Graham Hughes, Kate Murphy
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P9 Zoledronic Acid for Osteoporosis in an Ever Ageing Population, Who Should We Be Treating?

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HEALTH & AGEING

P10 Intravenous Stroke Thrombolysis and Antiplatelet Timing (IV STAT) Audit

Anna Louise Alexander, Enda Kerr
Royal Victoria Hospital, Belfast, UK

P11 Are Elderly Patients with Complex Needs Accessing Comprehensive Geriatric Assessment and MDT Input in Our Current AMU Admission Service?

Jane Anketell, Christopher Speers
Royal Victoria Hospital, Belfast, UK

P12 Assessment of Falls Risk within the Medical Admission Unit

Christopher Speers, Jane Anketell
Royal Victoria Hospital, Belfast, UK

P13 The Role of CRP in Acute Hip Fracture Surgery

Padraig Bambrick, Louise Brent, John Cooke, George Pope, Riona Mulcahy
University Hospital Waterford, Waterford, Ireland

P14 Think Delirium, Write Delirium, Treat Delirium! An e-Learning Collaboration to Improve Detection, Diagnosis and Management of Delirium

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P15 A Consecutive Cohort Study of Short Cognitive Tests to Screen for Dementia in Older People on Admission to Hospital: The Temporal Orientation Score and the 6-Item Cognitive Impairment Test

Aoife Barrett¹, Vanessa Browne¹, Edmund Manning¹, Suzanne Cahill², John Linehan³, Kathleen O'Sullivan⁴, Noel Woods⁵, David Meagher⁶, Aoife Ní Chorcorain⁷, Niamh O'Regan¹, David William Molloy¹, Suzanne Timmons¹

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P16 Bisphosphonate Related Osteonecrosis of the Jaws in the Osteoporotic Patient

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P17 The Effect of a Balance Exercise Class on Activity Limitations in People with Parkinson's Disease

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P18 FUSE: Falls and Unexplained Syncope in the Elderly. The Utility of Implantable Loop Recorders

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P19 The Prevalence of Gait Disorders and Stravinsky Syndrome in an Age-Related Day Hospital

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P20 The Effect of a National Awareness Campaign on Knowledge of Atrial Fibrillation in the Irish Population

Robert Briggs, Ali Chatharoo, Ruth Dwyer, Breffni Drumm, Vivienne Ralph, Des O'Neill, Sean Kennelly, Tara Coughlan, Ronan Collins
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P21 Admission Hyperglycaemia Predicts Outcomes in Acute Stroke

Ciaran Costello, Eileen Fan, Imelda Noone, Serena Hatton, Graham Hughes, Diarmuid O'Shea, Morgan Crowe, Joseph Browne
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P22 Potentially Inappropriate Medications in Older Hospitalised Patients

Karen Sheehan, Diarmuid O'Shea, Morgan Crowe, Graham Hughes, Joseph Browne
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P23 Ageism in Parkinson's Disease Studies

Mary Buckley, Desmond O'Neill

The Adelaide and Meath Hospital, Tallaght, Dublin, Ireland

P24 A Review of Acute Orthopaedic Admissions in Older Patients

Mary Buckley, Sarah Mello, Josie Clare

Cork University Hospital, Cork, Ireland

P25 Preliminary Hip Fracture Outcome Data in Different Cohorts of Patients

Mary Buckley, Sarah Mello, Ann O'Mahony, Josie Clare

Cork University Hospital, Cork, Ireland

P26 Rehabilitation of Pelvic Fractures

Colm Byrne, Caitriona Tiernan, Roman Romero-Ortuno, Lisa Cogan

Royal Hospital Donnybrook, Dublin, Ireland

P27 Attitudes to Importance of Outcome Measures in Cardiovascular Prevention Trials

Michelle Canavan¹, Andrew Smyth², Stephanie Robinson¹, Irene Gibson³, Eamon Mulkerrin¹, Martin O'Donnell²

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P28 Audit of Stroke Management at a University Teaching Hospital

Lisa Brandon, Michelle Canavan, Stephanie Robinson, Tomas Griffin, Amjad Khan, Patricia Galvin, Shaun O’Keeffe, Martin O’Donnell, Eamon Mulkerrin, Thomas Walsh
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P29 Access to Neuroimaging in Dementia: A Survey of Specialists

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P30 Is the Mini-Mental State Examination on Admission to an Active Rehabilitation Unit Beneficial in Predicting Duration of Stay and Discharge Options?

Simon Clifford, Laura Ann Lambert, Emma Nolan, Siobhan Forman, Dermot Power
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P31 Medical and Surgical Comorbidities on Admission to an Active Rehabilitation Unit

Simon Clifford, Laura Ann Lambert, Joanne Larkin, Siobhan Forman, Dermot Power
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P32 Effect of a Multifaceted Intervention on Potentially Inappropriate Prescribing in Older Patients in Primary Care: A Cluster Randomised Controlled Trial (The OPTI-SCRIPT Study)

Barbara Clyne¹, Susan Smith¹, Carmel Hughes², Fiona Boland¹, Janine Cooper², Tom Fahey¹
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P33 Too Much, Too Late: Polypharmacy at End-of-Life

Sarah Coveney, Nicola Cornally, Alice Coffey, Ciara McGlade, William Molloy, Edel Daly, Ronan O’Caoimh
University College Cork, Cork, Ireland

P34 The Benefits of a Nurse-Led Secondary Prevention Clinic in a Stroke Service

Nicola Cogan, Ronan Collins, Suzanne Greene
Tallaght Hospital, Dublin, Ireland

P35 Neuromedical Sequelae Post-Stroke

Suzanne Greene, Nicola Cogan, Robert Briggs, Tara Coughlan, Des O’Neill, Dominick Mc Cabe, Sinead Murphy, Richard Walsh, Ronan Collins
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P36 Management of Older Ambulatory Patients with Chronic Heart Failure: Are We ‘Rate Aware’?

Warren Connolly, Christine McCarthy, Toddy Daly, Dermot Power, Joe Duggan, Lorraine Kyne
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Warren Connolly, Muireann Clifford, Erin Allison, Aoife Fallon, Frances Mc Carthy
Mater Misericordiae Hospital, Dublin, Ireland

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Christine Mc Carthy, Warren Connolly, Derek Hayden
Mater Misericordiae Hospital, Dublin, Ireland

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Sinéad Considine, Helen French
Royal College of Surgeons in Ireland, Dublin, Ireland

P40 Cost Effectiveness of Inpatient Rehabilitation in Brain Injury Patients

Marie Therese Cooney, Aine Carroll
National Rehabilitation Hospital, Dublin, Ireland

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Marie Therese Cooney, Patrick Mitchell, Iulia Ioana, Daniela Stancila, Shagool Abdulla, Crina Burlacu, Rachael Doyle
St. Colmcille’s Hospital, Loughlinstown, Dublin, Ireland

P42 Troponin I is a Predictor of Delayed Detection of Atrial Fibrillation in Ischaemic Stroke and TIA

Frank Ward, Rory McGovern, Paul Cotter
St. Luke's Hospital, Kilkenny, Ireland

P43 Investigation of Equal Responsiveness of Two Frailty Outcome Measures within a Day Hospital Setting and Useability of Both Measures

Aine Curmeen, Bronagh Conroy, Declan O'Hanlon
St. James's Hospital, Dublin 8, Ireland

P44 Screening of Osteoporosis Treatment in Patients Presenting with Fragility Fractures in a Geriatric Active Rehab Unit

Eimear Curran, Simon Clifford, Siobhan Forman, Dermot Power
Cappagh National Orthopaedic Hospital, Fingal, Ireland

P45 Assessing the Anticholinergic Burden in a Geriatric Active Rehabilitation Unit

Eimear Curran, Dermot Power
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P46 The Effect of the Introduction of a Tobacco-free Hospital Policy on Documentation of Smoking Status and Prescription of Nicotine Replacement Therapy (NRT)

Breda Cushen, Kristina Lukjanova, Emer Ahern
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P47 An Investigation of Factors which Predict Acute Short-Term Functional Outcomes in Older Adults following Hip Replacement Surgery

Aoife Daly, Sandra Burke, Emma Costello, Agnes Shiel
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P48 Post-Stroke Fatigue: An Emerging Condition. A Review of the Literature

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P49 Risk Factors for Falls Occurring During Hospital Stay

Juliana Delos Reyes, Suzanne Noel, Rachael Doyle, Clodagh O'Dwyer
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P50 A Study of Warfarin Control and Potential Suitability for Switching to Alternative Oral Anticoagulant Agents in a Geriatric Day Hospital Setting

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P51 Reduced Gait Speed in Community-Dwelling Adults with Atrial Fibrillation

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P52 Do Self-Reported Sensory Deficits Predict Recurrent Falls Over 2 Years?

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P53 Appropriate Use of Urinary Catheters and Documentation in the Geriatric Population

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P54 Outcomes of Patients Following Attendance at a Geriatric Day Hospital: One-Year Prospective Cohort Study

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P55 The Prevalence of Anaemia in a Geriatric Day Hospital Cohort

Rory Durcan, Aishling Walsh, Diarmuid O'Shea
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P56 A Study of Body Mass Index Change in Hospitalised Geriatric Patients in an Active Rehabilitation Unit

Ana Espinosa Gonzalez, Dermot Power, Siobhan Forman, Joanna Larkin
University College, Dublin, Ireland

P57 Impact of Season, Weekends and Bank Holidays on Transfer of Nursing Home Residents to Emergency Department

Chie Wei Fan, Tracy Keating, Dermot Power, Eamonn Brazil, Joseph Duggan
Mater Misericordiae University Hospital, Dublin, Ireland

P58 Impact of a CNS for Frail Older Adults on a Geriatric Consult Service in a Tertiary Academic Teaching Hospital

Deborah Fitzhenry, Robert Briggs, Desmond O'Neill, Ronan Collins, Tara Coughlan
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P59 Significant Fall Reduction: The Effectiveness of an Interdisciplinary Falls Group in a Residential Centre for People Ageing with Intellectual Disabilities

Bernadette Flood, John F Flood, Grainne Bourke, Marie O Sullivan, Geraldine Delaney, Cardwell Muvangani, Jillian Connolly, Margot Brennan
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P60 The Pivotal Role of the Assessment and Treatment Centre/Day Hospital in Optimizing Health, Function and Wellness in Older Adults

Mary J Foley, Mary Hickey, Suzanne Timmons, Norma Harnedy, Maria Crowley, Martina Agar
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P61 Evaluation of Stroke Recovery Post Discharge from a Stroke Rehabilitation Unit

Mary J. Foley, Paul Gallagher, Anita Ryan, Aishling Doyle, Maureen Johnson, Irene Hartigan, Carmel Kilcommons, Shiela Robinson, Elizabeth Armstrong
St. Finbarr's Hospital, Cork, Ireland

P62 An Investigation of Vitamin D Status and Supplementation in a Predominantly Elderly East Galway Population

Eilis Foran, Teresa Donnelly
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P63 The First 18 Months of a Newly Established Active Rehabilitation Unit for the Frail and Elderly: A Retrospective Review

Siobhan Forman, Colm Geraghty, Joanne Larkin, Catherine Mulvihill, Mary Nolan, Dermot Power
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P64 An Assessment of the Age Adjusted Charlson's Comorbidity Index on Deaths in an Active Rehabilitation Unit

Francisca Ugwu, Siobhan Forman, Dermot Power
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P65 An Assessment of the Charlson Comorbidity Index on a Patient Population on an Active Rehabilitation Ward

Siobhan Forman, Dermot Power
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P66 Views and Experiences of Irish Healthcare Workers on the Delivery of Palliative Care to People with Parkinson's Disease: A Qualitative Analysis

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P67 Are Newly Established Nursing Homes More Likely to Transfer Their Acutely Ill Residents to Our Hospitals?

Mary Ann Furigay, Jonathon O'Keeffe, Graham Hughes, Diarmuid O'Shea
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P68 Simulation-Based Multi-Disciplinary Team Training: Does it Enhance Care Quality for Older People?

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P69 Bon Appetite: Improving the Mealtime Experience of Residents in Long-Term Mental Health Units through Education and Training

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P70 BMI as a Predictor of Mortality Risk in Older Persons: The Dublin Outcome Study

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P71 The Importance of Follow up Ambulatory Blood Pressure in Older Adults

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P72 A Review of Anticoagulation in Geriatric Day Hospital Setting

Adriana Hadbavna, Hannah Gogarty, Funmi Ikotun, Christopher Osuafor, Siobhan Kennelly, Eamon Dolan
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P73 Acute Stroke Care Audit in Connolly Hospital (2014)

Adriana Hadbavna, Lelane van der Poel, Hannah Gogarty, Funmi Ikotun, Siobhan Kennelly, Eamon Dolan
Connolly Hospital, Dublin, Ireland

P74 Cerebral Amyloid Angiopathy presenting as FAST-Positive Acute Stroke

Adriana Hadbavna, Lelane van der Poel, Eamon Dolan
Connolly Hospital, Dublin, Ireland

P75 Nurse-Led Warfarin Clinic Proving to be Effective in Maintaining Patients within Therapeutic INR Range

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P76 Stroke Syndromes: Are We Lost for Words?

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P77 Withdrawn**P78 Acute Stroke Calls to Dublin Fire Brigade Ambulance Service 2005–2012**

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P174 Individualised Cognitive Therapy through Stimulation and Individualised SIMS (Sonas Individual Multi-Sensory Session) with Long Stay Psychiatry of Later Life Subjects Who Have Cognitive ImpairmentMaryrose Mulry¹, Orla Brady², Michael O’Cuill², Geraldine Kelly², Agnes Shiel¹¹National University of Ireland, Galway, Galway, Ireland, ²Health Service Executive, Mullingar, Ireland**P175 Behavioural and Non-Cognitive Symptoms of Dementia in Acute Hospitals**Emma O’ Shea¹, Aoife Barrett¹, Edmund Manning¹, Vanessa Browne¹, David William Molloy¹, Niamh O’ Regan¹, Suzanne Cahill², John Linehan³, Kathleen O’ Sullivan⁴, Noel Woods⁵, David Meagher⁶, Aoife Ni Chorcairain⁷, Suzanne Timmons¹¹Centre for Gerontology & Rehabilitation, School of Medicine, University College Cork, Cork, Ireland, ²Dementia Services Information and Development Centre, St. James’s Hospital, Dublin, Ireland, ³Services for Older People, HSE, Ireland, ⁴School of Mathematical Science, University College Cork, Cork, Ireland, ⁵Centre for Social Policy Studies, University College Cork, Cork, Ireland, ⁶Department of Psychiatry, University of Limerick, Limerick, Ireland, ⁷Cork University Hospital, HSE, Cork, Ireland**P176 Brief Dementia Screens in Clinic: Comparison of the Quick Mild Cognitive Impairment (Qmci) Screen and Six Item Cognitive Impairment Test (6CIT)**

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P181 Attitudes to Ageing and Perceptions of Working with Older People of Students of Health and Social CareAlice Coffey¹, Geraldine McCarthy¹, Mark Tyrell¹, Catherine Buckley¹, Uta Gaidys², Julita Sansoni³, Marjut Arola⁴,Dagnija Deimante-Hartmane⁵¹University College Cork, Cork, Ireland, ²University of Applied Sciences, Hamburg, Germany, ³Sapienza University of Rome, Italy, ⁴Karelia University of Applied Sciences, Joensuu, Finland, ⁵Rīga Stradiņš University Liepāja branch, Riga, Latvia**P182 Loneliness and Older Adults Living in Residential Care: An Exploration of the Factors that May Influence It**

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P183 Home-Care Re-ablement Services for Improving and Maintaining the Functional Independence of Older Adults: A Cochrane ReviewAndy Cochrane¹, Sinead McGilloway¹, Mairead Furlong¹, Willie Molloy², Michael Stevenson³, Michael Donnelly⁴¹Department of Psychology, National University of Ireland Maynooth, Maynooth, Ireland, ²Centre of Gerontology and Rehabilitation, School of Medicine, University College Cork, Cork, Ireland, ³Clinical Research Support Centre, Royal Group of Hospitals Trust, Belfast, UK, ⁴Centre for Public Health, Queen's University, Belfast, UK**P184 Capturing the Quality of Death and Dying in Long Term Care (LTC) Facilities: Family Perspectives**Una Cronin, Nicola Cornally, Alice Coffey, Eileen O'Herlihy, Edel Daly, Ciara McGlade, William Molloy
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National University of Ireland, Galway, Galway, Ireland

P196 An Exploration of Older Adults' Internet Use in an Irish Context

Niamh Lane, Clare O'Sullivan

University College Cork, Cork, Ireland

P197 Exploring the Impact of Frailty on the Health and Social Care System in IrelandLorna Roe¹, Aisling O'Halloran², Charles Normand¹¹Centre for Health Policy and Management, Trinity College Dublin, Dublin, Ireland, ²The Longitudinal Study on Ageing, Trinity College Dublin, Dublin, Ireland

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Claire Welford
Mowlam Healthcare, Ireland

All abstracts from the platform sessions and posters received full ethical clearance and informed consent where necessary. All authors confirm that they have no conflict of interest.

PLATFORM PRESENTATIONS

O1 Acute Post-Stroke Blood Pressure Relative to Pre-Morbid Levels in Intracerebral Haemorrhage Versus Major Ischaemic Stroke: Population-Based Study

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Background: Post-stroke hypertension is common and is associated with a worse prognosis. However, no study has analysed pre-morbid BP to determine whether acute-phase levels are unaccustomed. In view of evidence from trials that the balance of risk and benefit of BP-lowering in acute stroke might differ for major ischaemic stroke versus primary intracerebral haemorrhage (ICH), we compared acute-phase and premorbid BP levels.

Methods: All acute-phase post-event BP readings were compared with pre-morbid readings from 10-year primary care records in a population-based study (Oxford Vascular Study; 2002–2012) in all patients with acute major ischaemic stroke (NIHSS >3) versus acute ICH.

Results: Premorbid BP readings (median = 17/patient) and acute-phase readings were available in 636 (97.4 %) consecutive eligible patients. In ischaemic stroke, the first acute-phase SBP was much lower than after ICH (158.5 vs 189.8 mmHg, $p < 0.0001$), was little higher than pre-morbid levels (increment = 10.6 mmHg vs 10-year average premorbid level) and declined only modestly during the first 24-hours (mean decrement from <90 minutes to 24 hours = 13.6 mmHg). In contrast, the mean first SBP after ICH was markedly higher than premorbid levels (increment = 40.7 mmHg, $p < 0.0001$) and fell substantially in the first 24 hours (mean decrement = 41.1 mmHg; difference from decrement in ischaemic stroke— $p = 0.0007$). Mean SBP also increased steeply in the days and weeks prior to ICH (regression— $p < 0.0001$) but not prior to ischaemic stroke. In patients with ICH seen within 90 minutes, their highest SBP within 3 hours of onset was 50 mmHg higher, on average, than the maximum pre-morbid level whereas that after ischaemic stroke was 5.2 mmHg lower (difference $p < 0.0001$).

Conclusions: SBP is markedly raised compared with usual pre-morbid levels after ICH, whereas acute-phase SBP after major ischaemic stroke is much closer to the accustomed long-term pre-morbid level.

O2 High Prevalence of Atrial Fibrillation in Acute Stroke in a Rural Population

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Background: Atrial fibrillation (Afib) is estimated as a major risk factor for stroke in up to a third of ischaemic stroke cases. The CHA2DS2-VASc score for risk identification highlights female gender in Afib.

Objectives: To estimate prevalence of atrial fibrillation in stroke patients

Methods: As part of a stroke register we prospectively recorded the prevalence of Afib in 218 (n) consecutive patients (172 ischaemic, 29 haemorrhagic and 17 with transient ischaemic attack (TIA), mean age 75.6, 115 male, 103 female) admitted to a general hospital stroke unit in 2013. We used Fisher's and Student's t -test for our statistical analysis.

Results: A total of 88 (40.4 %) adults were found to have atrial fibrillation. Afib was more common in female patients 49 (55.7 %) than in male patients 39 (44.3 %) $p < 0.005$. Fifty-eight (65.9 %) were aged 75 years and older. Prevalence increased from 10 % among adults younger than 65 years to 22 % in persons aged 65–74 years to 55.6 % in persons aged 75 and older. A. fib was identified in 73/172 ischaemic (42 %) of which 57 (78 %) was previously known. Sixty-seven had prior Afib, 36 female (54 %) and 31 men (44 %). Of these 27 (47 %) were on no anticoagulant or antiplatelet therapy, female 17 (63 %) vs male 10 (37 %) ($p = 0.15$). In Afib haemorrhagic stroke occurred in 4 (7 %) and 11 (15 %) received thrombolysis. Six (19 %) had documented reason for non-prescription, major bleeding (3), falls (2) and frailty (1). There was no documented discussion in the remaining nine patients. Death occurred in 15 (6.9 %) with AFib vs 12 (5.5 %) without ($p = 0.25$ ns). Mean age of stroke patients with Afib vs no Afib was 77.6 vs 73.6 years ($p = 0.01$)

Conclusions: Our study confirms that atrial fibrillation is common among elderly stroke patients especially females. Atrial fibrillation awareness campaigns need to target 'mná scothaosta na hÉireann'.

O3 The Management of Atrial Fibrillation and the Use of Oral Anticoagulation for Stroke Prevention in Long-Term Care

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Background: Oral anticoagulation therapy (OAT) is the most effective means of stroke prevention in older people with atrial fibrillation (AF). The point prevalence of AF and the use of OAT in long-term care (LTC) are poorly characterised.

Methods: We conducted a cross-sectional study in four high-dependency LTC institutions in County Kerry, Ireland between May 2009 and January 2010. Point prevalence of AF was determined by an electrocardiograph (ECG), the prevalence of documented AF and OAT prescription by chart review. Residents were classified into 'known-persistent', occult, paroxysmal and 'never-known' AF. The CHADS2 and HEMORR2HAGES scores were used to predict stroke and bleeding risk, respectively.

Results: In total 225 residents, median Barthel score 30/100 and Mini-Mental State Examination score 18/30, were included. Of these, 70 had ECG-demonstrated AF, a point prevalence of 31 %. Chart review showed that 59 (26 %) had documented AF. In all, 43 had 'known-persistent' AF, 27 occult AF and 16 paroxysmal AF. Of those with documented AF, 15 were prescribed OAT (all warfarin), a prevalence of 25 %. No residents with occult AF received OAT. There was no significant difference in the distribution of CHADS2 (median score two, $p = 0.9$) or HEMORR2HAGES scores (median score three, $p = 0.23$) between documented and occult cases. Combining risk tools showed that 80 % of documented and 63 % of occult cases were high risk for both stroke and bleeding. Applying European Society of Cardiology (ESC) guidelines, demonstrated a significant

association between CHADS2 scores and receiving appropriate OAT, $p = 0.006$.

Conclusions: The prevalence of AF seen was high compared to other studies in LTC with large numbers of occult cases. While the prevalence of anticoagulation was low, it was similar to other studies and reasonable in the context of residents' high dependency levels. Although the management of documented AF cases using ESC guidelines was appropriate, the HEMORR2HAGES scores suggested that OAT should be avoided for the majority.

O4 An Investigation of the Relationship between Orthostatic Blood Pressure Recovery Patterns and Visual Function

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Background: Hypertension is established to cause end organ damage and emerging evidence suggests variability in blood pressure (BP) also to be significant. Given that ocular blood flow is rigorously autoregulated, the eye offers an opportunity to investigate the relationship between neurocardiovascular instability (NCVI) and end organ damage.

Methods: Data from the first wave of The Irish Longitudinal Study on Ageing was used. Of 8,175 participants, 5,041 underwent a health assessment in which finometry, beat to beat BP and heart rate data from active stand (AS), were collated. Best available corrected visual acuity (VA) was assessed by means of a Logmar chart. Contrast sensitivity (CS) over 5 spatial frequencies was assessed using a functional visual analyser. To determine if NCVI, defined by orthostatic BP behavior, was associated with worse visual function, multiple linear regression was used incorporating outcome measures, LogMar VA and CS, and confounders such as demographics, eye diseases, diabetes, objective hypertension amongst others. Novel phenotypes (A–D) of orthostatic BP recovery behavior were created, by comparing SBP/DBP at 30, 60, 90, 110 seconds after AS, to baseline (b) SBP/DBP pre stand. Phenotype A was defined as a persistent recovery to within 20/10 mmHg of bSBP/DBP; (B) persistent deficit of >20/10 mmHg from bSBP/DBP; (C) persistent overshoot of >20/10 from bSBP/DBP and (D) variability: >20/10 mmHg SBP/DBP overshoot and or deficit and or recovery to within 20/10 mmHg of bSBP/DBP, at 30–60–90–110 seconds. Phenotypes B, C and D were compared to phenotype A in the analysis.

Results: In the fully adjusted model, worse LogMAR VA was associated with phenotype D for both SBP ($p = 0.02$) and DBP ($p = 0.03$). Worse mean CS was also associated with phenotype D for SBP ($p = 0.05$).

Conclusions: Variability or non steady-state recovery to within 20/10 mmHg of bSBP/DBP, 30 seconds after stand was cross-sectionally associated with worse visual function.

O5 Stroke Awareness Before, During and After the Irish National Stroke Awareness “FAST” Campaign

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Background: Public awareness of signs and symptoms of stroke is vital in ensuring appropriate action and timely treatment in acute stroke. Previous studies have shown that public awareness improves during media campaigns but may not be sustained afterwards.

Methods: We conducted three surveys; before, during and after a national stroke awareness media campaign. We assessed public knowledge of stroke symptoms and appropriate response. 1000 people were surveyed on each occasion via door-to-door and telephone interviews.

Results: Public awareness of the core stroke symptoms significantly improved during and after the FAST campaign ($p < 0.05$). The number who could not name any signs of stroke was halved during the campaign. Symptoms such as visual loss and dizziness, which were not included in FAST, were mentioned less frequently afterwards ($p < 0.001$). Personal exposure to stroke was reported more frequently after ($p < 0.05$).

In response to stroke symptoms, more people reported that they would call 999 during the campaign, than pre-campaign. Following withdrawal of the campaign this dropped back to initial levels. During the campaign, the proportion who would ‘wait and see’ if they thought they were having a stroke halved compared to pre-campaign ($p < 0.005$).

The impact of the FAST campaign was seen predominantly amongst higher socio-economic (SE) groups. Awareness of core stroke symptoms after the campaign was significantly more improved in higher SE groups when compared with lower SE groups ($p < 0.05$).

Conclusion: Our data shows that people were more likely to recognize core symptoms of stroke following a stroke awareness campaign. This was sustained following withdrawal of the campaign. The campaign was more successful in targeting higher SE groups.

Similar to previous studies, we demonstrated that although during the campaign more people would call 999 if they thought they were having a stroke, this was not sustained afterwards. This suggests the ongoing need for public awareness campaigns.

O6 The 18 Month Journey of Thrombolysis in a University Hospital

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Background: Stroke treatment in a major teaching hospital has made remarkable improvements since the development of acute stroke services in 2012 by establishing a fourteen bedded acute stroke unit offering 24/7 thrombolysis, the appointment of a dedicated stroke nurse specialist, stroke occupational therapist and a dedicated speech and language therapist. We provide this service to a catchment area with a population of 378,410. A review was carried out to examine the efficiency and outcomes of acute stroke assessment and treatment with respect to stroke thrombolysis since our establishment.

Methods: Data was collected prospectively and compiled using the HIPE ESRI national stroke database from May 2012 to December 2013. A retrospective analysis was undertaken on thrombolysed patients admitted during this period.

Results: From June 2012 to December 2013 a total of 458 ischaemic strokes were admitted. 159 patients presented with acute ischaemic stroke and 299 in 2013. Median age was 72 years with 56 % female and 44 % male. 9.4 % ($n = 15$) of all these were thrombolysed in 2012, with an increase to a rate of 12.4 % ($n = 37$) in 2013.

Mean time of onset to time of arrival was 47 minutes in 2012 and 94.7 minutes in 2013. Door to needle time in 2012 was 72 minutes and 98 minutes in 2013. Door to CT time was 30 minutes in 2012 and

47 minutes in 2013. Our seven day mortality rate was 1.25 % in 2012 and 1.8 % in 2013

Conclusion: These results reflect an increasing thrombolysis rate as our service has developed. The results show that there is scope to improve the efficiency at each step of thrombolysis delivery. The reasons underlying these delays should be examined with a view of improving same. Some of the factors that should be taken into consideration are the geographic demographics and the large catchment area the hospital incorporates.

O7 Stroke Thrombolysis in Older Adults Attending a University Hospital: Audit of Results Between 2008–2014. Has the F.A.S.T Campaign Improved Delivery in Clinical Practice?

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Background: The F.A.S.T campaign, introduced in Ireland in May 2010, aims to increase pre-hospital awareness of stroke and reduce delay in thrombolysis. While evidence suggests that public awareness of stroke, particularly the need for urgent assessment have improved, it is not known if this has impacted on rates of thrombolysis in older adults, particularly outside of research centres.

Methods: We performed a retrospective chart review assessing stroke care in a university teaching hospital since the opening of an acute stroke unit in March 2014. We compared stroke management, contrasting thrombolysis outcomes pre-F.A.S.T in 2008 and 2010 with 2014. Charts were reviewed for each year for a similar three-month period.

Results: The median age of patients presenting with stroke was 78 (range 67–93) years in 2008 compared with 78 (range-65–95) in 2010 and 82 (65–99) in 2014. There were no significance differences in age ($p = 0.09$) or gender ($p = 0.4$) between 2008 and 2014. Where available, 49 % ($n = 17/35$) of patients presented within 4.5 hours in 2008 compared to 33 % ($n = 25/76$) in 2010 and 71 % ($n = 24/34$) in 2014. Of these, 51 % ($n = 18/35$), 34 % ($n = 26/76$) and 79 % ($n = 27/34$) presented within 6 hours for 2008, 2010 and 2014, respectively. The number of potentially thrombolysable strokes increased from 12.5 % (1/8) in 2008, to 32 % (20/63) in 2010 and 56 % (19/34) in 2014. The number of patients with confirmed infarcts that received thrombolysis also increased from 2.8 % (1/35) in 2008 to 9.5 % (6/63) by 2010 and 11 % (4/44) in 2014.

Conclusion: The stroke thrombolysis rate improved consistently between 2008 and 2014. Although the percentage of patients presenting within the thrombolysis window appears to have increased, thrombolysis rates have increased only modestly. Correlation with national data is required to investigate if the perceived success of the F.A.S.T campaign has translated into clinically meaningful results and if not to investigate possible reasons behind this.

O8 The Changing Physical Health of the Over-50s (2009–2012): Findings from The Irish Longitudinal Study on Ageing

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Background: In 2011, Cronin et al. [1] reported on the high prevalence of chronic disorders and falls in the Over 1950’s population of Ireland. Here we report on the changes which have occurred in the prevalence and the incidence of chronic conditions and falls over the period 2009–2012.

Methods: Data from wave 1 ($N = 8175$) and wave 2 ($N = 6995$) of TILDA is analysed using from participants aged 52 and over to facilitate cross-wave comparisons. Incidence rates are restricted to participants who took part in both wave 1 and wave 2 only. Two-year incidence rates are calculated as the number of individuals who newly report a health condition at wave 2 expressed as a proportion of those individuals who were free of this condition in wave 1 (paired sample). Incidence rates are reweighted using attrition weights. Prevalence and incidence data are reported stratified by age and sex.

Results: Hypertension (37.7 %; 95 % CI 36.5–39.2) and diabetes (8.8 %; 95 % CI 8.2–9.5) are the most prevalent cardiovascular conditions. Arthritis now affects 51.7 % (95 % CI 48.8–54.6) of those aged 75 and over, while the two-year incidence of arthritis among this age group is 10.2 % (95 % CI 8.5–12.1). Arthritis, osteoporosis and cataracts have the highest incidence rates of non-cardiovascular chronic conditions, with rates of 7.6 % (95 % CI 6.9–8.4), 5.6 % (95 % CI 5.1–6.2) and 5.7 % (95 % CI 5.1–6.3), respectively. Approximately 29.8 % (95 % CI 27.1–32.6) of individuals aged 75 and over have fallen in the last year with 9.9 % (95 % CI 9.2–10.7) having had an injurious fall in the last year.

Conclusion: The burden of chronic disease and falls remains high with hypertension, diabetes, arthritis and osteoporosis being the most prevalent conditions. Falls are a major problem for older adults with one in ten now requiring medical attention.

References:

1. Cronin et al (2011) Physical and behavioural health of older Irish adults. Fifty plus in Ireland 2011: first results from the Irish Longitudinal Study on ageing (TILDA). Dublin, Ireland

O9 Mapping Health Services to Meet the Needs of an Ageing Community: The Local Asset Mapping Project (LAMP)

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Background: As the world ages the imperative grows for health services to promote healthy, successful ageing. Many factors that influence health lie outside the remit of traditional health services. The concept of intersectoral health has been promoted to bridge the gap between broader concepts of health and the medical model. Currently, tertiary providers have limited understanding of the amenities and services available to patients to promote health and positive health behaviours. Similarly, patients report difficulty identifying and accessing services. We conducted an asset-mapping exercise in our hospital catchment to identify health-related assets, and surveyed a selection of those assets.

Methods: An on-street survey was conducted to record the location, nature, and contact details of every business or service in a defined area. Information was recorded using a bespoke geocoding app.

Assets were classified according to a two-tier taxonomy. Health-related assets were contacted to identify what services were provided, and asked if they had formal links to other services, the hospital, or the Health Service Executive.

Results: Twenty electoral districts with a population of over 60,000 were mapped over 6 weeks. 1340 assets were identified. These included 110 social services, 68 public services, 40 Sports/Fitness services and 63 health services.

Fifty-six of the health-related assets were surveyed about their services and their links with other sectors. While there was a broad range of services provided, many said they had no links to either the hospital, primary care or the HSE. One in four assets said they had no links to any of these sectors.

Conclusion: There is a broad range of assets in the proximate catchment of a large Dublin hospital that may provide a resource to promote healthy ageing. These assets are relatively isolated from each other and from other health sectors.

O10 Constructing Home Over the Life Course: Toward a Model of At-Oneness

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Background: Despite the growing evidence base, our empirical and conceptual understanding of what home means in later life remains poorly developed. This is particularly true in relation to a life-course perspective. In this paper we attempt to address this deficit by contributing to the spatio-temporal understanding of home. We explore (1) how older adults construct the experience of being at home; (2) the role of personal history in evolving constructions of home over the life course; and (3) the role of a changing environmental context in shaping and modifying constructions of home as people age.

Methods: Empirical data is taken from in-depth interviews with ten older residents of a dispersed rural community in South West Ireland, and are complemented by field-notes and contextual information. Data analysis employs an inductive team-based approach, drawing on pragmatism and constructivist grounded theory traditions, and uses data and investigator triangulation.

Results: Home was manifest in a taken-for-granted and implicit sense of at-oneness with the local environmental context. This involved the interwoven dimensions of: place of origin; inherited meaning; relational harmony; rhythm and routine; aesthetic functional landscape; and invested effort. The relative importance of dimensions of at-oneness was derived from individual life-course experiences, within and external to the community.

Conclusions: We present a dynamic life-course model of home as a sense of at-oneness. In the context of recent concern with aging in place, creating age-friendly communities, and culture change in long-term care, such a model provides a target outcome for all concerned with improving individual well-being and enhancing the places where people age.

O11 Socioeconomic Deprivation and Risk of Age-Related Cognitive Dysfunction in Older Irish Adults

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Background: Cognitive dysfunction is a common disease of ageing. It is known that socioeconomic status is linked to health but few studies have examined the relationship between socioeconomic status at the area-level and cognitive health. The aim of this study was to investigate the relationship between area-level deprivation and cognitive dysfunction among older Irish adults.

Methods: Data from a well characterized cohort of 5,186 adults aged 60+, recruited between 2008 and 2012 to the Trinity, Ulster and Department of Agriculture (TUDA) Cohort Study, a large North–South study investigating gene-nutrient interactions and diseases of ageing, was used. Cognitive health was assessed using the Mini-Mental State Examination (MMSE) and anxiety and depression were assessed using the Hospital Anxiety and Depression scale (HADS) and the Centre for Epidemiological Studies Depression Scale (CES-D), respectively. For both the North and South sub-cohorts, subjects were allocated to a deprivation quintile based on the deprivation score of the area in which they lived before merging of the two datasets.

Results: Mean age was 74 years and 67 % of the cohort was female. Greater area deprivation was associated with significantly lower MMSE scores, fewer years in education, higher levels of both anxiety and depression and a greater prevalence of smoking and physical inactivity. After controlling for the two strongest predictors of cognitive performance (i.e. age and age finished education), greater area deprivation was found to significantly predict early cognitive dysfunction (defined as an MMSE score at or below 25), along with depression and anxiety scores.

Conclusions: This study found a gradient in cognitive performance by area deprivation and suggests that older people living in areas of greatest socioeconomic deprivation in Ireland are at higher risk of cognitive dysfunction. This at-risk group may benefit from targeted resources and strategies aimed at improving modifiable risk factors for cognitive impairment.

O12 Irish National Dementia Educational Needs Analysis 2014

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Background: Given the projected rise of dementia prevalence, there is an urgent need for up-skilling in dementia support and care in order to improve the lives of people with dementia (PwD) and their carers. A previous Dementia Education Needs Analysis (ENA) Report (HSE, 2010) outlined gaps in dementia training among healthcare staff. The current ENA, jointly funded by Atlantic Philanthropies and the HSE, builds upon the previous report and includes an assessment of the information needs of PwD, General Practitioners (GP) and community networks.

Methods: The methodology guiding this ENA embodied three perspectives; an empirical study adopting a case study framework; a scoping review, and an expert consensus meeting, resulting in a final triangulation and decision on seven priority areas for dementia education.

Results: Based on the seven priority needs the Dementia Elevator Programme (DCU) is developing flexible, person-centred models of education. The education includes modules on: dementia awareness,

dementia champions (health and social care practice development skills), therapeutic skills, clinical and everyday ethical decision making; dementia awareness for managers and service leaders; skills in responding to memory complaints—targeting health and social care practitioners; and Bespoke GP training in partnership with ICGP. The targets for this education range from PwD, family carers, public facing services and a wide range of health and social care professionals.

Conclusions: In highlighting the gaps that exist in dementia skills and knowledge, and in considering models of best practice in dementia training and education, the ENA report informs the development of appropriately tailored dementia-related training and education programmes in Ireland. Gaps were identified in dementia education for PwD from their perspective. There was a positive response and good degree of willingness from communities to engage in dementia up skilling.

O13 Mapping an Integrated Dementia Care Pathway

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Background: Dementia care in Ireland is complex and fragmented, incorporating a variety of discrete actors, across multiple settings. In order to map a comprehensive and integrated Dementia Care Pathway (DCP), this study undertook a detailed, bottom-up examination of the key activities undertaken throughout the dementia care ecosystem, including: the community setting, the hospital setting, informal care, and long-term nursing home care,

Methods: Due to the heterogeneity of dementia, a creative and innovative method was required to identify a coherent DCP. Vignette-based surveying was chosen for this purpose. Vignettes are useful when outcomes are ambiguous, long-term or immeasurable, as is the case in dementia. In the current study, vignettes based on patient exemplars (i.e. realistic clinical case scenarios) were developed to represent a 'typical' DCP. Vignettes were developed to encapsulate mild, moderate, and severe stages of dementia, applied at distinct time intervals: diagnosis (0–6 months); disease progression (6–18 months); transition to Long-Term Care (LTC); and finally LTC (24–72 months).

A four-pronged approach was used:

1. Comprehensive literature review
2. 15 semi-structured interviews conducted with healthcare practitioners with an expertise of dementia care in Ireland to gain an initial high-level view of the DCP
3. Participant observations (hospital sites)
 - a. 7–10 days observations per site
4. Over 100 semi-structured interviews to gain a detailed view of the activities/processes involved in caring for demented patients. Confirmatory sessions were conducted to verify and/or modify the DCP.

Results: A comprehensive DCP through the four key care sites (i.e., community, hospital, patient home, and nursing home) was identified, mapped and confirmed.

Conclusions: Mapping of an integrated DCP through the Irish public healthcare system was conducted for the first time. The vignette-based surveying method appears to have been a valid, and importantly, replicable way in which to identify and map this care.

O14 Older Prisoners in Ireland: Policy Implications of a Growing Cohort

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Background: The annual number of older people (aged over fifty) committed to prison in Ireland has more than doubled since 2007 (from 403 to 1031 in 2013), representing the fastest growing age cohort among committals. The cost of providing care to older prisoners is one of the key challenges for prison management and justice departments (Aday, 2006). Medication, staffing of care services, escorted transportations of prisoners to hospitals, and adapting the prison environment are costly. Estimates indicate that older prisoners are two to three times more expensive to accommodate than their younger counterparts (American Civil Liberties Union, 2012).

Methods: This paper explores policy implications of an older prison population in Ireland. Qualitative interviews were conducted with a senior manager and prison governor in the Irish Prison Service, a senior manager in the Irish Probation Service and a staff member from an advocacy organisation for prisoners and a staff member from an advocacy organisation for older people.

Results: According to stakeholders, the combination of complex care needs in the 'older old' and the high number of sex offenders within the older prison population present distinct challenges to prison management. Recent reduced fiscal and personnel resources, and political influence over parole and temporary release decisions are additional constraints in the management of older prisoners in Ireland.

Conclusions: Increasing numbers of people aged over fifty are being sent to prison. The demographic and criminological profile of long-term older prisoners challenges existing prison structures and policies in relation to health, sentence management and re-integration. Little is known about the needs of older prisoners in Ireland, and further research is needed to assess current policy adequacy.

O15 A Hard Pill to Swallow? Assessment of Swallow Function Following an Acute Stroke

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Background: Aspiration pneumonia is a common complication in patients presenting with acute stroke. Screening for swallow disorders in such patients is critical. The 2010 Irish Heart Foundation Stroke Council guidelines recommend that all patients should be assessed with a validated swallow screening test by an appropriately trained person, within 3 hours of admission. If the screen indicates dysphagia, specialist assessment should follow, preferably within 24 hours and not more than 72 hours after admission. The 2008 Irish National Audit of Stroke Care reported that 26 % of Irish stroke patients were screened for swallow disorders within the first 24 hours of admission; 25 % underwent formal swallow assessment by a speech and language therapist (SALT) within 72 hours.

Methods: We retrospectively reviewed case notes of patients admitted with acute stroke to the stroke unit at a regional hospital between 01/01/13 and 01/10/13.

Results: Notes for 55 patients were reviewed. 2/55 patients (4 %) had a documented swallow screen within three hours of admission. 3/55 (5 %) were screened on the day of admission. 12/55 (22 %) were screened within 24 hours. 23/55 (42 %) underwent SALT swallow assessment within 72 hours. 21/55 (38 %) had no documented swallow screen during admission.

Conclusions: This study identified delays in swallow screening assessment for patients admitted with acute stroke. Rates are comparable to the most recent Irish national data, but lag significantly behind equivalent statistics for health services in the United Kingdom. The results reflect a need for guidance on a suitable, nationally standardized screening tool for use throughout stroke units in Ireland.

References:

1. Irish Heart Foundation Stroke Council (2010) National Clinical Guidelines and Recommendations for the care of people with stroke and transient ischaemic attack. Irish Heart Foundation, Dublin
2. Irish Heart Foundation (2008) Irish National Audit of stroke care. Irish Heart Foundation, Dublin

O16 Physical and Psychosocial Adjustment Post-Stroke

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Background: Stroke survivors may experience a myriad of physical, psychological and social consequences. Physical function is an important indicator of clinical outcome. There is a gap in the evidence examining physical and psychosocial adjustment post-stroke.

Methods: A quantitative cross-sectional, correlational, exploratory study was conducted between April and November 2013. The sample consisted of stroke survivors (n = 100) recruited from three hospital outpatient departments, who completed a questionnaire package. The aim of this study was to examine the influence of physical function and other factors on psychosocial adjustment post-stroke. Physical function was recorded using two scales, the Barthel Index and the modified Rankin Scale (mRS). Psychosocial adjustment was measured by the Psychosocial Adjustment to Illness Scale (PAIS).

Results: The mean age of participants was 76.05 years (range 70–80), over half (56 %) of participants achieved the maximum score of 20 on the Barthel Index. The median score was 20 (IQR: 18–20). For the modified Rankin scale, the median observed was 2 which indicated slight disability (IQR: 1–3). The total weighted mean (standard deviation) for psychosocial adjustment was 0.54 (0.31) indicating a satisfactory level (mean range 0.36–0.67).

A correlation matrix indicated a strong, positive, statistically significant correlation was found between physical function and psychosocial adjustment ($r = 0.62$, $p < 0.001$), indicating that those with better physical functioning had better psychosocial adjustment. The strength of the correlations was strongest between physical function and the dimensions of domestic environment ($r = 0.62$, $p < 0.001$) and social environment ($r = 0.50$, $p < 0.001$) in the PAIS. 38 % and 22 % of the variation in psychosocial adjustment to illness scale was explained by physical function and self-rated health, respectively.

Conclusion: Physical function contributes to psychosocial adjustment post-stroke. However more attention to patients overall perspectives of their health is needed in stroke research given its contribution to psychosocial adjustment.

O17 Facilitators and Barriers of Getting Back to Active Living Post-Stroke: Results of a National Survey

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Background: Stroke is a major cause of acquired disability, especially in older adults. Although acute stroke care has improved, many individuals report dissatisfaction with community re-integration after stroke [1]. The aim of this study was to document the recovery experiences of community-dwelling persons up to 5 years post-stroke.

Methods: Participants were recruited through stroke support groups nationally, relevant websites, and by community health professionals. An existing validated questionnaire was adapted with permission [2]. The final questionnaire assessed respondents' own perceptions of their recovery and community re-integration. Univariate analysis was performed to investigate associations across relevant variables. Open responses were qualitatively analysed.

Results: One hundred and ninety-six individuals responded to the survey. Family support was the most common reported facilitator of recovery after stroke, described by 40 % of respondents. Over half of those who needed help with personal care received it from family only. Of those who had a partner, 42 % reported a change to their relationship and 25 % wanted information about intimacy. Sixty per cent of the respondents who drove prior to their stroke returned to driving. Over half of them adapted their cars or received further training and assessment. Changes in leisure activity engagement after stroke were reported by 60 % of respondents. Barriers to participation described include the effects of the stroke, psychosocial difficulties, transportation, and others' negative perceptions. Other common facilitators of recovery described were stroke support groups, personal attributes, health professionals, exercise and the home environment.

Conclusions: Although the direct effects of the stroke are important, the return to active living post-stroke is likely a complex process that is facilitated and hindered by many interactive factors related to individuals, social networks and professional support.

References:

1. Wood et al (2010) Clin Rehabil 24(11):1045–1056
2. McKeivitt et al (2010) UK Stroke Survivor Needs Survey. The Stroke Association, London

O18 Frailty and Disability Across the North and South of Ireland: A Data Harmonisation Study

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Background: Frailty in older adults is recognised as a precursor to overt disability. The prevalence of limiting disability has been found to be higher in older adults from Northern Ireland (NI) compared to the Republic of Ireland (RoI). This study aimed to construct a harmonised measure of frailty using health surveys from NI and the RoI and use it to explore differences in frailty and its relationship to disability across Ireland.

Methods: Data are from wave 1 of The Irish Longitudinal Study on Ageing (TILDA) and the Health Survey Northern Ireland 2010/2011 (HSNI). Respondents aged 60 and over were included with 4,901 participants in TILDA and 1,359 in HSNI. Analysis was conducted separately on each dataset using modified poisson regression models to investigate the relationship between frailty and disability.

A frailty measure was successfully adapted from the FRAIL scale using five harmonised indicators for fatigue, resistance, ambulation, illness, exhaustion and low physical activity. Participants with 0, 1–2 and ≥ 3 indicators were classified as non-frail, pre-frail and frail, respectively.

Results: Frailty prevalence in HSNI was 20.8 % compared to 6.7 % in TILDA, and limiting disability prevalence was 43.3 % in HSNI compared to 25.0 % in TILDA. This increased with age and was higher amongst females in both settings. The relationship between frailty and limiting disability was similar in TILDA (relative risk (RR) = 5.73, 95 % CI 5.03–6.51 for participants with 3 frailty criteria vs 0) and HSNI (RR 5.64, 95 % CI 4.48–7.10).

Conclusions: This is the first study to define frailty across Ireland. Frailty was more prevalent in NI compared to the RoI and was related to limiting disability in both settings. Further research is needed to understand these health disparities across Ireland. However, we found that it is feasible to harmonise datasets to perform international comparisons of frailty.

O19 The Impact of Frailty on Post-Acute Rehabilitation Outcomes in Older Adults

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Background: Multidisciplinary rehabilitation programmes in post-acute settings can positively influence the pace and extent of return of function after an acute hospital admission. Few studies have focused on frailty assessment tools as predictors of rehabilitation outcomes in older adults. Our study aimed to fill this gap.

Methods: The Short-term Post Acute Rehabilitative Care (SPARC) Unit, (22 beds) provides specialist geriatrician-led multidisciplinary input for patients aged 65 years and over who are medically stable and fit for discharge from acute hospital care. We assessed the correlations of the Frailty Instrument for primary care of the Survey of Health, Ageing and Retirement in Europe (SHARE-FI on admission: non-frail, pre-frail, frail) We retrospectively measured the following rehabilitation outcomes: length of stay (LOS) in days, emergency transfer to the acute hospital due to medical destabilisation during rehabilitation, and change in Barthel Index (BI) (i.e. discharge BI minus admission BI).

Results: There were 172 admissions to the SPARC Unit. The most common main diagnosis was fracture or fall (103 patients). Adjusting for age, SHARE-FI correlated with longer length of stay (non-frail: median 30 days; frail: 42 days; $P = 0.047$), higher rate of emergency transfer to acute hospital (non-frail: 2.4 %; frail: 21.1 %; $P = 0.004$), and lower home discharge rate (non-frail: 97.6 %; frail: 81.9 %; $P = 0.009$). While frailty correlated with more disability on admission and discharge, there was no statistically significant difference in Barthel Index (BI) improvement across frailty categories (all groups had median BI improvement of ≥ 2 points, $P = 0.247$).

Conclusion: The post-acute rehabilitation of the frail is worthwhile but requires more time and access to acute hospital facilities. The frail have a higher medical decompensation risk and we interpret that in the light of their higher medical complexity and intrinsic vulnerability, which is a core feature of frailty.

O20 Frailty and Its Association with Rehabilitation Outcomes: A Prospective Cohort Study of a Post-Acute Frail Older Population

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Background: The establishment of frailty as a predictor of those at risk of adverse outcomes in hospitalised older adults is growing. This study examined the changes in frailty, physical function, quality-of-life and falls self-efficacy of older adults undergoing post-acute rehabilitation. The influence of frailty on participants' rehabilitation outcomes was also examined.

Methods: A prospective cohort study of 41 participants attending an inpatient post-acute rehabilitation unit was conducted. Assessments included the Canadian Study of Health and Ageing: Clinical Frailty Scale (CFS), grip-strength, Timed-Up-and-Go (TUG), ten meter walk test (10 MWT), Elderly Mobility Scale (EMS), Tinetti Balance and Gait Assessment, Barthel Index (BI), the EuroQol-5D Visual Analogue Scale (EQ-5D-VAS) and the Falls Efficacy Scale (FES). All participants underwent routine rehabilitation.

Results: The mean (\pm SD) age of the sample was 80.3 (\pm 7.1) years and the majority were female (63.4 %, $n = 23$). The median (IQR) LOS was 35(29) days. Statistically significant changes from admission to discharge were found in all outcome measures. Moderate positive correlations were found between admission CFS and TUG ($r = 0.438$, $p < 0.0004$), gait-speed ($r = 0.408$, $p < 0.009$), LOS ($r = 0.386$, $p < 0.013$) and amount of time spent in therapy ($r = 0.364$, $p < 0.019$). Moderate and strong negative correlations were found between admission CFS and Tinetti ($r = -0.489$, $p < 0.001$) and EMS ($r = -0.5$, $p < 0.001$) respectively. No relationship was found between the CFS and grip-strength, EQ-5D-VAS, FES or discharge destination.

Conclusion: Frailty on admission was shown to have a moderate relationship with many physical determinants of function, time spent in therapy and LOS. It is evident that frailty alone does not provide the clinician with a definitive evaluation of an older person's potential outcome following rehabilitation. Current frailty indices are simply one of several indicators of outcome. Further research investigating the validity of frailty indicators is required before frailty can be validly utilised as an outcome for elderly rehabilitation.

O21 Prediction of Fracture Leading to Hospital Admission in Community Dwelling Older Adults

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Background: Fracture prevention is a key aim in bone health and osteoporosis management. Once a fracture has occurred it is imperative comprehensive assessment of risk factors and initiation of appropriate lifestyle and pharmacological measures to reduce risk of further fracture takes place.

Methods: Data analysis for this study was obtained from participants in the TUDA (Trinity, University of Ulster, Department of Agriculture) cross sectional study. Participants were initially prospectively recruited from community dwelling adults over 60 years attending our Bone Health Unit for DXA (bone densitometry measurement). Those included had a T score of -1 or less i.e. osteopenia or osteoporosis. A detailed assessment including medical history, fracture history, medication use as well as biochemical tests of serum 25 (OH) Vit D and serum PTH was carried out. Patient records were then assessed for occurrence of further fracture at a later date.

Results: Initially 1344 subjects were assessed. Of these 810 (60 %) had a fracture at index assessment. Mean age 71.6 ± 7.7 years. Following a mean follow-up of 2.72 years further fracture rate was assessed. Over this period only 28 subjects had a further fracture necessitating hospital admission with 3 subjects having 2 further fractures. 21(72 %) of these had a previous fracture.

New fractures were generally fragility with exception of one subject with two atypical femoral fractures and another with injuries from an assault. In this small subgroup mean T-score spine was -2.36 ± 1.36 and mean T-score hip -2.26 ± 0.793 compared to a mean T score spine -2.27 ± 1.34 and mean T score hip -1.97 ± 0.929 in whole group. This difference was not statistically significant.

Conclusion: These initial results suggest previous fracture may be more predictive of further fracture risk than T-score at a given time. Further analysis of biochemical profile and medical history may pinpoint other risk factors.

O22 An Exploratory Study of Club-Based Sports Participation by Older People in Ireland, Australia and Japan

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Background: Although older people's sports participation is a conspicuous trend in the world today, most research on older people's physical activities has concentrated on physiological aspects, rather than socio-gerontological aspects, with little emphasis given to the dimensions of older people's sports activities. This research explored the poorly understood phenomenon of older people's participation in the club-based sports activities in international contexts (Ireland, Australia and Japan). Given their popularity amongst older people, the focus of the research was on golf (a low-intensity sport) and swimming (a high-intensity sport).

Methods: This research employed qualitative research methods involving face-to-face interviews with sports body organisers and focus groups with older sportspeople. Forty-one sports body organisers took part overall; 133 sportspeople, including 69 women and 64 men, participated in the research.

Results: This research demonstrated that older people keep active in sporting activities at their sport settings in their later life. The key findings were:

1. For older sportspeople, sports participation was their 'life force' despite their age- or sport-related injuries.
2. Sports clubs were good settings for older sportspeople to enhance their social networks via comradeship, which could have an influence on their ability to age 'successfully'.
3. Older participants in this research envisaged keeping the same aptitude for sporting activities as they age, and even into their 'Fourth Age'.

Conclusion: It was acknowledged that sports participation benefited older participants in this research with various positive outcomes such as physical health and mental wellbeing, driven by virtuous cycle in

their life courses. The research hopes to enhance not only governmental but also public awareness of the necessity of making older people more physically active through sports activities.

O23 "Words Open Windows": Older Women's Experiences of Adult Literacy Services

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Background: Extensive research pertaining to older populations has paid insufficient attention to understanding the educational and life-long learning needs and experiences of older adults. This paper adds to this body of literature by investigating the experiences, motivations and outcomes of adult literacy training among older women who are former students of the Adult Literacy Services (ALS) in Ireland.

Methods: A social constructivist approach, using the principles of grounded theory methodology, was selected as best suited to providing insights into former literacy students' experiences. An understanding of the experiences, motivations and outcomes is derived from participants' own perceptions and was captured through in-depth semi-structured interviews. In keeping with a constructivist approach, adult education policy is used as a lens through which to investigate how the learners' experiences are shaped by social forces in contemporary Irish society.

Results: The older learners described a productive, positive and enjoyable experience in ALS, with outcomes meeting their utilitarian and expressive needs. Increased self-esteem, confidence and freedom from the stigma of being an older adult with literacy difficulties were additional outcomes that the participants valued highly. An interesting and unexpected phenomenon emerged, in that the majority of participants viewed partaking in ALS as a stepping stone to the fulfilment of long-held hopes and aspirations beyond utilitarian needs.

Conclusions: The findings indicate that older former adult literacy learners are agentic and flourishing actors. The importance of adult and continuing education is articulated as the 'vital cement to building a society in which everybody has the capacity to achieve their goals' (Parsons and Bynner, 2007:11). This paper contributed to the understanding of the fact that the 'everybody' referenced in this quote includes older women overcoming stigma, flourishing and aspiring to long-held ambitions in later life, through the stepping stone of literacy tutorship.

Reference:

1. Parsons S, Bynner J (2007) Illuminating disadvantage: Profiling the experiences of adults with entry level literacy or innumeracy over the life course. London: NRDC Institute of Education

O24 Exploring Perceptions of Ageing and Health Amongst Mid-Life Women in Connemara

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Background: This paper seeks to address gaps in research knowledge concerning the ageing of mid-life women in rural Connemara. In 2011, 45–64 year-old women comprised 22 % of Ireland's population. This proportion is predicted to rise to 26 % by 2041, making mid-life women a significant population sector.

Methods: Adopting a qualitative research design, 25 in-depth, semi-structured interviews were conducted over 18 months with women

aged 45–65 years, living across Connemara. A diverse, purposive sample was recruited through stakeholders and personal contacts, snowballing, and the media. Participants varied according to age, socio-economic status, marital status, residence, and nationality. Data were analysed using an adaptation of Constructivist Grounded Theory [1].

Results: Categories of primary concern to participants included: ageing and old age; health and well-being; work and finance; social relationships; and attachment to place. Patterns of difference and similarity emerged across each category regarding participants' ages and socio-economic backgrounds. The data highlight mid-life women's perceptions of living during a time of significant transition. This supports research evidence, which suggests that mid-life represents a crossroads in life, and that the cornerstones for a fruitful late life are established in the middle years. [2]

Conclusions: Emerging data reveal that desired physical and mental health in later years is of the highest significance. Mobility and autonomy in old age, even if financially compromised or socially isolated, is the epitome of high life quality. Almost all participants in the sample associated old age with physical and/or mental infirmity and increased dependency, leading participants to seek preventative health measures, including physical/mental exercise, careful nutrition, and positive attitude, which may achieve autonomy in later years.

References:

1. Charmaz K (2006) Constructing grounded theory: a practical guide through qualitative analysis. SAGE, London
2. Hockey J, James A (2003) Social identities across the life course. Palgrave MacMillan, Hampshire

O25 Attitudes of First Year Medical Students to Ageing and to Older People

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Background: Previous research shows that attitudes among medical students towards older people are moderately positive but knowledge of ageing is poor, with low levels of interest in geriatric medicine as a specialty [1]. This study aimed to evaluate attitudes of first year medical students to older people.

Methods: Cross-sectional survey of first year medical students. They were asked their age, gender, nationality, whether they had ever visited a nursing home (NH) and their thoughts after visiting. They were asked to rank statements about successful ageing in order of importance and to complete the University of California, Los Angeles (UCLA) Geriatrics Attitudes scale (GAS) which measures agreement/disagreement with 14 statements about older people. Higher mean scores indicate more positive attitudes.

Results: Of 140 students, 34 % (48) were male and 74 % (103) were Irish. Mean age was 19.4 years. 73 % (102/140) had visited a NH. Of these, 55 % (56/102) worried about lack of dignity in the NH and requiring NH care in the future. Maintaining physical/mental independence and having a good family/social life were most important regarding successful ageing. Mean GAS score was 2.94 (SD 0.35)

which was lower than students at a similar stage in other universities (US 3.7, Singapore 3.6). There was no significant difference in mean GAS scores between males and females (2.98 vs 2.92, $p = 0.94$) or Irish and non-Irish students (2.9 vs 3.08, $p = 0.10$).

Conclusions: We found a generally positive attitude towards older people in this study. With an ageing population, improving attitudes of medical students to older people early in their undergraduate education is important. Introduction of the core concepts of gerontology and geriatric medicine at an early stage will influence future practice and career choices.

Reference:

1. Fitzgerald JT et al (2003) Relating medical students' knowledge, attitudes, & experience to an interest in geriatric medicine. *Gerontologist* 43:849–855

O26 Food Enjoyment is Associated with Nutritional Status Among Irish Older Adults Living Alone

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Background: Malnutrition impacts older Irish adults and is associated with many unfavourable outcomes, such as physical and cognitive decline. Older adults living alone may be particularly vulnerable. In this group, many factors, such as access to transport, mobility, health status, changes to taste and smell, metabolic changes, and medication use may impact nutrition status. We wanted to investigate whether self-reported enjoyment of food would be indicative of nutritional outcome in this population.

Methods: As part of the Relate study, cross-sectional information was collected on nutritional status (using the Nestle Mini-Nutritional Assessment scale), food enjoyment (using the Food Enjoyment Scale; Vailas & Nitzke, 1998), and health status (using the Health Utilities Index; Horsman et al., 2003), among 53 adults (17 male) living alone (age range 60–91, mean age 74.4). Multiple regression analyses were performed on the data with nutritional status as the dependent variable and food enjoyment, health status, age, and gender as predictors.

Results: The regression model was found to be significant [Adj. $R^2 = 0.145$, $F_{4,50} = 3.114$, $p < 0.05$]. Of the predictors, only food enjoyment was found to be a significant predictor of nutritional status [$\beta = -0.395$, $p < 0.01$].

Conclusions: Food enjoyment, but not health status, predicts nutritional status among older adults living alone. Our finding accords with previous research which states that nutritional status can be impacted among older adults due to changes in chemosensory function as well as diminished appetite. This finding has significant implications for prevention of nutritional decline among older Irish adults, since efforts may be most beneficial in the promotion and facilitation of enjoyment of food.

O27 Risk Instrument for Screening in the Community (RISC): Predicting Adverse Outcomes in Older Adults

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Background: The growing older population, faced with shrinking resources, poses significant challenges for health services (Connell and Pringle, 2005). Valid and reliable tools to predict adverse outcomes (AO) hospitalisation, institutionalisation and death, in older adults, would facilitate targeting older adults at greatest risk of AO. This paper describes the predictive validity of the Risk Instrument for Screening in the Community (RISC*), developed to screen older adults for risk of AO.

Methods: Public health nurses recorded demographics and scored the RISC between March and August 2012, and again in March 2014, in a sample of community dwelling older adults. The RISC assessed the effectiveness of the caregiver network, mental state, ADL and medical problems, and provided global risk scores from one to five, for each AO. The incidence of hospitalisation, institutionalisation and death were recorded for the population in the period of follow up, to determine the predictive validity of RISC.

Results: At baseline, the cohort (n = 803) had a mean age of 80, with 64 % females. At baseline, 622 were at low risk, 140 at medium risk and 21 at high risk of death. At follow up 11, 27 and 67 %, respectively, had died. At baseline, 687 were at low risk, 63 at medium risk and 33 at high risk of nursing home placement. At follow up, 8, 33 and 30 % had been placed in nursing homes. A baseline, 525 were at low risk, 172 at medium risk and 86 at high risk of hospitalisation. At follow up, 12, 22 and 24 % had been hospitalised.

Conclusions: The RISC predicted all three outcomes, but death and institutionalisation better than hospitalisation. The next phase matches subjects at medium and high risk, and randomly assigns half to control, receiving standard care, the others to comprehensive geriatric assessment. Subjects will be followed to determine the effects of the intervention on AO.

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1. Connell P, Pringle D (2005) Population Ageing In Ireland: Projections 2002–2021 in O’Shea, E. and Conboy, P. eds Planning For An Ageing Population: Strategic Considerations, Report No. 87, pp.118, National Council on Ageing and Older People, Dublin

O28 Do We Tell GPs What They Need to Know? A Quality Assessment Review of GP Correspondence from a Medicine for the Elderly Outpatient Clinic

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Background: The Medicine for the Elderly (MFTE) Department in a Dublin hospital operates a busy outpatient service, with the majority of referrals from General Practitioners (GP). Referrals relate to many different clinical concerns including memory. Communication between hospitals and the community will be vital with the changing healthcare system, particularly in managing memory and dementia. The aim of this review is to evaluate the quality of new patient memory assessments and communication with GPs.

Method: We reviewed notes and correspondence relating to new patient attendances to one outpatient service over a 3 months period.

Six clinics were included and information was gathered specifically relating to cognitive/memory referrals.

Results: 53 new patients attended over 3 months, with a mean age of 81.4 years (range 67–97 years). The most common reason for referral was memory complaints (n = 23, 43.4 %). The majority of letters to GPs documented the Mini Mental State Examination (MMSE) score (n = 23, 86.9 %). However, documentation of education history (n = 10, 43.5 %) and occupation (n = 10, 43.5 %) were poorly recorded, which are of relevance in interpreting performance on cognitive tests such as the MMSE. Rarely were Enduring Power Of Attorney (EPOA), n = 4 (17.4 %) or patient preference regarding diagnosis disclosure n = 3 (13 %) discussed. The majority of new patients referred for memory assessment were given further review appointments, n = 15 (65.2 %), the remainder were discharged to the care of their GP (30.4 %) or referred to the memory clinic for further assessment (4.3 %). In 25 % (n = 14) of letters a clear plan was not documented.

Conclusions: Frequently important information relating to memory assessment and management plans were poorly communicated to GPs. It is imperative that appropriate and timely information is communicated to referring doctors. As many GP trainee and junior doctors rotate through MFTE departments, we must take the opportunity in developing their skills in geriatric assessments including appropriate cognitive assessments, diagnosis and treatment.

O29 The Irish Hip Fracture Database: Results from the Preliminary Report 2014

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In the first Preliminary report published by the Irish Hip Fracture Database in February 2014 which included aggregated data from eight hospital sites the overall results provided a base from which it is anticipated we can achieve incremental improvements in all aspects of hip fracture care similar to what has been achieved in the UK (NHFD). To date the HSE are measuring time to surgery, and in-hospital mortality and in addition to that the IHFD is measuring time of admission and transfer to ward, time to surgery within 48 h, pressure ulcer prevention prevalence, geriatric input, bone protection and falls prevention. 28 % of patients were admitted to an orthopaedic ward within 4 hours, 57 % had surgery within 48 hours, 7 % were seen pre-operatively by a geriatrician, 4 % developed a pressure ulcer, 42 % had a bone health assessment and a further 28 % were referred for outpatient follow-up, and 62 % had a specialist falls assessment. In addition we know that 70 % of patients were female, 71 % of patients were admitted from home, 57 % mobilised unaided prefracture, the majority of patients were either ASA grade 3 or 4 (83 %), 40 % of patients suffered an intertrochanteric fracture and the most common type of fixation was a dynamic hip screw (34 %), the average length of stay was 18 days and 29 % of patients were discharged directly home from hospital (IHFD Report, 2013).

Conclusions: Using evidence based standards; audit and feedback as well as an integrated care pathway specifically for hip fractures will enhance and support the work already going on in individual sites to care for hip fracture patients.

Each site will be given regular feedback about their data.

In addition the IHFD will continue to produce an annual report and provide feedback throughout the year to all the participating units.

O30 Human Factors and AFFINITY: National Falls Prevention and Bone Health Project

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Background: AFFINITY (Activating Falls and Fracture Prevention in Ireland Together) aims to prevent harmful falls amongst persons 65 years and older, enhance the management of falls and improve health and wellbeing. Human factors examines the relationship between human beings and the systems with which they interact by focusing on improving efficiency, creativity, productivity and job satisfaction, with the goal of minimizing errors. A failure to apply human factors principles is a key aspect of most adverse events in health care.

Methods: A literature review was carried out to explore how human factors non-technical skills can enhance the safety and efficiency of AFFINITY's operations, reducing the likelihood of error and consequently the risk of adverse outcomes.

Results: Non-technical skills of relevance to AFFINITY include situational awareness, decision making, communication, team working, leadership, managing stress and coping with fatigue. Uncertainty within the HSE regarding roles, responsibilities and relationships is making it difficult for AFFINITY to build commitment and accountability. Team working is critical to the implementation of AFFINITY's integrated service delivery model. Distributive leadership will contribute to the overall success of AFFINITY. A failure to cope with stressors can result in work errors, reduced productivity, feelings of discomfort or ultimately even illness of individuals and poor performance of teams or organisations. Coping with fatigue is a feature of AFFINITY given the working patterns of doctors, nurses and other staff members.

Conclusions: Human factors non-technical skills will need focussed attention if the vision and aims of AFFINITY are to be realised. Factors that are known to impact non-technical skills, such as stress, fatigue, task demands, time pressures and levels of constraints need to be managed at individual and organisational levels. The promotion of human factors principles will enable AFFINITY to design safer systems of care to help prevent errors and mitigate their effects.

O31 Alert Chart-Improving Communication Within the MDT & Reducing Risk of Falls

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Background: Falls and fractures in Ireland cost over €400 million and it is estimated that this cost will escalate to €1 billion by 2020. The NICE guidelines: Falls 2013 highlight that the key areas for falls prevention are: identification of potential fallers; intervention to improve balance and mobility; communication and education of patient/family/carers.

In order to identify potential fallers and to improve communication within the multi-disciplinary team-also with families and patients-a pilot of Alert Charts was proposed.

Method: A pilot of the use of Alert Charts was performed on a 26 bedded Care of the Elderly ward (April 2014) for all patients who

were assessed by physiotherapy. This ward has a mixture of general medical and stroke patients. Alert Charts give a clear message of what level of assistance is required for transfers and mobility for the patients. A follow-up questionnaire was issued to physiotherapists, nurses and healthcare assistants (HCAs) to identify their opinion of Alert Charts.

Results: All the staff surveyed found the Alert Charts easy to see and understand. Those surveyed felt it improved handover from physiotherapy to nursing staff and between nursing staff/HcAs. Three of the nurses surveyed commented that it reduced manual handling risks when there was a clear indicator over the bed of the assistance required. The physiotherapists suggested that bed mobility should be included on the Alert Chart.

Conclusion: The pilot study received positive feedback from nursing and physiotherapy staff as an excellent form of communication between disciplines about patients' current mobility status. Changes that were suggested have been done and the Alert Charts are now being trialled on the Acute Medical Unit and on the Coronary Care Unit.

We will repeat the questionnaires in these areas to also include families and look at falls rates in these areas before and after the trial.

O32 Resource Utilisation in Older Patients Presenting with Falls to the Emergency Room

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Background: The cost of falls and falls related injuries is estimated to rise to over €2 billion euro annually in Ireland by 2030. Effective treatment and prevention, underpinned by valid research is essential to healthcare policy and resource allocation. The Irish Longitudinal Study on Ageing (TILDA) has shown that almost 10 % of the population over 50 had an injurious fall in the previous year. The objective of this study was to examine resource utilisation by patients presenting to the emergency department (ED) with falls and falls related injuries.

Methods: A single centre, prospective, observational study was conducted over a 6 month period. ED patients over 50 years of age, recorded as having suffered a fall, collapse, syncope, or an injury related to a fall were included in the analysis. Electronic records were reviewed to examine the resources utilised.

Results: 596 patients were studied; 207 (35 %) required admission. The median length of stay for admitted patients was 11.5 days (range 1–180.6). The majority of patients had presented on more than one occasion to the ED in the previous year. X-rays were performed in 506 (85 %) patients; 433 (72 %) had blood tests performed; a CT scan was performed in 250 (42 %) patients; 236 (40 %) patients had allied health professional referrals and 232(41 %) patients were referred for further medical review. The mean age was 75 years (range 50–102). Patients over the age of 75 years were more likely to require admission, with a longer number of bed days and greater number of investigations performed.

Conclusions: Falls represent a significant health problem in older patients and are associated with significant resource utilisation in hospital admission, diagnostic and treatment costs. Opportunities to impact on future falls risk should be embedded in all contact points of the health service.

O33 Is Low Skeletal Muscle Mass Synonymous with Sarcopenia?

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Background: Sarcopenia is a syndrome characterized by progressive and generalized loss of skeletal muscle mass and strength, associated with physical disability, poor quality of life and death. Criteria include both low muscle mass and low muscle function. This cross sectional observational study ascertained the prevalence of low muscle mass in an independent elderly population and assessed self-reported physical and mental health.

Methods: 50 community-dwelling older people without functional impairment (barthel = 20) completed the short form 36 health survey, a comprehensive clinical assessment and a full body dual-energy X-ray absorptiometry (DEXA) scan. Skeletal muscle mass index (SMI = total appendicular muscle mass/height²) was calculated. Low muscle mass was reflected by an SMI less than two standard deviations below the sex-specific mean of a healthy young adult population; <7.26 kg/m² (males) and <5.5 kg/m² (females). Spearman’s correlation coefficient was used to analyze an association between SMI and other health measures.

Results: Median age was 71 years (range 65–85). Mean SMI was 7.91 kg/m² (SD 1.07) in males and 6.45 kg/m² (SD 0.94) in females. 13.8 % of females and 28.6 % of males had a low SMI. SMI and age were weakly negatively correlated ($p = 0.185$). In females, higher SMI was moderately correlated with increasing number of comorbidities ($r = 0.519$, $p = 0.004$). SMI had no correlation with number of medications, self-reported vitality and self-reported physical health.

Conclusion: Reduced skeletal muscle mass is a key diagnostic feature of sarcopenia and is also independently associated with functional impairment and disability. However, in independent elderly subjects, low muscle mass does not equate with ill health or reduced self-reported health. Our study suggests that there is a latent asymptomatic period for those who are likely to be predisposed to sarcopenia and impaired functional reserve in the future. Targeted physical intervention might be most effective at this stage while people maintain functional independence.

O34 Making it Better or Worse? Organisational Influences on Person-Centred Care

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Background: The term ‘Person centred care’ is used widely in health and social care discourse and is commonly employed in the articulation of policy, both at governmental and professional level. The concept, as it relates to older people in residential care, challenges traditional medical and task-orientated processes and promotes a shift in emphasis to holistic, collaborative, relationship-based care environments. While person centred care has become a watchword for

good quality of care and quality of life, problems have been reported in relation to its implementation and sustainability.

Methods: Institutional ethnography was chosen to explore the everyday living routines of older people in residential care and the organisational practices that influence those routines in three public residential care facilities in the Republic of Ireland. The study explored the everyday life of these residential settings focusing on the implementation of person centred care and then connected this everyday life to the organisational structures of professional practice, human resource management and regulation. Mapping these organisational practices to the everyday lives of residents allowed the disjuncture between the espoused principles of person centred care and the organisational policies and practices to be explored.

Results: The findings revealed that while some elements of person centred practice have been implemented, it is yet to be embedded in organisational practices in a way that would change the nature of relationships, shared decision-making or meaningful activity between residents, relatives and staff.

Conclusions: These findings warrant the need for organisational and policy changes that give primacy to the implementation of person centred care, and rebalance of power in order to create a level playing field on which to develop interdependent communities within residential care.

O35 Using “Communication Ramps” to Enable Participation in a Survey and Increase Response Rate

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Background: The “National Standards for Safer Better Healthcare 2012” state patient feedback plays a key role in ensuring a healthcare service is person-centred and effective. Surveys are used to collect such opinions, however, low response rates raise concern about their validity. Patients with communication difficulties (approximately 45 % over 65 years group for this facility) are often excluded from surveys.

Method: Communication accessible documents are used in the healthcare settings but currently no adapted patient surveys are widely used. The “Picker Institute Questionnaire” (1) was adapted to this facility’s setting. A modified version was then created using communication access principles. Inpatients who had been on the rehabilitation wards for at least 2 weeks were given the survey—those with communication difficulties received the modified version. If a patient’s primary Speech and Language Therapist (SLT) deemed the patient still not able to access the modified survey, a SLT (not involved in the patient’s management but briefed in their communication) provided supported conversation to enable participation. The response patterns for the 2 groups (communication impaired and others) were compared.

Results: The response rate across rehabilitation wards 71 % ($n = 52$) of which 23 % increase was due to use of communication accessible version. On stroke rehabilitation ward response was 89 % ($n = 16$) of which 50 % increase was due to use of the communication accessible version. Themes highlighted were comparable for both groups.

Discussion: Using communication accessible methods increased survey response for this facility. On the stroke ward (higher prevalence and severity of communication difficulties) enabling active participation for those with communication impairments significantly increased the return rate. Despite known limitations of patient feedback surveys such information will allow this facility to develop

quality improvement strategies to optimise patient care and satisfaction.

Reference:

1. Sizmur S, Redding D (2009) Core domains for measuring inpatient's experience of care. Picker Institute, Europe

O36 Dysphagia and Pneumonia in Nursing Home Residents: Which Side Are You On?

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Background: Pneumonia is the second most common infection and the leading cause of death among nursing home residents (NHR). Previous studies have reported that right-sided pneumonia is more indicative of aspiration. Minimal research has been completed on this topic. The main study aim is to investigate if right sided pneumonia is more indicative of aspiration/dysphagia in NHR admitted to an acute hospital.

Methods: A Retrospective evaluation of NH residents admitted to an acute hospital with pneumonia was completed over a 6 month period (October 2013–March 2014). Inclusion criteria: NHR over 65 years admitted with pneumonia and were referred to Speech and Language Therapy (SLT). Data was analysed quantitatively using descriptive statistics and SPSS.

Results: 333 NHR were admitted during the study period. 56 residents were included, with a mean age of 84.7 years (± 1.8 years, range 70–98) and mean barthel index (BI) of 4.9 (± 1.3). 21.4, 26.8 and 51.8 % of patients presented with left, right and bilateral pneumonias, respectively. Overall prevalence of dysphagia was 71.4 % with no statistical significance irrespective of pneumonia side. Mortality was 26.8 % in this cohort compared with 13.7 % in the overall group of NHR admitted in the study period ($P \leq 0.005$). This was more statistically associated with lower BI's ($p = 0.034$), longer length of stay, new dysphagia and a history of cognitive impairment ($p = 0.103$). All deaths were reported in those with a new/worsening dysphagia. All participants had a clinical dysphagia assessment carried out by SLT, while 9 % also had a videofluoroscopy.

Conclusion: New onset dysphagia is a poor prognostic indicator and is associated with higher mortality in this frail elderly group. This study supports the conclusion that new dysphagia cannot be distinguished by the side of pneumonia presentation. All pneumonias should be considered for SLT assessment irrespective of pneumonia side. The study is continuing prospectively.

O37 Multidisciplinary Team (MDT) Approach in Healing a Grade Four Pressure Ulcer in an Octogenarian Patient with End Stage Dementia

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Background: The aim of this case report is to illustrate the factors that facilitated the healing of a large grade four pressure ulcer on a resident with end stage dementia who was transferred from hospital to a Long Term Care Facility (LTCF)

Methods: This case study reviews the conservative management of an 80 year old bedbound patient scoring MMSE 0, MUST 2, weight 42.2 kgs, Barthel 1, Waterlow 25 post discharge with a large grade four pressure ulcer on the sacral region measuring 6.3 cms in length, 3 cms width 2.6–3 cms depth. Medical records both pre/post discharge were reviewed to determine the contributory factors to successful wound healing. It was noted a key nurse was assigned with a post graduate qualification in tissue viability (TVN) to monitor the wound. Diet and fluids were modified to increase the calorie/protein intake following dietetic review. Speech and language therapist (SALT) review highlighted thickened fluids were required as patient's swallow deteriorated post discharge. Strict two hourly repositioning recorded in live time and full support alternating airflow mattress was maintained. Wound did not require antibiotic therapy at LTCF. Photographic evidence of the healing process recorded.

Results: Weight increased by 5.6 % and wound is grade one 8 months later.

Conclusion: Healing a large grade four wound in a patient with end stage dementia can be achieved with conservative management. Successful healing was attributed to the collaborative work by the MDT (general practitioner, TVN, SALT, nurses and dietician). Continuity of care and the consistent approach by the MDT were identified as key components in wound healing.

This report proved that end stage dementia patients retain the ability to heal large wounds, achieving this may improve quality of life and reduce the cost of care. The value of MDT input post discharge requires recognition and funding.

O38 The Use of Adjunct Therapies for Chronic Wound Management in Older Adults in a Teaching Hospital

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Background: In Ireland, an estimated 2 % of the population suffer from chronic wounds. Approximately €290 million/annum is spent on the provision of wound care. This expenditure is expected to rise due to increasing healthcare costs, an aging population and associated chronic medical conditions. This study aimed to describe the use of adjunct therapies namely VersaJet hydrosurgery, topical Honey and Negative Pressure Wound Therapy (NPWT) in wound management for patients >65 years in a large academic teaching hospital.

Methods: A retrospective case series was conducted from January 2013 to May 2014 using patient medical records. Data on patient demographics, comorbidities and wound type were collated. Treatment modality was determined in a multidisciplinary team setting involving the tissue viability service, vascular and gerontology teams.

Results: Data were available for 34 patients. Males predominated (91 %, $n = 31$), with diabetic foot ulcers accounting for 68 % ($n = 23$) of cases. Diabetes, underlying cardiovascular disease and smoking were identified as factors for poor wound healing ($n = 31$). VersaJet was used successfully for wound debridement in 20/23 patients (2 patients required amputation and another needed further surgical debridement). Topical Honey application was used successfully in four patients with venous leg ulcers to eradicate MRSA under compression therapy. NPWT was used to treat two Grade 4 sacral pressure ulcers (one of which required Maggot Therapy prior to

commencing NPWT), four diabetic foot ulcers (all of whom received prior VersaJet hydrodebridement) and 1 dehiscenced abdominal wound. **Conclusion:** Debridement is an essential component of wound management as it maximises the healing potential of remaining healthy tissue. The use and type of adjunct therapies depends on patient tolerance, anatomical location of wound and the extent of debridement required. This series demonstrated the effective use of adjunct therapies in an older population.

O39 Irish National Audit of Dementia Care in Acute Hospitals

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Background: Admission to an acute hospital can be distressing and disorientating for a person with dementia, and is associated with cognitive and functional decline. The first Irish National Audit of Dementia care in acute hospitals, in 2013, audited criteria relating to care delivery known to impact on people with dementia admitted to hospital.

Methods: Thirty-five acute public hospitals underwent four linked audits: Healthcare Record review (20 charts/hospital); Hospital Organisation; and Ward Organisation and Environmental (2–3 wards/hospital, total 77 wards). In total, 660 healthcare records were reviewed. Inclusion criteria included a recorded Hospital In-Patient Enquiry diagnosis (primary or other) of dementia, and a length of stay greater than 5 days. All auditors received comprehensive training.

Results: Most hospitals (94 %) have no dementia care pathway. Thirty-five percent of people with dementia admitted from home were discharged to residential care (average length of stay 59 days). The majority of wards have good access to Liaison Psychiatry, Geriatric Medicine, Occupational Therapy, Physiotherapy, and Palliative Care, with more limited access to Liaison Psychiatry of Old Age, Psychology, and Social Work. Two-thirds (62 %) of hospitals reported standardised assessment of functioning is carried out on all patients, but such an assessment was recorded for only 36 % of patients. Only 43 % of patients had a mental status assessment recorded, and 30 % had screening for possible delirium. Deficiencies were also noted in staffing levels and training—6 % of hospitals included dementia awareness in staff induction programmes and no hospital had mandatory dementia awareness education for staff.

Conclusion: This audit showed discrepancies between guidelines (where they existed) and practice within hospitals, and poor multi-disciplinary assessment across several domains. Areas of good practice are also highlighted. Recommendations are outlined for the improvement of dementia care in acute hospitals.

O40 Changing Patient Demographics and Diagnostic Profiles Attending a National Memory Clinic: A Retrospective Review

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Background: The National Memory Clinic has been in operation for many years and has witnessed a changing profile of patients and cognitive presentations. With developments in investigations and criteria for diagnosis of neurodegeneration and Mild Cognitive Impairment (MCI), we sought to evaluate how these impacted on patient profile and diagnosis attending our service.

Methods: We reviewed all patient visits to our Memory Clinic to date. Age at presentation, gender, cognitive test scores; Mini Mental State Examination Examination (MMSE), Clinical Dementia Rating Scale (CDR) and diagnosis were recorded. Visits were subdivided into three subgroups based on year of presentation: interval one: 1990–1997, interval two: 1998–2007 and interval three: 2008–2014.

Results: There were 7,590 visits in total. In Interval One there were 943 visits (subjects, n = 499). Patients were older and more cognitively impaired with a mean age 74.6 years (43.5–92.4) mean MMSE 18.5 and mean CDR 1.1 (0–3). Alzheimer's disease (AD) was diagnosed in 561 (59 %) visits, mixed disease in 200 (21 %), frontotemporal dementia (FTD) in 22 (2.3 %) and age related memory changes in 11 (1 %). In interval two there were 3,043 visits (n = 1,490), mean age 73.1 years, mean MMSE 20.6 and mean CDR 0.9. AD was diagnosed in 1,109 visits (36 %), mixed in 531 (17 %), MCI in 29 % and FTD in 2.6 % of visits. In group three there were 3,302 visits (n = 2,117); mean age 70 years (19–98.5), mean MMSE 23.1 and mean CDR 0.6. AD was diagnosed in 18 %, mixed in 8 %, 1,534 visits (46 %), and FTD in 3 %.

Conclusions: Over time patients attending are younger and less cognitively impaired. In Groups Two and Three mild cognitive impairment was increasingly diagnosed and this reflects the development of criteria by Peterson et al. and also that patients are being referred and attending earlier with cognitive concerns.

Reference:

- Petersen RC, Smith GE, Waring SC et al (1997) Aging, memory, and mild cognitive impairment. *Int Psychogeriatr* 9 Suppl 1:65–69

O41 Audit of Early Clinical Diagnosis of Dementia Incorporating FDGPETCT Scanning

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Background: The accurate early diagnosis of dementia presents an ongoing challenge to clinicians. The 2006 National Institute for Clinical Excellence (NICE) Guidelines recommend the utilisation of 18-fluorodeoxyglucose positron emission tomography with computed tomography (FDG PETCT) to aid the diagnosis of dementia when alternative functional imaging (HMPAO SPECT) is unavailable and in doing so cite the limited availability and expense of FDGPETCT. FDGPETCT has subsequently been incorporated into the 2011 revised diagnostic criteria for Alzheimer's disease.

Our centre has been providing FDGPETCT, on specialist request, for nearly seven years, with over 2,000 scans performed to date.

Methods: The first 100 patients referred for FDGPETCT from a single memory clinic were identified. Electronic clinic letters with initial and follow up clinical data, including mini mental state examination (MMSE) scores, were accessed and FDGPETCT reports reviewed.

Results: Patients underwent scanning between 5/10/07 and 17/12/09. Clinic letters were accessed in May 2014 with an average follow-up time from scanning to last clinic attendance of 34 months. Details had

been entered twice for two patients and two scans were unreportable due to hyperglycaemia. Of the remaining 96 scans, 39 were reported as positive, that is, in keeping with a diagnosis of dementia, 44 negative and 13 indeterminate.

Of those 39 patients with positive scans 30 had a diagnosis of dementia at follow up, four, mild cognitive impairment (MCI), one, depression and follow-up data was unavailable for four patients.

Of the 44 patients with reports not felt to be in keeping with dementia, 19 were subsequently felt at follow up to have progressed to a dementia, the diagnosis was unclear for two patients, 12 had MCI, five, no cognitive impairment, and six lost to follow-up.

Conclusions: Even with access to a recognised functional imaging biomarker accurate early clinical diagnosis, and differential diagnosis, of dementia remains challenging.

O42 Opinions Towards a Consensus on Use of Medications in Advanced Dementia

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Background: The management of medications in persons with dementia presents challenges for healthcare professionals. There is a lack of consensus in the prescription of medications in advanced dementia. Given this, the objective of this study was to investigate the prescribing practices and attitudes of healthcare professionals at different stages in their careers, across four different countries: Ireland, Canada and Australia & New Zealand (ANZ).

Methods: We conducted a survey of practitioner’s opinions on the management of a range of 18 medications in advanced dementia, using a vignette. Choices were to (1) continue (2) stop now or later (discontinue) the medications that were prescribed for a person with advance dementia living in long-term care.

Results: In total, 256 healthcare workers from Ireland (n = 92), Canada (n = 110), and Australia/New Zealand (n = 54) completed the questionnaire, response rate 97 %. The sample included 52 consultants, 39 non-consultant hospital doctors, 124 general practitioners and 41 others (nurses, pharmacists, and medical students). Most felt that statins (86 %), bisphosphonates (81 %) and cholinesterase inhibitors (74 %), should be discontinued. Thyroid replacement (89 %) laxatives (84 %) and paracetamol (81 %) were most often continued. Significant differences were seen based on training, with respondents with experience in geriatric, palliative and dementia care more likely to discontinue medications. Age, gender, religion, experience working in nursing homes did not make a significant contribution to the decision.

Conclusions: Practitioners preferentially discontinued medications prescribed for secondary prevention. Experience significantly predicted the number and type of medications discontinued. Regular medication reviews are recommended in long-term care. Decisions to continue medications in those with advanced dementia should be individualised.

O43 Acute Dementia Care: A Review of Hospital Activity Attributable to the Care of Patients with Dementia

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Background: Currently, there are approximately 42,000 people living with dementia in Ireland. This is estimated to rise to 104,000 by 2036. The estimated annual cost of caring for those with dementia in Ireland is €1.6 billion, the bulk of this being spent on informal carers and residential care. Patients with dementia have significant medical comorbidities and higher rates of hospitalisation. Acute hospital admissions have higher rates of mortality and morbidity, with longer lengths of stay (LOS).

Method: Using the hospital inpatient enquiry portal (HIPE), we conducted a review of hospital activity specific to dementia from 2010 to 2012, and compared it to non-dementia groups. We looked specifically at patient demographics, presenting diagnoses, outcomes and LOS. Additionally, we examined the cost of acute dementia care using the hospital casemix system which allocates funding for patient care based on case complexity.

Result: Of the total admissions, 2 % of all inpatient episodes were attributable to patients with dementia. They accounted for 10 % of total bed days. The average LOS was 31.02 days versus 6.51. The most common presenting diagnosis was pneumonia, comprising 17 % of total admissions of patients with dementia, followed by stroke (8 %) and urinary tract infection (6 %). The average casemix cost was almost three times more (€13,832) per patient with dementia, compared to non-dementia patients (€5,404). The costs attributable to patients with dementia accounted for 5 % (almost €20,000,000) of the total hospital casemix budget for the period. From 2010 to 2012 there was a 21 % increase in the number of inpatient episodes coded with dementia.

Conclusions: This study demonstrates the significant share of overall hospital activity attributable to the care of patients with dementia, partly due to their longer LOS and the complexity of their care needs. We conclude that a strong case can be made for a dementia-specific service to cater solely for this vulnerable cohort.

O44 Dementia’s Influence on Hospital Length of Stay of Older People may be Overstated and Mainly Relates to Delays in Discharge to Long-Term Care

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Background: Dementia is a costly public health issue and research suggests that dementia increases length of stay (LOS) in acute hospitals. This study aimed to investigate the relationship between dementia and LOS in patients identified prospectively, rather than hospital-coded cases.

Methods: The Cork Dementia Study screened 606 older people (over 70 years of age) for dementia on admission to six Cork county hospitals, with longitudinal in-hospital follow-up. Key baseline parameters included age, sex, dementia status, delirium, medical comorbidities (CIRS-G), functional status, marital status, and place of abode prior to admission and at discharge.

Results: Of the 598 patients with dementia status established, 149 had dementia (56 % mild), as determined by an expert panel. People with dementia were rarely admitted to private beds (8 versus 30 % of controls). People with dementia had non-significantly longer LOS than controls (mean 9.83 ± 11.6 versus 7.70 ± 8.82 , $p < 0.1$; median LOS 5 days in both groups); but needed more 1:1 “special” care (6 vs. 2 %). A strong influence on LOS was being admitted from home and discharged to residential care (“change of abode”), occurring in 23 % of home-dwelling people with dementia and 3 % of controls (total $n = 21$; LOS = 29.7 days). At baseline, 27.5 % of people with dementia lived in residential care, compared to 5 % of controls. The LOS for those admitted from and returning to residential care was particularly short ($n = 29$; LOS = 4 days). Being admitted acutely, co-morbidity, and change of abode all independently predicted LOS. **Conclusions:** This prospective study included all severities of dementia and importantly, did not rely on hospital-coded data, which is biased towards advanced dementia. Contrary to previously published research, dementia did not significantly affect LOS. Rather, change of abode from a home setting to residential care influenced LOS, in people with and without dementia.

O45 End of Life Dementia Care in Acute Hospitals

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Background: As the prevalence of dementia increases, more people will die with dementia in acute hospitals. Literature suggests that good quality dementia care is not always provided in acute hospitals, impeding effective palliative care. This study aimed to evaluate assessments relevant to end-of-life care for people with dementia during acute hospital admission.

Method: Medical case notes were retrospectively reviewed from 660 people with dementia admitted to 35 Irish hospitals. Inclusion criteria included a recorded Hospital In-Patient Enquiry (HIPE) diagnosis (primary or other) of dementia, and a length of stay greater than 5 days. Data was collected on care from admission through discharge. Within the overall group, 76 patients died, were documented to be receiving end-of-life care, and/or were referred for specialist palliative care during the hospital admission.

Results: In the selected 76 cases (median age 84 years), 51 people died during the admission, and a further 25 were receiving end-of-life care, referred to a specialist palliative care service, or both. Of note, 53 % ($n = 27$) of those who died were receiving end of life care or referred to SPC, indicating that the death was not unexpected. However, many multidisciplinary assessments essential to end-of-life care were not performed. Pain was not assessed in 25 % and delirium screening was not performed in 68 % of patients. 37 % had anti-psychotic drugs prescribed during admission, 71 % of which were new prescriptions. Almost half (45 %) were prescribed for ‘agitation’, yet mood was assessed in only 7 % of patients. A negligible percentage of case-notes contained information related to the person with dementia that would allow for person-centred care at end-of-life to be carried out.

Conclusion: The results of this study suggest a picture of poor symptom assessment at end-of-life for people with dementia in acute hospitals, precluding the planning and delivery of effective palliative care.

O46 Environmental Risk Factors for Cognitive Ageing: Geographical Location, Social Engagement and Lifestyle

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Background: Global ageing, coupled with increasing urbanisation, poses the challenge to provide supportive environments where to grow old (World Health Organisation, 2007). While there is evidence of geographical variations of dementia (Cahill et al., 2012), a systematic investigation of key environmental factors for cognitive health in old age is lacking. The study explored the association between urbanisation and cognitive functioning in old age in Ireland, and its interaction with socioeconomic status and lifestyle.

Methods: Data were obtained from the First Wave of The Irish Longitudinal Study on Ageing (TILDA), a large cohort study on healthy Irish residents aged 50 and older ($N = 8,000$), conducted in 2009. Hierarchical regression models were used to examine the association between the geographical residence of participants—larger urban areas (Dublin), cities/towns, or rural areas—and cognitive measures of verbal fluency, immediate and delayed recall, global cognition (Montreal Cognitive Assessment, MOCA; Mini Mental State Examination, MMSE), while controlling for confounding factors.

Results: Rural residents presented a poorer verbal fluency than people living in larger urban areas ($b = -2.24$, $p < .001$), as well as poorer global functioning (MOCA: $b = -1.07$, $p < 0.001$; MMSE: $b = -0.54$, $p < 0.001$), immediate recall ($b = -0.22$, $p < 0.001$) and delayed recall ($b = -0.42$, $p < 0.001$), after controlling for demographic and socioeconomic status, health, social participation, and lifestyle.

Conclusions: The study suggests an association between urbanisation and cognitive ageing in Ireland. Further research is needed to better address the factors influencing this association, as for example the availability of services. These findings have policy implications supporting the identification of environmental resources that can be modified or optimised to promote cognitive health in old age.

References:

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O47 Negative Perceptions of Ageing Predict Longitudinal Decline in Executive Function

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Background: Increasing prevalence of cognitive impairment is one of the greatest challenges facing global healthcare. Medications have had limited success and the heterogeneity of cognitive impairment is

such that research is looking towards behavioural and psychological factors as targetable risk factors. Experimental work has revealed that older adults primed with negative ageing perceptions show immediate declines on cognitive measures. What remains unclear is whether these effects are short-term or whether negative ageing perceptions have long-term detrimental effects. We investigated the association between negative ageing perceptions and cognition longitudinally.

Methods: 5,896 participants completed two assessment waves from The Irish Longitudinal Study of Ageing (TILDA), a population representative sample, aged 50+ (mean age 63.2, 54.7 % female). Negative ageing perceptions were assessed using the Ageing Perceptions Questionnaire at wave 1. Cognitive measures taken at wave 1 and 2 years later included immediate and delayed recall (word list learning), executive function (animal naming), prospective memory (2 tasks) and self-rated memory decline. Demographic, social and health variables were included as covariates in multivariate regression analyses.

Results: All cognitive domains were associated cross-sectionally with negative ageing perceptions. After adjustment for baseline cognition, measurement error, demographic and health variables participants with negative perceptions of ageing at wave 1 showed a decrease on executive function scores (B: -0.47 , 95 % CI -0.70 , -0.25 , $p < 0.001$) 2 years later. This was not statistically significant for the other cognitive domains.

Conclusions: Negative perceptions of ageing are associated with a decline in executive function independent of other psychological and objective health factors. Future work will determine mediating pathways which may be behavioural (e.g. reduced social engagement) or biological (e.g. increased reactivity of the hypothalamic–pituitary–adrenal axis). Currently, this research highlights the role of psychological state in cognitive function and may suggest that ageing perceptions could be a modifiable risk factor for some elements of cognitive decline.

O48 Cognitive Screening Tests Need to be adjusted for Age and Education in Patients Presenting with Symptomatic Memory Loss

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Background: While normative data is increasingly available for cognitive screening tests, cut-off scores for patients with cognitive impairment have not been established. We sought to define cut-off scores for two short cognitive screens in patients presenting with symptomatic memory loss, determining whether these require adjustment for age and education.

Methods: Pooled analysis of three memory clinic studies in Canada including patients with mild cognitive impairment (MCI) and Alzheimer’s, vascular or mixed dementia. Caregivers without cognitive symptoms were also included as normal controls. Patients were categorized by age (≤ 75 or > 75 years) and educational attainment (≤ 12 or > 12 years).

Results: 5,008 Standardised Mini-Mental State Examination (SMMSE) and 4,531 Quick Mild Cognitive Impairment screen (Qmci) assessments were available between 1999–2010. The optimal

SMMSE cut-off score for normal was $> 28/30$ (AUC 0.91), compared to $< 29/30$ for MCI (AUC 0.69), and $< 27/30$ for dementia (AUC 0.94). Optimal Qmci cut-offs were $> 60/100$ for normal (AUC 0.95), compared with $< 65/100$ for MCI (AUC 0.84), and < 50 for dementia (AUC 0.89). Correcting for age, differences in education (≤ 12 versus > 12) resulted in significant differences in median Qmci scores for normal (78 versus 70 points, $p < 0.001$) and MCI (63 versus 56 points, $p < 0.001$), but not dementia, (38 versus 38 points, $p = 0.884$). Although statistical differences were evident, median SMMSE scores were similar irrespective of age or education. The Qmci more accurately identified cognitive impairment in younger adults with more education, optimal cut-off of $< 67/100$ (AUC 0.95), than older adults with less education, optimal cut-off $< 54/100$, (AUC 0.89), $p < 0.001$. No significant differences were seen for the SMMSE.

Conclusions: In patients presenting with symptomatic memory loss, cut-off scores for cognitive impairment required adjustment for age and education. Age did not impact cut-off scores in patients with dementia and high educational attainment. Caution should be exercised when selecting cognitive screens and their cut-off scores as instruments may differ in their sensitivity to these adjustments.

O49 Delayed recovery of blood pressure after orthostasis in individuals with supine hypertension is associated with poorer global cognition at 2-year follow-up in a sample of community dwelling older adults

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Background: Orthostatic hypotension (OH) is relatively common among individuals with hypertension and previous research by our group has shown a cross-sectional association between OH and worse cognition among individuals with supine hypertension (SH). This study examines whether the combination of SH and delayed orthostatic blood pressure recovery at baseline predicts cognitive performance at 2-year follow up.

Methods: 3,694 older adults who participated in both the first and second waves of The Irish Longitudinal Study on Ageing were included in the analysis. Beat-to-beat orthostatic blood pressure (BP) measurements were carried out during a lying to standing orthostatic stress test at wave 1 and the percentage of baseline systolic and diastolic BP recovered by 20, 30, 40, 60 and 90 seconds post active stand was calculated. SH was defined as having ≥ 140 mmHg systolic or 90 mmHg diastolic BP immediately before standing. Cognition was assessed at both waves using the Mini-Mental State Exam (MMSE). Multivariable models were adjusted for demographics, depression, health behaviours, BMI, cholesterol, cardiovascular conditions, medications, and baseline MMSE.

Results: There was no main effect of the percentage BP recovered post stand. There was evidence of a main effect of SH on cognitive performance at wave 2 but the interaction between SH and systolic BP recovery was also significant at 20, 30, 40 and 60 seconds post stand, such that individuals with SH and slow recovery of BP after orthostatic stress had lower MMSE scores at wave 2 (p values $< .05$).

Conclusions: Poor recovery of BP after orthostasis was associated with worse cognition at 2-year follow up in individuals with SH. This suggests that individuals with more pronounced autonomic dysregulation are at greater risk of cognitive decline. Longitudinal study is required to determine whether this group are more likely to develop mild cognitive impairment/dementia.

O50 B-Vitamin Status in Relation to Cognitive Decline Over 4 Years in Healthy Older Adults

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Background: Advancing age is associated with a decline in cognitive function which can range from mild cognitive impairment to dementia. Epidemiological evidence suggests that sub-optimal B-vitamin status may be associated with greater cognitive impairment. The aim was to investigate whether low B-vitamin status at baseline was associated with accelerated cognitive decline over a 4 year follow-up period.

Methods: In a retrospective study, healthy older adults (n = 154; aged 60–88 years) who had been previously screened for cognitive function were reassessed 4 years after initial assessment. Cognitive function was assessed at both timepoints by the Mini-Mental State Examination (MMSE), the most widely used cognitive screening tool in clinical settings. Participants were initially recruited as being cognitively healthy at baseline, i.e. having an MMSE score between 25–30. Dietary intakes and B-vitamin biomarkers and other health and lifestyle factors were also measured.

Results: At the 4 year follow-up assessment, when participants were aged 73.4 ± 7.1 years, mean cognitive MMSE scores had declined from 29.1 ± 1.3 to 27.5 ± 2.3 (P < 0.001). Although most participants showed a typical rate of cognitive decline expected for healthy older adults (i.e. a decrease of 0.2–0.6 MMSE points per year), cognitive decline occurred at an accelerated rate in a sub-set of participants (i.e. greater than 1 MMSE point per year; n = 38). After adjustment for age, a low baseline concentration of vitamin B6, as measured using pyridoxal-5-phosphate (PLP; <43.3 nmol/l) was associated with a 4-fold higher risk of having accelerated cognitive decline. No significant relationships between cognitive decline and the other B-vitamins were observed.

Conclusions: In conclusion, lower vitamin B6 status at baseline was strongly associated with an accelerated rate of cognitive decline over the 4 year period. Vitamin B6 may be an important (often overlooked) protective factor in maintaining cognitive function in ageing.

O51 Is There a Cognitive Prodrome to Delirium?

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Background: Delirium is ubiquitous in hospitals, and independently leads to adverse outcomes. Prevention and early intervention can attenuate these outcomes; however, detection rates are low, particularly early in delirium course. Identification of a delirium prodrome would facilitate prompt detection and intervention. A prospective study of incident delirium was performed aiming to identify prodromal features.

Methods: Medical inpatients of ≥70 years were assessed for delirium within 36 hours of admission using the Delirium Rating Scale-Revised'98 (DRS-R98). Consenting subjects with no evidence of delirium on admission were then assessed daily for delirium development. Patients also underwent daily cognitive testing including 6-Item Cognitive Impairment Test (6CIT) (scores ≥8 indicate cognitive impairment), spatial span forwards (SSF), days of the week backwards (DOTWB) and a score of visuospatial function. Controls remained non-delirious over at least 4 consecutive assessments.

Results: In total, 191 patients were included in the prospective study, median age 80 years, 52.9 % male. Incident delirium was diagnosed in 61 patients, 30 of whom developed delirium on the second day of admission. Taking a subgroup of all patients who developed delirium on day 2 and control patients (total n = 160), logistic regression analysis examined if cognitive tests on first assessment predicted delirium diagnosis the following day. On univariate analysis, 6CIT, SSF, DOTWB and visuospatial score were all significant predictors of impending delirium. Controlling for sex, age, dementia, Barthel Index, Cumulative Illness Rating Scale and hearing impairment, a 6CIT score of ≥8 still predicted delirium on the day before diagnosis (OR 6.94, 95 % CI 1.22–39.45, p = 0.03).

Conclusions: The 6CIT is a simple and quick test which incorporates tests of orientation, attention and logical memory. The preliminary findings of this study show that impairment on the 6CIT within 36 hours of admission indicates impending delirium and hence may be a cognitive marker of the delirium prodrome.

O52 Baseline Predictors of Delirium in Medical Inpatients

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Background: Delirium is highly prevalent, occurring in 20 % of hospital inpatients, however, detection rates are poor. Identifying simple clinical predictors of delirium on admission may facilitate earlier detection.

Methods: Medical inpatients of ≥70 years were assessed within 36 hours of admission for delirium in a prospective study investigating delirium prodrome. A Delirium Rating Scale-Revised'98 (DRS-R98) severity score of ≥15 and/or total score of ≥18 was used to diagnose delirium. Patients with prevalent delirium (i.e. delirium at admission) were excluded. Consenting non-delirious patients were assessed daily for delirium using the DRS-R98. Data pertaining to delirium risk factors were also collected. Multivariate logistic regression was used to ascertain predictors of incident (i.e. occurring after admission) delirium. Controls remained non-delirious in hospital for at least 4 days and 4 consecutive assessments.

Results: In total, 555 patients were approached, and 184 (33.1 %) diagnosed with prevalent delirium on admission. Others were excluded from longitudinal assessments due to refusal (n = 19), dying (n = 7), communication/coma (n = 23), early discharge (n = 88), withdrawal (n = 36) and clinical reasons (n = 7), leaving 191 patients included in the study. Incident delirium was diagnosed in 61 patients (10.9 % of 555 approached; 31.9 % of those studied). Independent predictors of incident delirium on multivariate analysis were dementia (OR 2.54, 95 % CI 1.01–6.43, p = 0.048); Barthel Index (BI) score (OR 1.15 for each unit decrease in score, 95 % CI

1.06–1.25, $p = 0.001$), and Cumulative Illness Rating Scale (CIRS-G) score (OR 1.13 for each unit increase in score, 95 % CI 1.05–1.22, $p = 0.001$).

Conclusions: Dementia is a well-known risk factor for delirium, however, it too is under-recognised and diagnosis can be difficult to ascertain at point of admission. Conversely, BI is a very simple and widely used measure of functional ability which may prove useful in stratifying those at risk of in-hospital delirium on admission.

O53 The Impact of the National Clinical Programme for Older People on Older Re-Attendees to the Emergency Department

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Background: Older adults who attend the Emergency Department (ED) are at risk of re-attending and readmission. Our aim was to study the re-attendance of older persons to the ED over a 3-month period in a Dublin Hospital and their exposure to Medicine for the Older Persons (MFTOP) services after the implementation of the National Clinical Programme for Older People (NCPOP).

Methods: A retrospective review of the electronic patient records of community-dwelling older persons over 70 years old who attended the ED two or more times between 1/1/2014 and 31/3/2014 was performed. Their age, gender, frequency of ED attendance and admissions and MFTOP service use were collected. Chi Square or Kruskal–Wallis testing was performed as appropriate to compare between the age groups 70–79, 80–89 and 90 and over.

Results: Two-hundred and sixty-four older persons, 142 (53.8 %) women, had multiple attendances with 622 attendances and 292 admissions. Most attended twice (72.3 %). Of the 187 (70.8 %) patients who were admitted, 25 % were under MFTOP (c.f. 18 % in 2013). A further 40 (28.4 %) received MFTOP consultations as inpatients. Patients in the older age groups were more likely to be known to MFTOP (age groups 70–79, 80–89, 90 and over: 18.0, 43.9, 45.5 %, $\chi^2 = 21.1$, $p < 0.001$) and receive MFTOP consultations as in-patients (14.5, 44.1, 50.0 %, $\chi^2 = 15.6$, $p < 0.001$). There was no significant difference in mean ED attendance rate or admission rate across the age groups.

Conclusions: Our study showed that 70 % of the older ED attendees were admitted. There has been a 1.4-fold increase in admission under MFTOP. Those age 80 and over were more likely to be known to MFTOP services or receive consultations. The implementation of the NCPOP may have streamlined the frail and at-risk older patients who are frequent users of ED to specialist geriatric care but this will require further evaluation.

O54 Characteristics and Outcomes of Older Patients Attending an Acute Medical Assessment Unit

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Background: The care of older persons accounts for an increasing proportion of the unscheduled care workload for acute hospitals. The

recent development of acute medical assessment units (AMAU) has provided an alternative model for acute unscheduled care other than the traditional emergency department (ED) route. Several screening instruments such as the triage risk screening tool (TRST) have been developed to capture the higher levels of clinical complexity and medical comorbidities that older patients present with. The aim of this study was to report on the characteristics and outcomes for older patients reviewed in the AMAU of a tertiary referral university teaching hospital.

Methods: Data on all patients attending the AMAU during 2013 was prospectively collected using symphony[®] electronic data systems. Information on demographics, patient experience times, and details of the presentation and discharge outcomes were retrieved.

Results: A third (1066/3071, 34.7 %) of all patients assessed in the AMAU were aged ≥ 65 . The majority were referred directly from ED triage (2086/3071, 67.9 %). Relative to their younger counterparts older patients presented more acutely unwell with (404/1067, 37.9 % vs 497/2005, 24.7 %) categorized as triage category 1/2 on presentation. Despite being recommended in all older patients, only 314/1067 (29.4 %) of older AMAU patients had a TRST assessment completed in ED triage, with 196/314, 62.4 % identified as “at-risk”. Almost two-thirds of older patients (60.5 %) were discharged from the AMAU within the 6-hours target time, the mean time being 6.4 hours. Their admission rate (644/1067, 60 %) was double that of younger patients. Many older patients discharged home had follow up arranged in the AMAU review clinic AMAU review clinic in 174/1067 (16.3 %), or the age-related day hospital in 87/1067 (8.1 %).

Conclusions: As AMAUs evolve they have enormous potential to provide enhanced gerontologically-attuned medical care to increasing proportions of frail older patients presenting to the acute setting.

O55 Symptom Presentation in Myocardial Infarction (MI) Patients: A Regression Model Exploring if it is Different in the Aged

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Background: Patients with MI need to present as soon as possible after symptom onset to optimise prognosis and reduce morbidity. Many factors have been shown to influence pre-hospital delay. Recent studies have shown that age is not as significant a factor as previously, however, observations indicate otherwise. The aim of this study is to explore the factors that may contribute to pre-hospital delay in MI aged patients.

Methods: This cross-sectional, multisite study recruited MI patients prior to discharge. Patients completed a detailed questionnaire, and clinical details were verified with patient's case notes. Data were analysed using logistic regression.

Results: A total of 824 MI patients were recruited, 56.6 % were < 65 , 78 % were male and 42.5 % had a STEMI. The median pre-hospital delay time for MI patients aged < 65 and > 65 was 2.57 and 3.74 hours, respectively, this was a significant difference ($p < 0.001$). A logistic regression model finally examining 15 typical and atypical symptoms and presentations features between the age groups was significant ($\chi^2 = 61.33$, $p < 0.001$). The presenting features that were singularly significantly associated with the > 65 age group were: less sweating, less stomach symptoms, less chest pain, less chest pressure, less left arm pain, less severe symptoms. In addition more patients in the > 65 age group phoned their general practitioner. Phoning the general practitioner had the highest beta value (2.026).

Conclusions: Pre-hospital delay time was higher in MI patients >65. This study observed that this may be due to differences in symptoms and behaviours known to impact pre-hospital delay. Increased awareness that older patients may present with less severe, less typical symptoms and promoting patients to access the 999 services rather than their GP in the face of unresolved MI symptoms is essential to improve prognosis in this cohort.

O56 The Utility of FDG PET Brain in the Diagnosis of Neurodegenerative Conditions

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Background: FDG PET Brain has become increasingly utilized as a radiological biomarker in the evaluation of cognitive conditions where neurodegeneration is suspected. Specific areas and severity of hypometabolism have been found to be associated with certain neurodegenerative conditions. The corollary is that this test can be helpful in out ruling neurodegeneration in atypical or complex cases. The aim of this study was to evaluate the concordance rate between clinical diagnosis and PET diagnosis.

Method: All patients who underwent a PET Brain scan between October 2010 and February 2014 were included in this study. Patient charts were reviewed for initial clinical diagnosis. All PETs performed were reviewed and the PET diagnosis and areas of hypometabolism were also recorded and changes in clinical diagnosis were also reviewed.

Results: Over this 3 year period, 181 PET scans have been performed. Mean age of those scanned was 66 years (41–90), 96 (53 %) were male and 85 (47 %) female. The commonest PET diagnosis was AD/PPA secondary to AD, n = 83 (46 %). PET diagnosed FTD in 33 cases, was inconclusive in 9 (5 %) and 37 scans showed no definite neurodegenerative pattern. In those with AD, posterior cingulate cortex hypometabolism was the commonest abnormality found in 66 scans (79 %). The concordance rate between PET and initial clinical diagnosis was 70 % (126/181). There was a change in diagnosis based on PET result in 10 % of cases.

Conclusions: PET scans can be a helpful tool in evaluating cognitive disorders and can impact significantly on clinical diagnosis. However, the PET results must be considered in the context of all available clinical information as it is frequently not in concordance with clinical diagnosis and can be inconclusive in findings.

O57 An Audit of Elderly Hospitalised Patients' Attitudes and Understanding of Pain

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Background: Pain is a common symptom in elderly hospitalised patients. Despite this, its assessment and management remains variable with pain often under recognised and poorly documented in the medical notes. The aim of this study was to compare patients reported

symptoms of pain compared to its documentation in the notes. We also assessed patients understanding of their pain as well as their satisfaction with their pain management.

Methods: We interviewed 52 medical inpatients aged over 65 and included questions about the duration of their pain and its aetiology. We also recorded the reported impact of pain on their activities of daily living. Exclusion criteria included haematological/oncological inpatients, reduced consciousness, being critical unwell or being unable to answer the questionnaire. An Abbreviated mental test score was performed on 49/52 of the patients. Data was also obtained from the patients' medical charts.

Results: 39 (75 %) patients interviewed reported pain of whom 30 (76 %) reported chronic pain. Only 26 (67 %) of patients who suffered from pain understood the cause of their pain. Of those who could not identify a cause of their pain 11 had consented to an AMTS and 10 (91 %) scored 7 or more. 73 % of patients with chronic pain had presented to their GP with this within the previous 2 years. 23 (59 %) patients felt that their pain was controlled all or most of the time and 6 (15 %) felt it was rarely or never controlled.

Conclusion: this audit highlights the poor understanding of pain by elderly hospitalised patients even in those with normal cognition. Communication between healthcare providers and patients needs to clearly address pain as a common major symptom. A significant number of patients reported no symptom relief from their pain suggesting the need for more regular and appropriate review.

O58 Occult Complexities in Geriatric Inpatient Consultations

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Background: Frail older patients represent an increasing proportion of in-hospital caseloads. Data on life expectancy of elderly people undergoing appropriate inpatient assessments is limited and will be important for effective service planning and monitoring quality of health care. Previous studies have shown mortality for those awaiting long-term care ranging from 17 to 35 %.

Methods: 518 patients were referred to the geriatric consultation. Patients were divided into 3 categories of referral—(a) long term care assessment (LTC) (b) rehabilitation assessment (Rehab) and (c) medical assessment. Baseline demographics and outcomes were recorded. Logistic regression was used to identify any possible factors associated with discharge outcomes, including mortality and discharge home.

Results: LTC Group (n = 171) Mean age 84.0 (1.23) and mean length of stay (LOS) of 92.5 days. 35 (20.5 %) patients died while awaiting LTC, with 21 (60 %) dying in first 90 days after admission. 73 (42.9 %) patients returned home. Rehab Group (n = 108): Mean age was 83.1 with a mean length of stay 71.2 days. Mortality was 15.7 %. Medical Assessment Group (n = 239): Mean age was 82.3 years and LOS of 47.7 days. Mortality was 10.5 %. The most frequent reason for referral included cognitive impairment, falls, discharge planning and medication review.

Overall, the LTC group compared to the other groups had significantly higher mortality (p < 0.05) and had longer LOS (p < 0.05). Cognitive impairment, history of falls and higher dependency levels were associated with increased likelihood of LTC and mortality.

Conclusions: Patients referred for assessment for LTC have a high mortality rate, with one in five patients dying during admission and over 40 % being discharged home with appropriate care. Geriatric expertise and assessment is vital for this vulnerable group of patients,

targeted suitably, could improve the selection of patient for post-acute care with appropriate discharge planning.

O59 Smoking Prevalence in an Elderly Inpatient Population

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Background: Smoking-related illness accounts for the majority of acute hospital admissions. Morbidity and mortality associated with these conditions is much higher in the elderly population. Smoking cessation can improve life expectancy in all age groups. While smoking prevalence tends to fall in the elderly, an estimated 11.5 % of Europeans 65 years and older are still smoking. The aim of this audit was to study smoking prevalence in patients 65 years and older admitted to our institution.

Methods: Data on smoking status, known smoking-related co-morbidities (Ischaemic Heart Disease, Stroke, COPD) and inhaler use was collected from the medical notes of acute medical and surgical admissions.

Results: Complete data was available 194 patients of whom 98 had smoking status documented. The mean age was 81 ± 7.7 years. 60 % had a smoking history with 18.5 % continuing to smoke, 72 % male. Almost two-thirds of those with a previous smoking history had a documented history of IHD, Stroke, COPD and/or inhaler use compared with 40 % of never smokers. Only 3 of our 18 smokers were prescribed Nicotine Replacement Therapy.

Conclusion: Smoking prevalence is higher in our cohort than the European average, and is associated with significant co-morbidity. Greater efforts need to be made to encourage smoking cessation in the elderly population in Ireland.

O60 The Experiences of Family Caregiving: Making Sense of Dementia from Both Cared For and Caregiver Perspectives

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Background: This paper explores the dementia patient and family caregiver relationship. There is much literature on care in the context of long term care and/or hospital settings. This research, however, explores care in the domestic setting, outlining the experiences of both caregiver and cared for when they find themselves living with dementia. The intention is to explore both perspectives on how they make sense their lives in the role of patient and caregiver while at the same time maintaining their existing relationships such as, husband and wife, mother and daughter.

Methods: A qualitative research design was used in the homes of four caregiver relationships. The experiences of these participants were captured using a variety of qualitative techniques including: action research, design probes, observation and semi structured interviews. These experiences were then analysed using narrative analysis.

Results: Four main themes were identified in relation to how caregiver and cared for make sense of their experience of dementia: living without privacy, balancing the old us and the new us, the expectation of adopting and the challenge of letting go the role of caregiver, and who cares for the caregiver?

Conclusions: Webster (2011) argued that no one experiences dementia in the same way. This paper highlights that equally, no one experiences

caregiving in the same way. By illustrating the above themes, this paper will give insight into the challenges of maintaining a relationship of care in the family home and offer suggestions on how we can in turn support it.

Reference:

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O61 The Impact of Caring for Spouses on Depression and Health Behaviours in Over 50s in Ireland, The Irish Longitudinal Study on Ageing

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Background: We aimed to determine if informal caring for a spouse was associated with depression or health behaviours in adults and whether these effects were influenced by the amount of formal care also received.

Methods: A total of 3,612 respondents, who were married/partnered in two waves (2009–2011 and 2012–2013) of The Irish Longitudinal Study of Ageing (TILDA) were analysed. We used multivariate logistic regression models to determine whether caring for a spouse was associated with depression or health-related behaviours, adjusting for socio-demographics and health and social and formal care support. Change scores in depression between waves in spousal carers were calculated with the 20-item Centre for Epidemiological Studies Depression (CES-D) scale. All analyses were conducted in STATA 12.

Results: Overall 3.5 % (125 of 3,612) of married individuals aged over 50 in Ireland began caring for their spouse since surveyed in 2009–2011; 54 % spent more than 56 hours per month giving care. Beginning to care for a spouse was associated with increased depression (OR 1.06, 95 % CI 1.02–1.11) for women, but not in men. Becoming a spousal carer was associated with negative health behaviours; carers were more likely to be current smoker (OR 1.92, 95 % CI 1.07–3.44) and men to have a problem with alcohol (OR 2.26, 95 % CI 1.03–4.95), compared to non-carers. The negative effect of caring on mental health was attenuated by social support and receiving respite care, home help and personal care attendants.

Conclusions: The impact of becoming a spousal carer on depression and behavioural health was differentially moderated by gender, with women having increased depression, and men more likely to have problematic drinking. This effect was reduced by access to formal care. Social inclusion of informal carers and enhanced formal home support is necessary to reduce the detrimental health-related risks of care-giving.

O62 Carer Burden and Potentially Harmful Behaviours Engaged in by Carers of Older People: Results of a National Survey

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Background: The reliance on families for care provision is likely to increase with the projected rise in the older population. While the

majority of older people cared for by family members receive good quality care, those who find themselves under increasing pressures may experience carer burden and conflicts as a result of caregiving responsibilities. This paper reports key findings from a national survey of family carers of older people that examined the impact of caregiving on the carer and the conflicts that may occur within the caregiving relationship.

Methods: Over 2,000 carers in receipt of a carer's allowance participated in an anonymous postal survey which collected information on carers' health and wellbeing, caregiving and carer behaviours which may be deemed potentially harmful to an older person. The self-completion questionnaire included the Zarit Burden Interview, the Centre for Epidemiological Studies Depression Scale and a validated modified version of the Conflict Tactics Scale measuring potentially harmful behaviours.

Results: Carer burden was found to be the main predictor of potentially harmful carer behaviour. Over a third of carers reported that they engaged in at least one potentially harmful psychological behaviour and 8 % indicated that they engaged in potentially harmful physical carer behaviour in the previous 3 months. Verbal abuse was the most commonly reported form of potentially harmful behaviour reported by carers.

Conclusions: This study is the first comprehensive national study to examine potentially harmful behaviours by family carers of older people. Preventive intervention efforts need to target carer burden, in an effort to alleviate the pressures experienced by many carers resulting from demanding care work. Consequently, cases of potentially harmful carer behaviour may be prevented from deteriorating into more serious cases of elder abuse, and both family carers and dependent older people can benefit from an improved quality of life.

O63 Survey of Healthcare Workers Suggests Unmet Palliative Care Needs in Parkinson's Disease

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Background: Increasing attention is being focused on the role of palliative care in non-cancer illnesses. Parkinson's disease (PD), a progressive, incurable, neurodegenerative illness with complex symptomatology, is ideally suited to a palliative care approach. However, unmet palliative needs have been widely reported in studies of patients and carers. Common themes include insufficient information, ad-hoc service delivery, and apparent uncertainty about the appropriateness of palliative care in PD among Health Care Workers (HCW). This study aimed to investigate the knowledge, attitudes and prior training of Irish HCWs in palliative care in advanced PD.

Methods: A 27-item survey was distributed to HCWs, including neurologists, geriatricians, general practitioners, nurses, and allied health professionals, in acute and community settings in the Republic of Ireland, using mixed electronic and postal distribution.

Results: Three-hundred and six surveys were returned. Most HCW (90 %) believed that people with PD have palliative care needs; however, 76 % said these needs are 'never' or only 'sometimes' met. When asked to define "palliative care", HCW often reduced it to end-

of-life care. Unmet needs were reflected in relatively few people with PD being referred to specialist palliative care; 48 % of consultants made no referrals in the previous 6 months. Just 8 % of HCW had training on palliative care aspects of PD; 97 % were interested in receiving further education. Respondents wanted all topics pertinent to palliative care in PD covered, and many felt they also needed further training in general PD management.

Conclusions: HCWs perceive people with PD to have unmet palliative care needs. There is a discrepancy between best practice recommendations for palliative care in PD and the stated beliefs of HCWs, and their actual practice. Further education in palliative care in PD is needed to ensure better quality of care for people with advanced PD.

O64 Factors Associated with Place of Death Among Older Irish Adults: Results from The Irish Longitudinal Study on Ageing

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Background: Place of death is associated with cause of death and demographic characteristics. Studies using death registries and insurance databases often lack contextual detail on the physical and psychosocial circumstances at the end of life. We examined the association between these factors and place of death using data from The Irish Longitudinal Study of Ageing (TILDA).

Methods: TILDA recruited a nationally representative random sample of 8,175 adults aged ≥50 years at wave 1 (2010). At wave 2 (2012), 205 individuals were deceased (2.5 %). An end-of-life interview (EOL) was completed with relatives, friends or carers. Responses were linked with data from wave 1. Place of death was categorised as at home, hospital, nursing home/residential setting or hospice. Chi square tests were used to examine associations between place of death and demographic, physical and psychosocial factors at wave 1.

Results: 155 EOL interviews were completed (76 % response rate). Of the 148 deaths analysed, 75 took place in hospital (50.7 %), 38 at home (25.7 %), 15 in a nursing home (10.1 %) and 20 in a hospice (13.5 %). 40 % of cancer deaths took place in hospital (n = 23) and 31.6 % took place in a hospice (n = 18), compared to 73.7 % of respiratory deaths taking place in hospital (n = 14) and 10.5 % in a hospice (n = 2). Disability in the last 3 months was significantly associated with place of death (p < 0.05). Education, health insurance and social support were not significantly associated with place of death.

Conclusions: Despite evidence suggesting a preference for dying at home in Ireland, most of the deaths took place in hospital, comparable to national data on place of death. Physical factors including cause of death were significantly associated with place of death however socio-demographic factors such as social support which have previously been shown to facilitate a home death were not borne out in the data.

O65 The Influence of Dementia on One-Year Mortality Following Hospital Admission, and Place and Cause of Death

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Background: Dementia is a progressive, incurable condition, with a predisposition to pneumonia, falls, pressure sores and malnutrition in advanced disease. We aimed to explore one-year mortality rates, and place and cause of death, for older people with dementia compared to controls, following admission to an acute hospital.

Methods: The Cork Dementia Study assessed dementia status across six Cork County hospitals in 2012. Patients were followed up at 1 year after admission to determine outcomes, including place and cause of death.

Results: In total, 606 patients were included across the 6 hospitals; (24.6 %) were controls. Of the 580 followed-up at 1 year, 105 (18 %) had died. People with dementia were more likely to die during the index admission, 8.7 versus 1.8 % ($p < 0.001$), and to have died at 1-year follow-up 28.8 % (42/146) versus 14.7 % (63/435, $p < 0.001$). People with dementia died predominantly of Respiratory Tract Infections (RTI; 21/42 50 %), compared to controls who died predominantly of cancer (25/63, 39.7 %), with RTI listed as a primary cause of death in only 11/63 (17.5 %) of controls ($p < 0.001$). Overall, people with dementia died more frequently in an acute setting (62 %) than controls (45 %, $p < 0.001$), including four people with dementia re-transferred from a Nursing Home to an acute hospital prior to death. The factors on admission to hospital that were associated with mortality at 1 year included dementia, functional status (Barthel index), nutritional status (Mini-Nutritional Assessment), co-morbidities (Cumulative Index Rating Scale), and place of abode.

Conclusion: This study highlights the effect of dementia on in-hospital mortality and mortality at 1 year after a hospital admission, and the strong link between dementia and terminal pneumonia. The high proportion of deaths of people with dementia in an acute setting reinforces the need for advance care planning

O66 Dying to Talk: Initiating End of Life Care Discussions with People Who Have Dementia

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Background: People dying with dementia are a very vulnerable group, who are at risk of never being formally diagnosed or being involved in end-of-life care (EOLC) discussions. Within the healthcare sector, many staff are reluctant to initiate EOLC discussions with people with dementia due to fears of causing distress, role uncertainty, appropriate time and lack of confidence in delivering bad news [1].

However, it is important that these challenges are overcome so people with dementia are given timely information so they can make informed decisions about their future care, have realistic expectations and avoid burdensome interventions at the end of life. To date, there has been a notable absence in the literature to support staff to initiate EOLC discussions [2].

Methods: An Expert Advisory Group was convened to provide clinical expertise in the developing of a guidance document. A

literature review was completed (using PubMed, CINAHL, Cochrane) and these findings directed the scope of the guidance document. The Expert Advisory Group collaborated over a 3 month period before the guidance document was circulated for consultation with advisory groups, specialists, frontline service providers and service users.

Results: The guidance document was developed to support staff from all care settings to initiate EOLC discussions with people who have dementia. The guidance document aims to highlight the specific communication needs of people with dementia and the importance of applying the palliative approach with this terminal condition. A framework was developed to optimise staff's capacity to positively engage and communicate with people.

Conclusion: Dementia does not equate to complete loss of the ability to communicate, but to a different system of communication. Research strongly suggests the need for health care staff to develop their skills in effectively communicating with people with dementia so meaning discussions on EOLC can become embedded into practice.

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POSTERS

BIOLOGY of AGEING

P1 A Prospective Study of Mortality in the Trinity University of Ulster and Department of Agriculture (TUDA) Cohort

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Background: TUDA is a large cohort of community dwelling older Irish adults aged 60 years and older. This dataset provides the opportunity to evaluate the associations between baseline characteristics and diseases with mortality in the older Irish adults

Method: Participants were recruited from 2008 and to mid-2012 into three cohorts: hypertensive, cognitive and bone. The cognitive and bone cohorts were recruited through outpatient clinics in St. James's Hospital and hypertensive cohort through General Practitioners in Northern Ireland. Mortality data was collected from date of recruitment until June 2013 and was collected for TUDA participants recruited through a Dublin hospital. Information relating to date of death, cause and place of death was obtained from deaths certificates through the Register of Deaths Births and Marriages.

Results: Of the 3,038 participants, 15 % died ($n = 463$) including 271 (58.5 %) females with a mean age of 79.8 years. Mean time to death was 1.3 years (0.03–4.2). Those who died were older at baseline: 78.3 vs. 69.7 years, and more cognitively impaired: mean Mini Mental State Examination 25.6 vs. 27.2 and more frail: mean timed up and go (TUG) of 15.6 vs. 23.2 seconds in those still alive. Mean Vitamin D levels in the alive group were 67.0 vs. 54.3 nmol/L in those who died. The most common causes of death were bronchopneumonia ($n + 146$, 31.5 %) and other cardiopulmonary disorders ($n = 158$, 34 %) and stroke in cited in 26 cases (5.6 %). Dementia was documented as causal in 7 cases and as a significant condition in $n = 75$ (16.2 %). Fractures were documented as causal in 9 deaths.

Conclusion: Those who died were older, more impaired cognitively and more frail at baseline. Further analysis is required to evaluate these associations. Despite participants being recruited with both cognitive and bone health issues, rarely were these documented as either cause of death or as significant conditions.

P2 Limb-Shaking Transient Ischaemic Attacks

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Background: In January 2014, a 72-year-old man presented to our AMU. He described 3 “funny turns”. These lasted <5 minutes. He described upper limb shaking with no altered consciousness or features of progression. They occurred both at rest and standing. In 2009, he had been investigated for recurrent “dizzy spells”. In 2010, he had a left temporo-parietal CVA. Carotid Doppler’s at the time showed a completely occluded LICA and a 50–60 % stenosis of RICA. In the interim, he regularly complained of upper limb shaking episodes. It was decided to proceed with right carotid endarterectomy in 2012.

Methods: Mr. M was admitted for investigation. Medications included 5 anti-hypertensives. Systolic BP was persistently <100. Anti-hypertensive medications were held but episodes of upper limb shaking persisted. Telemetry showed sinus rhythm throughout. MRI brain showed the old infarct but nil acute. EEG was normal. Dopplers showed occluded LICA and ? stenosis of RICA.

Results: It was decided to proceed with CT perfusion pre and post acetazolamide. Pre-acetazolamide CT showed reduced cerebral blood flow to left cerebral hemisphere and increased mean transit time. Post acetazolamide CT showed a significant increase in cerebral blood flow to right cerebral hemisphere with a paradoxical reduction in cerebral blood flow to the deep white matter of the left cerebral hemisphere. Four vessel cerebral angiogram showed no significant right carotid stenosis, the left internal carotid was completely occluded. The left cerebral hemisphere blood supply was mainly from the posterior communicating artery via the vertebro-basilar circulation.

Conclusions: The diagnosis in this case was hypoperfusion syndrome resulting in limb shaking TIAs. Miller Fisher first described this syndrome associated with carotid stenosis in 1962. Treatment options include stopping anti-hypertensives and reperfusion surgery such as EC/IC Bypass, CEA or extra/intracranial stenting.

P3 Combining the Active Stand Test and Pattern Recognition Enables Vasovagal Syncope Prediction

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Background: Vasovagal syncope (VVS) is the most common form of syncope, accounting for 50–60 % of unexplained syncope. The gold standard of diagnosis is the head-up tilt (HUT) test, a resource intensive procedure. This study aims to assess the accuracy of applying a pattern recognition methodology to predicting HUT outcome based on AS responses.

Methods: Continuous blood pressure records obtained during an AS were acquired from patients attending a falls and blackout unit. Patients were categorized into 3 groups based on their clinical history and HUT response: controls (CON), tilt-positive (HUT+) and tilt-negative (HUT–). Data from subjects diagnosed with VVS i.e. HUT+ and HUT– were combined to form a vasovagal positive (VVS+) group. Hemodynamic features ($n = 33$) were extracted from AS responses and entered into a linear discriminant classifier. Classifier training and accuracy was achieved using an N-fold cross validation procedure.

Results: $N = 101$ patients were recruited (25 ± 9 years; 66 % male) of whom 37 were CON, 30 were HUT– and 34 were HUT+. Maximum prediction accuracy of HUT response was 60.9 % (range 58.2–60.9 %), with a sensitivity of 58.8 % and specificity of 63.3 %. A multivariate classifier enabled us to distinguish between VVS+ and CON with a maximum accuracy of 80.2 % (range 76.4–80.2 %), sensitivity of 84.3 % and specificity of 72.9 %.

Conclusion: This study highlights the existence of an alternative hemodynamic response to an AS test exhibited by young patients prone to VVS. Based on these responses, it was possible to identify the presence of VVS, using multi-parameter classification approaches, with an accuracy of 80 %—a potential improvement on the HUT accuracy (26–87 %). With prospective verification, this approach may form the basis of a novel tool for syncope diagnosis, population studies and the tracking of treatment efficacy.

P4 A Cross-Sectional Assessment of Vascular Health and Orthostatic Blood Pressure Fluctuation in Older Adults without Vascular Comorbidity

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Background: There is some evidence in support of a link between orthostatic BP changes and vascular dysfunction. It is plausible that this may be either a consequence of or contribute to orthostatic BP fluctuation. The objectives of this research were to determine whether a cross-sectional link exists between vascular health and postural BP changes identified using a Finometer and to determine whether the pattern of orthostatic BP change could be used to predict vascular health.

Methods: Older adults without prior vascular disease were recruited from the community. Postural BP response to both active stand and head-up tilt (HUT) was recorded using a Finometer. Endothelial function was assessed using flow-mediated dilation (FMD) and ELISA assay of sICAM-1 and sE-selectin. Vascular Compliance was measured using augmentation index (AIx) and central systolic BP

(cSBP). Platelet reactivity was quantified using collagen closure time (CCT), mean platelet volume (MPV) and ELISA assay of sP-selectin. **Results:** 109 subjects completed the study protocol. They had a mean (\pm SD) age of 72.35 ± 4.43 years. 67 % were female. The prevalence of hypertension was higher in subjects with orthostatic hypotension (OH) and orthostatic hypertension (OHTN) when compared with controls. Individuals with OHTN ($n = 7$) (compared to all others) had reduced vascular compliance and significantly higher levels of sI-CAM-1. Initial OH ($n = 13$) was associated with healthier scores on FMD. Conventional OH ($n = 66$), regardless of pattern, was not associated with a different vascular health profile. The ability of postural BP responses to predict vascular ill-health was greater with active stand.

Conclusion: This small study has identified some significant cross-sectional links between orthostatic BP fluctuations and vascular health. The relationship was different for responses to active stand and HUT. A larger longitudinal study will be required to determine the ability of postural BP fluctuations to predict vascular outcomes in older adults.

P5 Is Short-Duration Orthostatic BP Decay in Asymptomatic Older Adults Associated with Cerebral Hypoperfusion?

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Background: Orthostatic hypotension (OH) is a common trigger for cerebral hypoperfusion. Cerebral hypoperfusion, often asymptomatic, is thought to accelerate the progression of white matter disease, cognitive impairment and mood disorders. If symptomatic, it causes dizziness and an increased risk of falls. The prevalence of OH in older adults is between 59 and 94 % when diagnosed using Finometer technology. It was our objective to determine what proportion of these is likely to experience asymptomatic cerebral hypoperfusion.

Methods: Healthy older adults without a history of symptomatic OH were recruited. Participants underwent both a head-up tilt (HUT) and active-stand (AS) with BP monitored by finometer technology. Middle cerebral artery (MCA) and anterior cerebral artery (ACA) velocities (cm/seconds) were monitored using a DWL Multi-Dop X4. Autoregulatory function was classified using the autoregulatory index (ARI); poor (<3), normal (4–6) and above average (7–9).

Results: 19 subjects completed the study protocol. They had a median (IQR) age of 72.5 (68.25–75.75) years. 12 subjects had OH on HUT. 17 subjects had OH on AS. All subjects were asymptomatic. Averaged mean flow-velocity (MFV) for the whole group demonstrated maintenance of adequate cerebral blood flow throughout 4 minutes of monitoring post-orthostasis. However, the subgroup ($n = 2$) with poor cerebral autoregulation (ARI <3) demonstrated a clear trend towards clinically significant lower MFV. This was most obvious on HUT with the differences in area under the curve demonstrating a U value of 0.07.

Conclusion: The majority of healthy older adults have asymptomatic OH when monitored using Finometer technology. This does not lead to significant cerebral hypoperfusion. There is a subgroup of older adults however with poor cerebral autoregulatory function. Our data

suggests that these individuals may suffer significant hypoperfusion due to asymptomatic orthostatic BP decay. A larger study would be required to confirm this. It would also be worth repeating this study in subjects with symptomatic OH.

P6 Ambulatory Blood Pressure Variables in the Older Irish Adult: APSI Study

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Background: Hypertension is a leading risk factor for cognitive impairment and stroke in older adults. Ambulatory blood pressure (ABP) is useful in its detection and management. Mean blood pressure values taken from ABP recordings provide greater risk stratification than those gained in the office setting. More recently measures of variability and arterial stiffness such as the ambulatory stiffness index (AASI) can be calculated from ABP and may be of importance. This study aimed to examine these variables in older Irish adults.

Methods: The study examined ambulatory blood pressure recordings performed in primary care clinics in adult patients between January 1999 and June 2012. All ABP recordings were performed because of a previously elevated clinic BP measurement (CBPM). The study population was then divided into subgroups aged under and over 65. Ethical approval was obtained from the local hospital ethics board.

Results: 77,260 patients were included in the study with a mean age of 58.8 ± 16.9 years. 28,486 patients in the group were aged over 65 (mean age 75.4 ± 9.8 years). This group showed greater 24 hours systolic BP variability compared to their younger counterparts (16.9 vs. 15.8 mmHg, $p < 0.0001$). The range of systolic BP was also greater (71.4 vs. 66.6 mmHg, $p < 0.001$). AASI was also greater in older adults (0.53 vs. 0.43, $p < 0.001$)

Conclusions: This study illustrates the additional prognostic information that can be gained from ABP in older adults. This confers a higher risk of cardiovascular events and may be of use in guiding therapy.

P7 Prospective Characterisation of Body Composition after a Short-Term Training Programme Using Dual-Energy X-Ray Absorptiometry in an Active Rehabilitation Unit

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Background: Our aim in the active rehabilitation unit (ARU) is to improve nutritional status, muscle mass and function. Dual-energy X-ray absorptiometry (DEXA) has been well validated over the last decade to accurately and precisely measure lean, fat, and mineral composition in various body compartments. Our objective was to grossly determine changes in these components using the above modality following a short training programme.

Methods: We prospectively collected whole body DEXA scans using a standardized protocol for a mixed gender cohort requiring

rehabilitation in the ARU. This cohort had a variety of diagnoses and co-morbidities. Whole body DEXA scans were performed on admission and then comparative scans were obtained following approximately 5–6 weeks rehabilitation. Ethical approval was obtained. Statistical analysis was performed using ANOVA and paired sample t tests with SPSS software.

Results: A total of 12 patients participated in this study to date, including nine females and three males. The mean age was 81.7 years. The mean percentage bone was 3.3 % for females and 3.7 % for males. The mean percentage lean muscle mass was 28.2 % for females and 38.3 % for males. The mean percentage body fat was 68.5 % for females and 58.0 % for males.

Conclusions: Although exercise tolerance improved in all patients following the short term intervention the increase in percentage body fat significantly exceeded the increase in percentage lean muscle mass ($p < 0.01$). This study has prompted the unit to assess if modification of the current diet in conjunction with the short term training program will affect the body composition of our patient population and yield gains in exercise tolerance, decrease duration of stay and increase patient satisfaction.

P8 Single Institution Functional Imaging in Aiding Diagnosis and Communication in People Presenting with Memory Problems

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Background: FDG-PET imaging is costly and will become increasingly available. It is now included in the new diagnostic criteria for dementia (McKhann et al. 2011). It is also useful in the differential diagnosis, and supports communication with the patient and their family

Methods: A retrospective evaluation of the first 14 patients to have FDG PET scans was conducted. We reviewed outpatient records, assessed whether cognitive assessment had been performed prior to FDG PET, and correlated clinical assessment with FDG PET findings. Cognitive assessment tools accepted included MMSE, MOCA, Adenbrooks or AMTS.

Results: Ten males, four females, aged 50–84 years with a mean age of 63.5 years, were reviewed. Three scans were normal. Of those three, two patients had clinical and objective evidence of cognitive impairment while one had normal cognition. Eleven scans were abnormal and confirmed the suspicion of dementia. Seven patients had Alzheimers type dementia, two had frontotemporal dementia and one lewy body type dementia. Of these eleven, seven had objective cognitive impairment, two were normal and one patient had no formal assessment of cognition.

Conclusion: Our experience to date has found this to be a useful adjunctive tool that aids diagnosis and clarity of communication with families. It cannot be used in isolation. FDG PET will be a useful adjunct to the diagnostic challenges posed by older people referred with cognitive problems. As it is a costly test, the scan should only be performed following appropriate clinical examination and formal cognitive assessment.

P9 Zoledronic Acid for Osteoporosis in an Ever-Ageing Population, Who Should We Be Treating?

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Background: The HORIZON trials proved annual intravenous (IV) Zoledronic acid to be efficacious and safe in the treatment of osteoporosis over a 3 years period. It is used for those who cannot tolerate or don't respond to oral therapy. To assess real-world outcomes with IV Zoledronate, an observational study was undertaken.

Methods: Chart review and database-analysis (SPSS v21) of all referrals to a bone health nurse specialist for osteoporosis treatment with Zoledronate from 2009 to 2014 was undertaken retrospectively. Primary outcome was number of treatments completed. Secondary outcomes were adverse reaction and bone mineral density (BMD) changes at 24 months.

Results: 50 patients were examined, 43 female. 31 had a documented fracture history. 23 completed one treatment, 14 completed two and 12 (24 %) completed three treatments. Mean (SD) age of those completing to three years was 79.6 (6.2), Charlson index was 4.7 (1.5) and average number of medications per patient was 7.3 (1.7), as compared with a mean age of 83.5 (11.2), $p = 0.2$, Charlson index of 5.5 (1.6), $p = 0.12$, and average number of medications 8.5 (1.1), $p < 0.05$, in those not completing 3 years. Of the remaining 38, 14 (28 %) died within 1 year of a treatment. A further 10 were dead on follow-up, median time to death 18 months (IQR 13–30). 14 failed to complete treatment for other reasons including adverse reaction ($n = 3$); increased frailty ($n = 4$). Follow up BMDs ($n = 11$) showed a 4.4 % absolute improvement in spine BMD but failed to show improvement in total hip.

Conclusion: 1 in 5 patients died before receiving a second dose of IV Zoledronate (as compared with 1 in 10 during the HORIZON-recurrent trial) with co-morbidity rather than age being more closely associated with failure to continue. Observational studies such as this call to question the reproducibility of clinical trial outcomes in older, potentially frail cohorts.

HEALTH and AGEING

P10 IntraVenous Stroke Thrombolysis and Antiplatelet Timing (IV STAT) Audit

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Background: The initial period following stroke thrombolysis is critical with patients at high risk of both haemorrhage and further ischaemic events. UK-RCP National Clinical Guideline for Stroke 2012 recommends every patient treated with thrombolysis should be started on an anti-platelet after 24 hours unless contraindicated. The aim of this review was to assess compliance with this recommendation.

Methods: Data was gathered retrospectively on all patients who received intravenous thrombolysis in a large tertiary referral stroke centre in Belfast, over a 3 month period. We assessed timing of thrombolysis, repeat imaging and administration of anti-platelet therapy.

Results: 20 patients received intravenous thrombolysis in this time period. 45 % of patients received thrombolysis between 9am and 5 pm and 55 % "out-of-hours". 95 % of patients had follow up imaging between 9am and 5 pm and 5 % in the "out-of-hours" period. 10 % had repeat imaging less than 12 hours following thrombolysis, 55 % 12–24 hours following thrombolysis and 40 % greater than 24 hours following thrombolysis. 30 % of patients had some form of haemorrhage on repeat imaging, however, only 10 % were precluded from receiving anti-platelet therapy during admission.

All patients for whom there was no contraindication received anti-platelet therapy during admission. 20 % of patients received anti-platelet medication 20–26 hours following thrombolysis, 25 % 26–30 hours, 5 % 30–35 hours, 30 % 40–50 hours following thrombolysis and anti-platelet therapy was contraindicated in 10 %.

Conclusions: All patients who did not have a contraindication received anti-platelet therapy following thrombolysis for acute stroke. A proportion of patients received the anti-platelet medication greater than the recommended time frame after thrombolysis. We would recommend education of the multi-disciplinary team with regards to the necessity and timing of anti-platelet therapy following thrombolysis. Another area which could be reviewed is the provision of radiology services and timing of repeat imaging to further facilitate adherence to this guideline.

P11 Are Elderly Patients with Complex Needs Accessing Comprehensive Geriatric Assessment and MDT Input in Our Current AMU Admission Service?

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Background: The Silver Book recommends that every elderly patient presenting with complex needs should receive a complex geriatric assessment (CGA); leading to better outcomes for this population. Our AMU service does not have capacity for a Geriatrician to look after all those admitted who meet this criteria—many are triaged to the acute medical team. We audited whether those who met criteria for CGA assessment accessed it. We considered whether documenting ‘Frailty Syndromes’ on admission, as defined by the Silver book, could help select the most appropriate patients for Geriatric care.

Methods: Data was collected on 50 patients aged over 65 on the acute medical take during January 2014. We designed a proforma distinguishing patients by age and a patient identifier. It recorded time of admission, location from which admitted, presenting complaint, working diagnosis, number of frailty syndromes, and team to which triaged. Whether there was MDT input within the first 24 hours was documented.

Results: Patients audited were aged between 65 and 97 years, 46 out of 50 had one or more frailty syndrome. 17 patients were admitted under the Care of the Elderly team. 58 % of patients who ‘qualified’ for CGA did not receive access to this service. The number of frailty syndromes did not correlate with triage choices. 88 % of those triaged to Geriatrics received MDT input within 24 hours, in contrast to 33 % in other teams.

Conclusion: Ideally we would have a separate AMU area dedicated to caring for the elderly, with Geriatricians taking the lead. Accepting the limitations to our service currently, documenting frailty syndromes on admission as a marker of complexity may help choose those who would most benefit from CGA. Teaching for trainees rotating through AMU on issues relating to caring for elderly patients should help other teams to consider MDT input earlier.

P12 Assessment of Falls Risk within the Medical Admission Unit

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Background: Falls are an important member of the frailty syndromes, and carry a significant burden on the Health Service in terms of morbidity and mortality, as well as financial cost. Recent adverse incidents had identified poor levels of documentation around fall risk assessment in our hospital, so we audited the current practice within our medical admission unit (MAU), aiming to identify to our current practice versus the current NICE guidelines.

Methods: We used the NICE Guideline CG161 to identify Standards, and collected data on patients aged over 65 years admitted to MAU during the month of January 2014 using a proforma sheet. We also included measures recommended by the Fallsafe Program.

Results: 48 patients were audited with an age range of 65–97 years. Of these patients 98 % were asked about falls on admission and 92 % of these went on to have basic screening questions asked. Between 86 and 90 % of patients had an ECG, were asked about incontinence, fear of falling, and had night sedation reviewed. However, only 24–68 % of patients had a call bell within reach, cognitive assessment, assessment of gait and balance, urinalysis, or osteoporosis assessment.

Conclusions: This audit highlighted that although the initial screening questions are being carried out on admission to our MAU, those identified as being at higher risk of falls did not go on to have a complete investigatory workup. The audit recommends that the unit embraces the evidenced based Fallsafe Program; a falls prevention program with both risk assessment and interventions to reduce the incidence of falls within the department.

P13 The Role of CRP in Acute Hip Fracture Surgery

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Background: C-reactive protein (CRP) is a non-specific acute phase reactant commonly used to diagnose infection and inflammatory disease, and to monitor response to treatment. It is also thought to quantify the degree of tissue damage and invasiveness of a procedure, and reflect peri-operative stress. The literature suggests that a rise in CRP peaks at 48 hours post-surgical trauma. Data on the extent of the CRP rise remains limited. The aim of this study was to document pre- and post-operative CRP levels in acute hip fracture surgery to see if they can be reliably used to track post-operative inflammation versus infection.

Method: We undertook a retrospective analysis of CRP levels pre and post-acute hip fracture repair in a random sample of patients from July 2013 to March 2014. This involved retrieval of CRP levels from our laboratory computer system and analysis of clinical notes including details of type of surgery, peri-operative infection and existing co-morbidities.

Results: Within our patient group, the mean pre-operative CRP was 65.6 (range 0.9–268). There was a mean increase of 129 in CRP levels on day 1 (compared to pre-op CRP). This did not change significantly by day 2. On day 5 the CRP had dropped to below baseline pre-op levels. Patients with post-operative infection showed a mean CRP rise of 171.1, compared to 65.2 in those without infection. Patients with a delay to surgery also had a large increase in their CRP pre-operatively.

Conclusions: The role of CRP in acute orthopaedic trauma needs to be further clarified. A significant increase is noted post operatively

even in patients with a high pre-operative CRP. The CRP appears to rise as a result of the fracture pre-operatively, and increases further following surgery. CRP returns to baseline by day 5 in uncomplicated surgery. We would like to prospectively investigate this further.

P14 Think Delirium, Write Delirium, Treat Delirium! An E-Learning Collaboration to Improve Detection, Diagnosis and Management of Delirium

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Background: Educational interventions may have a positive effect on delirium detection, prevention and patient outcomes. The aim of this project was to devise a novel e-learning module to improve detection, diagnosis and delirium management among all doctors training in Irish healthcare settings.

Methods: This delirium e-learning module was developed by four specialist clinicians as part of a collaboration between the Royal College of Physicians of Ireland and the College of Psychiatrists of Ireland. Best-practice principles in online education were used to develop a set of learning outcomes and to agree the key messages of the module. The content was developed using internationally accepted guidelines, up-to-date evidence and care principles as a reference.

Results: The project resulted in a 70-minutes e-learning programme, presented in four sections with stop/start functionality to maximise 'user-friendliness'. Memory aids were developed to facilitate learning, including 'FIAT' (standing for the cardinal signs of delirium: fluctuating course, inattention, acute onset and temporal relationship to illness) and the phrase 'Think Delirium, Write Delirium, Treat Delirium'. An algorithm for initial management was also devised. Video clips and interactive quizzes were designed to illustrate the fluctuating pattern of delirium and to prevent misdiagnosis, particularly focusing on the most common but often subtle hypoactive presentation. The module content was peer-reviewed by an independent panel of five academic clinicians.

Conclusion: The aim of this project was to provide trainees and all doctors with a cohesive and streamlined approach to delirium detection and diagnosis. Prevention and management of this significant health problem is dependent on effective multi-disciplinary care, mirroring the inter-professional nature of this e-learning collaboration. Follow-up workshops for trainees in medicine and psychiatry will take place in autumn 2014, and will focus on the practical aspects of cognitive screening and problem-based discussions on complex clinical scenarios and issues such as capacity.

P15 A Consecutive Cohort Study of Short Cognitive Tests to Screen for Dementia in older People on Admission to Hospital: The Temporal Orientation Score and the 6-item Cognitive Impairment Test

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Background: Cognitive impairment, including dementia, is common among older patients in acute hospitals. The Mini Mental State Examination (MMSE) is limited by its duration and poor utility in detecting mild cognitive impairment. The six-item Cognitive Impairment test (6CIT) and Temporal Orientation Score (TOS) are quick and simple screening tests for cognitive impairment. We aimed to assess the diagnostic accuracy of these shorter screening tools, in detecting dementia in older hospitalised patients.

Methods: As part of a prospective cohort study of dementia prevalence (Cork Dementia Study), hospital inpatients of >70 years were assessed using the standardised MMSE (sMMSE), 6CIT and TOS on admission. Patients with admission sMMSE scores of $\geq 27/30$ were considered controls (estimated 1 % missed dementia diagnosis rate, Travers et al. 2013). Lower-scoring patients had detailed delirium, depression and dementia (clinical dementia rating, CDR) assessments, with ultimate expert panel consensus diagnosis of dementia; or non-dementia, which included "cognitive impairment" (classical mild cognitive impairment, learning impairment, delirium, etc.) and controls. Experts were blinded to 6CIT and TOS scores.

Results: Of 437 patients completing all three tests, 73 (16.7 %) had dementia. Given its use in defining controls, unsurprisingly the sMMSE had a diagnostic accuracy of 90.8 % to detect dementia versus non-dementia. However, the 6CIT and TOS performed similarly well (90.4 and 89.9 %, respectively). Interestingly, the 6CIT surpassed the TOS and sMMSE in differentiating "cognitive impairment" from dementia, with a diagnostic accuracy of 80.5 % and AUC of 0.876, compared to 77.4 % and 0.85 for sMMSE, and 76.7 % and 0.841 for TOS. Both independent tests showed strong associations with dementia severity (i.e. CDR, $r = 0.60$, $p < 0.01$ (TOS), and $r = 0.64$, $p < 0.01$ (6CIT)).

Conclusions: The 6CIT marginally outperformed the TOS for dementia screening. Both tests perform very well in older hospitalised patients and, given their brevity, should be considered for routine inpatient cognitive screening.

Reference:

- Travers C, Byrne G, Pachana N, Klein K, Gray L (2013) Prospective observational study of dementia and delirium in the acute hospital setting. *Int Med J* 42(3):262–269

P16 Bisphosphonate Related Osteonecrosis of the Jaws in the Osteoporotic Patient

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Background: Bisphosphonate related osteonecrosis of the jaws (BRONJ) was first described in 2003 and is a recognised complication

of treatment with intravenous bisphosphonates. BRONJ in relation to oral bisphosphonates is a rarer event. Reported incidences vary but are estimated to be 0.001–0.004 % [1]. Recent case reports have described the resolution of areas of BRONJ in patients treated with recombinant parathyroid hormone. It has been suggested that the anabolic effects of PTH may have a role to play in managing BRONJ. This series describes five cases of osteonecrosis of the jaws, in Irish patients, who have taken oral bisphosphonates for osteoporosis.

Methods: Patients with BRONJ, who presented to the Dublin Dental University Hospital, were referred to the osteoporosis clinic in SJH, for a work-up, including DXA scan and bone markers. If it was clinically appropriate, the patients were started on PTH (Forsteo).

Results: Five patients were identified, who had developed areas of osteonecrosis in the jaws following dental extractions. Four of the patients had been taking an oral bisphosphonate, which was subsequently stopped, at the time of the extraction. The fifth patient was on denosumab. DXA scans showed all five patients to be osteoporotic. Bone markers, including CTX, osteocalcin and PINP, were not suppressed in the patients who had taken bisphosphonates. Bone markers were suppressed in the patient currently on denosumab. Three of the patients were noted to have co-morbidities, including systemic lupus, scleroderma and temporal arteritis. Two of the patients were on long term steroids.

Conclusions: BRONJ is rare but significant condition. This case series indicates that there is an increased risk of BRONJ in patients with complex medical histories. The patients on PTH will be monitored with regard to their oral lesions.

Reference:

1. Yamashita J, McCauley LK (2012) Antiresorptives and osteonecrosis of the jaw. *J Evid Based Dent Pract* 12:233–247

P17 The Effect of a Balance Exercise Class on Activity Limitations in People with Parkinson's Disease

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Background: Postural instability is one of the four cardinal signs of Parkinson's disease (PD) and impacts on balance and can lead to falls. People with PD (PwPD) experience increasing disability, reduced mobility, fear of falling which leads to reduced quality of life (1). Pharmacology has been the cornerstone of treatment thus far, but maybe limited in treating postural instability. Increasing research suggests that physiotherapy and exercise improves balance and may reduce falls (2). Some evidence points to the usefulness of dual task training for balance and gait deficits in PwPD. The aim of this study was to assess the impact of a 6 week balance exercise class on activity limitations in PwPD.

Method: Twenty-four community dwelling PwPD were recruited from the physiotherapy waiting list of an acute hospital. A single blind randomised controlled trial was conducted comparing balance exercise class versus control. Balance was measured using the Brief BESTtest. Secondary measures included activities of daily living (ADL) and Motor section of the Movement Disorder Society-Unified Parkinson Disease Rating Scale (MDS-UPDRS), Timed Up and Go test (TUG), TUG-C and TUG-M, Falls Efficacy Scale (FES), Parkinson's disease Questionnaire (PDQ-39) and a falls calendar. Paired T test and independent T tests were utilised to determine if the change in scores was significant.

Results: There was a significant improvement in the ADL section of MDS-UPDRS between groups ($p = 0.03$) and within groups for the intervention ($p = 0.007$). There was a significant improvement in balance in the intervention group before and after the study ($p = 0.04$). There was a trend towards improvement in the TUG and TUG-M for the intervention group.

Conclusion: This intervention demonstrated significant improvement in the ADL section of MDS-UPDRS between groups and non-significant improvements in balance and functional mobility for the intervention group.

References:

1. Allen NE, Sherrington C, Paul SS, Canning CG (2011) Balance and falls in Parkinson's disease: a meta-analysis of the effect of exercise and motor training. *Movement Disorders* 26(9):1605–1615.
2. Tomlinson CL, Patel S, Meeck C, Clarke CE, Stowe R, Shah L, Sackley CM, Deane KHO, Herd CP, Wheatley K, Ives N (2012) Physiotherapy versus placebo or no intervention in Parkinson's disease (review) *Cochrane Database Systematic reviews* CD002817. doi: [10.1002/14651858.CD002817.pub3](https://doi.org/10.1002/14651858.CD002817.pub3).

P18 FUSE: Falls and Unexplained Syncope in the Elderly, The Utility of Implantable Loop Recorders

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Background: Falls are the most common cause of injury and hospitalisation in older adults. The evidence for extended cardiac monitoring in falls risk assessment is not yet established, despite emerging evidence that cardiac arrhythmias may cause falls. There is strong evidence for an overlap for symptoms of syncope and falls. The implantable loop recorder (ILR) is an effective tool for the diagnosis of cardiogenic causes of unexplained syncope. The objective of the study is to verify the utility of cardiac loop recorders to detect cardiac causes for unexplained falls in patients over the age of 50 years.

Methods: A prospective, observational study was carried out in an urban university teaching hospital. Patients were recruited from the emergency department and outpatient clinics. Cognitively intact (MMSE >24) patients with two or more unexplained falls in the preceding year underwent a comprehensive falls assessment. This included a gait, vision and balance assessment, active stand, tilt table test and carotid sinus massage. An ILR was then implanted in patients with no clear attributable cause. ILR data was remotely transmitted and monitored on a daily basis. Institutional ethics committee approval was granted.

Results: Seventy patients, mean age of 70 years (range 51–85 years) had ILR implants. Twenty-three (33 %) patients demonstrated cardiac rhythm abnormalities including two with new atrial fibrillation. In 11 (16 %) patients falls were attributed to cardiac disorder; 9 (13 %) required a pacemaker and 2 electrophysiology and ablation.

Conclusions: ILRs represent effective diagnostic tools for the detection of cardiac causes of unexplained falls in elderly patients. Further randomized control trials are now needed to confirm if early detection of cardiac causes using ILR prevents future falls in elderly patients.

P19 The Prevalence of Gait Disorders and Stravinsky Syndrome in An Age-Related Day Hospital

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Background: Chronic stroke disease is common among older people but is infrequently recognized or defined. A new syndrome, Stravinsky Syndrome, has been described for combined gait, cognitive and swallow disorders of presumed vascular origin. We aimed to profile a consecutive cohort of patients referred to the age-related day hospital (ARDH) to find the prevalence and aetiology of gait disorders there, as well as the number likely to have Stravinsky Syndrome.

Methods: We collected data from 67 consecutive patients referred to the ARDH. Gait was assessed both by a physiotherapist and physician and gait abnormalities were subdivided based on the level of sensorimotor involvement. Patients were also assessed for the presence of cognitive impairment and swallow disorders as per standard practice.

Results: 54 % (36/67) of the patients were female. The mean age was 80.72 ± 5.6 years. 91 % (61/67) of the patients had an abnormal gait. The prevalence of swallow disorders was 13 % (9/67) while 40 % (27/67) had dementia. 6 % (4/67) had the Stravinsky Syndrome of chronic stroke disease, with a triad of swallow impairment, cognitive impairment and gait disorder; while an additional 13/67 (19 %) had a combined gait disorder and cognitive impairment of presumed vascular origin. 23 % (14/61) of the gait disorders were lower level, predominantly osteoarthritis; 21 % (13/61) were middle level; 30 % (18/61) were higher level gait disorders or vascular gait dyspraxia (VGD). 26 % (16/61) had mixed level gait disorders.

Conclusion: This study demonstrates a high prevalence of gait disorders, with associated cognitive and swallow deficits, with over one-fifth of the cohort having at least two of the features of Stravinsky Syndrome. The recognition of chronic stroke disease is important given the fact that minor improvements and relatively simple interventions can make a significant difference to quality of life in the older person.

P20 The Effect of a National Awareness Campaign on Knowledge of Atrial Fibrillation in the Irish Population

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Background: One-third of strokes in Ireland are due to atrial fibrillation (AF). AF is detectable and treatable and is a condition amenable to a screening programme. However, any national screening programme needs both public understanding and engagement. The Irish Heart Foundation launched a poster and radio AF awareness campaign in November 2013. We examined public knowledge of AF both before and after this campaign.

Methods: We completed a survey in a nationally representative population of 2,000 people before and 1,000 people after the awareness campaign and compared the results. The questions asked

included: Have you ever heard of atrial fibrillation or 'a fib'? What is atrial fibrillation? Do you know the health risks associated with atrial fibrillation?

Results: Prior to the campaign, 28 % (560/2,000) of those surveyed were aware of AF. There was no statistically significant change in this after the campaign. 58 % (174/300) of those aware of AF correctly identified it as an 'irregular heartbeat' prior to the campaign. After the campaign, 35 % (105/297) correctly identified AF ($p < 0.05$). Prior to the campaign, 28 % (83/300) of those aware of AF identified it as a risk factor for stroke, compared to 22 % (66/297) after the campaign ($p 0.124$).

Conclusion: This study demonstrates the generally poor awareness of AF in the Irish population. The initial phase of the national awareness campaign did not improve public awareness. This may have been because the campaign was not sustained, with radio adverts stopping after 3 months due to funding issues. Additionally, the concept of AF is quite complex and less visual than the FAST campaign so an intensive awareness campaign that is funded to sustain itself, as well as having an understandable visual impact is required.

P21 Admission Hyperglycaemia Predicts Outcomes in Acute Stroke

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Background: Diabetes mellitus (DM) and impaired glucose tolerance (IGT) are independent risk factors for stroke and adversely influence the recovery of stroke patients. Early hyperglycaemia post-stroke is common and is associated with poor clinical outcomes. Guidelines from the American Diabetic Association state a serum fasting glucose of 5.6 mmol/L or above should be considered abnormal and have appropriate follow-up investigation.

Methods: We analysed data from an inpatient stroke registry of all patients admitted with acute stroke ($n = 186$) and compared results from an audit between 2003 and 2005 ($n = 432$). We hypothesised that elevated admission glucose levels (AGLs) would be independently associated with increased mortality, symptomatic intracerebral haemorrhage and poor functional outcomes.

Results: The mean age of the group was 72.4 (± 8.3) years. The prevalence of DM was 9.4 %, with 87 (46.7 %) patients having an AGL > 5.6 nmol/L. Discharge outcomes were as follows: 55.9 % home, 11.8 % died, 28 % extended nursing care. AGLs > 7.1 nmol/L were more likely to be associated with a discharge to extended nursing care or death ($p < 0.05$) and symptomatic intracerebral haemorrhage ($p < 0.05$). 24 % patients with an AGL > 7.1 nmol/L died with a further 36 % requiring extended nursing care. Comparison to previous data showed that there was no statistically significant difference between age and glucose levels on admission, mean age was 75 (± 10.3) years, with 208 (48.1 %) having a glucose level > 5.6 nmol/L. There is a higher prevalence of DM in stroke patients compared to data from 10 years ago (9.4 vs. 8.5 %, $p = 0.19$).

Conclusion: The incidence and prevalence of hyperglycaemia and DM has not significantly changed in 10 years. Acutely elevated glucose levels were associated with poor outcomes i.e. death, extended nursing care or intracerebral haemorrhage. Admission glucose level may be a surrogate marker of brain infarction severity rather than a causal factor.

P22 Potentially Inappropriate Medications in Older Hospitalised Patients

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Background: Inappropriate prescribing in elderly patients is an important cause of morbidity and mortality. Polypharmacy is defined as more than 4 medications. Previous studies have shown that acutely ill hospitalised patients have a high prevalence of inappropriate prescribing and a high rate of errors. Evidence from well-controlled studies suggests that multidisciplinary teams and clinical pharmacy interventions can modify suboptimal drug use in older adults.

Methods: We performed a point prevalence audit of medications prescribed in medical patients. Basic demographics, reason for admission and co-morbidities were analysed. We applied the STOPP-START criteria to this group and identified two high risk groups of patients i.e. those with a history of falls and those with a history of cognitive impairment.

Results: 129 patients were assessed with a mean age of 76 years. 125 (96.9 %) had 4 or more medications prescribed, with 85 (66 %) having more than 11 medications prescribed. Infection (32 %), stroke (16 %) and falls (10 %) were most likely cause for admission. 17 (13.2 %) patients had a history of falls and 35 (27.1 %) had a history of cognitive impairment. Mean age of fallers and those with cognitive impairment were 87 and 81 years respectively. For the faller group, hypnotics and antipsychotics were prescribed more frequently compared to overall group ($p < 0.05$) and had a lower rate of benzodiazepine use. 29 % of patients with a history of fall had bone health medications prescribed. The cognitive impairment group had a higher rate of antipsychotic use compared to overall group ($p < 0.05$).

Conclusion: Polypharmacy was a common finding in this group of elderly medical inpatients, particularly in those with a history of falls and cognitive impairment. Fallers and those with cognitive impairment are a vulnerable and frail group who are more susceptible to the consequences of inappropriate prescribing.

P23 Ageism in Parkinson's Disease Studies

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Background: Age is the strongest risk factor for development of Parkinson's disease and prevalence rises from 1 % in those over 60 years of age to 4 % of the population over 80. Rehabilitation through occupational therapy (OT), physiotherapy (PT) and speech and language therapy (SLT) has been shown to be of some benefit to patients. However, it is not clear whether the study populations were affected by ageist recruitment paradigms. The aim of this study was to assess the age profile of studies of therapy modalities in Parkinson's disease

Methods: All randomised control trials (RCT) on PT, OT and SLT in Parkinson's disease in the Cochrane database were included.

Results: 56 RCTs were identified. 8 were excluded, as they did not have baseline characteristics recorded. The mean age of patients was 68.1 years (range 58.7–73.2). 34 RCTs had documented exclusion criteria: dementia in 53 %, other neurological disease such as stroke in 26 %, not independently mobile in 18 %, musculoskeletal disease and cardiovascular disease in 24 % each. Almost one-fifth (18 %) had age as an inclusion criterion with one study including patients up to age 85, 3 up to 80, and 2 up to 75.

Conclusions: This study shows a clear discrepancy in the mean age of those included in rehabilitation studies compared with the mean age of PD patients. Age and comorbidities were common causes of exclusion, and limit the congruence between research and practice. Ageist strictures on research with adults need to be eliminated.

P24 A Review of Acute Orthopaedic Admissions in Older Patients

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Background: Studies have shown that input from a Geriatrician reduces length of stay, postoperative complications and mortality in patients with hip fractures. In order to help establish the potential case load for an orthogeriatrician, we looked at all acute orthopaedic admissions over the space of a year to our hospital.

Methods: The Orthopaedic surgeons record acute admissions on a database. Information regarding the over 65-year-old patients was accessed from this database. Data was analysed for the 12 month period May 2013–May 2014.

Results: There were 2,730 acute orthopaedic admissions, of which 1,050 (38.5 %) were over the age of 65 with a mean age 82 years (range 65–98). 441 (42 %) had hip fractures, all of whom had surgery. Hip fracture and a concurrent radial, humerus or olecranon fracture accounted for a further 17 (1.6 %) patients. 105 (10 %) had distal radius fractures and 71 (6.8 %) vertebral/pelvic fractures. 13 (1.2 %) of patients had multiple fractures. 16 (1.5 %) patients had metastatic disease encompassing pathological fractures, vertebral mets requiring spinal decompression and lytic lesions requiring surgical stabilisation. 30 (2.9 %) had infection/sepsis–septic arthritis, osteomyelitis, cellulitis or discitis. 78 (7.4 %) were admitted with post op complications–pain, wound dehiscence, hip infection, surgical failure, post op dislocation or periprosthetic fracture. 6 (0.6 %) were investigated for post op DVT. 51 (4.9 %) had back/hip/knee pain not attributable to fracture or infection. A 76-year-old male was admitted with an accidental gunshot wound to his foot.

Conclusions: This simple study shows the wide range of conditions resulting in acute orthopaedic admission. Fragility fractures account for the majority of admissions, but there are a significant number of other diagnoses. The majority of these patients have a number of co-morbidities, functional deterioration and would also benefit from Orthogeriatric input.

P25 Preliminary Hip Fracture Outcome Data in Different Cohorts of Patients

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Background: The Irish Hip Fracture Database (IHFD) is an audit of care standards and outcomes for patients aged 60 years and over. The 2013 preliminary IHFD report summarises data collection on 843 out of 3,000 hip fracture patients. In April 2014 we commenced prospective collection of data for all hip fracture patients with the primary aim of entering data into the Irish Hip Fracture Database. We are also interested in place of residence at the time of admission, functional ability and outcome, discharge destination and length of stay in the acute hospital and rehabilitation unit.

Methods: Data is collected during the hip fracture patient's admission and includes standard data for the IHFD.

Results: 61 patients presented with hip fracture during the first 6 weeks of data collection. 62 % female, mean age 81 years (range 60–102), 4 patients were under 65. 56 (91 %) patients were admitted directly to the orthopaedic team from ED, 3 (5 %) were initially admitted under the general medical team before the hip fracture diagnosis was established, 3 (5 %) fell during an inpatient stay under other teams. 43 (70 %) were living within the catchment area at home before admission, 37 (86 %) patients from this group were transferred to a rehabilitation bed, 2 (5 %) returned directly home and 4 remain in hospital awaiting Nursing Home (NH) care. 12 (20 %) were NH resident before admission, 11 returned directly to the NH and 1 patient went for rehab. 4 (7 %) were visiting the locality from elsewhere in Ireland, 2 (3 %) were visiting from overseas. 3 (5 %) patients died during their admission.

Conclusion: We are continuing to collect data on all hip fracture admissions. With approximately 450 hip fractures per annum we will be able to expand our knowledge of outcomes for the different groups of patients described above.

P26 Rehabilitation of Pelvic Fractures

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Background: Increasing rates of osteoporosis and patients presenting with falls have led to an increasing number of patients presenting with pelvic fractures. Despite this, there are currently no published studies on outcomes from rehabilitation of patients with pelvic fractures. Our aim was to compare a cohort of patients with pelvic fractures presenting for rehabilitation to patients with hip fractures.

Methods: A retrospective chart review of 21 patients with pelvic fractures and 21 randomly selected patients with hip fractures who presented to a rehabilitation hospital between January 2013 and April 2014 was performed. Chi-square testing, Fisher's Exact Test or Mann–Whitney U was performed as appropriate on the data collected to compare the two groups.

Results: The mean age was 86.1 years (SD 5.8) for pelvic and 81.8 years (SD 8.2) for hip ($p = 0.137$). 100 % of pelvic were female, compared to 76.2 % of hip ($p = 0.048$). Mean length of stay in rehabilitation was significantly longer in the pelvic group (pelvic 45.1 days, SD 22.7; hip 37.2 days, SD 21.0; $p = 0.023$) and there was a higher complication rate (pelvic 81.0 %, hip 52.4 %; $p = 0.05$). Mean Barthel Index (BI) was lower on admission in the pelvic group (pelvic 11.7, SD 2.3; hip 13.7, SD 2.9; $p = 0.02$). However there was no significant difference in BI on discharge (pelvic 16.8, SD 2.7; hip 17.0, 1.6; $p = 0.945$).

Conclusion: Patients with pelvic fractures are more likely to be female and there is a trend towards being older than patients with hip fractures. Despite having a lower BI on admission, having a higher complication rate and taking longer to rehabilitate, they rehabilitate to the same BI as patients with hip fractures. Therefore the rehabilitation of patients with pelvic fractures is worthwhile.

P27 Attitudes to Importance of Outcome Measures in Cardiovascular Prevention Trials

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Background: Selection of outcome measures in clinical trials should be informed by their relevance and importance to populations included in studies. Cardiovascular prevention trials usually prioritize major vascular event outcomes, with considerably less attention to cognitive and functional outcomes [1]. We aimed to explore views on relevance and importance of various outcome measures to a cohort of older adults.

Methods: A cross-sectional survey of active retirement groups and adult outpatients attending clinics in a university hospital was conducted. Participants ranked statements on (1) meaning of successful ageing, (2) clinical trial outcomes and (3) future concerns, in order of importance and proportions were compared.

Results: Overall, 280/367 (76 %) people completed the survey. Of these, 104 (37 %) were aged >65 years (mean age 74). 66 % were female, 17 % required assistance for ≥ 1 activity of daily living and 90 % were independently mobile. Comorbidities included: hypertension (49 %), diabetes (10 %), hypercholesterolaemia (56 %), smoking (2 %), previous stroke (17 %) and previous myocardial infarction (MI) (26 %). Respondents selected the following as most important when asked about the meaning of successful ageing: maintaining independence (31 %), avoiding major illness (28 %), living as long as possible (24 %), having a good family life (14 %) and avoiding the Nursing Home (NH) (3 %). When asked which outcome was most important in clinical trials of new antihypertensive drugs respondents selected: stroke (32 %), dementia (29 %), dying (25 %), requiring a NH (9 %) and MI (7 %). When asked what concerns them most about the future, respondents selected dementia (31 %), dependence on others (28 %), stroke (17 %), dying (10 %), requiring a NH (9 %), cancer (7 %), MI (0 %).

Conclusion: Our findings suggest that cognitive and functional outcomes are most important to older adults. Of major vascular events, stroke is most important.

Reference:

1. Evans et al (2008) Functional outcomes for clinical trials in frail older persons. *J Gerontol A Biol Sci Med Sci* 63:160–164

P28 Audit of Stroke Management at a University Teaching Hospital

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Background: Current stroke management emphasizes rapid detection and diagnosis and reduction of long term morbidity and mortality through timely thrombolysis where appropriate and Stroke Unit (SU) care. This study aimed to re-evaluate current stroke management in a university teaching hospital and compare to previous audits in 2011 (1, 2).

Methods: Retrospective cross-sectional analysis of 140 admissions between May and November 2013 was conducted.

Results: Admissions reviewed included: 115 (82 %) ischemic strokes 10 (7 %) intracranial haemorrhages and 15 (11 %) transient ischemic attacks (TIAs). 82 (59 %) were male and mean age was 72.1. Of 140 admissions, 53 (38 %) patients presented within 4.5 hours of symptom onset (17 in 2011) and 12 (9 %) were thrombolysed. Mean time to thrombolysis from onset was 196 minutes (153 in 2011). Average

time from arrival to CT Brain was 39 minutes; with mean door-to-needle-time of 82 minutes (72 in 2011). All patients had CT Brain within 24 hours of admission. 108 (77 %) were admitted directly to the stroke unit (67 % 2011). Of ischemic strokes 108 (94 %) received antiplatelet therapy within 48 hours. Of 58 diagnosed with atrial fibrillation (AF), 45 (78 %) had known AF, of whom 20 % were not anti-coagulated. Multidisciplinary team (MDT) assessment within appropriate time frames has improved since 2011. 81 % of appropriate patients had speech and language assessment within 48 hours (41 % in 2011). 86 % of stroke patients received stroke nurse practitioner consultation which has enhanced MDT assessment. Of discharges, 107 (77 %) went home and 9 (6 %) went to long term care (85 and 13 % respectively in 2011).

Conclusion: More stroke patients are presenting within the thrombolysis window but onset-to-needle and door-to-needle times have increased. We need more efficiency in the in-hospital thrombolysis process to improve outcomes. Direct access to SU care has improved but more beds are needed to provide SU care to all stroke patients.

References:

1. McDonnell M et al, Audit of Acute Stroke Care: From the Emergency Department to the Acute Stroke Unit, *Ir J Med Sci* (2012) 181 (Suppl 7):S277
2. Canavan M, et al. Closing the Audit Loop: Stroke Care in a University Hospital Three Years On. *Ir J Med Sci* (2012) 181 (Suppl 7):S260.

P29 Access to Neuroimaging in Dementia: A Survey of Specialists

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Background: Neuroimaging is an important tool in the diagnostic workup of suspected cases of dementia; however, it is often under-utilised. The number of people with the disease is likely to rise to 147,000 by 2041 due to increased life expectancy, yet less than half of people with dementia are estimated to receive a formal diagnosis though an early diagnosis is essential for the provision of adequate treatment and care. The aim of the current survey was therefore to establish specialists' access to neuroimaging in dementia.

Methods: The research design was a postal survey. Geriatricians, old-age psychiatrists and neurologists nationwide were posted individual questionnaires containing open and closed questions on access to neuroimaging in dementia. Descriptive statistics were employed to analyse the data.

Results: The survey response rate was 43.2 % (N = 76). Most respondents (42.1 %) were geriatricians, 28.8 % were old-age psychiatrists and 26 % were neurologists. The majority (86.8 %) were consultants. All specialists reported that they had access to computed tomography (CT), and most (96.1 %) had access to magnetic resonance imaging (MRI). However, only 35.5 % had access to positron emission tomography (PET) and 19.7 % to single-photon emission computed tomography (SPECT). Most clinicians (88.7 %) referred suspected cases of mild cognitive impairment (MCI) or dementia for MRI, followed by 81.7 % who referred for CT and 26.8 % who referred for PET or PET/CT. A total of 60.6 % of specialists reported that there were neuroimaging modalities they would like to have access to but did not.

Conclusions: Results suggest adequate specialist access to MRI and CT investigations for suspected cases of MCI or dementia; however, access to other neuroimaging modalities including PET and SPECT appears to

be limited yet these modalities are important, in particular regarding sub-type diagnosis. A lack of access to these neuroimaging modalities might limit diagnostic accuracy and impact upon treatment decisions.

P30 Is The Mini-Mental State Examination on Admission to an Active Rehabilitation Unit Beneficial in Predicting Duration of Stay and Discharge Options?

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Background: The Mini-Mental State Examination (MMSE) is a brief questionnaire, scored out of 30, which has long been used to screen for cognitive impairment. Screening using the MMSE is performed in our active rehabilitation unit (ARU). Cognitive impairment may be a factor influencing both duration of stay and discharge planning options. This study aimed to investigate the predictive value of the MMSE in our ARU.

Methods: Over a 4 month period, the MMSE was completed on 52 patients admitted to the ARU (mean age 81 years, 36 females, 18 males) Patients were classified according to their MMSE score: 0–10 “severe impairment”, 11–20 “moderate impairment”, 21–25 “mild impairment”, 26–30 “no impairment”. The total duration of stay was calculated. The discharge locations were also defined, i.e. long term care (LTC), respite, or home (with or without home care packages (HCPs)).

Results: The mean MMSE score was 22.6 (SD 5.2), range 9–30. The spectrum of impairment was as follows; “severe impairment” 2 %, “moderate impairment” 35 %, “mild impairment” 27 %, or “no impairment” 36 %. In total, 86 % of patients were discharged home. Those with lower MMSE scores were more likely to be discharged to LTC, or require HCPs. Mean duration of stay was 46 days, (SD 27) range 11–141. MMSE was inversely correlated (−0.17) with duration of stay; “moderate impairment” mean duration 54 days, “mild impairment” mean duration 44 days, “no impairment” 38 days.

Conclusions: This study found that there is a wide range of cognitive impairment on admission to our ARU. Those with lower MMSE scores were more likely to go to LTC, or need greater home care support on discharge. Lower MMSE scores were more likely to have longer duration of stay. The MMSE appears to be useful for predicting duration of stay, and planning discharge options.

P31 Medical and Surgical Comorbidities on Admission to an Active Rehabilitation Unit

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Background: Medical and surgical comorbidities may be associated with a more complex clinical course, greater lengths of stay, worse outcomes, and increased financial burden (1). This study aimed to examine the comorbidities of geriatric patients admitted to an active rehabilitation unit, to assess which conditions are most common, and what effect these may have on duration of stay.

Methods: Over a 3 month period, information was gathered on 54 patients admitted to the active rehabilitation unit. These were assessed for medical and surgical comorbidities, based on both history and all available past medical information. Comorbidities were grouped into “cardiac”, “respiratory”, “renal”, “endocrine”, “neurological”, “gastrointestinal”, “surgical” or “miscellaneous”. Each patient’s comorbidities and durations of stay were calculated.

Results: It was the norm for patients to have multiple comorbidities (mean 3, SD 1.5, range 0–6). The most frequent comorbidity was cardiac. 70 % of patients had comorbid cardiac issues; hypertension (48 %), atrial fibrillation (24 %), congestive cardiac failure (17 %) and ischaemic heart disease (17 %). 40 % of patients had comorbid endocrine issues; diabetes mellitus (19 %) and hypothyroidism (13 %). 26 % of patients had comorbid neurological issues; dementia/cognitive impairment (15 %). The correlation coefficient between number of comorbidities and duration of stay was 0.07.

Conclusions: This study showed that medical and surgical comorbidities are common in an active rehabilitation unit. The number of comorbidities was a poor predictor of duration of stay. Active rehabilitation is a valuable opportunity to optimise a patient’s comorbid conditions. Increased knowledge and understanding of the most frequent comorbidities may allow for better allocation of resources, and improved outcomes.

Reference:

1. Barnett K, Mercer SW, Norbury M et al (2012) Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *Lancet* 380:37

P32 Effect of a Multifaceted Intervention on Potentially Inappropriate Prescribing in Older Patients in Primary Care: A Cluster Randomised Controlled Trial (The OPTI-SCRIPT Study)

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Background: Potentially inappropriate prescribing (PIP) (use of medicines that introduce a greater risk of adverse drug-related events where a safer, as effective alternative is available) is common in older people and can result in increased morbidity, adverse drug events and hospitalisations. The prevalence of PIP in Ireland in those aged ≥ 70 years is 36 % with an associated expenditure of over €45 million. This study aimed to determine the effectiveness of a multifaceted intervention in reducing PIP in Irish primary care.

Methods: A cluster randomised controlled trial (RCT) was conducted with 21 GP practices based in the greater Dublin area and 196 patients with PIP. Practices were allocated to intervention or control arms after baseline data collection. Intervention participants received a complex multifaceted intervention incorporating academic detailing, medicines review with web-based pharmaceutical treatment algorithms that provided recommended alternative treatment options, and tailored patient information leaflets. Control practices delivered usual care and received simple, patient-level feedback on PIP. Primary outcomes were the proportion of patients with PIP and the mean number of potentially inappropriate prescriptions.

Results: All practices were followed up, 6 patients were lost. Upon intervention completion, the proportion of patients with PIP in the control group was 0.77 compared to 0.52 in intervention (adjusted odds ratio (OR) 3.1, 95 % confidence interval (CI) 1.4–6.5). The mean

number of PIP drugs in intervention was 0.7, compared to 1.2 in control ($p = 0.004$). Investigating the number of PIP drugs, the incidence rate for PIP in control was 1.4 times the rate in intervention (95 % CI 1.0–2.0, $p = 0.064$). The intervention significantly reduced PIP related to proton pump inhibitor prescribing (PPI) (adjusted OR 3.4, 95 % CI 1.4–8.1, $p = 0.006$) but not other drug specific outcomes. **Conclusions:** OPTI-SCRIPT was effective in reducing PIP. The intervention effectiveness was primarily based on modifying PPI prescribing.

P33 Too Much, Too Late: Polypharmacy at End-of-Life

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Background: The Let Me Decide (LMD) programme comprises advance care planning and palliative care education in long term care (LTC). Currently the programme has been implemented as part of a research study in LTC sites in Southern Ireland. As part of the study, we looked at the issue of polypharmacy in end-of-life care (EOLC). Polypharmacy in EOLC in LTC is poorly understood, primarily due to a paucity of research in this area. Although polypharmacy has many definitions, the most appropriate in the context of end-of-life care is the prescription and/or the administration of any medication that is not clinically indicated. This not only leads to adverse drug events, but has significant financial implications. We explored the extent of polypharmacy in this cohort with regard to number of medications prescribed regularly and as required. The appropriateness of these medications was determined using existing literature and clinical expertise.

Methods: Following ethical approval, data were collected retrospectively between July 2013 and May 2014, from charts of deceased residents ($n = 55$) in LTCs enrolled in the study. This was completed using a chart extraction tool, designed for this research.

Results: Of residents charts reviewed, 82 % had a diagnosis of dementia/stroke. The mean age was 86 years. Mean MMSE score was 10. Data indicates that the mean number of regular medications prescribed and administered to residents during the last week of life was 8.4. Of these, the mean number of inappropriate medications prescribed per resident was 3.4.

Conclusion: Polypharmacy in EOLC is an emerging issue and is frequently overlooked in LTC. A major clinical implication from this research is the need for education for healthcare professionals regarding appropriate symptom based prescribing during the final stages of life. These results also have implications with regard to quality of life and health economics.

P34 The Benefits of a Nurse-Led Secondary Prevention Clinic in a Stroke Service

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Background: The World Health Organization (WHO) highlights the importance of lifestyle modification interventions other than the use of affordable, accessible and effective pharmacological treatments in the prevention of TIA/Stroke. Risk factors which contribute towards 90 % of all strokes are hypertension, unhealthy diet, physical

inactivity, excessive alcohol intake, psychosocial stress, atrial fibrillation, smoking, high cholesterol and diabetes. Thus, appropriate secondary stroke prevention is required in modifying these risk factors via educational intervention.

Methods: Two documents were developed to support an individualised patient assessment, Stroke Secondary Prevention Clinic: Patient Assessment and the Modified Distress Management System Assessment. The patient population attending the Nurse Led Secondary Prevention Clinic include, all patients admitted with TIA/Stroke under the Stroke Service and patients attending the Rapid Access Stroke Prevention/general Stroke Clinic. A record of onward referrals to the Stroke MDT was maintained and a service user survey was completed to determine the benefits of the Nurse Led Secondary Prevention Clinic.

Results: 61 patients have attended the clinic to date. Of these 77 % required onward referral (16 % of which required referral to 2 or more services). 42 service user surveys were sent of which there was a 69 % response rate. 79 % of respondents reported an improved understanding of stroke and stroke risk factors following attendance at the clinic. 86 % felt that any questions/concerns that they had were addressed during consultation and 55 % reported making a positive lifestyle modification as a direct result of attending the clinic.

Conclusions: As results demonstrate, through attendance and individualised assessment at this clinic, the need for patients to have further treatment and onward referral is identified promptly post discharge, decreasing the risk of potential post-stroke complications. Patients are educated to make positive lifestyle modifications thus reducing their risk factors for stroke.

P35 Neuromedical Sequelae Post-Stroke

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Background: Stroke is a major syndrome of later life: 75 % of acute stroke admissions are aged >65. Neuromedical sequelae are frequent among individuals with stroke, increasing length of hospitalisation, costs of care and presenting barriers to optimal recovery. The prevalence of these sequelae is under-documented in current Irish clinical practice.

Methods: A review of data entered onto the National Stroke Register from consecutive acute stroke admissions to a Dublin Hospital for 2013, including additional data fields on capturing both patients' comorbidities and neuromedical sequelae post-stroke. This data is compared to a review of neuromedical sequelae in an Irish setting in 1998 and UK setting in 1995.

Results: Data available for 252 patients of 270 acute admissions. 39 (15 %) patients had a language/communication disorder, 83 (33 %) experienced pain, 51 (20 %) cognitive decline related to current stroke and 33 (13 %) patients discharged with new/aggravated urinary incontinence. Nineteen (8 %) patients had a delirium, 16 (6 %) had a fall and 8 (3 %) experienced shoulder pain. Compared to previous studies there was a significant decline in rates of swallow disorder, mood disorder and UTI.

Conclusions: Communication disorders, pain and cognitive decline occur in almost a third of acute stroke patients individually. Similar studies from 1990s in Ireland and UK before widespread adoption of stroke unit care show higher rates of urinary infection, depression and DVT. Secular trends in stroke severity, engagement of geriatric medicine and nursing in Irish stroke care, and Stroke Unit ethos and education of staff may play a part in early recognition and intervention to avoid such complications.

P36 Management of Older Ambulatory Patients with Chronic Heart Failure: Are we 'Rate Aware'?

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Background: Heart rate (HR) reduction improves survival in patients with systolic chronic heart failure (CHF). The 2012 European Society of Cardiology CHF guidelines recommend HR reduction to <70 beats per minute (bpm). The aim of this study was to determine how 'rate aware' are physicians treating older patients with CHF in a Medicine for the Older Person (MFTOP) out-patient setting.

Methods: We reviewed charts of all consecutive patients attending our clinics in January and February 2014. For patients with a diagnosis of CHF, we recorded HR, BP, medications, co-morbidities and barriers to HR control (e.g. hypotension, falls or other).

Results: Of 485 patients reviewed, 32 (7 %) had a diagnosis of CHF: mean age 84 years (range 67–93 years); 58 % female. Mean number of co-morbidities was 6 (range 1–12) and 100 % were on 4 or more medications (mean 9; range 5–15). 78 % were receiving diuretics, 38 % ACE inhibitors/ARBs, 24 % mineralocorticoid receptor antagonists and 45 % β -blockers. No patient received ivabradine. Only 30 % of patients with systolic CHF had a resting HR <70 bpm and 43 % had a BP <140/90. Over a quarter of these patients (28 %) simultaneously attended a cardiology heart failure (HF) clinic. BP control in these patients was significantly better (83 % had a BP <140/90; $p < 0.05$) but only 33 % had adequate HR control (similar to those attending MFTOP). No barriers to reduction in HR were documented.

Conclusions: We found that 7 % of patients attending our clinic had a diagnosis of CHF. These patients had a high burden of co-morbid disease and polypharmacy. Over 2/3 of them were not adequately rate controlled whether attending our clinic or a cardiology HF clinic. Given the known survival advantages in CHF we need to improve awareness of HR reduction and explore barriers to achieving this in frail older patients.

P37 How Are We Doing with Our Zzzs? A Cross-Sectional Study of Sleep Hygiene and Falls Risk in An Acute Hospital Setting

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Background: Benzodiazepine and non-benzodiazepine (Z drugs) hypnotics are commonly prescribed in older people despite knowing that altered pharmacokinetics places them at risk of adverse effects including falls, fractures and psychomotor impairment. Our aim was to determine prescribing practices for benzodiazepines and other hypnotic drugs for the management of insomnia in patients >65 years in an acute teaching hospital setting.

Methods: We carried out a cross sectional audit on medical notes, nursing notes and medication prescriptions of all inpatients >65 years on 5 wards (2 specialist geriatric medicine wards (SGW) and 3 mixed (medical/surgical wards) over a 5 day period. Our audit was based on ICD-10 criteria, NICE guidelines and Royal College of Psychiatrists recommendations. The Morse fall scale was used to assess falls risk.

Results: 101 patient records were reviewed. The prevalence of prescribing of hypnotics was 23 %. Of the patients prescribed these medications 68 % were male and the mean age was 77 years (range 65–91). Prescribing rates were lower on the SGW than on non SGW (14 vs. 29 %). Potentially reversible barriers to sleep were noted in all patients. Only 9 % had documentation in the medical notes of the intention to prescribe. 91 % were on an appropriate drug as per NICE guidelines but 63 % had exceeded the maximum recommended duration of 4 weeks. Of those prescribed said medications 73 % were deemed at moderate to high risk of falls as per the Morse fall scale and 50 % had a documented history of falls.

Conclusion: There is room to improve prescribing practices with regard to hypnotics in older patients who already are at increased risk of adverse events and in particular falls while inpatient in acute hospitals. A sleep hygiene guideline with planned reaudit of our practice has been initiated as a result of this study.

P38 Co-Prescription of Laxative and Opioids: A Cross Sectional Study

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Background: Laxatives are widely advised when taking opioid medication. Opioid-induced constipation is a common problem and associated with serious comorbidity. Our aim was to determine practices for the co-prescription of opioids and laxatives in patients >65 in a large Dublin teaching hospital.

Methods: We carried out a cross sectional audit on the medication prescriptions of all patients ≥ 65 years on 2 wards in an acute teaching hospital (1 specialist geriatric medicine wards (SGW) and 1 surgical ward). We gathered information on patient, drug and prescriber characteristics.

Results: Over a period of 1 day 44 patients were reviewed. The prevalence of prescribing of opioid drugs, including tramadol and codeine based analgesics, was 43 %. 70.5 % were female and the mean age was 81 years (range from 65 to 95). 89.5 % of the patients receiving opioids were taking laxatives. Of note, in the group that did not fit the inclusion criteria of being ≥ 65 , co-prescribing was lower, with a rate of 60 %.

Conclusion: Overall, when compared to a recent study undertaken in the Netherlands, our rate of co-prescribing of opioids and laxatives is high (89.5 vs. 37 %). This study shows that the widely used guideline to start laxatives when prescribing an opioid is currently being followed well in daily practice. However we need to improve awareness of same. On-going auditing of our practice has been initiated as a result of this study.

P39 The Concurrent Validity of the 7-Item BBS 3P with Other Clinical Measures of Balance in the Community-Dwelling Elderly

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Background: The aim of this study was to test the concurrent validity of the 7-item 3-Level Berg Balance Scale (7-item BBS 3P), against two measures of balance commonly used in the clinical setting: Berg Balance Scale (BBS) and Mini Balance Evaluation Systems Test (Mini-BESTest) in a sample of elderly community-dwelling adults.

Methods: A cross-sectional correlational study was conducted with a convenience sample comprising of 30 community-dwelling elderly adults recruited from day care centres and physiotherapy departments. The following tests were administered: BBS, 7-Item BBS 3P and Mini-BESTest. Concurrent validity was determined using Spearman's rank order correlational coefficient.

Results: Ten men and 20 women were recruited [mean age (SD) 79.6 (5.86)]. Significant correlations were found between all balance measures. The strongest correlation occurred between the 7-item BBS 3P and BBS ($\rho = 0.84$, $p < 0.01$). However, there was a difference of up to seven points on the BBS, for a score obtained on the 7-item BBS 3P. The BBS and Mini-BESTest demonstrated high correlation ($\rho = 0.74$, $p < 0.01$). Moderate correlation occurred between the 7-item BBS 3P and the Mini-BESTest ($\rho = 0.57$, $p < 0.01$). The Mini-BESTest and BBS accounted for 32–75 % of the variance in the 7-item BBS 3P.

Conclusions: The 7-item BBS 3P demonstrated moderate to high correlation with two commonly used clinical measures of balance and can be recommended as a measure of balance impairment in the elderly community-dwelling population. The 7-item BBS 3P and BBS should not be used interchangeably due to the discrepancy in scores of up to seven points, which exceeds the Minimum Detectable Change (MDC) for the elderly.

P40 Cost Effectiveness of Inpatient Rehabilitation in Brain Injury Patients

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Background: Acquired brain injury (ABI) is the third commonest cause of death and disability with over 20,000 people in Ireland suffering some form of ABI each year. Consequentially ABI results in a significant burden of disability for patients, families, health professionals and wider society. Older individuals are particularly affected as the stroke is the aetiology in the majority of cases. Rehabilitation interventions following ABI improve health outcomes, reduce disability, and improve quality of life. We aimed to assess the cost effectiveness of inpatient rehabilitation in a national tertiary specialist rehabilitation centre in patients post ABI.

Methods: ABI patients admitted between 1st January 2011 and 31st December 2011 were included. The Disability Rating Scale (DRS) was recorded as a measure of disability for patients on admission and discharge, following a period of intensive inpatient rehabilitation. The cost saving attributed to the rehabilitation programme was calculated for each patient by comparing the average ongoing cost of care for their respective admission and discharge levels of disability. The cost of inpatient rehabilitation for each patient was also calculated. Subgroup analyses by admission disability category were performed.

Results: 63 patients were admitted for rehabilitation. 42 patients had complete DRS information on admission and discharge. The average levels of functioning based on domain G of the DRS were 2.3 (between mildly dependent and moderately dependent) on admission and 1.1 (independent in a special environment) on discharge, $p < 0.0001$ for difference. The average care costs on admission of the group were 638.8 euro weekly. These reduced to 331.5 euro weekly on discharge. Based on these savings the costs of inpatient rehabilitation would be covered by the resultant savings within 30 months. Savings were highest in the most severely disabled group.

Conclusions: Inpatient rehabilitation in an Irish setting is associated with substantial cost savings.

P41 Do Not Attempt Resuscitation (DNAR)

Documentation: Does It Comply with Recommendations of the National Consent Policy?

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Background: The National consent policy, introduced in 2013, deals with do not attempt resuscitation (DNAR) orders (part IV) and clarifies the information which should be documented. We aimed to assess the number of patients in this Hospital with DNAR orders in place, to assess the documentation of these and whether the documentation fulfilled the recommendations in the national consent policy.

Methods: All inpatients in this Hospital on 23rd August 2013 were included. Data were collected prospectively. For each patient we examined: medical notes and nursing notes for documentation of DNAR. Where a DNAR instruction was present we searched for a DNAR form and examined the review date on the form.

Results: 74 patients were included in the first audit. 16 % had DNAR orders in place. All were clearly documented in the medical notes but only 58 % had the DNAR form completed. Only 57 % of those with the DNAR form completed had a review date entered. In one the review date had expired.

Conclusions: We concluded that medical staff were competent in documenting the DNAR instruction, however, there was a lack of awareness regarding the need to complete the DNAR form, as recommended in the national consent policy. The results of the audit and the recommendations in the national consent policy were presented at the educational conference and a re-audit was completed on 28th March 2014. 89 patients were included. 11 % had DNAR orders in place. All were clearly documented in the medical notes and all had the DNAR form completed. However, only 30 % had been completed fully with a current review date entered. Subsequently, the form has been re-designed to highlight the review date and includes a summary of the policy recommendations on the reverse. Further re-audit post introduction of the new form is planned.

P42 Troponin I Is a Predictor of Delayed Detection of Atrial Fibrillation in Ischaemic Stroke and TIA

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Background: Prolonged cardiac monitoring is associated with higher rates of atrial fibrillation (AF) detection in ischaemic stroke/TIA. However this can be costly and has significant practical implications. Reports from investigation in selected groups suggest higher yields than those from unselected cohorts (e.g. unexplained stroke). The use of troponin-I (TnI) as a biomarker for delayed AF detection in stroke was investigated.

Methods: Consecutive ischaemic stroke and TIA cases were analysed by investigation of local data from the National Stroke Register, which contains prospectively entered details on all strokes and TIAs in the Republic of Ireland. Cardiac and laboratory databases and case-notes were crosschecked for cardiac investigation and TnI levels. The association between TnI level on admission and occurrence of AF was investigated.

Results: 185 consecutive cases (130 ischaemic stroke) were analysed. Mean (SD) age was 73.3 (13.9) years; 47 % female. 62 cases (33.5 %) had AF identified. Of those 21 (33.9 % of AF) were the first

documented presentation of AF. Such AF diagnosis was either on admission ECG (n = 11) or inpatient telemetry (delayed AF, n = 10). No AF was identified by Holter monitoring (performed in 33 cases). TnI level was significantly higher in those with delayed AF than in those without AF (W = 194; p = 0.036). A higher proportion of those with an abnormal admission troponin (30 %) than those with a normal troponin (6.1 %) had a delayed diagnosis of AF ($\chi^2 = 6.41$, p = 0.011). Troponin levels were also higher in known AF and in those with new AF on ECG. In a logistic regression model, not having a normal troponin level on admission was a significant independent predictor of delayed detection of AF (OR 5.8, p = 0.037).

Conclusion: Admission troponin estimation is associated with a higher likelihood of subsequent AF. It could be investigated for the selection of cases for prolonged monitoring.

P43 Investigation of Equal Responsiveness of Two Frailty Outcome Measures Within a Day Hospital Setting and Useability of Both Measures

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Purpose: To determine the level of frailty of patients in the day hospital. To investigate if the Edmonton frail scale and Canadian study of Health and Aging (CSHA) Clinical frailty scale are equally responsive. To investigate the useability of both outcome measures. The Edmonton frail scale involves both subjective and objective elements with nine sections in total. The CSHA clinical frailty scale is a quicker subjective measure. Relevance: Frailty is a term widely used to denote a multi-dimensional syndrome of loss of reserves, that give rise to vulnerability. Clinically, frailty stratification can help to plan interventions [1]. Participants: A convenience sample of twenty patients was used.

Methods: The two outcome measures were added to the initial assessment form, and each of the patients frailty levels were measured using both measures. The data was inputted into an excel spreadsheet. The physiotherapists involved were questioned in terms of ease of use of both outcome measures.

Analysis: The data was inputted into SPSS for quantitative data analysis. Qualitative feedback from all physiotherapists involved was used to assess usability.

Results: The mean level of frailty of the twenty patients was 'mildly frail'. A Shapiro–Wilk test revealed the data set was nonparametric. The spearman test revealed a significant (p = 0.001) and strong correlation (r = 0.84) between the Edmonton frail scale and CSHA clinical frailty scale. All physiotherapists involved in the study reported the CSHA clinical frailty scale as the easiest and quickest to use.

Conclusion: There was a strong correlation between both frailty outcome measures. The CSHA clinical frailty scale is a quicker and shorter scale for physiotherapists to use.

Reference:

1. Rockwood et al (2005) A global clinical measure of fitness and frailty in elderly people. *Can Med Assoc J* 30:489–495

P44 Screening of Osteoporosis Treatment in Patients Presenting with Fragility Fractures in a Geriatric Active Rehab Unit

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Background: Osteoporosis causes almost nine million fractures worldwide annually, and over 300,000 patients are admitted to UK hospitals with fragility fractures each year. Fragility fractures are associated with a significant risk of mortality and morbidity. The aim of osteoporosis management is to reduce the risk of fracture by increasing bone mineral density and correcting deficiencies in calcium and vitamin D. Primary prevention is indicated in women over the age of 65 and men over the age of 75 with one or more independent risk factor for osteoporosis. Secondary prevention is recommended for all patients presenting with a fragility fracture.

Methods: Patients admitted to a geriatric active rehab unit (ARU) over a 6 weeks period were assessed for their reason for admission, history of osteoporosis and osteoporosis treatment at admission.

Results: 51 patients were admitted the ARU over the study period. 25 patients had been admitted with fragility fractures, of which 21 were female. Of these 25 patients, 10 had no previous recorded history of osteoporosis. 14 (56 %) patients were receiving osteoporosis treatment and/or calcium and vitamin D supplementation at admission. 25 patients had a known history of osteoporosis, 14 of which had presented with a fragility fracture. 21 (84 %) of these were receiving osteoporosis treatment and/or calcium and vitamin D supplementation at admission. The medications prescribed for osteoporosis treatment were bisphosphonates (n = 14), denosumab (n = 2) and teriparatide (n = 1). 7 patients with a fragility fracture or history of osteoporosis were supplemented with calcium and/or vitamin D alone. The duration of treatment prior to admission was not recorded.

Conclusions: A high percentage of patients admitted to the ARU present with a fragility fracture or a history of osteoporosis. All patients admitted to the ARU should be screened for risk of osteoporosis and appropriate osteoporosis treatment.

P45 Assessing the Anticholinergic Burden in a Geriatric Active Rehabilitation Unit

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Background: Falls are an increasingly common complication in patients over the age of 65. Research has shown a relationship between the risk of falls and the use of anticholinergic medicines. As the number of elderly patients requiring management for multiple chronic conditions with numerous medications increases, the risk of the possible negative impact of medication on patients' prognosis needs to be identified.

Methods: A snapshot audit of patients in a geriatric rehab facility was carried out. An anticholinergic burden (ACB) screening tool produced by Boustani et al. was used to identify all anticholinergic medicines that a patient is taking and a weighted scoring system based on its anticholinergic properties was applied. The outcome of the patient's falls risk assessment, completed on admission to the active rehab unit, was also recorded. Patients were classified as having a low, moderate or high risk of falls.

Results: 38 patients were screened with an average age of 82 years (range 71–94 years). 29 patients were taking at least one anticholinergic medicine. Of these, 14 (48 %) had an ACB of 1–2 (11 of whom were at a high risk of falls) and 15 (52 %) had an ACB of ≥ 3 (11 of whom were at a high risk of falls). In total, 76 % of all patients were at a high risk of falls, 24 % were at a moderate risk and 0 % were at a low risk. The most commonly prescribed medicines with anticholinergic effects were furosemide, codeine and warfarin.

Conclusions: The ACB in elderly patients recognised as having a high falls risk should be monitored. Medicines should be reviewed for necessity, alternative treatment options should be assessed or if no alternatives are available, patient symptoms should be monitored.

Reference:

1. Boustani MA et al (2008) Impact on the aging brain a review and practical application. *Ageing Health* 4:311–320

P46 The Effect of the Introduction of a Tobacco-free Hospital Policy on Documentation of Smoking Status and Prescription of Nicotine Replacement Therapy (NRT)

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Background: While the prevalence of smoking worldwide has reduced, in the last 10 years figures have plateaued with 20 % of the population continuing to smoke. Brief counselling combined with Nicotine Replacement therapy in hospital inpatients has been shown to result in sustained smoking abstinence at 6 months. The NICE guidelines, HSE tobacco free policy and RCPI policy group on tobacco recommend the assessment of smoking status and targeted smoking cessation strategies for inpatients who are smokers. The aim of the audit was to assess whether the implementation of a tobacco-free campus at our institution resulted in increased identification of inpatient smokers and increased prescription of NRT.

Methods: Two audits were carried out, the first 3 months pre-implementation of the tobacco-free policy (Audit 1) and the second 3 months post (Audit 2). Data was collected from the medical notes and drug sheet of all hospital inpatients by two NCHDs using a data collection sheet. Baseline demographics, medical co-morbidities (heart disease, COPD/Asthma), prescription of inhalers and prescription of NRT were recorded. Documentation of smoking status was also noted.

Results: 255 patient charts were analysed, of which 11 were excluded due to incomplete records. The average age was 74 ± 17.5 and 77 ± 14 years for audits 1 and 2 respectively. Audit 1: smoking status was documented on 67 (52 %) of patients of whom 22 % were smokers with 30 % ex-smokers. 1 patient was prescribed NRT. Audit 2: following implementation of the hospital tobacco-free campus policy documentation of smoking status remained low at 51 %. 20 % were smokers with 41 % ex-smokers. 2 patients were prescribed NRT.

Conclusion: Documentation of smoking status by admission NCHDs is poor. The implementation of hospital policy alone is not sufficient to increase NCHD compliance with tackling smoking cessation.

P47 An Investigation of Factors which Predict Acute Short-Term Functional Outcomes in Older Adults following Hip Replacement Surgery

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Background: Ireland's population is ageing. The increase in the number of older adults has led to an increase in the incidence of hip replacement surgeries. This, combined with the increase in demand for acute hospital beds, puts a strain on the healthcare system. There is

pressure to ensure there is an efficient system for admitting and discharging patients from the acute hospital. The knowledge of factors which have the potential to predict acute short-term functional outcomes may assist with this discharge planning. The aims of the study was to answer the following; Does the level of cognition or fear of falling predict acute short-term functional outcomes? Does pre-functional status of an older adult predict acute short-term functional outcomes? Does an older adults' achieved acute short-term functional outcomes influence discharge destinations from the acute setting? Is there a difference in acute short-term functional outcomes between trauma and elective hip-replacements?

Methods: A quantitative prospective study was used. Participants had to be over the age of 65 and had a primary hip replacement. Eight participants were recruited. Data were collected using the Modified Barthel Index, Standardised Mini-Mental State Examination and Falls Efficacy scale. These were administered on specific days (day 1, 2, 4 and 7) post hip replacement in the acute rehabilitation setting.

Results: Level of cognition was found as a significant predictor of acute short-term functional outcomes ($p = 0.012$). Perceived self-efficacy, pre-functional statuses and functional outcomes between elective and trauma hip-replacement participants were not significant.

Conclusions: The data result suggest that participants with a lower level of cognition have poorer acute short-term functional outcomes post hip replacement surgery than those with higher levels of cognition. The sample size of eight participants limits the scope to draw a firm conclusion. Future research with a larger sample from more than one geographical area is required.

P48 Post-Stroke Fatigue: An Emerging Condition, A Review of the Literature

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Background: Fatigue is a common and debilitating symptom post-stroke. It's prevalence in the stroke population ranges from 38 to 77 %. PSF negatively affects ADL performance and thus, limits participation in rehabilitation programmes. It is a historically under researched area, with the vast majority of literature published in the past 3 years.

Methods: Computer-aided search of databases and thematic analysis was completed, adhering to strict inclusion criteria. 11 of 59 articles were selected (majority at level 1 evidence), critically reviewed and grouped together to form key themes that were explored in more detail in the review.

Results: Key findings: PSF is very prevalent post-stroke and affects on average around half the post-stroke population. There is a dearth of literature in regards to the course and prognosis for PSF. No definitive biological factors have been identified that cause PSF. Interventions/treatments for PSF are in their infancy. There is a clear need for a fatigue assessment tool that is standardised and appropriate for the post-stroke population as a whole. Urgent need for further research in this area.

Conclusion: Many patients may be classed as having poor rehabilitation potential or poor motivation, when their presentation could be explained by the presence of PSF. AHPs should educate patients and families regarding fatigue management strategies for PSF. PSF needs to be a consideration when planning rehab and could guide optimum times for rehabilitation and duration of sessions. These findings will influence staffing levels in stroke units, rehab units and community care etc. PSF has a detrimental effect on a person's functioning and

rehabilitation potential. I predict that research into PSF is a rapidly developing area, which will be at the forefront of stroke research in the coming years.

P49 Risk Factors for Falls Occurring during Hospital Stay

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Background: Morbidity and mortality secondary to falls has been well established (1). The NICE guideline 2013 on falls incorporates assessment and prevention of falls during hospital stay (2). Need for further research into identifying risk factors for falls along with a focus on prevention of recurrent falls amongst inpatients are highlighted. The aim of this audit was to assess documentation of risk factors for falls at time of their occurrence during hospital stay.

Method: Retrospective chart review of medical inpatients 65 years and above with documented falls between August and October 2013 in a 100 bedded hospital was conducted.

Results: There were 38 falls among 25 patients. Six had recurrent falls. Mean age was 75.44 years (13 female). Seventy-nine percent were unwitnessed with 68 % occurring near the bedside. Seventy-five percent occurred during daytime and 80 % scored two or more on the STRATIFY risk tool for falls at the time of admission. The 4 main risk factors identified were prior fall history, drugs especially diuretics and psychotropic medications, known cognitive impairment (32 % MMSE 19–24, 16 % MMSE 10–18, 12 % MMSE 0–9) and gait disturbance. Forty-five percent had 4–5 risk factors at time of fall. There was no documentation surrounding footwear. Only 20 % had a postural blood pressure measurement and 8 % had a visual acuity check.

Conclusions: This retrospective audit highlights the multi-factorial nature of risk factors surrounding inpatient falls. The STRATIFY tool can highlight risk of fall at time of admission but a more thorough risk factor checklist is needed by the initial assessor at time of fall (nursing and medical) in order to prevent recurrence and associated injury during and after hospital stay. A plan to re-audit following instigation of such checklist is intended.

References:

1. Moudouni et al (2013) *J Appl Gerontol* 32:923–935
2. www.nice.org.uk

P50 A Study of Warfarin Control and Potential Suitability for Switching to Alternative Oral Anticoagulant Agents in a Geriatric Day Hospital Setting

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Background: Atrial fibrillation (AF) is a recognised cause of ischaemic stroke. Anticoagulation with Warfarin has been demonstrated as an effective secondary stroke preventative treatment. The international normalised ratio (INR) is a comparative rating of a

patient's prothrombin time ratio and is routinely monitored during Warfarin therapy. Strict control of INR during Warfarin therapy is required to ensure efficacy and safety.

Methods: A retrospective study of the Warfarin medical records for patients attending a Geriatric Day Hospital for INR monitoring was conducted from 01/01/13 to 31/12/13 inclusive. Time in the therapeutic range (TTR) was calculated as the percentage of therapeutic INR values divided by the total number of INR values for the calendar year for each patient. Potential suitability for switching to a novel oral anticoagulant (NOAC) treatment was based on the patients' estimated glomerular filtration rate (eGFR).

Results: 105 (M:F, 50:55, mean age 80.3 years) patients attended the day hospital during the study period. 96/105 patients had a diagnosis of AF and were included in the analysis of TTR. The mean TTR for all patients with AF was 60 % (± 20.5). Patients aged between 65 and 74 years had a mean TTR of 59 % (± 22), those >75 years had a mean TTR of 60 % (± 20). Mean eGFR was 68.7 ml/minutes/1.73 m² (± 24.3). The majority of patients (n = 92) had a creatinine clearance >30 ml/minutes GFR and could be considered for switching to a NOAC therapy as an alternative to warfarin therapy. NOACs were contraindicated in 4 patients with an eGFR <30 ml/minutes.

Conclusions: The TTR results of this study were similar to that performed in 2010 (60 vs. 59 % respectively) comparing favourably with previous international studies. In patients with suboptimal INR control whose creatinine clearance does not contraindicate their use, NOAC agents may be considered as an alternative to warfarin therapy.

P51 Reduced Gait Speed in Community-Dwelling Adults with Atrial Fibrillation

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Background: Atrial fibrillation (AF) is the most common cardiac arrhythmia and is associated with increased stroke and mortality. While AF has been associated with self-reported walking deficits, this study examined the independent associations with objectively measured usual gait speed using data from a large, nationally representative study of community-dwelling adults.

Methods: Participants in The Irish Longitudinal Study on Ageing (TILDA), aged ≥ 50 years, with Mini-Mental State Examination score ≥ 24 , and who completed a usual gait speed test using the GAITRite walkway were included in this analysis (n = 4,493). AF was diagnosed objectively according to ESC guidelines using a 10 minutes surface electrocardiogram recording. Linear regression analyses were performed to compare gait speed in participants with and without AF, adjusting for socio-demographics, physical, cognitive, mental and behavioural health and frailty.

Results: In this community-dwelling sample (mean age 63.5 years; range 51–89), the prevalence of AF was 3.1 % (n = 111) increasing to 6.7 % in participants aged ≥ 70 years. In comparison to the non-AF group, those with AF were more likely to be male, older, frailer, less educated, on more cardiovascular drugs and have poorer behavioural health patterns. In multivariable analysis, AF was independently associated with slower usual gait speed ($\beta = -3.56$; 95 % CI $-7.01, -0.10$; $p < 0.05$) and there was also a significant age*AF interaction effect ($\beta = -0.428$, 95 % CI $-0.855, -0.001$, $p = 0.049$). After

adjusting for all confounders, adults with AF walked 3.70 cm/seconds more slowly than adults without AF at age 70, declining by a further 4.3 cm/seconds for every additional decade.

Conclusion: AF is independently associated with slower usual gait speed in community-dwelling adults, especially those aged 70 years and older. Reduced gait speed increases the risk of falls, disability, cognitive decline and mortality. Therefore, the early recognition and treatment of AF is vital to reduce the risk of these adverse outcomes.

P52 Do Self-Reported Sensory Deficits Predict Recurrent Falls Over Two Years?

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Background: Co-existing deficits in self-reported balance, vision and hearing, predict fear of falling and mobility decline in older women. This study examined if self-reported sensory deficits also predict future falls in community-dwelling adults with no previous fall history.

Methods: Participants in The Irish Longitudinal Study on Ageing (TILDA), aged ≥ 50 years, with Mini-Mental State Examination score ≥ 24 , were included in this analysis (n = 5,484). At baseline, the participants' self-reported vision was dichotomised (excellent/very good vs. good/fair/poor), as was hearing (excellent/very good vs. good/fair/poor), and steadiness during walking (very steady vs. slightly steady/slightly unsteady/very unsteady). Groups were defined based on the presence of a single sensory deficit and any combination of deficits. Participants reported the number of falls since the last interview; ≥ 2 falls indicated a recurrent faller. Poisson regression analyses were used to obtain relative risk of being a new recurrent faller after adjusting for socio-demographics, physical and mental health.

Results: In this sample (mean age 62.9 years; range 50–93), 581 participants (10.8 %) reported unsteadiness while 207 (3.8 %) and 413 (7.6 %) reported a vision or hearing deficit respectively; 321 (6.0 %) had two deficits while 56 (1.1 %) had three deficits. Unsteadiness was associated with recurrent falls over two years (IRR 2.47, 95 % CI 1.82–3.37, $p < 0.001$). The relative risk was slightly lower when unsteadiness co-existed with poor vision (IRR 2.34, 95 % CI 1.35–4.28, $p = 0.003$) and poor hearing (IRR 2.14, 95 % CI 1.40–3.73, $p = 0.001$) but increased in participants with all three deficits (IRR 2.71, 95 % CI 1.09–4.84, $p = 0.030$).

Conclusion: Adults who self-reported unsteadiness during walking are about 2.5 times more likely to fall repeatedly in the next 2 years compared to those with no sensory deficits. Vision and hearing deficits are not associated with falls, unless they co-exist with unsteadiness. This suggests that self-reported steadiness may be useful as part of a geriatric falls assessment especially when objective measurements are not available.

P53 Appropriate Use of Urinary Catheters and Documentation in the Geriatric Population

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Background: The purpose of study was to assess if indications for urinary catheterisation and documentation were appropriate as recommended by HSE/HPSC.

Methods: All medical wards at University Hospital Limerick were included in study over a one day period. For every patient who had a catheter in situ the medical notes were checked to see if: (1) the indication for urinary catheter insertion was recorded, (2) assess whether the procedure was documented

Results: In total 105 patients were included in the audit. 15 (14.3 %) patients were catheterised on the medical wards. This included ten males and five females. All patients were over the age of 65 years. 1 patient had catheter prior to admission. Of the remaining 14 patients, 4 (26.6 %) patients had catheter inserted in accident and emergency, 5 (33.3 %) patients had catheter inserted on ward, and 4 (26.6 %) patients had catheter inserted in unknown location. 4 (26.6 %) patients had appropriate clinical indication for catheter insertion which included acute urinary retention and monitoring urinary output. 2 (13.3 %) patients had inappropriate indication of urosepsis recorded for reason of catheter insertion and 1 (6.6 %) patient the reason was biliary sepsis without indicating was reason for monitoring urinary output. The remaining 8 (53.3 %) had no reason for urinary catheter documented in notes. The procedure was documented in medical notes in only 2 patients, and patient consent was documented in only one case.

Conclusion: It is evident that inadequate documentation in medical notes means it is hard to assess the appropriate indication for urinary catheterisation. In this study, 42.8 % of documented reasons for catheterisation were inappropriate. Large deficiencies in recording the indication for catheter insertion, documentation of the procedure itself and recording of patient consent obtained are evident.

P54 Outcomes of Patients Following Attendance at a Geriatric Day Hospital: One-Year Prospective Cohort Study

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Background: One year ago we identified the prevalence of frailty in the new community dwelling older people referred to our geriatric day hospital in a large University Hospital 1. In total we assessed 257 patients and their level of frailty was measured using the Frailty Instrument for primary care of the Survey of Health, Ageing and Retirement in Europe (SHARE-FI). The aim of this study was to determine outcome with regard to mortality and acute hospitalisation rates/length of stay at 1 year in this patient cohort.

Methods: One year prospective cohort study. Levels of frailty (i.e. non-frail, pre-frail, frail) were measured with SHARE-FI. Data was collected in relation to patient mortality at 3, 6, 9 and 12 months by assessing the bereavement notification website: <http://www.rip.ie>. Data was collected about acute hospitalisation of this patient cohort using this University's Hospital computer based patient administration system.

Results: Of the original 257 patients, 231 (89.9 %) were still alive and 26 (10.1 %) were dead. Of the 26 deaths (17 male, 9 female); frail group—9 (34.6 %) deaths, pre-frail group—9 (34.6 %) deaths and

non-frail group—8 (30.8 %) deaths. Acute hospitalisation occurred in 81 (31.5 %) patients from the cohort. This accounted for 109 acute hospital admissions. In total there were 2,905 inpatient bed days, with median length of stay (LOS) 26 days (IQR 4–25). Median length of stay were as follows; non-frail group—median LOS 7 days (IQR 4–17), pre-frail group—median LOS 11 days (IQR 5–36), frail group—median LOS 13 days (IQR 3–25).

Conclusion: There is a significant mortality rate at 1 year of follow-up in this cohort likely related to multiple underlying co-morbidities. There is a trend towards longer inpatient length of stay with increasing frailty as assessed by the SHARE-FI tool.

P55 The Prevalence of Anaemia in a Geriatric Day Hospital Cohort

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Background: Anaemia is a common condition of the elderly and prevalence increases with age. Anaemia in the elderly is often mild and well tolerated. However, it can have an important impact on the quality of life of older patients. The objective of this study was to identify the prevalence of anaemia among 100 consecutive patients attending a Day Hospital.

Methods: This was a retrospective cohort study of 100 consecutive new patient referrals to our outpatient day assessment unit in this University Hospital. We analysed the haematological and biochemical laboratory results to identify the prevalence and aetiology of anaemia. A haemoglobin concentration of <12 g/dl was considered to constitute anaemia in an elderly population regardless of gender 1. Patients with anaemia were further subclassified into microcytic, macrocytic and normocytic anaemia respectively.

Results: The 100 elderly patients, 38 were males (38 %) and 62 were females (62 %). The mean age was 83 years (SD 6.41, range 66–99). The mean Hb was 12.84 g/dl. There were 19 patients with a Hb <12 g/dl (range 8.7–11.9 g/dl) and 5 of those patients had a Hb <10 g/dl. The vast majority were normocytic normochromic anaemia 16 (84.2 %) and microcytic anaemia 3 (15.8 %), there was no macrocytic anaemia. Aetiology of anaemia were as follows; iron deficiency anaemia n = 8 (42.1 %), vitamin B12 deficiency n = 1 (0.05 %) and anaemia related to chronic kidney disease n = 2 (10.5 %).

Conclusion: Anaemia is prevalent condition in the elderly and is often multifactorial. However, all cases of anaemia should mandate thorough investigation and treatment where appropriate in a frail population.

Reference:

- Andres E, Serraj K, Federici L, Vogel T, Kaltenbach G (2013) Anemia in elderly patients: new insight into an old disorder. *Geriatr Gerontol Int* 13(3):519–527

P56 A Study of Body Mass Index Change in Hospitalised Geriatric Patients in an Active Rehabilitation Unit

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Background: The body mass index (BMI) is an easy to calculate measure of healthy weight, useful in assessing long term morbidity and mortality from chronic disease. This study examines the BMI change in electively admitted geriatric patients during their stay in a rehabilitation ward and its correlation with length of stay (LOS).

Methods: This is a retrospective descriptive study, using a database compiled from the rehabilitation ward notes and hospital electronic registers, covering a period of 6 months. Our sample consisted of 71 patients, with 16 samples discarded due to incomplete data. We calculated the distribution of patients into WHO BMI categories, both at the time of their admission and discharge. We also analysed relations between LOS, BMI change and age by calculating Pearson correlations.

Results: Out of a population of 55 patients, during an average LOS of 48 days, 44 % lost weight while 56 % gained, with an average change of 4 kg. At the time of admission, 8.93, 44.64 and 46.43 % fell into underweight, normal and overweight/obese BMI categories respectively, changing to 12.50, 35.71 and 51.79 % at discharge. There was a weak positive correlation ($p = 0.258$) between LOS and the change in BMI, showing patients tended to gain weight with an increasing LOS. A moderate negative correlation ($p = -0.391$) between age and admission weight was observed. The average age was 80.

Conclusions: We suggest that the tendency for an increased BMI between admission and discharge is due to physiotherapy and nutritional supplementation. The negative correlation between age and admission weight is consistent with existing studies for elderly patients. We also note that BMI as an indicator can have limitations when applied to this age range and there are studies that suggest altering WHO cut-offs for elderly patients.

P57 Impact of Season, Weekends and Bank Holidays on Transfer of Nursing Home Residents to Emergency Department

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Background: Nursing home (NH) residents receive their medical care predominantly through their designated general practitioner. For urgent, unexpected clinical events, the residents are transferred to the acute hospital emergency department (ED). A previous study showed that only a third of NH residents present during normal working hours (Briggs 2013). Our aims were to profile 1-year NH transfers to the ED and to examine the recidivism, patient outcome and the impact of season, weekends and bank holidays on transfer rates.

Methods: All NH transfers to the ED from the Dublin North City catchment in 2013 were identified using the electronic patient information system. Information collected included age, gender, ED patient outcome (admission/discharge/died in department), time of presentation, date, day of attendance and whether it was a bank holiday. Recidivism and the time interval between transfers, transfer rates for season, weekdays/weekends and bank holidays were calculated. Student t test, Chi-square statistics and one-way ANOVA were used. Significance was set at 0.05.

Results: In 2013, 397 NH residents had 620 episodes of care of which there were 391 (63.1 %) admissions, 219 (35.3 %) discharges and 10 deaths in the ED. One hundred and thirty-seven (34.5 %) residents were recidivists to the ED and 50 (8.1 %) episodes occurred within a

fortnight of the last attendance. Neither season nor weekdays/weekends nor bank holiday affected the transfers or admission rates of the NH residents. The highest transfers occurred in May (2.26 patients/day), during working hours (0.11 transfers/hours) and on Mondays, Wednesdays and Thursdays (1.8 transfers/day).

Conclusions: The data therefore do not support the assertion that NH patients are mainly transferred at weekends, during Bank Holidays or in the winter months. Further insights into the attendance pattern of NH residents to ED, may facilitate appropriate staffing in ED departments to manage these frail complex patients.

P58 Impact of a CNS for Frail Older Adults on a Geriatric Consult Service in a Tertiary Academic Teaching Hospital

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Background: Comprehensive Geriatric Assessment of patients of other services has always been part of the core work of the Specialist Geriatric Team. Older adult admissions are increasing with demand on the services to discharge patients. Increasingly Geriatric consults are being requested often by junior doctors. Our newly appointed CNS for Frail Older Adults prioritises triages and pre-assesses all patients for whom Geriatric review may confer the most benefit.

Method: Retrospective data was collected from the KEY system from the 1st of January 2014 to 30th of May 2014.

Results: 425 consultations received with 403 consultations completed. Pre-screening by the CNS resulted in appropriate triaging of those with greatest need based on patient review, accurate collateral history and in-depth chart review. 281 (70 %) of consults were received from general medical teams. Orthopaedic services requested 77 (19 %). Suitability for long term care (LTC) or rehabilitation following surgery or acute illness and deconditioning and medical advice on the management of dementia and delirium are the more common referrals. As a result of consultation 63 (16 %) of patients were listed for LTC the majority of these for dementia. 107 (27 %) patients were referred for further rehabilitation. Up to 15 % of referrals were classed as inappropriate by the CNS at initial review the most common reason being lack of or erroneous information or medical instability/incomplete investigation of the patient.

Conclusion: This study demonstrates the significant activity attributable to consultations to the Geriatric Services and highlights the role of the CNS. This role has significantly improved timely access to Comprehensive Geriatric Assessments resulting in a reduced workload. The significant numbers of patients seen with delirium and dementia also emphasises the importance of nurse specialist involvement and their role in education of nursing and Allied Health Professionals colleagues in management methods of these conditions.

P59 Significant Fall Reduction: The Effectiveness of An Interdisciplinary Falls Group in a Residential Centre for People Ageing with Intellectual Disabilities

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Background: The increased longevity of people with intellectual disabilities is a relatively new phenomenon. They have a multiplicity of predisposing factors for falls and injury post fall. The prevention of falls is an important issue in maintaining the health, quality of life and independence of people ageing with intellectual disabilities. A retrospective case control study in 2007 identified risk factors for falls in this centre.

Aim and objectives: Effective fall prevention programmes aim to reduce the number of people who fall, the rate of falls and the severity of injury should a fall occur. The aim of this project was to investigate the effectiveness of an interdisciplinary Falls Group which included input from activation, nursing, nutrition, occupational therapy, pharmacy and physiotherapy.

Methods: Falls in the centre were reported on a fall and injury information form. Data for 4 years was inputted into EXCELL, extracted to SPSS version 19 and analysed.

Analysis: Analysis included both descriptive and inferential statistics. Inductive analysis was performed to examine potential associations between diagnoses and other circumstances of the fall, and the outcomes variables of injury from fall and number of falls.

Results: Fall prevention strategies should be targeted at the peak time for falls- at 9–10 am and 12–1 pm. People with a diagnosis of epilepsy differed significantly from those without, in relation to the distribution of number of falls (Mann–Whitney U 257, $p = 0.02$). Statistical analysis of the annual number of falls in this centre showed a significant decrease of 75 % in the yearly mean falls per resident between 2006 and 2011.

Conclusion: The interdisciplinary Falls Group in this centre proved to be an effective intervention to prevent falls in this vulnerable population and a similar Falls Group in other locations of care may have equal success.

P60 The Pivotal Role of the Assessment and Treatment Centre/Day Hospital in Optimizing Health, Function and Wellness in Older Adults

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In 2013, St. Finbarr's Assessment and Treatment Centre (A&TC) was awarded Outpatient Initiative of the year. An analysis of activity from 2010 to 2012 demonstrated a 50 % increase in new referrals which coincided with the move from smaller day Hospital facilities to specially adapted facilities with additional resources.

The A&TC provides older adults with timely access to rehabilitation and a range of diagnostic and therapeutic interventions. In addition to nursing, therapy, medical review and comprehensive geriatric assessment, specialist clinics include memory, movement disorder, falls, anti-coagulation, infusion and continence advisory.

In accordance with the National Positive Ageing Strategy (Dept of Health and Children, 2013), the dedicated team of health care professionals enable and support older people to enjoy physical and mental health and wellbeing to their full potential. Complex case management, rehabilitation and community liaison support sustain

frail older adults in their own homes, reducing burden of care. It acts a resource for healthcare professionals providing a pivotal link between hospital and community based services.

The interdisciplinary team are focused on evidence based practice and key performance indicators and the delivery of measureable outcomes for frail older people as outlined in Specialist Geriatric Services Model of Care (RCPI/HSE 2012). Operational aspects of clinics have also improved i.e. timed appointments with improved waiting times and triage facilitating comprehensive assessment and focused intervention. Patient questionnaires have revealed high satisfaction rates with the service which is tailored to meet their needs and is person centred.

While the service continues to evolve, it is evident that ambulatory care and the role of the day Hospital/Assessment and Treatment Centre are a cost effective means of providing care for older adults reducing hospital admissions.

P61 Evaluation of Stroke Recovery Post Discharge from a Stroke Rehabilitation Unit

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Background: Stroke disability and morbidity are associated with reduced quality of life (QOL) among stroke survivors (Huang et al. 2010). Evaluating stroke recovery is complex as stroke not only impacts on physical function, but also on emotion, memory and thinking, communication, and quality of life. The Stroke Impact Scale is a validated tool that addresses meaningful domains in the recovery process.

Purpose: To evaluate stroke recovery through measurement of quality of life indicators.

Methods: A quantitative descriptive approach was used using the Stroke Impact Scale (SIS version 3.0) as a data collection tool.

Sample: All patients discharged from the Stroke Rehabilitation Unit who attended for a follow-up appointment with the ANP. The concurrent data collection process involved face to face interview with patients as part of the scheduled follow-up appointment with an Advanced Nurse Practitioner (ANP) in the Assessment and Treatment Centre, 6–10 weeks post discharge from the stroke rehabilitation unit.

Sample size: $N = 54$ (male 52 %, female 48 %). Age profile 62–88

Data analysis: SIS scoring software on Microsoft access.

Results: 70 % of patients rating their own recovery between 70 and 100 %. There was a strong relationship between perceptions of recovery and physical functioning as rated using the Modified Rankin Scale with 30 % scoring 3–5 indicating moderate to severe disability. Mean scores across domains were physical strength 78 %, mobility 74 %, activities of daily living 75 %, purposeful engagement 78 %, mood and emotion 81 %, communication 88 %. Twenty percent rated their hand function on the affected side as less than 50 %.

Conclusion: The Stroke Impact Scale engages the stroke survivor in rating their own recovery. Coordinated specialist intervention on a stroke rehabilitation unit and organised follow-up post discharge improves patient outcomes, aids recovery and prompts person centred focused intervention.

P62 An Investigation of Vitamin D status and Supplementation in a Predominantly Elderly East Galway Population

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Background: Vitamin D deficiency is common, particularly in northern latitudes. It is associated with bone mineralization defects, increased fracture risk and increased rates of falling. This study examined a predominantly elderly East Galway population, measured vitamin D levels and rates of supplementation in this population, and compared them with international clinical guidelines.

Methods: The following data were obtained from the medical records of 150 patients for whom serum 25(OH)D (vitamin D) levels were available: serum 25(OH)D levels (nmol/L); time of year of sampling; whether or not supplementation was commenced on receipt of the results of vitamin D levels and whether or not patients were vitamin D supplemented at the time of testing. These data were compared with clinical guidelines for the evaluation, treatment and prevention of vitamin D deficiency.

Results: There was substantial seasonal variation in vitamin D measurements, with average serum levels of 25(OH)D of 37.8 nmol/L in winter and 70.1 nmol/L in summer. Ninety-one patients (60.5 %) were vitamin D deficient. Twenty percent were severely deficient, 16.6 % were moderately deficient and 23.3 % were mildly deficient. Forty-nine percent of deficient patients were started on a vitamin D supplement. Of these, 95 % were prescribed supplements containing 400 IU of vitamin D daily. When we characterised patients with severe vitamin D deficiency, we found higher rates of falling and Parkinson's disease in this patient group. Severely deficient patients were more likely to be nursing home residents than vitamin D-replete patients.

Conclusions: There is a high prevalence of vitamin D deficiency among the elderly in East Galway. Only 49 % per cent of vitamin D deficient adults received a supplement. Supplementation was inadequate, with most patients started on 400 IU vitamin D daily, compared with the international guidelines of 50,000 IU vitamin D2 or D3 once a week for 8 weeks, followed by maintenance therapy of 1500–2,000 IU/day.

P63 The First 18 months of a Newly Established Active Rehabilitation Unit for the Frail and Elderly: A Retrospective Review

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Background: In October 2012 the Active Rehabilitation Unit opened in a Dublin Hospital in response to the increasing need for Medicine for the Elderly rehabilitation beds. The patients have been managed by a Multidisciplinary Team including Medical, Nursing, Physiotherapy, Occupational Therapy, Medical Social Work, Pharmacy, Dietician, Podiatry and Speech and Language Therapy. This presentation looks at demographics of the patients during that 18 month journey; and their ultimate discharge destination. A 3 months sample was reviewed and different discipline outcome measures are presented.

Methods: A retrospective review of all admissions since the opening of the ARU (from October 2012 to May 2014) was undertaken and gender, age, and length of stay were calculated. A review of a

3 months sample was assessed and admissions reviewed as to Barthel score; BMI; MMSE score; FIM score and Charlson Comorbidity Index score.

Results: In 18 months since opening there were 387 admissions to the Unit. 66 % were female; 34 % male. The average age of the patient cohort is 81 years (range 65–98). The average length of stay is 47 days. The majority (76 %) of patients were discharged to their home. 12 % were discharged to LTC. On review of a 3 months sample the Barthel Scores improved by 16 %. The MMSE average was 22. The BMI increased with length of stay. The FIM improved from admission. The Charlson comorbidity index score average was 6.4.

Conclusion: The cohort of patients attending our Active Rehabilitation Unit is a frail population group who require significant Multidisciplinary Team input. It is difficult to comment on the outcomes in the absence of data from other similar facilities. We would suggest a National Geriatric Rehabilitation Outcomes Database to facilitate valid comparison.

P64 An Assessment of the Age Adjusted Charlson's Comorbidity Index on Deaths in an Active Rehabilitation Unit

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Background: Elderly patients suffer from multiple chronic conditions which may affect their quality of life, use of health services, morbidity, and mortality. The Charlson's comorbidity index (CCI) score was used as a predictor of mortality in an active rehabilitation unit. It is a weighted index that takes into account the number and severity of comorbid conditions; and predicts 1 year mortality. This study reviews the CCI of deceased patients of our active rehabilitation unit in Cappagh Hospital and compares it to an average sample of our cohort patients.

Methods: A retrospective review of all deaths within our active rehabilitation unit was collected; and the details of their comorbidities were collated. The CCI for each patient was calculated. This was then compared to the CCI of all patients taken on 1 day in the unit on random sample in May 2014.

Results: A total number of 387 admissions presented to the active rehabilitation unit in Cappagh Hospital from October 2012 to April 2014. During this period there were 6 deaths representing 2 % of the total. The CCI was calculated for these and ranged 8–12 with an average of 9.5. The average CCI taken as a random sample on patients on 28th of May 2014 was 6.4, with a range of 3–10.

Conclusion: Patients presenting to the active rehabilitation unit are from two acute hospitals, the Mater Misericordiae and Connolly Hospital. They are frail with multiple comorbidities. A small percentage (2 %) died subsequent to admission to our rehabilitation unit. The CCI of these patients were significantly higher than those of an average sample of patients. The CCI might prove a useful tool in evaluation of patients for assessing increased medical and nursing requirements and perhaps their suitability for admission.

P65 An Assessment of the Charlson Comorbidity Index on a Patient Population on an Active Rehabilitation Ward

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Background: The Charlson comorbidity index (CCI) is a method of predicting mortality by classifying or weighting comorbid conditions and has been widely used by health researchers to measure burden of disease and case mix. The patients presenting to the Active Rehabilitation Unit in a Dublin Hospital are transferred following admission to two other Dublin Hospitals. The majority had an acute admission to these hospitals following Orthopaedic Surgery for a fracture. They have multiple comorbidities. This study assessed the scores of all patients on the Unit.

Methods: All patients present on the Active Rehabilitation Ward on the 28th of May 2014 had their age, medical illness, chronic kidney disease stage, and MMSE recorded. They were scored using the Charlson comorbidity index score calculator, and their scores were age adjusted.

Results: The CCI range was 3–10 for our population cohort, with an average of 6.4. Moderate to Severe Renal Disease, COPD and Dementia were the three most commonly scored conditions.

Conclusion: As a population cohort those who present to Step down facilities from acute Hospitals, such as the Active Rehabilitation Unit in this Hospital exhibit a high Charlson comorbidity index, reflecting their moribund status. This has significant health management issues for the attending multidisciplinary team. There are significant financial issues to dealing with patients with comorbidities. More recent studies by Quan et al. have shown that the weighting of the CCI could be updated to put more weighting to Dementia and CCF. There is scope for the development of a morbidity index calculator specific to a Geriatric patient population.

P66 Views and Experiences of Irish Healthcare Workers on the Delivery of Palliative Care to People with Parkinson's Disease: A Qualitative Analysis

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Background: People with advanced Parkinson's disease (PD) have complex symptom management needs, often non-neurological, especially towards the end-stage of their illness. Therefore the potential role of a palliative care approach for patients with end-stage PD is gaining increasing interest. However, international research shows that palliative care needs often are not addressed in PD; and our previous survey of 300 healthcare workers (HCWs) suggested an unmet need in the Irish context. The aim of the current study was to explore the views of HCWs on the delivery of palliative care to people with PD, including perceived barriers and facilitators, through an in-depth qualitative analysis.

Methods: Semi-structured interviews were conducted with HCWs (N = 30) from the HSE South region. HCWs specialising in PD, neurology, or palliative care were purposively sampled. Interview transcripts were analysed using thematic analysis.

Results: Participants felt that a palliative care approach would benefit people with advanced PD. However, findings indicated poor service

delivery and unmet palliative needs in this population. HCWs identified many perceived barriers to the introduction of palliative care in PD, including negative stigma associated with palliative care, unclear referral pathways to specialist services, and a lack of resources to extend specialist services beyond cancer patients. Methods to facilitate palliative care delivery in PD were also discussed, including the importance of a multidisciplinary team approach, effective communication between members, better HCW education and guidelines to facilitate "generalist"-provided palliative care, more information for patients/families, and increased public awareness of palliative care.

Conclusions: A palliative care approach can benefit people with PD. However perceived barriers prevent easy referral to specialist services or adoption of a palliative care approach. At an organisational level, we recommend the introduction of clear local pathways for referral to specialist palliative care, as well as national guidelines for the palliative care of people with PD.

P67 Are Newly Established Nursing Homes More Likely to Transfer Their Acutely Ill Residents to Our Hospitals?

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Background: Nursing homes (NHs) provide care to older people that are particularly predisposed to acute illness episodes. Older residents often have multiple co-morbidities that impair their physiological response to acute illness episodes. By necessity, NH capacities will increase as our population ages and care models must adapt to improve the care older people can expect to receive in NHs. We questioned whether new NHs were more likely than their established counterparts to transfer acutely ill older residents to an acute hospital for management.

Methods: Prospective data collected as part of routine care of older NH Residents admitted acutely to a large University Hospital were reviewed for the 8 month period (September 2013–April 2014) from 2 newly established private NHs (resident population 92 and 93 respectively) and compared with a similar sized established private NH.

Results: 39 patients were identified (mean age 87 years; 56 % female). Of the new NHs: NH A had 14 unscheduled admissions while NH B had 16; their more established counterpart, NH C had 9 unscheduled admissions. The published literature suggests a range of rates for acute transfer of 15–40 per 100 beds per year. Transfer rates in our instance were 15.2, 17.2 and 9.1 per 100 beds for the 8 month period for NHs A, B and C respectively.

Conclusion: Our data suggests that new NHs are more likely than their established counterparts to transfer their older NH residents when acutely ill. This effect will likely be exaggerated over the coming years as the NH sector grows. We would advocate that joint primary and specialty geriatric care approaches are explored to facilitate education and training of NH Nursing and Medical staff and to support the delivery of care to older people resident in new NHs at this vulnerable time.

P68 Simulation-Based Multi-Disciplinary Team Training: Does it Enhance Care Quality for Older People?

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Background: This paper describes the process of designing and evaluating a ward-based simulation training programme for multidisciplinary healthcare staff in an older persons' unit, aimed at improving teamwork, coordination of care and the patient experience. Recent studies suggest that simulation training for geriatric medicine is useful and potentially very effective. (1) Training in multi-disciplinary teams is shown to enhance Non-Technical Skills such as team communication and coordination of care. (2) However, there is a need for more evidence in relation to transference of these learning outcomes to the ward environment, and effects on clinical behaviours, patient care and staff experiences.

Methods: Healthcare professionals, patients and carers on an acute specialty geriatric medicine unit will take part in interviews and surveys to inform structure, content and process of ward-based mixed-modality simulation sessions (scenarios and exercises) with integrated debriefing. A mixed-methods evaluation will include confidence rating scales and follow-up interviews and questionnaires with staff at 7–9 weeks post-training. Pre and post training analysis of secondary data on patient complaints, adverse incidents and satisfaction surveys will be performed.

Results: Pre-training analysis identified areas for development which were incorporated in the training programme. We anticipate that post-intervention data may show improvement in the areas-communication within the team, leadership, self-confidence, co-ordination of patient care, clarity around the process of care/patient journey. Thematic analysis of interview data will be performed. Secondary data may support these findings by showing decreased patient complaints, adverse incidents and increased patient satisfaction.

Conclusion: Our study aim is to demonstrate that simulation is an effective method for inter-disciplinary staff training and enhances patient-centred care. Consultation with staff has already commenced. The study will continue during June and July with result publication in September 2014.

P69 Bon Appetite: Improving the Mealtime Experience of Residents in Long-Term Mental Health Units Through Education and Training

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Background: Every resident has the right to receive tasty, nutritious and well-presented meals in pleasant surroundings at times convenient to them (Health Information and Quality Authority 2009). Dysphagia prevalence in long-term mental health settings is estimated at 31 %. It can negatively impact quality of life (QOL), hydration and nutritional status. This study aims to examine compliance with modified food and fluids and mealtime factors (presentation, timing of meals and hydration) for residents in long-term mental health units.

Methods: A mealtime audit was completed in November 2013. Data was analysed using sphinx software. Training was provided to staff by the speech and language therapist (SLT) and Dietitian. A pre and post-training questionnaire was completed by staff. A repeat audit was completed in May 2014.

Results: 44 residents were included in each audit.

Results revealed: (1) Compliance with SLT recommendations: 77 % pre-training, 87 % post training. (2) Presence of a drink at mealtime:

56 % pre-training, 96 % post training. (3) Pre-training, 49 % of residents received their meal (potatoes, meat and vegetables) mixed together in a bowl. Post-training 100 % of meals were presented on a plate with the individual components visible. (4) Pre-training, all residents (100 %) had their meal before 12.30 including 46 % before 12 noon. Post-training, all residents (100 %) received their meal after 12.30. (5) 49 % of residents consumed over 75 % of their meal pre-training, increasing to 84 % post training. Pre-training questionnaire revealed 58 % knowledge among staff, increasing to 81 % post training.

Conclusion: Residents' mealtime experience, compliance with SLT recommendations, residents' nutrition and hydration status and staff knowledge has improved. Presentation of meals is enhanced and timing of meals is more reflective of the home environment. Overall, education was vital in improving a basic daily activity for residents in mental health units and their QOL. Training should be provided on a regular basis.

P70 BMI as a Predictor of Mortality Risk in Older Persons: The Dublin Outcome Study

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Background: Weight gain and obesity are linked with increased risk of hypertension, total cardiovascular risk and all-cause mortality. Studies have shown that this association is stronger in younger and middle aged than in older populations. We aim to evaluate the link between body mass index (BMI) and prediction of mortality risk in older hypertensive adults with a view to assessing whether different BMI cutoffs should be utilized in older persons with regard to weight management in the treatment of hypertension.

Methods: At baseline, not on antihypertensive medication, 11,291 patients (5,326 male), mean age 54.6 years underwent ambulatory blood pressure monitoring. Using a computerised death registry, mortality outcome was ascertained. After a mean follow up of 5.3 years there were 566 cardiovascular and 389 non-cardiovascular deaths

Results: In a Cox proportional hazard model an obese older person is 31 % less likely to have a non-cardiac death than a younger patient. Increased BMI >30 resulted in hazard ratios (HR) of 0.69 (0.42–1.13) and 0.79 (0.52–1.20) for non-cardiovascular death and cardiovascular death respectively in the over 70 group. In the under 50 group a BMI >30 resulted in a HR of 1.37 (0.67–2.80) and 1.65 (0.80–3.40) for non-cardiovascular and cardiovascular deaths respectively. After adjustment for sex, age, smoking history, previous cardiovascular events, diabetes and daytime systolic blood pressure, increased BMI in the under 50 group results in HR of 0.99 (0.94–1.05) and 1.03 (0.98–1.00) for non-cardiovascular death and cardiovascular death. In the over 70 group it resulted in HR of 0.93 (0.89–0.97) and 0.98 (0.95–1.01) for non-cardiovascular and cardiovascular death.

Conclusion: This study shows a trend linking higher BMI with reduction in mortality risk in older individuals with hypertension, suggesting that arbitrary markers for obesity are not appropriate in the older patient. Increased weight in older persons may be a sign of wellness.

P71 The Importance of Follow up Ambulatory Blood Pressure in Older Adults

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Background: Ambulatory blood pressure (ABP) is endorsed by most guidelines for the management of hypertensive patients. Much literature is now available supporting its use to exclude white coat hypertension, illustrate abnormal circadian profiles and offer superior prognostication to clinic blood pressure. Many of these studies use baseline ABP for these analyses. The need for follow-up ABP is however less clear. We undertook this study to evaluate follow-up ABP in a population cohort.

Methods: As part of a population study 432 individuals had baseline and follow-up ABP. Data was extrapolated for 47 individuals aged over 50. The follow-up period was 8.1 (0.8) years. Along with a repeat ABP, routine biochemistry, ECG and ECHO were performed. Ethics approval was attained.

Results: The mean age of the cohort at baseline was 55.4 (3.9) years while 62 % were female. At follow-up mean total cholesterol level was 5.8 (1.23) with triglycerides 1.39 (0.78), mean body mass index (BMI) was 25.7 and mean creatinine level was 90.67 (15.9). At follow-up there was a 9.64, 1.8, and 8.1 mmHg increase in office, daytime and nighttime systolic blood pressures (SBP) respectively. Interventricular septal thickness and left ventricular mass were more closely correlated with follow-up daytime SBP than baseline (0.25 vs. 0.11; 0.2 vs. 0.04 respectively).

Conclusions: In older healthy patient population, there is significantly higher increase in nocturnal than in daytime SBP at follow-up ABP. While the broader use of ABP has gained acceptance further studies are needed to clarify its role in the ongoing management of patients. Our study suggests that follow-up ABPM does provide useful information to facilitate better management of hypertension in ageing population.

P72 A Review of Anticoagulation in Geriatric Day Hospital Setting

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Background: Despite the advent of newer anticoagulant agents many patients with atrial fibrillation or thromboembolic disease continue on warfarin treatment. While this can be due to patient choice there is a reluctance to change people from Warfarin, who are felt to be stable on it. Warfarin prescribing can be challenging and often left in the hands of junior doctors. A recent US study demonstrated widespread suboptimal anticoagulation control with Warfarin. Time in the therapeutic range (TTR) is a measure of control related to outcomes, such as major haemorrhages, ischaemic events and mortality. We undertook this study to evaluate anticoagulation efficacy in a population attending a day hospital-based warfarin clinic.

Methods: We carried out a retrospective review of all patients attending the anticoagulation clinic in the day hospital where one team carries out all prescribing. Patients of all ages with atrial fibrillation and venous thromboembolism requiring a target INR 2–3 were included. All INR levels within a 12-month period were downloaded and analysed. TTR was calculated using the Rosendaal method.

Results: There were a total of 138 patients, mean age 71.9 (13.2). 28 were <65 and 110 were >65 years of age. The mean follow up time

was 239.0 (123.0) days; the mean time in range was 145.3 (93.8) days. The average TTR was 54.1 (25.3). The mean number of INRs checked was 17.9 (13.4) during the follow up period. Comparing the TTR in different age groups, a trend towards greater control in the older age group was observed (56.0 vs. 46.6 ($p < 0.1$)). Older adults had slightly lower numbers of INR checks (17.6 vs. 18.2).

Conclusions: Our study confirms that TTR is a useful measure to assure patients' adequate anticoagulation control. The ability to highlight those with low TTR could allow these patients to be considered for alternative treatment approaches.

P73 Acute Stroke Care Audit in Connolly Hospital (2014)

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Background: There is overwhelming evidence that coordinated, structured care in the early hours after stroke improves patients' survival and overall outcomes. INASC (2007) confirmed that stroke services in Ireland were poorly organised; in order to address these issues, the Irish Heart Foundation's Council for Stroke published national guidelines in October 2009. The aim of our audit was to evaluate whether patients presenting with acute stroke are treated according to the guidelines.

Methods: A retrospective chart review was performed on 30 randomly selected patients admitted to Connolly hospital between 2012 and 2013 with a stroke diagnosis using the HIPE coding system (codes i60–i164).

Results: There were 17 males, average age 70 years (range 33–90). 24 patients were admitted to a general ward, 4 to a high care unit (ICU/CCU) and only 2 patients admitted to the stroke unit. Only 30 % (9/30) of patients were classified as FAST positive on arrival. Average length of stay in the emergency department (ED) was 24 hours. 21 patients had CT scan performed within 24 hours of presentation. Access to the multidisciplinary team (MDT) was limited. Only 3 patients had physiotherapy assessment, 1 had occupational therapy assessment and 2 had full swallow assessment within the first 48 hours. Two patients were assessed by medical social work within 2–5 days.

Conclusions: Patients with potential stroke are not recognised in a timely fashion and remain in ED for a prolonged period of time. Current 4-bed stroke unit is underutilised and referrals to the MDT are inconsistent and delayed. MDT staff shortages due to restrictions imposed on recruitment contributed to this delay. Further training across the disciplines is necessary and there is a strong need for a dedicated Clinical Nurse Specialist in stroke, who would help to coordinate stroke care in this HSE hospital.

P74 Cerebral Amyloid Angiopathy presenting as FAST: Positive Acute Stroke

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Background: Cerebral amyloid angiopathy (CAA) occurs more commonly than generally appreciated and is a condition associated with cortical haemorrhagic strokes, cognitive impairment and lacunar

infarcts. The diagnosis is often overlooked and complicates the diagnosis of stroke.

Case report: A previously healthy 68-year-old woman presented to the Emergency Department with confusion, ataxia and speech disturbance. Her symptom onset was 45 minutes prior to presentation while attending a Pilates class. She was triaged as FAST positive on arrival and assessed for possible thrombolysis. On initial examination she had nominal aphasia and bilateral past pointing with a NIHSS of 3. It was decided to proceed directly to urgent MRI due to her unusual constellation of symptoms and signs. The DWI sequences showed no evidence of an acute ischaemic infarct but T2-gradient echo sequences showed multiple micro-haemorrhages, predominantly in the cortical regions bilaterally, strongly suggestive of a cerebral amyloid angiopathy. There was no suggestion of vasculitis. The largest of the micro-bleeds was in the left parietal lobe, which corresponds with her symptoms. Subsequently, CT Brain with 1 mm cuts confirmed an acute micro-bleed in this area. She was treated conservatively with an emphasis on blood pressure control. On further assessment, new cognitive impairment was diagnosed with a Montreal Cognitive Assessment score of 16/30 and collateral history. She was discharged following rehabilitation with no focal neurological deficits. She continues to follow up at the Stroke clinic and repeat CT Brain at 2 months showed partial resolution of some of the micro-haemorrhages.

Discussion: CAA should be considered when assessing patients for thrombolysis, especially in older patients. CT imaging with 1 mm cuts would aid identification of micro-haemorrhages previously not visualised on conventional 5 mm cuts. Growing awareness of this condition and the wider availability of MR imaging are contributing to its more frequent diagnosis.

P75 Nurse-Led Warfarin Clinic Proving to be Effective in Maintaining Patients Within Therapeutic INR Range

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Background: A nurse-led anticoagulation service is provided to older patients attending the Assessment and Treatment Centre in a Cork Hospital. We aimed to investigate the proportions of warfarinised older patients who were within target international normalized ratio (INR) during their most recent five INR measurements and to determine reasons why they may have been outside of their target INR.

Methods: A retrospective audit of 50 patients' records was conducted. Five consecutive INR readings were recorded for each patient and the indication for warfarin documented. In total, 250 INR readings were audited.

Results: The mean age of the sample was 78.6 years (SD 6.5); the majority were male (n = 27). Atrial fibrillation (n = 43) was the main indication for the prescription of warfarin. The results highlight that 77 % (n = 193) of patients were in the target INR range. When the parameters were increased to a 'safe' INR range (1.8–3.2), 89 % (n = 223) of patients were successfully monitored. Only 2 % (n = 6) of patients had an INR in the range of 3.2–3.5. 1 % (n = 3) of patients had an INR >3.5 and 7 % (n = 18) <1.8. 32 % (n = 8) were

recently prescribed antibiotic therapy which is known to interact with warfarin, this was the main reason identified for those who were outside of the target range.

Conclusion: Patients within target INR range (77 %) were much higher than that reported in the warfarin arms of New Oral Anticoagulants (NOACs) trials (generally 60 %). NOACs may not be more effective than carefully monitored nurse-led anticoagulation clinics. Future studies should examine the length of time in therapeutic range especially for patients with poor INR control.

P76 Stroke Syndromes: Are We Lost for Words?

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Background: The subtypes of ischaemic strokes are often classified according to their anatomical location or the Oxford Community Stroke Project classification (OCSP, also known as the Bamford or Oxford classification 1). The classification of stroke is useful to help our understanding of brain structure and impairment post-stroke. The National Stroke Register recommends documenting stroke severity according to the National Institutes of Health Stroke Scale (NIHSS2). In conjunction with neuroimaging, the NIHSS is often used to characterise acute stroke-related neurological impairment. An audit was conducted to review the documentation of ischaemic strokes in an acute hospital.

Method: A retrospective audit was conducted on 50 stroke patients' charts who were admitted to an acute hospital between September and December 2013. Data were collected on stroke risk factors, cause of stroke and stroke syndrome.

Results: The mean age of participants was 75.78 years (range 65–89). The majority of strokes (94 %) were classified according to anatomical location and only 2 % were classified according to the OCSP. Both the OCSP and anatomical location were documented in 4 % of cases. A neurological examination was documented in 82 % of cases and only 44 % had a NIHSS recorded. 16 % of cases received thrombolysis and less than half (44 %) had the cause of stroke documented. However, 96 % of cases had their stroke risk factors documented.

Conclusion: This audit summaries data documented in patient charts post-stroke. The pathophysiology of different stroke subtypes is not well understood therefore consideration should be given to documenting neurological impairment and cause of stroke so that care is organised to meet individual patient needs.

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P77 Withdrawn

P78 Acute Stroke Calls to Dublin Fire Brigade Ambulance Service 2005–2012

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Background: A key component in the 'Stroke Chain of Survival' is the pre-hospital phase which involves the emergency notification of the ambulance services, rapid deployment of appropriately trained paramedical staff/ambulance, initial patient assessment using the face-arm-speech test (FAST) and prompt removal of the acute stroke patient to the receiving Hospital Emergency Department (ED) with pre-notification. This study examines the various time-lines during the pre-hospital phase of suspected stroke in Dublin.

Methods: Dublin fire brigade (DFB) computer records for 2005–2012 were retrospectively examined. A series of time intervals between the initial phone call to the Ambulance Dispatcher and Hospital ED arrival were recorded as well as whether hospital pre-notification took place.

Results: DFB Ambulance Service transported suspected acute stroke patients to all 6 Dublin Teaching Hospitals. There was a steady increase in the annual number of calls dispatched as suspected stroke from 1228 in 2005–1731 in 2012 (41 % increase). The proportion of ED pre-notifications more than doubled from 7.5 % in 2005 to 19.8 % in 2012. The initial call to ambulance dispatch time remained stable over time (2–3 minutes). The interval between initial telephone call to time on scene varied between 13 and 15 minutes. Time on scene gradually increased from 10 to 15 minutes between 2005 and 2012. Time from scene to hospital ranged between 7 and 8 minutes with little change over time. Overall EMS contact to hospital ED arrival time increased steadily from 30 to 38 minutes between 2005 and 2012.

Conclusion: The volume of suspected acute stroke cases increased significantly between 2005 and 2012 in Dublin. A trend to greater on-scene time reflects the time needed to carry out a more detailed on-scene clinical assessment and clarify clinical details including time of symptom-onset. There will be ongoing scope to further enhance Ambulance Paramedical Staff training in early stroke recognition, hospital pre-notification and future potential to provide pre-hospital hyper-acute treatment.

P79 A Clinical Audit to Evaluate the Efficacy of an Active Physiotherapy Service in a Cohort of Elderly Parkinson's Disease Patients in an Inpatient Rehabilitation Setting

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Background: The purpose of this clinical audit was to evaluate the efficacy of an inpatient physiotherapy rehabilitation programme and the sensitivity of the chosen outcome measures, in detecting a reduction in falls risk factors for Parkinson's disease patients. The outcomes of interest were functional transfers, mobility and balance. The Berg Balance Scale (BBS) is the gold standard tool used to assess falls risk status. The timed up and go test (TUAG) is used to measure

patients' ability to perform sequential locomotor tasks that incorporate walking and turning. The validity and reliability of both tests have been established in this population.

Methods: The study design was a clinical chart audit over a 9 months period. In patients with a diagnosis of Parkinson's disease were included. Subjects were aged 65 years or older, both male and female. Outcome measures reviewed were the TUAG and the BBS. Data was analysed using Microsoft excel.

Results: 24 subjects were identified with 20 subjects included in the audit 7 male, 13 female. Following participation in the rehabilitation programme, an average group improvement of 4 seconds was achieved in the TUAG and 6.5 points in BBS. The number of subjects scoring in the '100 % Falls Risk' category (BBS) fell from 3 to 1 and in the 'High Risk of Falls' category fell from 12 to 4. Similarly, In the TUAG, the number of subjects scoring in the 'normal <14 seconds' category increased from 3 to 9.

Conclusions: Clinically significant improvements for both the BBS and TUAG were achieved. These improvements exceeded the recommended normative MDC values (Minimal Detectable Change) for both tests. This audit highlights the value of this unique rehabilitation service in reducing the risk of falls, improving mobility and in promoting positive ageing, in this population.

P80 The Use of 24 Hour Holter Monitor and Echocardiogram in the Investigation of Acute Ischaemic Stroke

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Background: Atrial fibrillation (AF) is a common cause of ischaemic stroke in the elderly. A 24-hours Holter monitor is often used to screen for AF. Echocardiograms are also frequently used to assess valvular pathology and identify mural thrombus. Both tests are expensive and time-consuming. We examined if these tests were ordered appropriately.

Methods: We interrogated the HIPE database and identified all cases of stroke and transient ischaemic attack (TIA) in 2013. We noted; whether an Echocardiogram or Holter was performed and if AF was present previously or on admission ECG.

Results: 202 patients had either stroke or TIA. 152 Holters were performed on 136 patients (67 %); 29 (14 %) had a prior diagnosis of AF. 43 (21 %) had pre-morbid AF, of whom 37 had AF on their admission ECG. 18 were diagnosed with new (or previously unknown) AF. Of the 18, 14 were diagnosed based on admission ECG, and a further 4 using a Holter. In total, 41 had AF based on either a prior diagnosis or admission ECG, but 23 of these had a Holter during the admission. 61 cases of AF were identified in total (43 known and 18 new), a prevalence of 30 %. Regarding Echocardiograms, the same cohort was examined and a total of 122 Echocardiograms were performed on 114 (56 %); of the Echocardiograms, 118 were transthoracic and 4 were transoesophageal. Mitral regurgitation was the most common valvular abnormality; no echocardiogram identified mural thrombus.

Conclusion: 67 % of the cohort had Holters and some of these were unnecessary as they had a pre-morbid diagnosis of AF. The Holter may have been ordered for reasons other than AF screening however. 16 "repeat" Holters were performed, possibly a misuse of resources but extended monitoring increases the detection rate of PAF. Echocardiograms are a low-yield investigation in this context.

P81 Adherence to 2013 ESH/ESC Guidelines for Management of Hypertension in Older Adults in a Nursing Home Population

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Background: The 2013 ESH/ESC guidelines for the management of hypertension include recommendations for older adults. For those aged >80, a target systolic blood pressure (SBP) between 140 and 150 mmHg is recommended, provided the patient is in good physical and mental condition and has no other cardiovascular (CV) risk factors. These guidelines are particularly applicable to nursing homes (NH) where many residents are aged over 80. This audit aims to examine patterns of SBP and use of oral antihypertensives (OHAs) in a cohort of NH patients.

Methods: The audit was performed in an Irish community NH. All patients aged over 80 were eligible for inclusion. Medical and drug prescription records were reviewed to obtain data regarding SBP, medical history and medications.

Results: 74 patients were included (67.6 % female) with a mean age of 86.5 ± 5.2 years. Mean barthel index was 28.6 ± 24.1. The mean SBP for the study population was 126.7 ± 15.3 mmHg. 74.3 % were documented as being hypertensive. 66.2 % of the patients had additional CV risk factors. Mean SBP for those with CV risk factors was 127.9 ± 15.6. 62.2 % of the population and 75.5 % of those with CV risk factors were on OHAs. The median number of OHAs used was 2. The most commonly used OHAs were beta blockers (37.9 %) and ACE inhibitors (24.3 %). 18.9 % of patients were documented as having hypotension at some point. 57.1 % of those patients on OHAs had experienced hypotension.

Conclusions: NH patients aged over 80 are more likely to be frail. In this NH population, mean SBP was lower than that recommended in international guidelines. There was also a high prevalence of hypotension particularly in those treated with OHAs. This may potentially increase the risk of falls and adverse events. The results of this audit highlight the importance of medication review in this cohort of patients.

P82 Use of Oral Antihypertensives in Frail Nursing Home Residents

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Background: Frailty, immobility and dementia are all more common in NH residents. The 2013 ESH/ESC guidelines provided guidance on the management of hypertension in the over 80 seconds, recommending a target systolic blood pressure (SBP) between 140 and 150 mmHg provided the patient is in good mental and physical condition. This is challenging to implement in the NH setting. This study aims to examine patterns of blood pressure management in very frail NH residents.

Methods: The study was performed in a community NH. All patients over 80 were eligible for inclusion. Medical and drug prescription records were reviewed. Data regarding mean SBP, medications and frailty as measured by the barthel index (BI) were recorded.

Results: 74 patients were included (67.6 % female). Mean age in the population was 86.5 ± 5.2 years. Mean SBP was 126.7 ± 15.2 mmHg. Mean BI was 28.6 ± 24.1. 40 % of patients were immobile (wheelchair or bed bound). 27 % had a BI ≤ 5 (mean 4.5 ± 1.5). The mean SBP in this group was 125.8 ± 14.8 mmHg. Mean SBP in the group with BI >5 was 127.1 ± 15.6 mmHg. The median number of OHAs used in the total study group was 2 with 62.2 % of the study population prescribed OHAs. In the frailer subset, 55 % of the patients were on OHAs. The majority were on one OHA (20 %) but one bedbound patient was on four different OHAs. Patients with a BI <5 were more likely to have experienced hypotension (25 vs. 16.6 %).

Conclusions: The current guidelines do not include advice for BP targets in frail and immobile patients. In this study, BP was lower in the frailer group. Many of these patients were still receiving antihypertensives. This study highlights the importance of assessing cardiovascular risk on an individual basis in the management of NH residents. This will potentially avoid unnecessary use of OHAs in those with reduced life expectancy.

P83 The Barriers to Diagnosing Dementia in Primary Care: A Qualitative GP Registrar Perspective

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Background: In Ireland we are facing a dramatic rise in the number of people with dementia, from 37,900 in 2006 to 100,000 by 2036 (1). Primary Care will inevitably have to take on an increasing workload of dementia care. The aim of this research is to examine the attitudes of Irish General Practitioners to the barriers that they face when diagnosing dementia.

Methods: A qualitative approach using two focus groups. The 15 participants were all currently working as GP Registrars. The contents of the focus groups were transcribed and analysed according to the principles of grounded theory.

Results: Three major barriers to diagnosing dementia in Primary Care were identified: (1) time limitations: the reasons for this barrier were; use of inappropriate cognitive assessment tools, the opinion that dementia is a particularly complex diagnosis, viewing the diagnosis of dementia as a point-in-time diagnosis. (2) Place: uncertainty as to whether the diagnosis should be made in Primary Care. The main reasons were diagnostic uncertainty and difficulty subtyping the Dementia in Primary Care. (3) Disclosure difficulties: reasons for this barrier included; the diagnosis could potentially negatively impact on the doctor-patient relationship, the term Dementia is stigmatized, and the fact that disclosing could potentially do more harm than good.

Conclusions: This research identified a need for further education that focuses on GPs perceptions of their suitability and ability to diagnose dementia. If we do not address the barriers GPs face when making a diagnosis of dementia then we will not be able to implement improvements in education and resources to facilitate the necessary changes in service configuration that are required to deal with the future rise in dementia prevalence.

Reference:

1. O'Shea E (2007) Implementing policy for dementia care in Ireland: the time for action is now. The Alzheimer's Society of Ireland

P84 To Resus or Not to Resus? A 12 Month Cross Section View of in-Patient Resuscitation Outcomes in an Aged Population

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Background: There is little evidence illustrating the outcomes of inpatient cardiopulmonary resuscitation [CPR] in an aged population. Age alone is a poor predictor of resuscitation outcome, and rates of survival tend to be lower. Resuscitation status orders are common in caring for the aging population and require adequate evidence of prognosis and outcomes for an informed decision. Survival to discharge post CPR in patients over 70 ranges from 11 to 18 %. This project was aimed at identifying outcomes immediately post and in the 12 months following cardiac arrest.

Methods: Design: retrospective study. Resus cases over 12 months [2012] were identified via the Resus Department Arrest Records. Patients aged 75 years or older on date of CPR were included. Hospital Patient Administration System and ADOS document management systems in correlation with online obituary listings were searched for resuscitation survival, survival to discharge, death within 12 months, nursing home resident status, admission and representations post resuscitation. PSAW 18 Statistics were then utilised for statistical analysis.

Results: 171 arrest calls occurred; event records were present for 73 cases; only 60 had acceptable patient identification (median 75.50 years); 29 were ≥ 75 years (median age 82 years). In this cohort, 27 (93 %) required CPR, 11 (38 %) achieved return of spontaneous circulation; 7 (26 %) had a median survival of 3 days; 4 (14 %, median 82 years) survived to discharge home with 1 surviving to 33 days; 3 (10 %) were still alive, residing at home 12 months post with mean numbers of presentations to the emergency department post event of 1 and admissions 1.66.

Conclusion: Documentation and recording of arrest events was substandard. Rates of survival to discharge post CPR were similar to those published previously at 14 %. Patients that survived to discharge tended to do well with 75 % still residing at home 12 months post event.

P85 Audit: Prevalence of Proton Pump Inhibitor Use in Acute Medical and Surgical In Patients

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Background: Proton pump inhibitors (PPIs) were the third most frequently prescribed drug in Ireland in 2011 on the GMS. While very effective in treatment of GORD they are expensive and there is evidence to suggest overprescription in inpatient populations. The cost has increased from 7 million euro in 1995 to 80 million euro in 2011. Targeting inappropriate PPI prescribing will help reduce costs as well as unnecessary side effects.

Methods: The prevalence of PPI use in acute medical and surgical patients was recorded over one day using a prepared audit sheet. Data including demographics, PPI preparation and the indication for use and duration of therapy was collected from patient's medical notes. The National Institute for Clinical Excellence (NICE) guidelines on the use of PPI in the treatment of dyspepsia were used to monitor adherence.

Results: Data was collected on 112 medical and 22 surgical inpatients. Of those, 58 (51 %) medical and 14 (64 %) surgical inpatients were on a PPI. The majority were male (63 %) with a mean age of 72 years (range 16–95). 50, 18 and 4 patients were on a PPI for more than 2 months, less than 2 months and unknown length of time respectively. 11 medical and 4 surgical patients had documented indications for PPI use. Ten out of fourteen endoscopies reported abnormal findings. In our population the most commonly prescribed PPI was Esomeprazole 40 mg (27 %).

Conclusions: These results demonstrate poor adherence to NICE guidelines. Of note, the mean age of our inpatient population is 72. Unnecessary PPI prescribing can affect the bioavailability of commonly prescribed drugs in the elderly. Long term PPI use also affects bone metabolism possibly leading to hip fractures in the elderly. Regular review is necessary to assess need for PPIs allowing for more economical prescribing as well reducing potential harmful effects.

P86 Assessment of Functional Capacity in Metabolically Healthy Obese Older Adults

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Background: A recent study of walking distance and gait speed found that metabolically healthy obese (MHO) women had a better functional capacity than non-MHO women 1. Also, the criteria defining MHO varies considerably 2. We hypothesise that the MHO individuals have better markers of functional capacity compared to their metabolically unhealthy obese (MUO) counterparts. We compare these markers within obese cohorts created using World Health Organisation (WHO) criteria based on either body mass index (BMI), waist hip ratio (WHR) or waist circumference (WC). TILDA consists of a stratified clustered sample of 8,175 individuals ≥ 50 years representative of the community dwelling population.

Methods: Cross sectional data was collected by in-house questionnaire and centre-based physical health assessment. Individuals were divided into the MHO and MUO groups according to criteria adapted from the International Diabetes Federation definition of metabolic syndrome. Gait speed, timed get-up-and-go, exhaustion and fear of falling were identified as markers of function and results analysed by regression analysis.

Results: The percentages of MHO among the obese cohorts were 8.0, 10.7 and 10 % for BMI, WHR and WC based criteria respectively. A greater gait speed is evident for the MHO groups regardless of obesity measurements used; BMI (5.4 CI 2.1–8.7), WHR (3.8 CI 1.7–5.9), WC (4.6 CI 2.0–7.1). All functional markers trend towards improved outcomes in the MHO groups compared with their MUO counterparts.

Conclusion: A comparison of these MHO groups with their MUO counterparts suggests that they may have improved functional capacity regardless of obesity criteria used. It emphasises the importance of aligning resources to maintain metabolic health in older adults.

P87 Aetiology of Acute Stroke Presentations to a Hospital

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Background: Acute stroke is a major cause of mortality and morbidity worldwide. The specific aetiology of stroke affects outcome, prognosis and management. This study was to highlight the commonest aetiology of stroke presentations to the hospital over a 12 month period.

Methods: Data was collected retrospectively from our stroke multidisciplinary governance meetings and chart reviews. Data was collected over a period of 1 year, from 11/2/13 to 10/2/14.

Results: 194 patients (98 male, 96 female) were included in the study. 62 patients were <69 years old, 70 patients between age 70–79 and 62 patients were above 80 years of age (mean age 72.2 and median age 75). There was similar gender distribution in each age group. The commonest aetiology was found to be cardioembolic (71 patients (36 %)), cryptogenic (55 patients (28 %)), carotid disease 16 patients (8 %) and other causes 31 patients (16 %). 24 (12 %) patients had a primary haemorrhagic stroke.

Conclusion: This study confirms that the commonest aetiology of ischaemic stroke in the local population is cardioembolic (primarily atrial fibrillation), followed by cryptogenic and carotid disease.

P88 Atrial Fibrillation: A Preventable Cause of Ischaemic Stroke

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Background: Atrial fibrillation (AF) is the commonest cardiac arrhythmia and increases ischaemic stroke risk up to five fold. The CHA2DS2-Vasc score has been established to identify those with AF the annual risk for developing an ischaemic stroke. This review enumerated the premorbid CHA2DS2-Vasc score of the patients who were admitted with an acute ischaemic stroke secondary to atrial fibrillation.

Method: Data was collected retrospectively through our documented stroke multidisciplinary governance meetings and chart reviews. Data was collected from stroke admissions to Our Lady of Lourdes Hospital, Drogheda from the period of 11/2/13 to 10/2/14. There were a total of 194 stroke admissions, 71 being cardioembolic as the aetiology (36 %).

Results: 34 patients were included in the study. 29 patients (85 %) had a CHA2DS2-Vasc score of greater than 2 pre-admission, indicating that they should have been anticoagulated if their atrial fibrillation was previously diagnosed. Only 5 patients (15 %) had a premorbid CHA2DS2-Vasc score of less than 2.

Conclusion: This study reiterates atrial fibrillation as being a preventable cause of ischaemic stroke and disability. Population screening and appropriate anticoagulation as primary prevention should be considered in future, which will significantly impact positively in mortality and morbidity.

P89 The Relationship between Cardiac Health and Physical Activity Levels in Older Adults

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Background: Cardiovascular diseases (CVDs) is the leading cause of mortality worldwide killing an estimated 17 million people each year. Risk factors for CVD include age, gender, physical inactivity, obesity, smoking, excess alcohol consumption, diabetes, high blood pressure and high cholesterol levels. Physical inactivity contributes to approximately 30 % of the CVD burden and is considered the 4th leading risk factor for death worldwide. Although physical activity (PA) tends to decrease with age, it is recommended that older adults do at least 150 minutes of moderate-intensity PA a week. However, in Ireland, over 50 % of those aged 75 and over report low levels of PA. **Objective:** To examine the associations between PA level and cardiac health in older adults.

Methods: A cross-sectional analysis of a population based sample of older Irish adults aged ≥ 65 years using data from the first wave of The Irish Longitudinal Study on Ageing (N = 8,504). PA was measured using the International Physical Activity Questionnaire (IPAQ). Logistic regression analysis was utilised to examine the associations between PA level and cardiac health.

Results: Participants age ranged from 65 to 93 years, comprising of 3,780 (44 %) males and 4,724 (56 %) females. Overall, 68 % of older adults reported the recommended PA levels. Those who did not meet the recommended PA levels were significantly more likely to be older, female, diabetic or have high blood sugar levels, have a higher BMI and higher levels of cholesterol. Older adults who suffered a heart attack or a stroke were less likely to report the recommended PA levels. Overall, our model was significant, $X^2(14, N = 6033) = 318.43$ $p < 0.05$.

Conclusion: Consistent with the majority of research, our results support the protective effect of the recommended PA levels on cardiovascular health.

P90 Delirium Prevalence in Older Persons Attending an Irish Acute Medical Unit

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Background: Delirium is an acute change in cognition often manifested as disorganised thinking, inattention, and altered consciousness. Delirium is associated with adverse outcomes such as prolonged hospitalisation, accelerated functional and cognitive decline, increased mortality and increased need for residential care, but despite this it frequently goes undetected. The objective of this study was to determine the prevalence of delirium in an Irish acute medical unit.

Methods: Cognitive status was assessed using the standardised Mini-Mental State Examination (sMMSE), on a convenience sample of patients aged ≥ 65 years attending the acute medical assessment unit (AMAU), or within 24 hours of admission to the short-stay medical ward between February and March 2014. The Confusion Assessment Method for the ICU (CAM-ICU) assessment which incorporates a collateral history was administered to screen for delirium. Daily CAM-ICUs were performed for 7 days or until discharge. Cognitive screening was repeated if a change in CAM-ICU was observed.

Medical records and primary care referral letters were reviewed on all patients and 10-item delirium risk score was calculated. Patients with evidence of cognitive impairment had an AD8 screening instrument completed to identify evidence of functional decline consistent with a diagnosis of dementia.

Results: 51/112 potentially eligible patients (age 77.9 ± 7.7 years, female 53 %) who attended the AMAU were included. 7/51 (13.7 %) had a pre-existing diagnosis of dementia. 20/51 (39.2 %) patients had a sMMSE of $\leq 23/30$, and of these 17/20 (85 %) had evidence of recent functional decline on their AD8 assessment. 7/51 (13.7 %) had a positive CAM-ICU assessment. No patients subsequently developed delirium after initial negative CAM-ICU assessments. 35/51 (69 %) had at least 2 risk factors for developing delirium.

Conclusions: The prevalence of delirium in older acute medical unit patients is approximately 14 %. The CAM-ICU is a useful brief screening instrument to assist the identification of delirium in the acute medical setting.

P91 Identification of Cognitive Impairment and Dementia in Older Persons in the Acute Medical Setting

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Background: The incidence of cognitive impairment and/or dementia is rising in line with ageing demographics. Coexistent dementia in hospitalised patients is associated with longer hospital stays and poorer outcomes, especially when undetected. The objective of this study was to compare the performance of two brief cognitive screening instruments; the shortened version of the Abbreviated Mental Test (AMT-4), widely adopted in UK acute clinical settings, and the longer AMT-10; to the established Standardised Mini-Mental State Exam (sMMSE), and assess the validity and practicality of these shorter instruments in detecting cognitive impairment.

Methods: The sMMSE, AMT-10 and AMT-4 were administered to a convenience sample of patients aged ≥ 65 years presenting to the acute medical assessment unit (AMAU), or within 24 hours of acute medical unit (AMU) admission in February–March 2014. Medical records and primary care referral letters were reviewed on all patients. Where cognitive impairment was suspected, an AD8 Dementia Screening Interview was administered to identify functional decline consistent with dementia.

Results: 51 patients (age 77.9 ± 7.7 years, female 53 %) who attended the AMAU were screened. 7/51 (13.7 %) had a pre-existing diagnosis of dementia. 20/51 patients (39.2 %) had a sMMSE of $\leq 23/30$, and 17/20 (85 %) of these had evidence of functional decline on their AD8 assessment. When these 17 participants were examined, 9/17 (52.9 %) were identified by the AMT-4 and 11/17 (64.7 %) by the AMT-10. Compared to the sMMSE, the AMT-4 has a sensitivity of 50 % and specificity of 100 %, and the AMT-10 has a sensitivity of 53 % and specificity of 90 %.

Conclusions: Many of the patients with cognitive impairment had no prior diagnosis. Cognitive screening instruments in acute areas need to be reliable, simple, and brief, and while the AMT-4 fulfills some of these criteria this study raises concerns regarding its sensitivity. Further studies with larger sample sizes are necessary.

P92 Clinical experience of Denosumab at a Specialist Bone Health Unit

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Background: Denosumab is available to treat severe osteoporosis since October 2010. It is an antiresorptive agent which has been shown to reduce fracture risk and increase bone mineral density (BMD) in clinical trials.

Method: We reviewed records of subjects who received denosumab in our bone health clinic for follow up DXA results up to May 2014. **Results:** 70 follow up DXAs were available. Mean age 72.6 ± 9.2 years. Mean time to next DXA following commencement of drug was 1.72 ± 0.49 years (median 1.83 years). 59 subjects had spinal results and 63 had hip results. Reasons for non-availability of spine or hip scores include vertebrae not suitable for analysis due to fracture or degenerative disease or bilateral hip replacements respectively. Spinal T-scores improved in 48 subjects from a mean of -2.97 to -2.38 . In 10 subjects T-score deteriorated on average 0.43 SD with the remaining subject remaining the same. T scores at hip showed an average improvement of 0.178 SD in 42 subjects with 11 showing a deterioration of 0.24 SD and 10 having same T-score reported. It was noted that 6 of the 70 patients were diagnosed with new fractures; 3 had new vertebral fractures on the follow-up DXA; 1 a clinical vertebral fracture at 18 months and 2 had upper limb fractures—a colles fracture at just 1 month after starting the drug and a humeral fracture at 1 year.

Conclusion: Overall our results show in 70 patients with follow-up DXA on denosumab in a clinical setting there is a 15 % increase in BMD at the spine and an 8 % increase at the hip. This is consistent with the literature [1].

Reference:

- McClung MR et al (2013). Effect of denosumab on bone mineral density and biochemical markers of bone turnover: 8-year results of a phase 2 clinical trial. *Osteoporos Int* 24(1):227–235

P93 A Study of Patients with Bilateral Colles fractures attending a Specialist Bone Health Clinic

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Background: Colles fracture is the term for fracture at the distal end of radius originally described by Irish surgeon Abraham Colles in 1814. It is the most common fracture in females between 50 and 75 years and a significant risk factor for further fracture especially hip and vertebrae. Presentation may be an early indicator of osteoporosis. Several studies have highlighted that people rarely undergo screening for osteoporosis after colles fracture. In this study we focused on patients with documentation of bilateral colles fractures at least on first contact with our service and reviewed their bone health history prior.

Method: Data was collected from an existing database where patient demographics, fracture and medical history as well as biochemical and bone density results are recorded.

Results: We identified 75 patients documented as having at least 2 colles fractures attending clinic between 2003 and 2012. Mean age 69 ± 15 years; 68 females and 7 males. Of note 48 (64 %) were not on any treatment at first assessment, with 24 (50 %) of these referred due to their 2nd colles fracture. All but 2 of these had established osteoporosis as per BMD on DXA. In this cohort 9 (19 %) patients were referred for assessment of established osteoporosis discovered on DXA ordered by referring doctor at an interval of 3–10 years after patients 2nd colles fracture. A further 7 (15 %) were referred for DXA and assessment due to fracture history; 8 (17 %) were referred due to hip or vertebral fracture. Of those on treatment 4 were referred due to their second colles fracture; most were referred due to fractures at other sites or deteriorating BMD despite treatment.

Conclusion: Patients with colles fracture are at high risk of further fracture and development of established osteoporosis. Prompt identification and screening after index fracture could lead to a significant reduction in further morbidity.

P94 Vitamin D in Acute Hip Fracture

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Background: Vitamin D is considered an important therapy in prevention of fracture in known osteoporosis. Hip fracture is one of the most serious fractures and confers significant morbidity and mortality. Supplementation in those not known to be osteoporotic is controversial though generally recommended in the elderly, institutionalisation or known vitamin D deficiency. However vitamin D deficiency itself is not widely screened for. In this study we aimed to establish the prevalence of vitamin D deficiency in consecutive admissions with hip fracture.

Methods: Follow up vitamin D levels were carried out at subsequent visit to bone health clinic. All subjects admitted with acute hip fracture from September 2012 to September 2013 were reviewed by a fracture liaison team. Serum samples were taken for bone profile, serum 25(OH)Vit D and PTH. Combined calcium and vitamin D supplements as well as bisphosphonate therapy, if no contraindication, were prescribed.

Results: 152 subjects with hip fractures were admitted to our institution from September 2012 to September 2013. Mean age 77.7 years. 138/152 (91 %) had serum vitamin D levels performed. Mean vitamin D 41.7 nmol/L. Median 32 nmol/L. 90/138 (65 %) were vitamin D deficient—levels <50 nmol/L. 68 so just under half had levels under 30 nmol/L. Secondary hyperparathyroidism was evident in latter group with mean serum PTH levels of 76 pg/ml (15–65) compared to 63 pg/ml in the total study population. 35 subjects were prescribed vitamin D supplementation. 10(29 %) had levels <50 nmol/L suggesting non-compliance. By April 2014 38 subjects had attended the bone health clinic for follow up—mean vitamin D levels had risen to 81.85 nmol/L.

Conclusions: Vitamin D deficiency is widespread in an older population presenting with hip fracture. Supplementation is not. Compliance is poor in those who are prescribed supplementation pre hip fracture. Patients who start vitamin D supplementation post hip fracture show adequate response and optimal vitamin D levels on review.

P95 Setting Our Goals on a Gerontological Rehabilitation Unit from a Nursing Perspective

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Background: The Active Rehabilitation Unit takes patients from two acute Dublin Hospitals; it is an off-site unit that facilitates 42 clients. The unit opened in response to the National Clinical Care Programme for the frail and elderly. These clients are aged over 65 and have multiple co-morbidities. This project reviewed the patient from a nursing perspective assessing the change in Key Performance Indicators such as the fall prevention programme; Pressure ulcer prevention and the Barthel index.

Methods: A retrospective review of a sample of a 3 month period was undertaken. The Barthel index was assessed from admission to discharge. A falls prevention programme was implemented and we engaged in the National Programme for pressure ulcer prevention. Data was collected on a weekly basis and statistics reviewed.

Results: Since the establishment of the unit (October 2012) we have admitted 387 patients (66 % female/34 %male) with an average age of 81 years and an average length of stay of 46 days, 261 (76 %) discharging home. The Barthel index showed an improvement from 10.3 on admission to 13.6 on discharge showing an average improvement of 16.5 %. Following the implementation of a falls programme we documented a decrease in the number of falls compared to the same period in previous year (30 compared to 16) and with the pressure ulcer prevention programme we documented 1 acquired pressure ulcer in the three month period.

Conclusion: Input of a Multi-Disciplinary Team has allowed us to see an improvement in the Barthel score and the implementation of a falls prevention programme has shown to be positive in reducing the number of falls. Education from the nursing perspective in this frail and elderly population has highlighted the benefit of collaborating with other nursing groups in this adult population.

P96 Mortality Rate and Associated Factors in Older Adults following Hip Fracture

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Background: Increased mortality rates following hip fracture have been identified in the literature varying between 5 and 10 % at 1 month and 30 % at 1 year. While part of this excess mortality may be due to other comorbidities it is estimated the 25 % of the death rate is due to the hip fracture itself.

Methods: All patients in this study were participants in a randomised control trial examining if follow up in a bone health clinic improved outcomes. Inclusion criteria were ≥ 60 years and MMSE ≥ 18 . Participants were followed up for 15 months with 4 monthly telephone calls. Information on mortality was obtained from the hospital's electronic patient's records system (EPR), online death notice site (rip.i.e.) and telephone calls to next of kin. Randomisation carried out by computerised minimisation programme. Data analysed using SPSS.

Results: 396 patients attended study site between 2008 and 2010. Mean age; 77 years, range 40–96 years. 69 % females. Overall mortality rate was 5 % at 1 month and 12 % at 1 year. Of these, 226

participants were recruited to our study. Mean age: 81 years (± 8 years) females and 76 years (± 8 years) males. Mortality rate was 2 % at 1 month and 8 % at 1 year. Factors associated with increased mortality were male gender ($p = 0.03$), older age ($p = 0.009$), reduced cognition ($p = 0.001$), admission from nursing homes ($p = 0.001$), increased length of stay ($p = 0.001$), discharge to LTC ($p = 0.001$), reduced pre-fracture mobility ($p = 0.001$), ability to self care ($p = 0.001$), polypharmacy ($p = 0.001$), reduced BMD at spine ($p = 0.03$) and presence of vertebral fractures ($p = 0.001$).

Conclusion: Mortality rate was lower than previous studies. This may reflect study participants being healthier and less cognitively impaired. It may also reflect the presence of an established orthogeriatric service with early access to surgery as 82 % were operated on within 48 hours of fracture.

P97 Non-Attendance at a Bone Health Clinic Following Hip Fracture

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Background: Hip fractures are a major cause of burden in terms of mortality, disability, and costs. In Ireland, 3,000 hip fracture occur annually and is expected to increase over the coming years (1). Estimated cost of hip fractures is €14,300 per admission (2). Outpatient non-attendance is a source of inefficiency, wasting time, resources and lengthens waiting lists. Non attendees have a significant negative impact on productivity, their own care and resources. In 2008, an estimated 25,000 out-patient appointments were broken in our institution, at an estimated cost of €3,800,000 (3). In this study we aim to identify the reasons for non-attendance at an osteoporosis clinic following hip fracture.

Methods: Hip fracture patients admitted to study site from June 2008 to June 2010 assessed by an orthogeriatric team and offered an appointment in a Bone Health Clinic.

Results: 394 hip fracture patients were admitted to study site. 57 (14 %) got no appointment as 26 (7 %) did not want one, 13 (3 %) were too frail, 8 (2 %) were non-residents in country/county and 10 (2 %) had metastatic disease. 197 (50 %) attended for a clinic appointment while 140 (36 %) did not. Mean age of non-attendees 77.5 years. Reasons for non-attendance included reduced mobility 24 (17 %), RIP 33 (23 %), cancelled 28 (20 %), cognitive impairment 25 (18 %), alcohol excess 5 (4 %), cancer 4 (3 %), longterm care (cognitive impairment \pm reduced mobility) 21 (15 %).

Conclusion: Non-attendance at outpatient appointment is considered an indicator of poorer access to health care services and may lead to worse health outcomes, increasing costs and waiting times. In order for health service providers to be able to allocate adequate resources for the management of hip fractures, accurate figures for fracture rates and outcomes should be measured. Given the current economic climate, methods need to be employed to reduce non-attendance.

References:

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P98 Recording Patient Identification Data on Geriatric Wards

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Background: Recording patient identifying details in the medical notes is important, as it reduces clinical errors. It also ensures the validity of the medical notes as a legal document. We set out to examine if good practice is followed in our university hospital geriatric department. Our local hospital guidelines—in keeping with national best practice—state that all pages in a patient's medical notes must carry the identifying details of the patient's name and either date of birth (DOB) or medical record number (MRN).

Methods: Over a 1-week period we randomly selected 97 charts at different times of the day on two medical wards. We recorded whether a patient ID sticker was in place on the most recent page of the medical notes; if it was not, we recorded if name and MRN or DOB had been hand-written. We also recorded which professional specialty had made the most recent entry (doctor, nurse, physiotherapist, OT, etc.) and whether or not ID label stickers were available in the chart.

Results: Of 97 entries examined, 62 contained an ID sticker; 3 had no ID sticker but did have a hand-written name and either MRN or DOB; 4 had name hand-written, but no MRN or DOB; 25 had no identifying details. Of the 29 entries not meeting the criteria for adequate documentation, 23 were made by doctors and 6 by others. Doctors accounted for 62 entries of the total 97. ID stickers were available in all charts.

Conclusions: Approximately one-third of entries had inadequate patient ID. Although doctors made approximately two-thirds of the chart entries, they were responsible for a disproportionately high number of inadequate documentation. The absence of ID stickers does not seem to be a factor, as these were universally available. We have recommended changes to ameliorate practice.

P99 The Nursing Home Conundrum: A Model for Prospective Interdisciplinary Care

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Background: There are approximately 3,000 nursing home residents in the catchment area of our university hospital. Many current nursing home outreach programmes are costly and resource-heavy, requiring physicians to visit patients individually. We developed a model of prospective interdisciplinary care via multidisciplinary team meetings (MDTs) in nursing homes.

Methods: From January 2014 we held one MDT a month, encompassing two nursing homes, discussing patients cared for by one GP. Meetings were attended by GP, nursing directors, consultant geriatrician and specialist registrar. Issues covered were medication review, advanced care planning (ACP), resuscitation status and general medical advice. We recorded patient demographics and relevant outcomes and recommendations. We also held focus groups with patients and families.

Results: 43 patients (10 male, 32 female); mean age 86.5 years (SD 7.73); mean Frailty Score 6.58 (SD 1.03); mean MMSE 13 (SD 11.3); 31 had dementia; 7 had an ACP at time of MDT; 10 had been transferred to hospital in the previous 6 months; average number of medications at MDT was 9.86 (SD 3.67); average number of medications stopped 1.53 (SD 1.03, range 0–4), and average number started 0.17 (SD 0.45, range 0–2); the most common medications stopped were nutritional supplements (22) and cardiovascular secondary preventers (22). 18 patients had a recommended change in resuscitation status, and discussion of ACP with patient or family was made in 20 cases. Focus groups with five patients and three families gave universally positive feedback. Data on medication costs for a subset of nine patients indicates an average yearly saving of €331.49 per patient.

Conclusions: This elderly and frail group—with a high dementia and medication burden—will benefit from interdisciplinary discussion involving primary and secondary care teams. We will expand this project within our catchment area and prospectively record numbers of hospital transfers and medication savings.

P100 Patient Activity in a Nurse-Led Clinic: Active Stand Tests in a Dedicated Falls Service

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Background: Many clinicians measure orthostatic hemodynamic changes with non-invasive beat-to-beat finger arterial blood pressure monitors using a Finometer machine. Homeostatic blood pressure responses to standing play a pivotal role in identifying individuals at risk of syncope/unexplained falls (Finucane et al. 2013). By identifying who is at risk of syncope/falls, individualised measures may be devised and implemented to prevent such occurrences, benefiting the patient and organisation.

Methods: Prospective audit of (a) Active Stand Tests January–December 2012, (b) referral sources for Active Stand Tests (c) length of time from referral to test (d) education sessions for patients diagnosed with orthostatic hypotension (OH).

Results: (A) 162 Active Stand Tests were performed January–December 2012. Test could not be performed on 7 % of patients, due to poor circulation to hand, tremor, pain, or patient unable to lie in required position. (B) 72 % OPD referrals; 28 % in-patient referrals. (C) In patient referrals n = 45. 76 % of patients had test performed within 4 days of which 76 % were done within a day. 24 % three weeks following referral as patients were discharged immediately after receiving referral. Out patient referrals n = 117. 87 % of patients had the test performed within 1 month. The remaining 13 % of patients had the test completed within 3 months due to patient requests. (D) OH was detected in 68 % of cases and led to education focusing on counter manoeuvres for OH.

Conclusions: Orthostatic hypotension (OH) is the most common disorder of blood pressure regulation after essential hypertension and in normal older subjects the prevalence is reported between 5 and 30 %, increasing with age (Low 2008). This study reinforces the necessity for Nurse led Active stand clinics to diagnose, advise and educate the patient on orthostatic Hypotension in a timely manner. This prompt and accurate diagnosis will benefit the patient and organisation.

P101 A Retrospective Review of the Cognitive Profile of Post-Stroke Patients within an Acute Irish Setting over a Six-Month Period

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Background: A variety of cognitive screening tools are used to assess cognition in the acute stage post-stroke. The aim of the study was to complete an in-depth investigation of the cognitive profiles post-stroke within an acute Irish setting.

Methods: Cognitive screening tools, MoCA, MMSE, ACE-III were collected on 151 patients, which were under the stroke team. Additional data such as age, sex, discharge location, date of referral and date of assessment over a timeframe of 6 months was also collected. Results were compared and contrasted.

Results: Of 151 patients assessed, MMSE/MoCA scores were recorded for 121 patients. Of those 121 patients the average MoCA score recorded was 22/30. The average MMSE score recorded was also 22/30. Of those patients that had both an MMSE and a MoCA score recorded, the average MoCA score was 18/30 and the average MMSE score was 24/30. 40 % of patients who scored below the cut-off on the MoCA scored within normal range on the MMSE. The remaining 30 patients 22 were unable to complete a cognitive assessment while 8 patients completed a non-verbal cognitive assessment. Of the 22 patients that were unable to complete cognitive assessment 54 % died and 23 % were discharged to long-term care.

Conclusions: The author would advise caution when interpreting cognitive scores as they are subject to a variety of factors such as educational level, age and cognitive baseline. Of interest, the results of this study correlate with published research identifying the inability to complete a standard cognitive assessment as a predictive indicator of increased mortality post-stroke.

P102 Cognitive Frailty in Older Irish Adults

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Background: Physical frailty has been associated with an increased risk of cognitive impairment and future cognitive decline. Recent studies support the concept of “cognitive frailty” as a condition that encompasses the presence of both physical frailty and cognitive impairment in the absence of dementia (International Consensus Group on “Cognitive Frailty” 2013). The physiological mechanisms underpinning this link are poorly understood though cardiovascular risk, depression and other factors may be potential mediators. We aimed to investigate for the presence of a potential relationship between cognition (across multiple cognitive domains) and physical frailty in a cohort of older Irish adults.

Methods: Study subjects were participants of the cognitive cohort of the TUDA (Trinity, Ulster, Dept of Agriculture) study. All were community dwelling adults aged over 60 who had cognitive impairment and attended a hospital based geriatric outpatient service. All subjects underwent a detailed assessment which included cognitive testing with the RBANS (Repeatable Battery for the Assessment of Neuropsychological Status), Frontal Assessment Battery (FAB) and the MMSE. Physical frailty was assessed with the Timed Up and Go (TUG). Subjects with an MMSE <24 were excluded in our study.

Results: 1,316 subjects were included in our analysis (mean age 81.1 ± 6.7 , 66 % female, mean TUG 21.5 ± 10.5 seconds). All cognitive domains including RBANS indices I, II, III, IV, V, Total Scale, MMSE and FAB were inversely associated with the time up and go (TUG) before and after adjustment for age, gender, education, body mass index, presence of stroke and depression (CES-D³16), ($p < 0.003$).

Conclusions: Physical frailty was associated with worse cognitive performance across all domains including executive function, visuospatial, language and memory. This highlights the inter-relationship between cognition and physical frailty in older adults without dementia and the need to further explore its underlying basis.

P103 The Development of a Functional Balance Re-education Class in a Gerontological Rehabilitation Unit

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Background: Evidence has shown that balance re-education is effective at reducing falls-risk in a frail elderly population. The aim of this study is to compare a new functional balance class (BC2) to a previous balance class (BC1) in a gerontological rehabilitation unit.

Methods: A prospective observational study evaluated the outcomes. A convenience sample of patients admitted to a post-acute rehabilitation ward from two large acute hospitals were recruited. A minimum score of 30 in the Berg Balance Scale (BBS) and the ability to participate in a class setting were necessary to be included. The BC2 incorporated functional balance re-education in addition to the static and dynamic component from BC1. Data was collected over a 9 week period. Relevant information included patient demographics, Timed Up and Go Scores (TUG) and BBS mobility status and admission and discharge from the class. Qualitative data was obtained through use of a patient satisfaction survey.

Result: 12 patients were referred to the balance class over a 9 week period. The age range was similar to BC1 with mean age 83.16 years. Participants attended on average 6.8 number of classes during their inpatient stay. There was a mean improvement in TUG scores of 19 seconds ($n = 12$) in BC2 compared to 8.6 seconds in BC1. There was a mean improvement in BBS of 6.8 points ($n = 8$) compared to 7.5 points in BC1. When compared both results signified clinical relevance (Brooks 2006).

Conclusions: Larger improvements in TUG scores were achieved in BC2 with similar outcomes in the BBS in both classes on discharge. The addition of an element of functional rehabilitation in BC2 achieved similar clinically relevant outcomes when compared to BC1. Brooks D, Davis AM, Naglie G (2006) Validity of 3 Physical Performance Measures in Inpatient Geriatric Rehabilitation. Arch Phys Med Rehabil 87:105–110.

P104 Comparative Accuracy of Motion Sensors for Frail-Older Hospitalised Patients

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Background: Older inpatients are physically inactive, potentially leading to functional decline and prolonged length of stay. Accurate measurement of physical activity can motivate patients and guide healthcare. The aims of this study were to measure (1) the step-count accuracy of the Stepwatch Ambulatory Monitor (SAM), ActivPAL3 (AP3) and the Piezo Step-MV (PSMV) motion sensors, and (2) the position and transition accuracy of the AP3.

Methods: This was a cross-sectional study. Medical inpatients, aged ≥ 65 years, independent-walkers ($n = 10$) and mobility-aid-users ($n = 10$) participated in the study. They were video-recorded completing 40 minutes of predetermined typical activities while wearing the three motion sensors simultaneously. Video-footage (gold standard) was compared to the motion sensors' step count, and position and transition accuracy of the AP3.

Results: The AP3 accurately detected all positions and transitions (100 %). Patients walked an average speed of 0.54 m/seconds (± 0.2); mobility-aid-users walked slower at 0.46 m/seconds (± 0.1) than independent-walkers at 0.62 m/seconds (± 0.2). The AP3 undercounted steps by -44% (± 2). This error was higher in the mobility-aid-user group (-52% , ± 12) than for the independent-walker group (-36% , ± 13). Similarly, the PSMV undercounted steps by -41% (± 26) with the error greater in the mobility-aid-user group (-49% , ± 29) than independent-walker group (-32% , ± 23). Conversely, the SAM overcounted steps by $+11\%$ (± 27); this error was higher in the independent-walker group ($+21\%$, ± 35) than in the mobility-aid-user group ($+1\%$, ± 13).

Conclusion: The results suggest that the AP3 and PSMV undercount steps in the frail-older hospitalised population. The SAM accurately counts steps for mobility-aid-users, but it was oversensitive for independent-walkers. This sensitivity was set before recording; it appears correct for mobility-aid-users but too sensitive for independent-walkers. The specific set-up procedure warrants further attention to determine if it can lead to improved SAM accuracy for the frail-older hospitalised group.

P105 Validation of the Picture Naming Task from the NIH Stroke Scale for an Irish Population

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Background: Adopted internationally, the NIH Stroke Scale was developed by US investigators as a means of standardising and scoring neurological examination in stroke patients in clinical studies. The scale includes a test of identification of 6 objects as an assessment for nominative dysphasia. Our experience was that apparently normal patients often struggled to identify some of these pictures.

Methods: We asked a population of 125 subjects with no history of cognitive or language impairment to name each of the drawings as presented in the NIH Stroke scale. We determined if consistency of object naming could be improved by providing photographs of objects rather than drawings or if other objects with names of similar complexity would be more recognisable to our population.

Results: 125 subjects (59 women, mean age 55:66 men, mean age 53, $p = 0.5$) were interviewed. Proportion of correct identifications were as follows; Chair: 124 subjects (99 %), Key: 124 (99 %), Glove: 118 (94 %), Feather: 106 (85 %), Cactuses: 104 (83 %), Hammock 103 (82 %). Older subjects (≥ 70 years) were less likely to identify, feather [9/33 (27.3 %) vs. 10/92 (10.9 %) $p = 0.02$], cactuses [11/33 (33.3 %) vs. 10/92 (10.9 %) $p = 0.003$]. Hammock 10/33 (30.3 %) vs. 12/92 (13.0 %) $p = 0.025$.

Photographs improved recognition of items in identification of ‘Glove’ (124 vs. 118 subjects $p = 0.06$ Fishers Exact) and ‘Feather’ (116 vs. 106, $p = 0.07$ Chi square) but not ‘Hammock’ (104 vs. 103. ns) or ‘Cactuses’ (108 vs. 104) suggesting that subjects didn’t know what cactuses or hammocks were.

Recognition of drawings of alternative objects, Tractor (98 %), Umbrella (99 %) and Elephant (99 %) was superior to that of Feather (85 %), Cactuses (83 %) and Hammock (82 %). Two subjects identified Irish as their first language but struggled to find an Irish word for hammock.

Conclusions: Up to one-third of older people in our sample were unable to name some items from the NIHSS. Subjects felt that substitution of photographs tended to make identification of objects easier. Object naming was more consistent when culturally familiar objects were substituted.

P106 Documentation of Resuscitation Status: An Audit of Current Practice in an Acute Hospital

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Background: A complex and sensitive issue, no clear guidelines exist in Ireland to assist doctors in making and documenting a Do Not Attempt Resuscitation (DNAR) decision. UK guidelines would promote documentation by senior members, inclusion of the patient and family in the decision making process and regular review of this decision (1). Our aim was to compare how our hospital complies with these UK guidelines prior to the introduction of a formal policy.

Methods: A 1 day audit involving a semi-structured interview was held with senior staff on all wards in the hospital, excluding ICU/HDU, identifying inpatients with a DNAR decision. The medical charts of those patients were assessed for level of documentation of the decision making process and who was involved.

Results: A total of 54 patients (M:F 15:39), average age 81.8 (37–102) were identified on discussion with senior staff to have a DNAR status from approximately 900 beds. In 48/54 cases it was clearly documented that the patient was not for CPR. The decision was documented by the following: Consultant/Consultant-led ward round in 14/56 (26 %) cases; SpR/Registrar in 24 (44 %); SHO 8 (15 %); Intern 1; Unclear 1. The decision was documented as discussed with the patient in 7/54 (13 %) and with the family in 32/54 (60 %). In 25/54 (46 %) the patient had diagnosis of cognitive impairment. 11 cases were reviewed, with 2 decisions made to change status back to full active management.

Conclusions: Current practice in our hospital shows a wide variation and inconsistency in how this decision is documented and discussed. If the medical notes reflect current practice then we are not meeting suggested standards. The introduction of a resuscitation policy should improve documentation. Reaudit following its introduction is planned.

Reference:

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P107 An Audit of the Physiotherapy Stroke Service at a Model 2 Hospital in Dublin

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Background: Cerebrovascular Accident (CVA) is the most common cause of acquired physical disability in Ireland, with walking perceived to be the biggest problem by patients following this event. Intensive rehabilitation in the first 6 months can aid significant recovery. We aimed to audit the stroke service at a Model 2 Hospital and compare against best practice guidelines.

Methods: Clinical data kept by the physiotherapy service from January to March 2014 was retrospectively analysed. Inclusion criteria for this analysis were patients admitted with CVA and receiving multi-disciplinary team input. Participant data was excluded if physiotherapy input was ceased or suspended due to other medical complications.

This data was compared against recommended guidelines as outlined by the Irish Heart Foundation.

Results: Fourteen patients received physiotherapy input over the 3 month period. Three were excluded. Of the 11 included, 10 were transferred from an associated Model 4 hospital. CVA patients made up 16 % of the physiotherapist’s caseload, but accounted for 33 % of patient treatment time. Patients were assessed by the therapist within an average of 1 day of referral. They were treated on average 3.2 times per week for 23.2 minutes per session. Seventy-three percent of treatment sessions required more than one therapist, accounting for 28.5 % of the entire caseload.

Time from referral to initial assessment falls within the recommended 24–48 hours window. Treatment frequency and duration are 36 and 48 %, respectively, below IHF Guidelines.

Conclusions: Best practice guidelines are not being met with regard to treatment frequency and duration.

Structured communication between associated hospitals may improve this. Model 4 hospitals could explore stratification based on the extent of required rehabilitation prior to onward referral. Early-supported discharge is another avenue that should be examined to reduce the burden on inpatient rehabilitation services and maximise patient outcome.

P108 An Occupational Therapy led Memory Health Group for Community-Dwelling Older Adults in a Community Reablement Unit: Evaluation and Vision

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Background: Older adults report memory complaints impacting their daily lives in the absence of objective cognitive impairment. The Memory Health group was established as part of the occupational therapy programme for clients attending the Community Reablement Unit in 2010. Previous research outlined the negative impact of early memory changes on an individual’s participation in social and other activities, along with a negative impact on self-esteem and quality of life (Roberts et al. 2009). The group aims to support older adults in coping with and challenging the impact of early memory changes on

their daily activities, using a combination of strategies in line with current research evidence (Troyer et al. 2012).

Methods: Both quantitative and qualitative data was used. Client evaluation following participation in this group was completed using a self-developed questionnaire to determine the effectiveness of this programme from the client's perspective. Data was collected to ascertain client satisfaction and to inform the future direction of the group.

Results: Motivation to learn techniques to support memory function in daily activities was high at 76 %, with an equal 76 % of participants reporting inclusion of strategies into their daily routines at time of discharge. Relaxation based strategies were favoured, along with strategies to overcome functional difficulties in completing daily activities.

Conclusions: Older adults attending the Community Reablement Unit experience early memory difficulties that impact their participation in daily activities. The occupational therapy-led memory health group aims to raise awareness of age-related memory changes and to support the individual to develop strategies to overcome memory difficulties in daily life. Client satisfaction with this programme was high and will inform the future direction of this memory intervention as part of an occupational therapy programme. Priority for development includes consideration of a suitable standardised measure to identify participants' memory challenges and perceived coping.

References:

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2. Roberts, J.L., Clare, L., and Woods, R.T. (2009). 'Subjective Memory Complaints and Awareness of Memory Functioning in Mild Cognitive Impairment: A Systematic Review'. *Dementia and Geriatric Cognitive Disorders*. 28, 95–109.

P109 Improving the Management of Gentamicin in Older Patients in an Acute Hospital Setting

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Background: Gentamicin is an effective antimicrobial for the treatment of severe infection. However it is associated with nephrotoxicity and ototoxicity. The aim of this study was to improve prescribing and therapeutic drug monitoring (TDM) of gentamicin, which is essential for safe management of patients.

Methods: A prospective study of patients 65 years and older receiving once-daily gentamicin was undertaken over 6 months. Quality improvement methodology was followed. A new guideline and electronic dose calculator were initially piloted on two wards and subsequently approved hospital-wide. New renal dosing recommendations were introduced. The trough level time window was extended from 1 hours pre-dose to 18–24 hours post-dose to increase flexibility. The first trough level was due on day 2 of treatment instead of day 3 to allow early identification of high levels. Education sessions were

provided to medical and nursing staff. The Fisher's exact test was used for statistical analysis.

Results: A total of 71 patients were included, 34 before and 37 following the introduction of the new guideline. Of these, 41 % had a creatinine clearance of less than 50 ml/minutes when gentamicin was initiated. TDM and management of high trough levels were improved following the introduction of the new guideline: first trough level taken correctly for 70 % of patients compared to 32 % previously ($p = 0.002$), all trough levels in range for 62 % of patients compared to 56 % previously ($p = 0.64$) and next dose held when trough level high for 79 % of patients compared to 60 % previously ($p = 0.43$). The first dose was prescribed according to the guideline for 51 % of patients using the new approach compared to 56 % previously.

Conclusions: Accurate TDM of gentamicin and safe management of high trough levels has improved. Further quality improvement initiatives are continuing, particularly with regard to appropriate first dose selection.

P110 Development of an Orthogeriatric Service in an Irish Tertiary Referral Hospital

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Background: Orthogeriatrics is an evolving subspecialty in geriatric medicine. Previous studies have demonstrated that joint care between Orthopaedic Surgeons and an Orthogeriatrician improves outcomes for hip fracture patients by identifying and triaging high risk patients, reducing postoperative complications and shortening lengths of stay. Our aim was to identify areas of patient care that may be improved after introduction of joint care with an Orthogeriatrician.

Methods: We distributed a short questionnaire to Orthopaedic Consultants and NCHDs consisting of questions examining their adherence to the quality standard of care for hip fractures in the elderly as outlined by NICE guidelines.

Results: 15 orthopaedic doctors were surveyed, 13 returned the questionnaire (6 consultants, 4 registrars and 3 SHOs). Only one respondent reported previous experience in geriatric medicine. Six respondents (62 %) indicated that they assess for bone health, seven (76 %) institute early discharge planning and eight (85 %) document Do Not Resuscitate orders when appropriate. Less than half of respondents routinely carry out cognitive assessments or medication review and only one doctor reported undertaking a falls assessment. Half of respondents state that they are not confident in diagnosing and treating delirium and only somewhat confident in dealing with end of life issues and pain control in older adults. 100 % of orthopaedic doctors feel that older patients are more challenging to treat than younger patients and believe that joint care with an Orthogeriatrician will positively affect patient outcomes.

Conclusions: This survey highlights a skills gap, which can be suitably filled by an Orthogeriatrician in order to improve patient outcomes particularly preoperative assessment, preventing postoperative cognitive and physical decline and discharge planning. We have found a clear role for an Orthogeriatric service and the Orthopaedic Surgeons are universally welcoming joint care.

P111 Clinical Audit of Bone Health in HIV Positive Patients Over 50 Years of Age

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Background: Low bone mineral density is common in subjects with HIV-infection; the clinical consequence is fracture. Those over the age of 50 should be screened for risk factors associated with low BMD and falls. The aims of the audit were to determine if subjects over 50 in the ambulatory HIV outpatient setting were being screened for risk factors associated with poor bone health (low BMD, calcium and vitamin D deficiency and falls). The National Prescribing Service 1 clinical audit of osteoporotic fractures and falls was used as our audit standard.

Methods: Case note review of ambulatory HIV outpatient attendances over 1 month. Those over the age of 50 were retrospectively selected.

Results: Seventeen patients over age 50 were screened. 13 (76.5 %) aged 50–59. 4 (23.5 %) aged 60–69. Male 10 (58.8 %)

Risk factor assessment 2 (11.8 %)

Modifiable risk factor 0

Dietary calcium intake 0

Absolute risk factor assessment 0

Falls risk assessment and management 0

On drug therapy 1 (5.9 %)

Audit limitations were based on clear documentation. Assessments may have been performed but not documented.

Conclusions: HIV patients over 50 years of age are a risk group for low bone mineral density and fractures. Bone health assessments should form part of routine clinical review among these subjects. The majority of patients 50–69 years in this audit were not screened routinely in the outpatient setting. Recommendations for improved bone health surveillance are:

1. Assess absolute fracture risk using a calculator
2. Assess modifiable risk factors
3. Assess for vitamin D deficiency risk factors
4. Assess for dietary calcium intake
5. Assess falls risk

Re-audit planned from May 2014.

P112 The Factors Associated with the Use of Assistive Technology Among Community Dwelling Individuals diagnosed with Multiple Sclerosis

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Background: The aim of this research study is to investigate the factors associated with the use of assistive technology (AT) in persons with Multiple Sclerosis (MS). MS is a progressive neurodegenerative disease, resulting in an array of functional limitations. AT is prescribed as a means to circumvent barriers associated with disability. The abandonment of AT affirms the continuation of client's needs. Abandonment of AT warrants the need to examine the factors associated with the MS populations' use/abandonment of devices.

Methods: A cross-sectional national on-line survey design was utilised. The survey comprised of a researcher-developed questionnaire and three standardised assessments: The Hospital Anxiety and Depression Scale (Zigmond and Snaith 1983), The Psychosocial Impact of Assistive Devices (Day and Jutai 1996) and the Barthel Index (Mahoney and Barthel 1965). Participants were recruited using a census method of sampling, whereby all registered members of a MS organisation were invited to participate. Factors were analysed using Spearman's Rank Order Correlation Coefficient and Cramer's V to explore their relationship with the use/abandonment of AT.

Results: Twenty-seven participants with the mean age of 53.5 years were included in the study. Mobility AT, home modification and bathing AT are the most commonly used AT by MS. Being married, competent and being adaptable for AT use were found to be significantly associated with the use of AT. Participants' current status of psychological wellbeing, anxiety in particular demonstrated a significant inverse relationship to the use of AT. Perceived unsuitability of AT device has found to be the most significant reason for AT abandonment.

Conclusions: Consideration of client's views regarding AT are necessary to ensure provision of an effective intervention. Several factors influence device use within the MS population, encouraging the need development of provisional guidelines to augment provision of AT procedure and for further research within this area.

P113 Occupational Therapy Effectively Providing Holistic Care in a Frail Elderly Active Rehabilitation Unit (ARU)

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Background: Occupational therapists perceive the patient as a whole person whose overall state of health is a result of a complex interaction of factors including physical, mental, sociocultural and spiritual components (Canadian Association of Occupational Therapists 1991). The World Federation of Occupational Therapists (WFOT 2012) notes that "interventions from occupational therapists are person centred and environmental, designed to facilitate the performance of everyday tasks and adaptation of settings in which the person works, lives and socialises". It is therefore appropriate that the occupational therapist assess level of function, cognition, home environment, and social interaction ability when planning and delivering intervention. The aim of the active rehabilitation unit is to provide rehabilitation with the goal of returning safely home.

Methods: A sample of 10 case studies explores and demonstrates how the occupational therapy department delivers holistic care in ARU. Interventions delivered include rehabilitation in activities of daily living, falls prevention education, home assessment and social interaction. The following outcome measures Functional Independence Measure (FIM), Mini Mental State Examination (MMSE), Falls Efficacy Scale International (FES-I) & Home Falls and Accidents Screening Tool (HomeFast) along with qualitative comments from a range of social groups were analysed to provide evidence of a holistic approach and the effectiveness of occupational therapy in the ARU.

Results: Quantitative results reveal the effectiveness of occupational therapy within the ARU while the qualitative results gathered show the depth of meaning of holistic care.

Conclusions: This study supports the importance of providing a holistic approach to occupational therapy practice in rehabilitation and shows that occupational therapists are best placed to provide holistic care to patients.

References:

1. Canadian Association of Occupational Therapists (1991) Occupational Therapy Guidelines for Client Centred Practice.
2. World Federation of Occupational Therapists (WFOT) (2012) Statement on Occupational Therapy.

P114 A Study of the Inter-Rater Reliability, Feasibility and Validity of the Cognitive Vital Sign (CVS) Screening Tool

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Background: In hospital, patients' vital signs such as pulse, blood pressure, oxygen saturation, respiratory rate and temperature are routinely recorded. Currently, short, valid and reliable cognitive tests are not routinely used to monitor cognitive function [1]. Patients experience fluctuations and changes in cognition, ranging from normal daily variations, to those that result from an underlying organic process such as delirium. Changes in cognition are a "vital sign" and often the earliest indicator of a variation or change in the patient's condition [2]. This study aimed to evaluate a brief "Cognitive Vital Sign" (CVS) screening test, to enable monitoring of cognitive function and register early changes in cognition.

Methods: Two investigators performed twice-daily cognitive assessments on 84 clinically stable adults, over 3–5 consecutive days, using the CVS and a battery of short cognitive tests. A questionnaire was completed by nursing staff to evaluate the time needed to administer the test, comprehension of the standardised instructions, feasibility to perform on the ward, and their willingness to perform the CVS routinely.

Results: Correlation coefficients for the CVS were excellent (0.87–0.97). A diurnal fluctuation in score of <5.2 (total score = 30) was deemed acceptable in clinically stable patients. Larger fluctuations are accepted as normal in patients with higher baseline scores on cognitive testing. CVS scores were statistically the same ($p = 0.987$) with repeated testing i.e. no learning effect was shown. 100 % of CVS examiners/nursing staff believed the CVS would be feasible to perform routinely.

Conclusions: There is no evidence to suggest a suitable screen has yet been designed or validated to satisfy all requirements for a rapid cognitive screen i.e. tests most cognitive domains, less than 2 minutes to administer, is validated against clinical diagnosis/gold standard, has multiple formats, and is reliable and acceptable to the investigator. This study's findings suggest the CVS may satisfy these objectives.

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1. Brodaty H, Moore CM (1997) The clock drawing test for dementia of the Alzheimer's type: a comparison of three scoring methods in a memory disorders clinic. *Int J Geriatr Psychiatry* 12: 619–627
2. Bush C, Kozak J, Elmslie T (1997) Screening for cognitive impairment in the elderly. *Can Fam Physician* 43:1763–1768

P115 The Introduction of an Interdisciplinary Quality Improvement Forum within a new Gerontological Rehabilitation Unit

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Background: An active rehabilitation unit (ARU) was established in 2012, guided by the Specialist Geriatric Services Model of Care introduced through the National Clinical Programme for Older People 2012. To ensure quality-care, an interdisciplinary Quality Improvement Forum (QIF) was developed. This interdisciplinary approach was essential as co-ordinated teams with a clear purpose, protocols and good communication are more effective in ensuring delivery of optimal care. We aim to describe the introduction and audit of the Quality Improvement Projects (QIPs) generated through the work of the QIF.

Methods: The HSE Change Model was used to guide development of the QIF. This Model describes the four phases of change: initiation, planning, implementation and mainstreaming.

Results: Initiation involved identifying the need and preparing for change. The interdisciplinary team developed a QIF entitled "The ARU Working Group". Within the planning stage, terms of reference were agreed and idea-generating meetings conducted. Project themes were agreed including communication, education, client-centred care and quality-control, and QIP's established. Each QIP detailed objectives, responsible personnel, timescales, training required and outcome measures.

Within the implementation phase, a range of projects were conducted. These included development of client information leaflets, a volunteer programme, sub-groups focused on management of risk factors such as falls, and interdisciplinary goal-setting, in-service and rehabilitation training initiatives, among others.

For mainstreaming, change was monitored, evaluated and adjusted further when required. Positive change was consolidated in daily practice, and efforts to sustain this are ongoing.

Conclusion: This is an account of the work of a QIF within a newly-established gerontological rehabilitation unit, guided by the HSE Change Model. Results reflect the QIP's implemented, resulting changes and service impact. Most QIP's were effective, induced positive change and were sustainable in daily practice.

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1. Health Service Executive (2008). Improving Our Services: A Guide to Managing Change in the HSE. Retrieved: 21/05/14. www.hse.ie/.../Improving_our_Services_A_Guide_to_Managing_Change_in_the_the_HSE_-_Oct_2008.pdf

P116 Three Year Audit of Prevalence and Management of Atrial Fibrillation post-Stroke in an Acute Hospital

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Background: Atrial fibrillation (AF) is a common cardiac arrhythmia and a well-established risk factor for stroke with its prevalence increasing with advancing age. The risk of stroke associated with AF is reduced by up to 67 % by anticoagulation (AC); however, despite evidence of substantial benefit, underutilization of AC remains

common. In the North Dublin stroke study (NDPSS) only 28 % of patients with a prior known AF were on AC at the time of their stroke (1).

Methods: Data was analysed retrospectively on 1,008 acute strokes presenting to our teaching hospital over a 3 year period using our minimum data set. Variables included demographic details, type of stroke, length of stay and outcome.

Results: Of 1,008 acute strokes in 2011, 2012 and 2013, 253 (25 %) had AF (70 % existing, 30 % new), 53 % were female and the majority (70 %) were >80 years. Of the 253 (25 %) patients in AF, 90 were unsuitable for AC (53 died, 33 haemorrhagic strokes, 3 large gastro-intestinal bleeds) leaving 163 potential candidates for AC.

Overall 137 (84 %) patients were anticoagulated on discharge. Indications for not anticoagulating included palliative care, patient refusal, discharge to another institution prior to commencement and frailty.

Conclusion: Our audit reveals a high proportion (84 %) of stroke survivors with AF who are discharged on either warfarin or newer oral AC (27 %). This was facilitated through a more accurate assessment and discussion of the risks and benefits of ACT helping to optimize safe therapeutic dosing and compliance.

Reference:

1. Hannon N, Sheehan O, Kelly L, et al (2010) Stroke associated with atrial fibrillation—incidence and early outcomes in the north Dublin population stroke study. *Cerebrovasc Dis* 29(1):43–49.

P117 Cerebral Small Vessel Disease (CSVD) in Very Old Patients

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Background: Cerebral small vessel disease (CSDV) is a sporadic process affecting small cerebral arterioles, capillaries and sometime venules with development of parenchymal lesions including lacunar infarcts, white matter rarefaction, large haemorrhages and micro-bleeds. Despite its prevalence, the neuropathology of CSVD has received little attention in very old patients. In this retrospective clinicopathologic review, we describe some of the changes of CSVD in 5 consecutive patients (aged 82–92; 3 female, 2 male) who had a post-mortem brain examination in 2013 in one DGH. Case records were reviewed for results of brain imaging and clinical features.

Methods: Microvascular alterations were sought in superficial lobar vessels and in deep central grey matter vessels. Sections were immunostained for smooth muscle specific actin as a marker of smooth muscle injury, Beta A4 amyloid and Perl's stain was used to demonstrate perivascular iron. Additionally vascular hypercurvature, perivascular space widening (PVS) and Charcot Bouchard aneurysms (CBA) were sought. Using the sclerotic index (SI) (1), CSVD was recorded as mild (SI 0.2–0.3), moderate (SI 0.3–0.5) or severe (SI > 0.5)

Results: Vascular amyloid was present in 2 cases (superficial in one and both superficial and deep in another). PVS was present in the deep vessels of 4/5 cases and was both superficial and deep in one case. Three of the cases with PVS in the deep vessels exhibited abnormal perivascular iron deposition. All 5 cases showed hypercurvature of the deep grey vessels with one showing hypercurvature of the superficial vessels. There was one deep CBA. The mean SI was 0.31 (range 0.22–0.38) in the deep vessels and 0.38 (0.17–0.62) in the superficial vessels. CT brain scan showed changes in the deep white matter and periventricular or basal ganglia consistent with CSVD in 4/5 cases.

Conclusion: Whilst changes of CSVD were present in all our patients, none had severe luminal narrowing in the deep vessels suggesting that parenchymal brain damage in the deep white and grey matter visible on brain imaging may be due to mechanisms other than narrowed small vessels.

P118 Taking the Service to the Community-Geriatrician-Primary Care Liaison Service

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Background: The number of older people in Europe is expected to increase and this calls for innovative ways of promoting and ensuring equity of access to services to those who need them. Geriatricians are equipped to deal with all geriatric syndromes whilst general practitioners in the community have reservations dealing with the same. One of the strengths of geriatric medicine is Comprehensive Geriatric Assessment (CGA) which encompasses multidisciplinary care and is delivered in secondary or tertiary setting. The use of screening tools in community settings may be helpful in identifying a subgroup that would benefit from earlier CGA. We developed a Geriatrician-Primary care liaison service to provide a specialist service in the community.

Methods: Patients aged ≥65 years who needed geriatric specialist input were identified in 2 primary care practices. The geriatrician visited monthly—physical and cognitive examinations were carried out as indicated, recommendations were recorded using the practice computer system.

Results: 43 patients were assessed in 15 visits. There were 42 new diagnoses in 37 (86.05 %) of patients. New diagnoses were n (%): dementia 8 (19 %), mild cognitive impairment 10 (24 %), mood disorders 4 (10 %), vascular gait dyspraxia 2 (5 %) among others. 124 recommendations or interventions were made n (%): medications added 24 (19 %), medication doses changed 13 (11 %), medications stopped 7 (6 %), day hospital referral 14 (11 %), radiological investigations 12 (10 %), blood tests 10 (8 %), generic advice 11 (9 %), specialist referral 8 (6 %), endoscopy 1 (1 %) and others 24 (19 %).

Conclusion: A high proportion of patients referred had cognition disorders 18 (42.9 %) and needed either medications added, stopped or dose changed 44 (35.5 %) and day hospital referral 14 (11 %).

P119 Cough 'Til You Drop

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Background: Situational Syncope is classified as Reflex Syncope and occurs in specific circumstances such as coughing (1). Loss of Consciousness associated with coughing was first described in 1876 by Charcot as “laryngeal vertigo” (2) but is now most commonly called Cough Syncope.

Case Study: A 66-year old gentleman was referred following multiple syncopal episodes after coughing. His background history

included COAD, Type 2 Diabetes, Hypertension, Diverticular Disease and Peptic Ulcer Disease. He had polypharmacy with relevant medications including an ARB, a Calcium channel blocker, an Alpha blocker, diuretics, and an SSRI. Further questioning revealed that he had daytime somnolence, was a heavy snorer and continued to smoke. His Body Mass Index was 37 (Class II Obesity). Examination was consistent with Chronic Obstructive Airways Disease. Assessment included an ECG, Active Stand, Head up Tilt including valsalva and cough reproduction while upright at the end, and Carotid Sinus Massage. Anti-hypertensives were rationalized at first review. Sleep studies were arranged and in view of his cardiac risk profile, a cardiac work up was undertaken. He was advised not to drive until investigations were complete and the potential underlying respiratory condition appropriately managed. Pulse Oximetry was strongly suggestive of Obstructive Sleep Apnoea and overnight CPAP was commenced immediately. An external loop recorder showed ventricular standstill and Mobitz Type II, second degree AV block which co-occurred with pre-syncope, giving symptom-rhythm correlation. He was admitted for pacemaker insertion and angiography.

Conclusion: This case provided evidence of dual diagnosis: Cough Syncope (Situational Syncope) classified as Reflex Syncope, and Cardiac Syncope. Through experience in our specialist syncope unit, a common phenotype is emerging of a predominantly male, overweight, middle-aged, smoker with COAD and occasionally OSA. Future clinical research in the field of cough syncope is required with a collaborative approach from syncope experts and respiratory physicians.

References:

1. Moya A, Sutton R, Ammirati F, Blanc JJ, Brignole M, Dahm JB et al (2009) Guidelines for the diagnosis and management of syncope (version 2009). *European heart journal* 30(21):2631–2671
2. Charcot JM. Séance du 19 Novembre 1876. *Gaz Med Paris*. 1876;5:588–9.

P120 A Retrospective Review of the OT (Occupational Therapy) Off Road Driving Assessment Pathway in a Day Hospital Setting

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Background: A Retrospective Review of an OT (Occupational Therapy) Off Road Driving Assessment Pathway in a Day Hospital setting. Driving is and will remain the primary mode of transport for older adults.

Methods: This review was completed over a 6 month period. An Off Road OT Driving assessment was completed and included Cognitive Assessment, driving history (Self rating/proxy scales), visual-perceptual assessment, physical and functional assessment. These included a referral for an On Road Driving Assessment and a letter to the referring consultant for their medical evaluation. The battery of assessments used was: Ace-3, Rookwood Driving Battery, A delaid self and by proxy Efficacy scale. OT would send referral for On Road assessment. Data collected over a 6 month period. A dementia/mild/moderate cognitive impairment diagnosis required.

Results: 10 patients within this review, with aim for an additional 6 months prospectively 8 patients failed 6/12+ sections of the rookwood, suggesting difficulties with driving and a required on Road assessment. 6/8 passed their on road driving assessment. Any score greater than 10/12 is considered a fail and corresponds to a 90 % chance of failing an On- road assessment. However the 3

participants scoring 10+ on the rookwood, 2/3 passed their On-road assessment.

The Ace-3 scores ranged from 47/100 to 87/100 with no significant association with the rookwood scores.

Conclusion: To Increase the awareness of the OT role in driving and the predictive value of off road driving assessments in regards to pass/fail rates of On Road Assessments. The aim of same is to assist the medical decision within the Dementia/MCI population.

Exploration required for the validity of more standardised tools to assist predict a pass/fail rate for the on Road Assessment (e.g. AMPS-assessment of motor and process skills).

A plan-Do-Check-Act model of quality is continuing to guide this quality initiative as a quality improvement cycle.

P121 Outcomes of a Multi-Disciplinary Rehabilitation Consultation Team

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Background: A rehabilitation service is provided to both male and female inpatients within the Medicine for the Elderly Service in a Dublin Hospital. Historically, patients referred for a rehabilitation consultation were reviewed by a registrar at ward level who determined the patient's appropriateness to engage in the rehabilitation process. This was based on information gathered from the allied health professional's documentation within the medical chart. There was limited liaison between the registrar and the multi-disciplinary team working within the rehabilitation service. In March 2012, a multi-disciplinary rehabilitation consultation team was introduced in order to increase communication, promote team working amongst staff, to be holistic in approach and to improve patient care.

Methods: The number of admissions, discharges and days taken to transfer to the rehabilitation setting was gathered and analysed from February 2011 to February 2014. The data analysed from February 2011 to February 2012 was prior to the introduction of the multi-disciplinary rehabilitation consultation team with the data gathered from March 2012 to February 2014 was following the introduction of it.

Results: The data gathered for the 2 years following the introduction of the team has illustrated that there has been an increase in the number of discharges from the rehabilitation setting as well as a decrease in the number of days taken to transfer a patient to the rehabilitation setting in comparison to the year prior to the teams introduction.

Conclusion: Team working was important to ensure the success of this initiative and through the introduction of the team, it has led to increased patient throughput as well as increased discharges to the home environment from the rehabilitation setting.

P122 Outcomes of Occupational Therapy Interventions within a Stroke Early Supported Discharge (ESD) Service; a 9 Month Retrospective Clinical Audit

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Background: Stroke ESD services aim to facilitate early discharge from acute hospitals by providing acute rehabilitation in patients'

homes to reduce length of stay, dependency and increase therapy outcomes (1). There has been a strong consensus recommending OT membership in ESD teams (2). This 9 month audit reviewed outcomes of OT intervention within a multi-disciplinary stroke ESD team.

Methods: Patients were seen within 24 hours of discharge from acute hospital. Collaborative patient/therapist goals were set using the Canadian Occupational Performance Measure (COPM). Patients were discharged from OT ESD when all goals were achieved. The Australian Therapy Outcome Measures for OT (AusTOMs) and the COPM were used to evaluate objective and subjective functional outcomes respectively. Data was recorded over the course of the 9 months.

Results: 65 % of all patients referred required OT input, 45 % of those were over-65. On average, patients received 8 OT sessions within a range of 2–41 sessions. Functional improvements were evident across all age groups. The percentages of patients who improved within each of the AusTOMs domains were; Impairment 85 %, Activity limitation 100 %, Participation 80 %, Distress 77.7 %. On average, patients improved from moderate to mild disability. Within the COPM 100 % of patients improved in both performance and satisfaction.

Conclusions: OT is effective in reducing dependency of stroke survivors in over and under-65s alike. Within the audit period, average hospital length of stay was reduced by 10 days per patient. There is potential that this model of ESD may also be effective with the frail elderly population requiring acute rehabilitation.

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1. Langhorne P (2005) For the Early Supported Discharge Trialists. Services for reducing duration of hospital care for acute stroke patients (review). *Cochrane Database Syst Rev* (2)
2. Fisher RJ et al (2011) A Consensus on Stroke Early Supported Discharge. *Stroke* 42:1392–1397

P123 Bleeding Obvious: The Hazard of Prescribing Warfarin to the Colour Blind

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Background: Warfarin is the most commonly prescribed anticoagulant and dose is distinguished by colour: blue, brown and pink. Failure to distinguish colours can lead to significant incorrect dosing with potentially catastrophic outcomes. There are few reports in the literature regarding the relationship between warfarin and colour blindness. We report a case of bilateral subdural hematomas most likely provoked by warfarin overdose in a colour blind man.

Case report: A 79-year old man presented to casualty with hematemesis. Noted to be taking warfarin for atrial fibrillation and a Mitral Valve Replacement; INR on admission was 6.75, which was reversed. Endoscopy revealed an oesophageal ulcer. Within 24 hours of admission, the patient became confused with a GCS of 14. No history of falls or head injury. CT Brain reported bilateral subdural hematomas necessitating neurosurgical intervention. During admission the patient's spouse reported her husband was colour blind. There was one incident 3 years ago when the patient took the wrong dosage of warfarin. His INR was 17.1. She says he was not confused or ill at that time but his colour blindness led him to choose the wrong tablets. The patient himself occasionally requested his wife to check if he was selecting the correct tablets.

When he had recuperated enough we challenged this theory by instructing him to pick a dose of warfarin by colour. He failed repeatedly and was unable to distinguish the tablets by colour. Following rehabilitation he was discharged home with low molecular weight heparin injections.

Conclusion: This case highlights the potential of colour blindness to precipitate incorrect warfarin dosing. Colour blindness is not routinely screened when we decide to commence warfarin therapy. Colour blindness is common: affecting 8 % of men. We recommend screening for colour blindness in the warfarin population and strategizing a safe prescribing method such as using only brown tablets (1 mg).

P124 The Use of Antipsychotics for Dementia in Acute Hospitals

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Background: Despite guidelines that antipsychotics should be prescribed in dementia only when a person is severely distressed, or is at risk of harming themselves or others, prescription is still common place. This study aimed to evaluate the use of antipsychotics for people with dementia during acute hospital admission.

Methods: As part of a larger audit on dementia care in acute hospitals, 660 healthcare records from patients with dementia in 35 acute public hospitals in Ireland were reviewed, to explore prescription of antipsychotics. Included patients had a recorded Hospital In-Patient Enquiry diagnosis (primary or other) of dementia, and a length of stay greater than 5 days. All auditors received comprehensive training.

Results: Overall, 41 % of patients with dementia were administered antipsychotic medication during their admission. Of those with an existing prescription (29 %), over half were discharged without a change to their prescription; while 12 % of patients with no prescription on admission were discharged with a new regular prescription. A reason for prescription was given in only 78 % of cases, most commonly 'agitation' (61 %), delirium (8 %), aggressive behaviour (8 %), and disturbance through wandering (4 %). Of concern, many patients (72 %) administered new antipsychotics were not assessed for Behavioural and Psychological Symptoms of Dementia (BPSD), delirium (55 %), mental status (46 %), or pain (24 %). A collateral history was not taken in 61 % of people prescribed new antipsychotics.

Conclusion: The results of this study suggest that high rates of antipsychotic medication are being prescribed to people with dementia in acute hospitals, including new prescriptions. Key multi-disciplinary assessments are often not carried out to determine the appropriateness of existing or new prescriptions or suggest alternatives to antipsychotic medication.

P125 One Year Outcomes in Stroke Patients Treated with IV Thrombolysis

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Background: Treatment of acute ischaemic stroke with rt-PA within 4.5 hours has been associated with a significant increase in survival free of disability, despite an early 3 % excess of fatal intracranial haemorrhage. (1) The aim of this study was to assess long-term outcome after thrombolysis in stroke patients, following formalisation of acute stroke services locally.

Methods: This observational study is based on University Hospital data collected as part of the HIPE ESRI national stroke database. A structured telephone interview was used to ascertain information about medium to long-term outcome (from 9 to 18 months after IVT). Primary outcomes were death and excellent outcome (modified Rankin Scale, mRS scores 0 and 1).

Results: 34 intravenous thrombolysis (IVT) treated stroke patients were included for analysis (all those treated from June 2012 to May 2013). Median time of follow-up was 13 months (interquartile range 12–17). 4/34 could not be contacted on two separate occasions. At the time of interview (n = 30), 15/30 patients had an excellent outcome and 15/30 had an unfavourable outcome, which included 10 patients with mRS scores 2–5 and 5 patients were dead. Median time to death was 11.5 days post treatment with only one death occurring later than 30 days at 16 months post treatment. Of those that are known to have survived long-term, 96 % patients were living in their own home (24/25). Of those that are known, 22 % required modified diet (5/23), 17 % has speech deficit (4/23) and 39 % has cognitive impairment (9/23).

Conclusion: At 1 year post follow up, approximately 1 in 2 had an excellent outcome (mRankin 0 or 1) which is comparable to similar larger studies. 96 % of survivors reside in their own home, regardless of disability.

P126 Polypharmacy and Proton Pump Inhibitor Prescribing in Older Patients

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Background: Polypharmacy increases with age, potentially leading to avoidable harm. There are safety concerns about inappropriate prescribing of proton pump inhibitors (PPIs) in older patients. Long-term PPI therapy, particularly at high doses, is associated with an increased risk of Clostridium difficile-associated diarrhoea and hip fracture in older adults. Admission to hospital is an ideal opportunity to review PPI prescriptions.

Methods: Review of drug charts for 100 consecutive geriatric inpatients. All patients prescribed a PPI had their medical notes reviewed for a documented indication for use. A departmental presentation was undertaken to draw attention to the licenced indications and dosages for which PPI’s can be prescribed. A re-audit of practice was carried out 2 months later (n = 100).

Results: No significant difference existed in age, gender or number of medications prescribed for both arms of the audit. There was no significant association between polypharmacy and being prescribed a PPI for either arm of the audit, p = 0.692. A similar percentage of patients had their prescription of PPI continued on admission to hospital, before and after the educational intervention; 65 % (65/100) and 64 % (64/100) respectively, p = 1. No valid indication was found in 85 % (55/65) vs. 75 % (48/64) of cases following the intervention, p = 0.254. In all, 65 % (42/65) of prescriptions were at the higher

healing dose of the drug vs. 61 % (39/64) following the intervention, p = 0.803.

Conclusions: PPIs were commonly prescribed among older people admitted to hospital, usually at high doses. The majority had no valid indication documented in their medical records, suggesting that PPIs might be over-prescribed in the elderly population. The audit suggests that simple educational interventions in a hospital setting have little effect on prescribing practice. An increased input from pharmacy on the ward regarding prescribing practices and future e-prescribing with alerts may improve current practice. However, financial constraints may limit their viability to become widespread alternatives.

P127 Audit of Drug Kardex’s in Older Patients

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Background: The prescribing of medicines is the commonest healthcare intervention in developed countries. In Irish hospitals a mean of 14 medications are prescribed per patient on the wards, which translates to 8,400 medications being administered daily. Regular audits of medication prescribing are important as it allows healthcare practitioners to identify areas of practice that require improvement.

Methods: An audit of the drug kardex’s in the Geriatric Medicine ward of Cork University Hospital was conducted on 24/9/2013. The audit was unheralded, as staff were not warned about the audit in advance. In total 34 drug kardex’s were included. The standards used were patient details, weight, precaution stickers, prescriber bleep & MCRN, generic prescribing, legibility, signing outside boxes and duration of antibiotic treatment. A departmental presentation was undertaken to educate staff on the standard of prescribing expected on initiation to the ward. A re-audit of practice was carried out on the 1/11/2013.

Results: On initial audit and re-audit, 100 % (34/34) of drug kardex’s contained patient details. Prescriber bleep and MCRN were present in 0 % (0/34) and 1 % (1/34) of kardex’s on initial audit. On re-audit, this increased to 29.4 and 8.8 % respectively. Generic prescribing was present at a rate of 54 % initially, increasing to 67.6 % following intervention. Correct antibiotic prescribing, including duration of treatment, was evident in 17 % (2/12) of drug kardex’s, decreasing to 15.3 % (2/13) on re-audit. Patients’ weight was recorded in 20.6 % of kardex’s. Following intervention, this decreased to 17.6 % (6/34).

Conclusions: This audit suggests that simple educational interventions in a hospital setting improve prescriber identification compliance rates and prevalence of generic prescribing. It also suggests that further multidisciplinary education is needed to increase the recording of patients’ weight and to improve the prescribing of antibiotics.

P128 The Use of CT Perfusion in the Assessment of Older Adults Presenting with Acute Ischaemic Stroke

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Background: CT Perfusion (CTP) is a new imaging modality, used to assess the ischaemic core and penumbra. It is increasingly being used to investigate if there is salvageable brain tissue when patients present towards the limit of the thrombolysis window or in those with “wake up” but presumed recent stroke. It is not known whether CTP provides additional diagnostic information compared with clinical indicators alone, in the assessment of older adults presenting with acute ischaemic stroke.

Methods: We performed a retrospective review of consecutive patients aged over 65 years, assessed with CTP for suspected acute ischaemic stroke, presenting to a university hospital between September 2009 and February 2014. Where available, the NIHSS and ASPECTS at presentation, and baseline and discharge Modified Rankin (mRS) scores were recorded.

Results: In all, 54 patients were available. Of these, 51 had evidence of acute stroke, two probable TIAs, one possible seizure. The median age of patients with stroke was 77 years (interquartile range 82–69 = ±14). Median ASPECTS was 9 (10–7.25 = ±2.75), median NIHSS score 15(20–4 = ±16) and median baseline mRS score was 0/6, (1.5–0 = ±1.5). Indications for CTP included assessment for further intervention 57 % (29/51), wake-up stroke 21 % (11/51), failed intravenous thrombolysis 6 % (3/51) and contraindications to intravenous thrombolysis 16 % (8/51). Of all those scanned, 37 % (20/54) showed a matched defect, 24 % (13/54) no perfusion defect, while 61 % (22/54) showed a mismatch. In total, 31 % (16/51) proceeded to intra-arterial thrombolysis or thrombectomy. CTP alone had reasonable accuracy, (AUC 0.57), predicting need for further management compared with the NIHSS (AUC 0.77), mRS (AUC 0.64), or ASPECTS (AUC 0.52). Median mRS score on discharge was 2/6, (4–1 = ±3). 72 % (37/51) were discharged home, 16 % (8/51) institutionalized and 12 % (6/51) died (two who underwent intra-arterial thrombolysis or thrombectomy).

Conclusion: CTP (mismatch) added to the management of a large percentage of those scanned. CTP alone predicted the need to progress to intra-arterial thrombolysis or thrombectomy comparing favourably with radiological or clinical indicators.

P129 Comparing Subjective and Objective Measures of Frailty Using the Deficit Accumulation Approach

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Background: Frailty is the state of increased vulnerability to adverse health outcomes. A common operational definition of frailty is the frailty index, frequently constructed using mostly subjective health measures. This study examined whether the characteristics of the frailty index differ when constructed exclusively using self-reported or test-based health measures.

Methods: A secondary analysis of the first and second waves of The Irish Longitudinal study on Ageing (TILDA) was performed. 4,969 participants aged 50+ years (mean age 62 ± 8.5; 54.2 % women) who underwent a comprehensive health assessment were included. Three frailty indices were constructed using the deficit accumulation approach: 33 self-reported health measures (SRFI), 33 test-based health measures (TBFi), and all 66 measures combined (CFI). The

outcomes measures examined were all-cause mortality, disability, hospitalization, and falls.

Results: SRFI mean scores (0.12 ± 0.09) were lower than TBFi (0.17 ± 0.15) and CFI (0.14 ± 0.13). All three indices had a right-skewed distribution, an upper limit lower than 0.7, an increasing nonlinear relationship with age of 3.3–3.5 % per year, and a dose-response relationship with adverse outcomes. Men (0.17 ± 0.09) had slightly higher TBFi scores than women (0.16 ± 0.10) in contrast to previous studies showing that females have higher frailty scores than males but longer life expectancy. CFI was the strongest predictor of adverse health outcomes, whilst the SRFI was more predictive than TBFi for all outcomes except mortality.

Conclusions: This study showed that the characteristics of frailty are similar regardless of the type of measures used to construct a frailty index, except for the male–female differences. The slightly higher TBFi scores seen in men are consistent with the well-established gender difference in mortality. This suggests that the TBFi may more accurately capture levels of frailty. More generally self-reported and test-based measures appear to capture different aspects of vulnerability and should be combined to maximize the predictive ability of frailty indices.

P130 Classifying Age-Related Health Deficits: A Latent Class Analysis

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Background: It is hypothesised that the progression of frailty with ageing reflects the accumulation of multi-domain functional deficits and subsequent depletion of individual reserves. Understanding this process presents a statistical challenge. Latent class analysis (LCA) provides a probabilistic framework to incorporate large numbers of health variables and explore underlying groups. This study aimed to apply LCA to an age-related health deficit index.

Methods: Data are from 3,511 men and women aged ≥65 years included in wave 1 of The Irish Longitudinal Study on Ageing, a nationally representative longitudinal study of the over-50s in Ireland. A 40-item deficit index was constructed including self-reported disabilities, chronic conditions, mental health and sensory deficits. LCA was used to identify underlying classes analogous to frailty categories and assess the probability of experiencing each deficit according to class membership.

Results: Three latent classes fit the data best, and these three classes were comparable to non-frail, intermediate-frail and frail, reflecting low (51 % of sample), intermediate (36.7 %) and high (12.2 %) probability of having deficits. The probability of having each deficit varied widely within classes, partly reflecting overall prevalence. The probability of having certain deficits differed greatly across classes, while for other deficits was more similar in each group. For example the probability of having difficulties kneeling was 0.1 in the low group, 0.62 in the intermediate group and 0.92 in the high group, while the probability of having difficulties jogging a mile was 0.6 in the low group, 0.9 in the intermediate group and 0.98 in the high group.

Conclusions: Applying LCA to a health deficit index it was possible to identify underlying categories corresponding broadly to the general level of probability of experiencing deficits. Variations in the probability of different deficits across classes suggest some deficits may better discriminate levels of overall frailty than others.

P131 Anticholinergic Burden in Older Adults with Intellectual Disability; Relationships with Multimorbidity and Adverse Effects

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Background: Anticholinergic medications may be associated with adverse clinical outcomes, including acute impairments in cognition and anticholinergic side effects, the risk of adverse outcomes increasing with increasing anticholinergic exposure. Older people with intellectual disability may be at increased risk of exposure to anticholinergic medicines due to their higher prevalence of comorbidities. We sought to determine anticholinergic burden in ageing people with intellectual disability.

Methods: Medication data (self-report/proxy-report) was drawn from Wave 1 of the Intellectual Disability Supplement to the Irish Longitudinal Study on Ageing (IDS-TILDA), a study on the ageing of 753 nationally representative people with an ID ≥ 40 years randomly selected from the National Intellectual Disability Database. Each individual's cumulative exposure to anticholinergic medications was calculated using the Anticholinergic Cognitive Burden Scale (ACB) amended by a multi-disciplinary group with independent advice to account for the range of medicines in use in this population.

Results: Overall, 70.1 % (527) reported taking medications with possible or definite anticholinergic properties (ACB ≥ 1), with a mean (\pm SD) ACB score of 4.5 (± 3.0) (maximum 16). Of those reporting anticholinergic exposure (n = 527), 41.3 % (217) reported an ACB score of ≥ 5 . Antipsychotics accounted for 36.4 % of the total cumulative ACB score followed by anticholinergics (16 %) and antidepressants (10.8 %). The most frequently reported medicine with anticholinergic activity was carbamazepine 16.8 % (127). The most frequently reported medicine with high anticholinergic activity (ACB 3) was olanzapine 13.4 % (101). There was a significant association between higher anticholinergic exposure and multimorbidity, particularly mental health morbidity, and some anticholinergic adverse effects such as constipation and day-time drowsiness but not self-rated health.

Conclusion: Using simple cumulative measures proved an effective means to capture total burden and helped establish that anticholinergic exposure in the study population was high. The finding highlights the need for comprehensive reviews of medications.

P132 Invisible Policies: A Scoping Literature Review of Wheelchair and Seating Provision for Older People in Irish Nursing Home Settings

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Background: There are 22,000 older people living in the 400 private, public and voluntary nursing homes in Ireland, with an estimated rise to 35,000 requiring long term care by 2021. Older adults form the largest group of wheeled mobility devices users, with wheelchairs being the primary means of mobility among 80 % of nursing home residents. Wheelchair and seating provision within such settings is complex in nature. Appropriately prescribed wheelchairs are essential

to meet physiological functioning and personal mobility needs by providing postural support and comfort, enabling active participation, improved quality of life and independence. Individualised wheelchair and seating increases health and well-being and significantly reduces the risk of pressure ulcers. This paper presents a scoping literature review which examined a range of evidence influencing wheelchair and seating provision in nursing home settings.

Methods: A scoping literature review methodological framework developed by Arksey and O'Malley (2002) was used to guide the research process.

Results: Appropriate wheelchair selection is an important factor for resident's quality of life and participation in meaningful occupation. Policy relating to wheelchair and seating provision in Irish nursing home settings appear invisible. Evidence suggests lack of awareness among stakeholders as to the importance appropriate provision for postural support and personal mobility, with an absence of guidelines to ensure best practice. There appears to be little or no access to Occupational Therapy services, the key profession involved in assessment and prescription.

Conclusion: A piecemeal system exists, with organisational and interactional factors influencing serious inadequacy of wheelchair and seating provision. The potential for a reduction in quality of life and ability to maintain independence is inevitably increased. An urgent review of wheelchair and seating provision policy is called for to ensure older people's posture and mobility needs are being met within Irish nursing homes settings..

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P133 Frailty as a Marker of Premature Biological Ageing: Preliminary Evidence from The Irish Longitudinal Study of Ageing (TILDA) and a Community-based Methadone Treatment Program

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Background: High morbidity, mortality and premature ageing within the Heroin using population is well documented. However, the relatively increased rate of ageing compared to the general community-living population has not been measured. In this study, frailty was utilised to assess the relative rate at which opiate-dependent populations age more rapidly.

Methods: Data from the first wave of The Irish Longitudinal Study on Ageing (TILDA) (N = 4,242; mean age 58; 56 % female) and a sample of patients (N = 41; mean age 44 years; 22 % female) in Methadone treatment for heroin addiction at an inner-city Dublin clinic, were analysed. All subjects were aged (40–69 years). The five frailty phenotype criteria (unintentional weight loss, exhaustion, low walking speed, low grip strength, low physical activity) were measured using the same methods in both samples. Descriptive statistics were used to compare demographics, frailty criteria, and self-reported health variables.

Results: Frailty (≥ 3 criteria) was significantly higher in the Methadone (22 %) compared to the TILDA (1.6 %) sample. Pre-frailty (1 or 2 criteria) was also significantly higher at 49 vs. 29 %, respectively. Despite the older mean age and higher percentage of females in the TILDA sample, both of which are associated with frailty, exhaustion,

weight loss, low walking speed and low activity were 5-, 6-, 11- and 12-times higher in the Methadone sample. Low grip strength was at 9 % in both samples. The Methadone sample were significantly more likely to be smokers, have poorer cognitive function, be unmarried and live alone but were less likely to have ≥ 1 chronic conditions (59 vs. 72 %). Finally, all 8 HIV positive patients were categorized as frail or pre-frail. **Conclusions:** These preliminary findings suggest that frailty is a marker of biological ageing and may be used to assess the relative rate of premature ageing and risk of adverse health outcomes in vulnerable populations.

P134 The Relationship Between Frailty and the Timed Up and Go in a Post-Acute Rehabilitation Unit

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Background: Frailty is highly prevalent in hospitalised older persons and is a predictor of mortality, institutionalisation and poor functional gain. The Timed Up and Go (TUG) has been proven to be a useful proxy for frailty (1). The objectives of this study were to investigate the correlation between Clinical Frailty Scores (CFS) on admission with the change in the TUG scores and secondly to correlate the CFS on admission with TUG on discharge.

Method: This was a prospective observational cohort study of 66 post-acute older inpatients. Frailty was assessed using the Canadian Study of Health and Aging CFS. The TUG was measured on admission and discharge.

Results: The mean (\pm SD) age was 80.1 (\pm 5.7) and the majority were female (68.2 %, $n = 45$). The median (IQR) LOS was 36 (31.3) days. 86.2 % ($n = 56$) discharged home, 6.2 % went to long term care ($n = 4$), 6.2 % ($n = 4$) to an acute hospital and 1.5 % ($n = 1$) deceased. The median (IRQ) TUG score was 39 (34) on admission and on discharge was 21 (23) seconds. The median (IRQ) CFS on admission was 6 (1) (moderately frail) on discharge was 5 (1) (mildly frail). There was no association found between CFS on admission and the change in TUG scores, however a moderate association was found between CFS on admission and TUG score on discharge ($r = 0.461$, $p < 0.0001$).

Conclusion: CFS on admission gives the clinician an indication of the expected TUG outcome measures at discharge following post-acute rehabilitation. Further research regarding the validity of the TUG as a frailty measure and other frailty measures is required in the older adults undergoing post-acute rehabilitation.

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P135 Behavioural Features of Impending Delirium

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Background: Delirium is highly prevalent and leads to poor outcomes. Identifying patients with impending delirium may facilitate proactive interventions and hence improve prognosis. Recently, the

concept of a delirium prodrome has evolved, however its features have yet to be defined. This study aims to characterise the prodromal behavioural features of delirium in medical inpatients.

Methods: Medical inpatients of ≥ 70 years were assessed within 36 hours of admission for delirium using the Delirium Rating Scale-Revised' 98 (DRS-R98). Consenting subjects without prevalent delirium on admission were then assessed daily for incident delirium. Evidence of potential prodromal features was also sought by consultation with relevant nursing staff using a novel prodromal checklist, based on features suggested from existing studies. A preliminary analysis was performed on a subset of patients who developed delirium on day 2 of admission compared to controls. Frequencies of individual behavioural features on day 1 were calculated and Fisher's exact test was used to ascertain significant differences between the groups.

Results: Of 191 patients included overall, 160 were included in this analysis (30 cases, 130 controls). Features which were significantly more common in pre-delirious patients were 'distractibility/going off-track' (27.6 vs. 8.6 %, $p = 0.009$), and 'increased confusion/fogginess' (37.9 vs. 12.5 %, $p = 0.002$). Additional features more common in pre-delirious patients without reaching statistical significance were 'calling for attention' (24 vs. 10.9 %, $p = 0.072$), 'slower movements' (75.9 vs. 56.2 %, $p = 0.052$), 'rambling off the point' (20.7 % vs. 8.6, $p = 0.091$) and 'lacking in spontaneous speech' (27.6 % vs. 14.1 %, $p = 0.097$).

Conclusions: This is the first study designed specifically to characterise the delirium prodrome. Preliminary data suggests that some behavioural features, particularly distractibility and mild confusion, occur more frequently in patients with impending delirium. Given that inattention is a cardinal feature of delirium, it is unsurprising that it may also be present in the prodromal phase.

P136 Scoring Frailty in Acute Medical Patients

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Background: Frailty may be a key prognostic marker in older acutely unwell adults. Multiple frailty scales exist, but most have been developed for use in the out-patient setting. This study aims to assess the agreement between three frailty scores in older medical inpatients.

Methods: Medical inpatients were assessed using SHARE-FI (Survey of Health, Ageing and Retirement in Europe-Frailty Index); Study of Osteoporotic Fractures (SOF) Index; and the Reported Edmunton Frail Score (REFS). The latter is based on the Edmunton Frail Score, modified to allow for acute illness in the hospital setting. It is multi-dimensional and based primarily on patient self-reports. SOF includes questions relating to weight loss and exhaustion, and a measure of muscle strength. SHARE-FI measures exhaustion, appetite, slowness, low activity and grip strength.

Results: Of 156 patients assessed, 75 (48.1 %) were classified as frail by all three tests, whereas only three patients were categorised consistently as non-frail and two as pre-frail. SOF categorised the highest proportion of frail patients ($n = 133$, 85.3 %), whereas SHARE-FI classified 97 (62.2 %) and REFS classified 103 (66 %) patients as frail, respectively. REFS categorised the highest proportion of patients as non-frail, at 17.3 % ($n = 27$). Contrastingly, SOF categorised only five patients (3.2 %), and SHARE-FI classified seven (4.5 %), as non-frail. Numbers of pre-frail patients were least consistent across the groups. SHARE-FI categorised 52 patients as pre-

frail, of whom 40 (76.9 %) and 24 (46.2 %) were considered frail by SOF and REFS respectively.

Conclusion: Frailty categorisation differs depending on the scale used. However, almost half of patients were considered frail by all three tests. SOF has the fewest parameters, which may account for its frequent categorisation of a patient as frail. REFS classified the highest proportion of patients as non-frail. As it is a self-reported scale, this is possibly due to under-reporting of frailty parameters.

P137 An Audit of the Use of Psychotropics in an Extended Care Setting

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Background: Polypharmacy, inappropriate prescribing and the use of psychotropics are contributing factors to the older person in residential care being susceptible to falls, delirium and hospitalisation. As a result, all extended care facilities in Ireland are now reviewed by The Health Information and Quality Authority (HIQA). Current guidelines require 3-monthly review of every clients' medications, with emphasis on the judicious use of psychotropics.

Methods: A point prevalence review of each client's medication prescription was carried out. Only regular psychotropics were selected and categorised by the following BNF classification: benzodiazepines, first generation/atypical antipsychotics, selective serotonin reuptake inhibitors, tricyclic antidepressants, other antidepressants and non-benzodiazepine hypnotics (Z-drugs).

Results: A total of 87 medication prescriptions were reviewed. Owing to the specialist care provided in our extended care facility, 48 % of our residents are categorised as "Fair Deal" and the remaining 42 % as Level 2 Palliative Care. The latter are clients with a life-threatening illness resulting in a prognosis of between 3 and 12 months. The average age was 78 years. 74 % of our residents were on one or more psychotropics. Regular benzodiazepines were prescribed in 23 % of our clients, followed by 30 % on antipsychotics and 58 % on antidepressants. Z-drugs were prescribed in 28 % of our clients.

Conclusion: The use of psychotropics appears to be high and may represent the complexity of our clients. The high rate of antidepressant use likely reflects improved diagnosis and management of depression in the older person. The use of benzodiazepines and Z-drugs is excessive and needs to be addressed. We welcome the HIQA directive and have set up a pharmacist-led review process which provides regular and meaningful dialogue between clinician, nursing staff and pharmacist. A re-audit is scheduled in 6 months to assess the impact of this multi-disciplinary review process on the responsible use of psychotropics.

P138 Towards a Profile of Dementia Risk and Online Supports for Dementia Risk Reduction: Translating Findings From a Robust Model Based on Modifiable Risk Factors

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Background: While the causes of dementia are not completely understood, certain risk factors are known. Although some risk factors are non-modifiable (e.g. age, genetics), a surprising number are

modifiable including hypertension; cholesterol; obesity; alcohol consumption; smoking; physical and cognitive activity. It is the complex interaction and interplay of various risk factors which contributes to the development of dementia. However, awareness of modifiable risk factors for dementia is low and there is need to inform people of the steps that can be taken to improve brain health and reduce future dementia risk. Here, we report on work towards translating a dementia risk model into a dementia risk profiler and the development of an online support environment to help individuals in midlife adopt lifestyle changes, called In-MINDD.

Methods: Data from a robust dementia risk model based on an inventory of modifiable risk factors was translated into a dementia risk profiler, which involved designing an online self-administered questionnaire with digital encoding, following specific transformation rules. This was accompanied by the development of the online support environment informed by evidence-based recommendations on strategies for making lifestyle changes.

Results: The work has resulted in an online risk analysis system, which generates a Lifestyle for BRAin health (LIBRA) profile for individuals in midlife. A support environment comprising a collection of online resources, personalised for individuals, has also been developed. It includes guidance on modifiable risk factors for dementia, a personalised plan, incorporates goal setting, and provides an opportunity for users to connect with each other through social media and with experts on dementia risk reduction.

Conclusions: The In-MINDD profiler and online support environment have the potential for use in primary care practice. A study to test the feasibility of the In-MINDD system in practice is taking place in Ireland, Scotland, the Netherlands and France.

P139 An Alternative Home-Based, Electronically Monitored Model of Interim Care (IC)

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Background: Interim care (IC) in a hospital or nursing home setting is proposed for post-acute care role under the Geriatric Model of Care (RCPI/HSE Publications 2012). We describe our experience of a novel alternative model of IC, delivered directly into a patient's own home, supported by use of remote monitoring equipment supervised by a specialist geriatric team.

Methods: In this pilot, 13 post-acute, elderly patients were recruited to our IC-at-home service. On discharge, a partner home care agency (Bluebird) provided up to 3 visits per day. At each visit clinical parameters including pulse, blood pressure and oxygen saturation were measured with weight checked weekly. The monitoring equipment transmitted the results directly to the cloud via 3G technology. The results were then viewed twice daily with variances triaged to one of 3 pathways: (1) Next day review at our Geriatric Rapid Access Clinic, (2) Domiciliary review by the Geriatrician, or (3) Referral to the emergency department. The service was provided for a period of up to 6 weeks with final patient disposal to (a) remain at home \pm HCP, (b) re-admit to hospital, (c) admit to nursing home or (d) hand-off to a home care package.

Results: Thirteen patients (9 female, mean age 83 years) utilised the service, for a mean of 5.7 weeks. Four (33 %) required geriatrician domiciliary visits, 2 required re-admission following clinical deterioration, 2 were admitted for further rehabilitation, 3 were discharged with a Home Care Package and 5 were discharged without formal supports.

Conclusions: IC is a poorly studied but increasingly utilised form of care. Our home-based model appears to be an acceptable alternative to traditional IC, obviating the requirement for expensive infrastructure and furthermore functioning as a safe, effective trial of supported home discharge, validating this choice for many patients and exposing safety pitfalls for others.

P140 An Unusual Cause of Arm Weakness: “Don’t Let The Cat Out of The Bag”

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Background: Computerised tomography (CT) findings of a cerebral infarct should be revisited when a patient presents with progressive neurological symptoms.

Case Study: A 74 year old man with long-standing Addison’s disease presented to hospital in December 2013 after a fall. He mentioned that his left arm had been weak for 4 weeks. Neurological examination was initially normal and CT brain was interpreted as showing old left caudate and right lentiform nucleus infarcts, with diffuse white matter ischaemia. His arm weakness progressed over the next week during rehabilitation, and magnetic resonance imaging (MRI) showed the right basal ganglia lesion to be atypical for an infarct, with differentials including neoplasm and low grade infection. Cerebrospinal fluid (CSF) showed mild lymphocytosis and borderline elevated protein levels. A brain biopsy was considered but deferred until infective causes were excluded. CSF was negative for herpes and atypical organisms and investigations for tuberculosis proved negative. The hospital’s Infectious Disease consultant raised the possibility of toxoplasma infection, given the location of the lesion, and toxoplasma serology revealed positive IgG and negative IgM titres, typical of chronic infection (with presumed reactivation due to his immunosuppression). It later transpired that the man often fed stray cats near his house. Eradication therapy was commenced. Repeat MRI after 2 weeks showed a dramatic shrinkage of the lesion, with partial resolution of arm weakness.

Conclusion: Toxoplasmosis is caused by infection with the intracellular parasite *Toxoplasma gondii*, and is very common worldwide, usually causing subclinical disease. Cerebral toxoplasmosis is rare, although well-noted to occur in immunosuppressive disease, and can be fatal. A solitary brain abscess, as in this case, can present with seizures or focal neurological deficits. There is a known predilection for the basal ganglia, possibly related to blood supply, which luckily suggested the correct diagnosis in this case.

P141 Denosumab Continuation in the Primary Care Setting; Is Cost Contributing to Decreased Compliance?

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Background: Long term bisphosphonate treatment either in oral or intravenous form has been associated with poor compliance in several

studies. Thus Denosumab, administered subcutaneously every 6-months, is expected to improve treatment adherence in the primary care setting. Denosumab is a human monoclonal antibody licensed for treatment of osteoporosis in postmenopausal women at increased risk of fractures. Our aim was to compare compliance rates in an Irish primary and secondary care setting.

Methods: This study was based on chart review of patients attending a Bone Health Nurse Specialist for initiation of treatment with Denosumab between February 2011 and February 2014.

Results: 189 patients (N) were identified (16 males and 173 females). The median age was 79 years (range 31–94). Denosumab was discontinued in 5 patients due to increased frailty or death. 55 (29 %) patients were discharged to primary care for long-term administration of denosumab. 50 out of the 55 patients discharged to primary care have attended for at least 1 treatment. 1 was too frail to continue and 4 were non-compliant as they were non-medical card holders and would have to bear the costs.

Conclusions: This study shows 100 % compliance in the secondary care setting vs. 93 % compliance in the primary care setting. A single factor which is cost accounts for the drop of 7 % in adherence rates. Currently, the drug costs 430 EUR per year, 280 EUR of which is refundable under the Drugs Payments Scheme. Full cost is not covered under the critical illness scheme as osteoporosis is not listed. In the coming years, about 40,000 people aged 70+ have lost or will lose their medical card. Denosumab, an ideal drug to give in the community but costs (because it will be incurred by patients) will negatively impact adherence rates as illustrated in our study.

P142 Frailty in Older Patients Discharged From a General Hospital

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Background: Frailty is increased vulnerability to poor resolution of homeostasis after a stressor event e.g. a respiratory tract infection. Those with frailty may not recover to their previous health after an insult. Increased frailty is associated with higher mortality and morbidity rates. Prevalence rates are 10 % in people over 65 years and 25 % over 85 years of age.

Methods: Prospective adult patients (n = 429) being discharged from our acute medical wards, were scored for clinical frailty, using the Clinical Frailty Scale (CFS). This was done in the discharge lounge over an 8 week period, 5 days per week by 2 senior nurses. Scores (CFS) ≥ 6 on this scale was taken as clinical frailty.

Results: Data was available for 417 patients. 45 % were males. 61 % of patients were ≥ 65 years of age. 59 (14 %) patients were over 85 years. Older patients ≥ 65 years (n = 229) had a higher CFS than those < 65 years, (mean of 4.98 compared to 3.37, SD of 1.35 and 1.57 respectively) ($p \leq 0.0001$). In those < 65 years 13 (8 %) (6 males) were frail. In those ≥ 65 years 110 (48 %) (49 males) were frail and in those ≥ 85 years 44 (75 %) (22 males) were frail.

Conclusion: Of those being discharged from our acute hospital, nearly half of those over the age of 65 years and three quarters of those over 85 years are considered frail. This has big implications for the adequate provision of community services to maintain these elderly patients at home.

P143 An Audit of the Prevalence of Pain and its Management in Elderly Hospitalised Patients

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Background: Pain, both acute and chronic, is a common complaint of elderly hospitalised patients. Research has suggested that pain is often under-recognised in this group. The aim of this work was to assess the prevalence, assessment and management of pain in elderly inpatients. We also sought to document the impact of pain on patient's mobility and sleep.

Methods: We interviewed 52 medical inpatients aged over 65 using a specially devised 9-point survey. Exclusion criteria included haematological/oncological patients, reduced consciousness, being critically unwell or unable to answer the questionnaire. Data was obtained from the patients' medical charts.

Results: Thirty-nine (75 %) patients interviewed reported pain of whom 30 (76 %) reported chronic pain. Pain was documented in the medical notes of just 24 (61 %) of these patients. 24 (60 %) of patients reported sleep disturbance or reduction in mobility as a result of their pain. Pain assessment tools (Visual Analog Scale) were used in 7 (17 %) of patients with pain. 18 (34 %) of patients were on regular analgesia. 27 (52 %) were prescribed analgesia as required. Only 3 (6 %) patients had side effects of analgesia documented in their notes.

Conclusion: This audit highlights the high prevalence of pain in elderly inpatients. Pain remains poorly assessed and documented in the patients notes. The impact of pain is underestimated as 60 % of patients reported pain as a significant contributing factor to their reduction in mobility and interrupted sleep. Pain should not be viewed as a normal part of the ageing process. It is essential that awareness of pain is raised and appropriate assessment and management implemented.

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P144 Can We Utilise Hospital Readmission Rates as a Key Performance Indicator?

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Background: Readmission rates in the 30 days following discharge are commonly used as clinical governance indicators. Despite the utility of this performance indicator our understanding of causality for readmissions and the cohort of patients requiring unavoidable readmission remains poor. In this study, we hypothesise that the cohort of patients requiring readmission need to be subdivided (i.e. avoidable and unavoidable) when using this metric as a performance indicator. The aim of this study is to explore methods currently used to describe, and analyse readmission rates.

Methods: We examined a cohort of consecutive non-elective medical admissions to a university teaching hospital between 2010 and 2013. The pattern of readmissions was examined through using the Clinical Information Management System (CIMS) which allows comparison

of a range of measures of performance and can, identify variations that may be associated with lower quality of patient care and/or higher cost.

Results: 44,415 consecutive medical patients were discharged following a non-elective medical admission between 2010 and 2013. Of these, 4,052 patients required readmission to the same hospital within 28 days. The overall medical readmission rate was 8.6 % (95 % CI 5.3, 17.2). The risk of readmission was higher within certain medical subspecialties, particularly in geriatric medicine where higher readmission rates may reflect a frailer cohort of patients. Readmission rates are consistently higher in the 2–14 day period following discharge than after 15–28 days ($p = 0.0156$).

Conclusions: Using readmission rates as an indicator of performance particularly in geriatric medicine can be misleading. Categorising admissions into avoidable and unavoidable admissions and focusing on the reasons for avoidable admission may yield more helpful information for planning healthcare budgets. In order to effectively target and avoid readmissions further research is needed to effectively stratify patients.

P145 An Audit of the Quality of Nursing Home Referral Letters to the Emergency Department in Patients Requiring Medical Admission

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Background: Anecdotal evidence would suggest that the quality of medical letters accompanying nursing home residents to the emergency department is often inadequate. Referral letters are important as the receiving hospital physicians are generally doctors who frequently have no prior knowledge of the patient. This study aims to determine the proportion of nursing home residents with a referring doctor's letter on presentation to the emergency department and also to objectively audit the quality of medical information contained in those letters.

Methods: A random sample of medical notes of patients presenting from nursing home medically admitted through the emergency department of Galway University Hospital between 19/11/13 and 27/11/14 were selected. The charts of 26 patients were examined for referral letters from GPs. The quality of these letters was then assessed based on 21 pre-defined parameters.

Results: Of 26 admissions assessed, 19 % did not have an accompanying letter. Analysis of the remaining 81 % revealed several striking deficiencies including: absence of the patient's medications in 62 %, lack of allergy status in 71 %, vital signs such as temperature and respiratory rate not recorded in 71 and 81 % respectively. Results of investigations were included in only 14 % of letters. Details of any pre-hospital treatments were present in 33 %. None of the letters audited included the resuscitation status or details of communication with relatives. The letter had been completed by the patients regular GP in 47.6 % of cases.

Conclusions: Medical handover of nursing home patients to the ED is inadequate by acceptable standards. Basic information such as medications and co-morbidities is frequently neglected; information that can be difficult to obtain directly from this patient demographic. This compromises patient care and time management in over-crowded emergency departments. These findings strongly indicate the need for an agreed and standardised pro-forma for the handover of nursing home patients from primary to secondary care.

P146 A Collaborative Approach to Falls Prevention and Management Through Action Research

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Background: Falls awareness and falls prevention are a priority for health care providers of older adults (DoHC, HSE, NCAOP, 2008). According to the Burden of Care study in 2004 (NUIG), falls cost our economy €402 million and projected to cost €2043 million by 2030 with our ageing population. In acknowledgement of this a proactive approach was taken to develop and implement a new falls prevention programme—Forever Autumn supported by the innovative development of an eLearning education resource. The aims and objectives were to raise awareness of falls among all staff groups and to enhance the safety of the patients and residents in our care

Methods: The research approach taken was participatory action research in a large care of the older person facility in Dublin North City. Data collection of falls pre programme development from units in 2011. Development and implementation of a new falls awareness and prevention programme in 2012. Data collection on falls post implementation of the programme from all units in 2013

Results: Following the implementation of the programme there was a reduction in the number of falls across the campus by 39.2 % with a 33 % reduction in the residential units and a 15 % reduction in the inpatient units. As a direct result of the programme there is a new data measurement—data collected on the number of interventions to prevent a potential fall.

Conclusion: The reduction of potential falls data is evidence to our staff of their commitment to making falls prevention and management a priority for the older adults in our care.

Forever Autumn has generated a lot of interest externally which prompted the development of the Forever Autumn Community of Practice bringing falls awareness to a wider audience putting falls prevention and management on the agenda within our healthcare organisation and beyond.

P147 Communication of Confirmed Diagnoses of Dementia and Delirium Between Hospital and General Practitioners

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Background: Dementia and delirium are common syndromes among hospitalized older people: there is abundant evidence of widespread failure to detect, investigate and treat these conditions. However, once diagnosed among general medical and surgical patients through comprehensive geriatric assessment, it is not clear whether or not this important diagnosis is transmitted by the treating team to the patient's family doctor. Such communication is an important aspect of continuity of care for frail older people. We investigated the extent to which primary medical and surgical teams communicated diagnoses of delirium and/or dementia to family doctors in discharge letter.

Method: Retrospective review of 72 consecutive geriatric medicine consultations where a diagnosis of delirium and/or dementia was

established and annotated, and review of the discharge summary by the primary treating team.

Results: Of 72 patients, (33 men, 39 women), 77.8 % (n = 56) were general medical, 9.7 % (n = 7) general surgical and 12.5 % (n = 9) orthopaedic. The mean age was 81.5 years (+7.56). The diagnosis of dementia/delirium was recorded in 38.8 % (n = 28) of discharge summaries: in a further 2.78 % (n = 2) terms such as 'confusion' were included in the narrative.

Conclusion: Despite diagnosis through comprehensive geriatric assessment, only a minority of primary treating medical and surgical teams included the diagnosis of these important syndromes in discharge summaries. This has important potential consequences for continuity of care, and requires scrutiny of the underlying reasons in terms of designing appropriate educational and systems interventions to remedy this deficit in communication between primary and secondary care.

P148 Acute Stroke Admissions to a Model-4 Hospital: Analysis of Atrial Fibrillation and Anticoagulation Status

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Background: Atrial fibrillation (AF) is a major risk factor for stroke with those affected having a five-fold increased stroke risk. Warfarin therapy has been shown to reduce the risk of stroke in patients with AF by more than 60 % compared with no treatment. However, only about half of eligible patients receive treatment and only half achieve therapeutic ranges more than 50 % of the time. The aim of this study was to examine acute stroke presenting to a Model-4 hospital for AF and anticoagulant status.

Methods: A prospective database was constructed on all acute stroke admissions to a University Hospital during 2013. A retrospective analysis was undertaken on all acute stroke patients with known or new onset AF. Patients were analysed on the basis of demographics, stroke type, AF status and use of oral anticoagulant agents.

Results: In 2013 there were 352 acute stroke admissions with 21 % (n = 75) having AF. The average patient age at admission was 78.9 years (range 49–101) with 56 % (n = 42) being male. 65 % (n = 49) of patients had a known history of AF prior to admission with 35 % (n = 26) newly diagnosed. Of those patients with known AF prior to admission, 67 % (n = 33) were on anti-platelet or anticoagulation therapy. 59 % (n = 20) patients were on warfarin, 18 % (n = 6) on aspirin, and 12 % (n = 4) on dabigatran. For those patients who were on warfarin therapy prior to admission only 26 % (n = 5) had an INR within the therapeutic range (2–3) at initial presentation.

Conclusions: The results from the current study show that the prevalence of AF in acute stroke presentation to this hospital is similar to published results. For those on warfarin therapy the majority of stroke patients had a non-therapeutic INR. With the advent of newer anticoagulant agents it will be of interest to assess for changes in acute stroke presentation and management.

P149 Implementation of a Dedicated Orthogeriatric Service Saves the HSE a Million Euro

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Background: Hip fracture is common in older adults and is associated with high morbidity, mortality and significant health care costs. A pilot orthogeriatric service was established in a University Hospital in July 2011 to ascertain if such a service would improve patient outcomes and reduce costs.

Methods: All patients admitted with a fractured neck of femur for a 1-year period beginning July 2011 received a perioperative geriatric assessment including optimization of medical condition, bone health and falls assessment. A comparative control group were selected from the National Hip Fracture Database and comprised patients admitted to the same hospital with fractured neck of femur in the 1 year period beginning July 2009. Hospital length of stay, number of patients requiring rehabilitation and discharge rates to long term care were recorded and used as a means of comparing the two groups and calculating costs.

Results: There were 206 patients in each group. There was a 3 day reduction in acute hospital stay ($p = <0.001$). With a cost per bed day of €432, this saved €266,976. There was a 19 % reduction in patients requiring rehabilitation and a 6.5 day reduction in rehab length of stay. The cost per day of rehabilitation is €321. There was therefore savings of €363,693. There was a 7 % reduction in patients requiring long term care saving €568,568 over a 1 year period. The total savings to the HSE over a 1 year period was €1,199,237. The cost of the pilot service was €87,938. However we estimate a full time service with consultant, registrar and secretarial support would have an annual cost of €171,564.

Conclusions: The pilot orthogeriatric service improved patient outcomes in a cost-effective manner and implementation of a full-time service in one tertiary orthopaedic centre could save the HSE over a million euro per year.

P150 Nursing Versus Consultant Led Rehabilitation: A Review Post Change of Service

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Background: Rehabilitation is an essential component of the care of many older adults. Debate is ongoing as to whether this care is more efficiently delivered by a consultant or nurse led service. The Community Hospital has an 11 bed rehabilitation unit that was traditionally nurse led with the support of a GP Medical Officer. In September 2012, a Consultant Geriatrician was appointed to the rehabilitation unit. We aimed to assess the impact of this change in service delivery.

Methods: The number of patients admitted to the unit and their average length of stay was retrospectively collected for a 1 year period after the appointment of the consultant. This was compared to the same period the preceding year.

Results: There were 154 patients admitted to the nurse-led rehab unit from September 2011 to September 2012. Their average length of stay was 24 days. In the 1 year period starting September 2012, there were

175 patients admitted to the unit and their average length of stay was 18 days. Patients admitted under the consultant led service had a poorer functional status and a higher number of co-morbidities on admission. **Conclusions:** A consultant led rehabilitation service led to a 6 day reduction in length of stay while increasing patient flow through the unit by 13.6 %. This was despite the fact that patients admitted under the consultant had higher rehabilitation requirements than those admitted previously. Further review will look at discharge outcomes, primary condition leading to rehabilitation need and re-admission rates to the acute hospitals.

P151 The Establishment of an Orthogeriatric Service Improves Patient Outcomes Following a Hip Fracture

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Background: A multidisciplinary approach has been shown to improve outcomes of older patients with fragility fractures. We piloted an orthogeriatric service at a University Hospital for patients with a femoral neck fracture to determine if there was a change in major patient outcomes before and after establishment of the service. **Methods:** All patient data was collected prospectively on an orthogeriatric filemaker database from July 2011 to July 2012. Data was compared to previously recorded data (Irish Hip Fracture Database) on a cohort of hip fracture patients admitted to the same orthopaedic trauma unit from July 2009 to July 2010.

Results: Length of acute hospital stay was significantly reduced from a median of ten to 8 days ($U = -3.768$, $p = 0.0002$) following establishment of the orthogeriatric service. Although in-hospital mortality rate was reduced from 4.4 to 1.9 %, this reduction was not statistically significant ($\times 2 = 2.190$, $p = 0.139$). However, 1-year mortality rate was significantly reduced ($\times 2 = 13.343$, $p = 0.0003$) from 19 to 9.7 % following the initiation of the perioperative service. The orthogeriatric service significantly reduced the number of medical consults required from 15 to 6 % of patients ($\times 2 = 7.143$, $p = 0.0075$). Similarly, there was a significant reduction of 19 % in the number of patients requiring further rehabilitation ($\times 2 = 26.586$, $p = 0.0001$). Patients in the pre-service establishment group were twice as likely to be discharged to a nursing home (OR 2, CI 1.102–3.629) and thus more patients in the orthogeriatric service group experienced a significant preservation of their independency following femoral neck fracture ($\times 2 = 5.335$, $p = 0.0209$).

Conclusions: The establishment of an orthogeriatric service at UHL resulted in enhanced management of patients following a hip fracture, as reflected by significant improvements in patient outcomes. Reduction in bed days used and use of other medical and rehabilitation resources could result in significant financial savings to the hospital.

P152 An Interdisciplinary Stroke Rehabilitation Service in a County Hospital: Overview of the Past 3 Years

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Background: Approximately 10,000 people in Ireland have a stroke each year. Acute Stroke Therapy is managed in a County Hospital.

This hospital provides an off-site stroke rehabilitation service for the Louth/Meath area. The unit contains 8 beds. The stroke multidisciplinary team includes medical, nursing, physiotherapy, occupational therapy, speech and language therapy, social work, dietician, with input from bed management and public health nurse liaison.

Objective: To compare and contrast the number of patients admitted to the off-site stroke rehabilitation service in a County Hospital over the 3 years since inception.

Methods: A retrospective chart review was performed on all stroke patients admitted to the Stroke Rehabilitation Unit in the County Hospital from January 2011 to December 2013. Data recorded included age, gender, length of stay and discharge destination. The data was analysed using STATA.10.

Results: 53 patients were admitted in the year 2011, 60 patients in the year 2012 and 80 patients in the year 2013. The ratio of male/female admitted in the year 2011 is 70:30, 67:33 in 2012 and 80:20 in 2013. Mean age of the patients admitted in the year 2011 is 75 years, 75 years (SD 13; range 43–98) in the year 2012 and 73 years (SD 13; range 34–94) in 2013. The mean length of stay in the year 2011 was 34 days, 39 days (SD 29; range 6–133) in the year 2012, 33 days (SD 26; range 3–118) in 2013. 49 (92 %) patients went home in the year 2011, 48 (80 %) patients in the year 2012, 61 (76 %) patients in the year 2013.

Conclusion: The stroke rehabilitation service at the County Hospital has demonstrated an increase in patient throughput. Further research is required to determine factors influencing successful home discharge including standardised outcome measures to provide evidence of patient's functional outcome scores at discharge.

P153 Retrospective Cohort Study of a County Hospital Stroke Patients: Demographics and Risk Factors

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Background: Approximately 10,000 Irish people have a stroke each year. Hypertension is the most important risk factor for developing both ischemic and haemorrhagic stroke.

Objective: (1) To examine risk factors and demographics of patients who attended the stroke unit in a County Hospital in 2013. (2) To analyse the predisposing risk factors of stroke within a stroke rehabilitation service in a 1 year period.

Methods: A retrospective chart review was performed on all stroke patients admitted to the Stroke Rehabilitation Unit in a County Hospital from January to December 2013. Data recorded included age, gender, length of stay, discharge destination, type of stroke and past medical history. The data was analysed using STATA.10.

Results: Data on 80 patients was reviewed over the year recorded. 80 % (n = 64) of stroke patients had suffered a stroke secondary to infarction and 20 % (n = 16) secondary to haemorrhage. Of all men admitted with stroke 80 % (n = 31) had suffered an infarct while 20 % (n = 8) had suffered haemorrhage. Similar findings were observed in female patients with 80 % (n = 33) suffered infarct and 20 % (n = 8) suffering haemorrhagic stroke.

Of risk factors for stroke examined in this cohort the commonest were a history of hypertension (52; 65 %), atrial fibrillation (22; 28 %), previous stroke (21; 26 %) and diabetes (13; 16 %).

Patients had stroke secondary to Infarct stayed (mean 31 days SD 23; range 3–118) in the stroke unit, 49 (77 %) patients discharged to home, 5 (8 %) patients discharged to long term care, 10 (15 %) discharged (other).

Patients had stroke secondary to haemorrhage stayed (mean 43 days SD 34; range 8–111) in the stroke unit, 12 (75 %) patients discharged

to home, 3 (19 %) patients discharged to long term care, 1 (6 %) discharged (other).

Conclusion: Patients with haemorrhagic stroke were more likely to have an increased length of stay. Further research needed to investigate contributing risk factors and resulting in prolonged duration of stay and non-home discharge.

P154 The Feasibility of a Prescribed Aerobic Training Programme in a Sub-Acute Stroke Population in a Rehabilitation Unit

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Background: Stroke is the most common cause of acquired physical disability in Ireland. This limits physical activity in stroke survivors increasing the risk of recurrent stroke. Current guidelines recommend aerobic training at 40–70 % of Heart Rate Reserve (HRR) to ensure stroke survivors reach an adequate aerobic threshold. This study aimed to determine the feasibility of exercising at this light to moderate intensity level regardless of the level of mobility or disability post-stroke.

Methods: Eleven subjects [mean 41.1 days post-stroke (range 6–91), mean age 80.73 (standard deviation 11.48) years, mean Modified Rankin Scale score 3.45 (range 2–4)] participated in an intervention consisting of cycle ergometry for 20 minutes three times weekly for 4 weeks. Exercise intensity was progressed from 40 to 60 % of HRR. Primary feasibility outcomes included recruitment, attendance and dropout rates, time spent exercising within the target heart rate zone and incidence of adverse events. Secondary outcomes included measures of cardiorespiratory fitness ($V_{O_{2max}}$) and mood (Hospital Anxiety and Depression Scale). Data was analysed using descriptive analysis. Differences in pre to post-test measures were assessed using paired sample t-tests and the Wilcoxon signed-rank test.

Results: Attendance rate at exercise sessions was 87 % (33–100 %). The mean average time spent exercising in the target heart rate zone was 16 % (0–49 %). Failure to reach the target heart rate was primarily due to fatigue. Mild adverse events were recorded for 30 % of the sessions (fatigue, mild leg pain, slight shortness of breath). There was no statistical significance in $V_{O_{2max}}$ ($p = 0.12$) or mood ($p = 0.49$) post-intervention.

Conclusion: Prescribing light to moderate intensity aerobic training is safe in stroke survivors. This population may have difficulty reaching the target heart rate of 40–70 % of HRR recommended by current guidelines. Further research is required to determine the barriers to effective aerobic training post-stroke.

P155 Extended Zoledronic Acid Treatment in Older Patients with Osteoporosis

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Background: Intravenous zoledronic acid is a potent bisphosphonate used in the treatment of postmenopausal osteoporosis. A once yearly

infusion given over a 3 year period is known to reduce hip and morphometric vertebral fractures by 41 and 70 % respectively. Extending treatment to up to 6 years also appears beneficial in reducing vertebral fracture risk and maintaining gains in bone mineral density. We aimed to investigate the effects of extended treatment with zoledronic acid on bone mineral density (BMD) in a cohort of frail older patients with osteoporosis.

Methods: Study subjects were post-menopausal patients attending our bone health service who had received treatment with zoledronic acid for more than 3 years. Relevant data was obtained from our bone health database and electronic patient record (EPR) system. All patients had a DXA performed within 6 months of starting and stopping treatment.

Results: 85 patients were identified. Mean age was 70.3 years (range 49–87). Mean duration of treatment was 4.3 years (range 2–7 years) with a mean dose of 3.4 mg per year. The respective mean change in bone mineral density (BMD) in the lumbar spine was +6 % ($p < 0.05$), total hip BMD +3 % and neck of femur +1 %. Patients tolerated treatment very well with no significant adverse effects.

Conclusion: We found that treatment with zoledronic acid over an extended period was associated with very significant gains in bone mineral density (BMD). The greatest increase in BMD occurred in the vertebrae consistent with other studies and reflective of its preferential effect on trabecular bone. Furthermore, treatment was well tolerated. Overall, findings strongly support the use of zoledronic acid beyond 3 years in older adults particularly in those with severe osteoporosis at high risk of future fracture.

P156 Patient Profile, Length of Stay, Cognitive Impairment and Elderly Mobility Scale Scores in Patients over 65 Years Admitted to a Major Trauma Hospital Post Femoral Fracture

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Background: The aim of this study was to develop a profile of patients admitted with femoral fractures including age, surgery type and cognitive impairment and to determine the impact of the above factors on rehabilitation outcomes and hospital length of stay.

Methods: Patient profiles for 105 consecutive patients with femoral fractures including age, type of surgery, average length of stay (av-LOS), cognitive status and discharge destination were recorded prospectively. Each patient was assessed by physiotherapists using the elderly mobility scale (EMS) on initial assessment and on discharge from the inpatient ortho-geriatric service, to assess any significant changes.

Results: The greatest proportion of patients was in the 81–90 year old range (39.9 %) with a male:female ratio of 1:4. Eighty-five percent of patients were admitted from home while fifteen per cent were admitted from nursing home care following a fall. Average length of stay (av-LOS) was highest post open reduction internal fixation (ORIF) of femur (23 days) in contrast to patients post hemiarthroplasty (15.7 days). When post-op EMS was compared with discharge EMS score a statistically significant increase of 6.89 was noted ($p < 0.01$ —paired T-test). The EMS scores on discharge varied according to cognitive status. Average EMS score for patients with no cognitive impairment was 8.09 while for patients with advanced dementia/alzheimers EMS scores averaged 3.09. Sixty percent of patients required further rehabilitation in a post-acute hospital on discharge.

Conclusions: This data indicates that rehabilitation has a beneficial impact on function and mobility in patients over 65 years post

femoral fracture. The data also suggests that cognitive impairment is a determinant of functional and mobility outcomes. A majority of patients post femoral fracture require further rehabilitation (60 %) highlighting the need for access to post-acute hospital rehabilitation beds.

P157 Analysis of Acute Ischaemic Stroke Presentations

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Background: Under-recognition of stroke symptoms with resultant delayed presentation to hospital is a limiting factor in delivering thrombolytic therapy of acute stroke patients. The FAST campaign has been shown to improve population awareness of the three common stroke symptoms but does not cover all possible stroke symptoms. We compared differences between patients arriving within the thrombolysis window to those with delayed presentation.

Methods: We analysed retrospective and prospective data of ischaemic stroke cases presented to our hospital between January 2013 and February 2014. Data were collected from patient history and medical notes. Descriptive statistics and Chi square test were used for analysis. Patients were categorised by arrival time <4.5 hours and >4.5 hours from stroke onset. Characteristics of the two groups including time to medical attention, clinical symptoms, NIHSS scores and FAST awareness were compared.

Results: Of the 151 cases, there were 36 wakeup strokes. The median time to arrival of non-wakeup strokes was 330 (131–1,440) min. 50 cases arrived <4.5 hours and 101 cases >4.5 hours (median time 128 and 1,440 minutes respectively; $p = 0.0001$). There was no age difference between the groups (75.2 vs. 74.3 years; $p = 0.68$), no difference in proportion of males (48.0 vs. 40.6 %; $p = 0.49$), and no difference in proportion from Co. Kilkenny (23.6 vs. 34.8 %; $p = 0.20$). Those <4.5 hours were more likely to have FAS symptoms (84 vs. 61 %; $p = 0.006$) and anterior circulation symptoms (90 vs. 76 %; $p = 0.055$). There was no difference in the proportion with NHSS >4 ($p = 1.0$) and FAST awareness between the groups ($p = 0.59$).

Conclusion: Our study highlights that patients were more likely to present earlier with the common anterior stroke symptoms reflected in the FAST tool. However certain acute stroke symptoms are under-recognised and these patients are unlikely to receive thrombolysis. Our study reinforces the need for more comprehensive public education on the clinical symptoms of stroke.

P158 Limiting Factors to Thrombolysis for Acute Stroke

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Background: Thrombolysis for ischaemic stroke has been shown to improve clinical outcomes but the overall rate remains low. A National target of 7.5 % has been set. Timely arrival and assessment is vital to ensure appropriate administration of thrombolysis given the limited time window. In this study we evaluated pre-hospital and in-hospital factors associated with limiting thrombolysis.

Methods: We analysed retrospective and prospective data of 151 ischaemic stroke patients between January 2013 and February 2014.

Medical notes were used for data collection. We evaluated patient demographics, pre-hospital events and time intervals from symptom onset to hospital presentation, ambulance dispatch timings, and in-hospital events to execute the stroke care pathway.

Results: Mean age was 74.5 (33–99) years and male 57 %. Median time to presentation of non-wakeup stroke was 330 (131–1,440) min. 50 cases presented within 4.5 hours of symptoms onset and 15 cases were thrombolysed. The reason for non-administration of thrombolysis was due to resolving deficits (23 %), minor deficits with NIHSS <4 (29 %), and in-hospital failure (3 %). Of the 101 cases arriving >4.5 hours, 36 were wakeup strokes and the remaining 65 cases were due to pre-hospital delay. Factors associated with delay include poor symptom recognition (89 %), unclear symptom onset (74 %) and prior GP visit (71 %). In those with delayed presentation, 34 (52 %) cases with NIHSS >4 could potentially have received thrombolysis had they arrived within the time window.

Conclusions: Poor recognition of stroke symptoms and resultant delayed presentation is the main pre-hospital limiting factor and poses a significant challenge to improve thrombolysis delivery. Thrombolysis rates also remain low due to eligibility criteria and a narrow therapeutic time window. Improved stroke recognition and treatment of wakeup strokes could potentially increase the proportion of patients receiving thrombolysis. This reinforces the importance of enhancing public awareness of clinical symptoms to decrease pre-hospital delays and increase thrombolysis rates.

P159 Head Up Tilt Table Testing (HUTT) for Transient Loss of Consciousness (TLoC): Are Referrals Appropriate and Do They Concur with European Society of Cardiology (ESC) Guidance? Can We Identify Areas Where a Specific Referral Form Would Improve Appropriateness and Patient Safety?

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Background: Our Falls & Syncope Service commenced HUTT in 2003, to improve investigation of unexplained falls and TLoC. Since then referral numbers have escalated, from outside our department and other hospitals. Referral information was variable: we reviewed HUTT indications and whether referrals met ESC guidance; whether fitness to drive was addressed and if cardiac investigations were completed prior to HUTT.

Method: Referrals and HUTT reports for 50 patients in 2013 were retrospectively examined. HUTT indication, source of referral and results analysed.

Results: 100 HUTT tests performed in 2013, mean waiting time 57 days. Of the referrals audited, only 20 % originated from our department (mean age 75). The remainder (mean age 45) originated from cardiology (62 %), neurology (8 %) and general medicine (10 %). Interestingly 30 % attended 2 different specialties and 4 % attended 3 specialties. Referral indications: 82 % neurocardiogenic syncope (NCS) suspected but atypical, 38 % unexplained TLoC with orthostatic component, 4 % delayed orthostatic hypotension (OH) suspected. These met ESC guidance, however 6 % were inappropriate, referred solely with dizziness.

32 % of patients underwent cardiac investigation prior to HUTT. Patients' driving status noted on <10 % of referrals.

HUTT Findings: 36 % OH, 34 % vasodepressor NCS, 6 % mixed NCS and 6 % cardioinhibitory NCS (mean asystolic pause 27 seconds—referred for pacemaker). 4 % carotid sinus hypersensitivity.

Conclusions: Majority of referrals complied with ESC guidance. 34 % of referrals attended 2 or more specialties, demonstrating the clinical burden of TLoC investigation and the potential for guidelines to streamline this process. Few referrals mentioned driving advice, and more patients should have undergone cardiac investigation prior to HUTT. A dedicated referral form prompting these issues could improve appropriateness of TLoC investigation. Our observations concur with ESC assertion that patients can respond positively to a meaningful diagnosis of NCS with a focused management plan.

P160 Staff Attitudes to the Seasonal Influenza Vaccination Programme

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Background: As immune competence declines with age, the elderly are particularly vulnerable to the influenza virus. Residential care facilities are high risk environments for outbreaks given the older age of residents and communal living arrangements. Health authorities encourage uptake of the seasonal influenza vaccine amongst health care workers (HCWs) to reduce risk of transmission, however uptake has traditionally been low. We sought to examine attitudes to vaccination amongst staff in our institution.

Methods: Questionnaires were distributed throughout all wards and departments within the hospital. Age, gender, and occupation were noted as well as intended vaccine uptake, reasons for declining vaccination and opinion on mandatory vaccination of HCWs.

The survey was distributed in September 2013, prior to the rollout of the 2013–14 vaccination programme.

Results: 139 responses were received (total employees 260, 53.4 % response rate). 40 % (55/139) intended to avail of vaccination with 59 % (82/139) declining (1 % don't know). A breakdown by occupation of those who intended to avail of vaccination is as follows: Allied Health: 56 %, Nursing: 29 %, Health Care Assistant: 36 %, Medical: 83 %, Administration: 29 %, Other: 57 %. Of those declining vaccination, 51 % cited a fear of side-effects. 41.5 % felt they didn't need it and 21 % were of the opinion that the vaccine didn't work. 7 % stated that they got the flu from previous vaccination. No-one reported being advised not to receive the vaccine by a medical practitioner. 60 % (84/139) felt that influenza vaccination should not be mandatory for HCWs. (33 % yes, 7 % don't know).

Conclusion: Intention to participate in the vaccination programme was particularly low in those who have the greatest amount of patient contact i.e. nursing and health care assistants. A fear of side effects was identified as a major barrier to vaccination uptake. Information targeted at these groups to alleviate fears may improve vaccination rates.

P161 The Impact of a Regular Multidisciplinary Medication Review on Polypharmacy and Psychotropic Prescribing in Care Home Residents: A Follow-up Study

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Background: Polypharmacy is common in elderly nursing home residents. It is a challenge to balance adherence to guidelines for

chronic disease management and the perils of adverse drug effects. Various professional bodies and regulatory agencies have recommended regular medication reviews to improve prescribing patterns. In 2009, we introduced a weekly multidisciplinary medication review of residents attended by a pharmacist, clinical nurse manager and geriatrician. Within 4 months there was a reduction in the total number of medications prescribed per patient from 7.1 to 6.0. Psychotropic drug prescribing was reduced from 2.3 to 1.7 per patient and antidepressant prescribing from 0.7 to 0.2 per patient. The aim of this audit was to assess whether this intervention had a long term effect in maintaining the initial improvements.

Method: In September 2013, 54 residents were identified who had been residing in our facility for at least the preceding month. The total number of medications and psychotropic medications (as per British National Formulary classification) for each resident was collected. Laxatives and dietary supplements were excluded. The consumption of 'as required' medication was included if administered within the preceding 72 hours.

Results: Mean age was 80.2 years (55.6 % female). 81.5 % had cognitive impairment (MMSE < 26/30). The total number of medications prescribed had increased from 6.0 to 6.8 per patient but remained lower than the pre-intervention number of 7.1. Psychotropic prescribing continued to fall from 1.7 per patient to 1.35. There was a small increase in antidepressant prescribing from 0.2 to 0.277.

Conclusion: This study demonstrates the continued positive impact of regular multidisciplinary medication review meetings on the prescribing of psychotropic medications, and in maintaining reductions in total number of medications for our elderly residents. It is imperative to continue to implement strategies to promote appropriate, individualised prescribing in this at risk vulnerable population.

P162 A Feedback Survey of GPs on a Comprehensive Multidisciplinary Discharge Summary sent out on patients discharged from an offsite Rehabilitation Unit

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Background: Communication between secondary and primary care is often inadequate. Untimely and poor communication can lead to increased risk of patient re-admission and errors in medication reconciliation. Our hospital operates an 18 bed Short Term Post-Acute Rehabilitative Care (SPARC) Unit that provides specialist geriatrician led multidisciplinary rehabilitation for patients' post-acute hospitalisation. The aim is to optimise patients' recovery and independence and facilitate a safe home discharge. A comprehensive typed discharge summary with input from all relevant allied health disciplines is sent to the primary care team on patient discharge. We aimed to assess local general practitioners' (GPs) views on the quality and usefulness of this discharge summary.

Methods: GPs whose patients were discharged home from January 2013 to October 2013 were included. Surveys were posted to GPs requesting ratings on a 5 point Likert-like scale on aspects such as overall quality of medical information, timeliness of receipt of the document, results of investigations and changes to medication.

Results: The GPs of 122 eligible patients were included. There was a 36 % response rate (31/85). Discharge summaries were rated as very good/good in 90.5 %. In 21.4 % of responses, GPs stated that direct communication during the patient admission would have had a positive impact on re-admission rates within the 3 months following discharge from our unit. 35.5 % wished to receive discharge summaries by email. Data protection was cited by those GPs who did not want to receive reports electronically.

Conclusions: Our comprehensive interdisciplinary discharge summary was well received by GPs. A proportion of GPs requested enhanced communication from hospital doctors by telephone during the patient's hospital stay. Electronic transfer of information may become more feasible with the provision of secure email servers for GPs from the Irish College of General Practitioners. We made improvements in clarifying and documenting any medication changes made.

P163 A High Uptake of the Influenza Vaccine by Staff has a Positive Outcome for Residents in Long Term Care Facilities: An Observational Audit

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Background: The aim of this retrospective study is to demonstrate a significant link between the number of vaccinated staff and number of influenza like illnesses (ILI) among residents from a long term care facility (LTCF). The Health Protection Surveillance Center (HPSC) reported the national uptake of influenza vaccination amongst staff in Ireland averages at 15 %.

Methods: The sample used in the study was 139 residents and 210 staff from a LTCF. The data was gathered since 2011 following an influenza outbreak. Each outbreak of ILI was recorded, and line listings of staff and residents affected were developed and analyzed. Data Collection of staff and residents vaccinated was recorded and audited annually. Statistical comparative analysis was used to measure the relationship between the amount of vaccinated staff and residents and episodes of ILI.

Results: Influenza Season 2011/2012: Vaccinated Staff = 9.5 %, Residents = 97.12 %. Staff with ILI = 9.5 %. Residents with ILI = 37.4 %. Positive swabs = 75 %. Influenza Season 2012/2013: Vaccinated Staff = 68 %, Residents = 100 %. Staff with ILI = 3.8 %. Residents with ILI = 25.89 %. Positive swabs + 16, 6 %. Influenza Season 2013/2014: Vaccinated Staff = 79 %, Residents = 99.2 %. Staff with ILI = 3.3 %. Residents with ILI = 17.9 %. Positive swabs = 11.1 %

The statistical significance was calculated using standard deviation theory comparing influenza seasons and the significant difference between influenza season 2011/12 and 2013/14 was established.

Conclusion: There was significant reduction in number of ILI in season 2013/14 when staff vaccination level reached 80 % optimizing community immunity (herd effect). The response rate to the immunization in older people reported by the HPSC is only 40–60 %. To further reduce the number of ILI amongst residents it is crucial to vaccinate staff. This raises the question, should mandatory vaccination programs be implemented for healthcare staff working in healthcare facilities?

P164 A Multi-Disciplinary Quality Improvement Initiative for a Pre-Prosthetic Amputee Rehabilitation Pathway in a Gerontological Post-Acute Rehabilitation Unit

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Background: Quality improvement initiatives, consisting of collaborative multidisciplinary input from key stakeholders, are essential for effective service development. The objectives of this quality improvement project (QIP) were to: (1) Audit service provision for new amputees in a gerontological post-acute rehabilitation unit. (2) Implement changes in service provision using the HSE Change Model.

Methods: A prospective observational audit of the current service for amputees was conducted. This included demographics, length of stay (LOS), physical outcome measures, referral to prosthetic rehabilitation service, discharge destination and home care requirements. The HSE Change Model was used to facilitate development. This model consists of initiation, planning, implementation and mainstreaming phases.

Results: 9 new amputees (female $n = 5$, male $n = 4$) with an average age of 79 years were admitted over a 13 month period. Their average LOS was 72 days. The average Functional Independence Measure (FIM) score was 87 on admission and 106 on discharge. 89 % ($n = 8$) were referred to a prosthetic rehabilitation service. 89 % ($n = 8$) went home from the rehabilitation unit and 11 % ($n = 1$) were transferred back to the acute hospital. 88 % ($n = 7$) of those who were discharged home received a home care package.

The initiation stage was completed through the audit. In the planning stage all stakeholders within the rehabilitation unit participated in a quality improvement forum. Barriers and enablers to providing high quality service development were identified and resulting projects were implemented. These included staff education sessions, defining roles of the multi-disciplinary team (MDT), liaising with the relevant MDT of the referring hospital, reviewing suitable outcome measures and collating information on acute hospital LOS and community services including wound care management.

Conclusion: The stages of implementation and mainstreaming require ongoing development and re-audit. This QIP ensures high quality care and facilitates improved communication to effect positive change for the service user.

P165 Time Spent in Physiotherapy in an Acute Stroke Unit: Is It Enough?

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Background: The NICE Stroke rehabilitation guidelines 2013 recommend that at least 45 minutes (45 minutes+) per day of Physiotherapy should be offered to acute stroke patients who have the ability to participate and where functional goals can be achieved. There is little published data regarding time spent engaging in physiotherapy in acute stroke rehabilitation in Ireland. The aim of this audit was to examine the amount of time spent engaging in physiotherapy with patients admitted with acute stroke over an 8 week

period and to identify the clinical and non-clinical barriers to participation in therapy.

Methods: A clinical audit form was completed daily by 2 physiotherapists working on the Acute Stroke Unit (ASU). The following data was gathered: number and duration of therapy sessions, clinical and non-clinical reasons why therapy time was limited and other relevant demographic data. Descriptive statistics were used to analyze the data.

Results: 36 patients were admitted to the ASU and assessed by physiotherapy during the audit period. Of the 36 patients admitted, 8 had minimal physiotherapy needs and were excluded. This left 28 patients with a mean age of 78 years. The mean amount of therapy time per patient, per day was 28 minutes (range 14–46). Only 2 (7 %) patients received an average of 45 minutes+ per day, while 9 patients (25 %) received 45 minutes+ on at least 1 day. 54 % (106) of physiotherapy sessions were limited in duration by clinical factors e.g. fatigue and behaviour and 10 % (20) were limited by non-clinical factors e.g. staffing, time.

Conclusion: Our findings that only 2 patients (7 %) received physiotherapy of the intensity recommended by NICE is evidence that significant changes in staffing and practice are needed.

P166 Challenges for Gerontological Nurse Education and Practice

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Background: Research has shown that both nursing students and registered nurses may lack sufficient knowledge and positive attitudes in order to care for the increasing age of their patients. It is suggested that the nursing population needs to become fully equipped to care for the specialist needs of older people (Abendroth et al. 2013; Kerridge 2008).

Methods: A small study was conducted in an Irish university in order to explore the attitudes of student nurses towards older people both before and after theoretical education and clinical placement. Kogans Attitude towards Ageing and Older People Scale (KAOP) and Paltmore's Facts on Aging Quiz 1 (FAQ) were the quantitative data collection methods used.

Results: Findings revealed that both theoretical education and clinical placement did not significantly increase nursing students' knowledge or positive attitudes towards older people. Findings were consistent with other international studies.

Conclusions: If international research findings have previously highlighted this as an issue then why does new research reveal that these issues still remain? The findings identify two key areas for development in nursing. Firstly, the methods by which theoretical education is delivered in order to significantly increase nursing students knowledge about ageing. Secondly, the quality of the clinical placement experiences which should aim to positively impact upon future career choices. Gerontological nursing is an emerging specialty but perhaps the quality of the clinical and theoretical experiences of nursing students will determine whether or not this specialty will be fully recognised by nursing boards and by registered nurses choosing this as a career pathway. The significance of these findings cannot be underestimated as the world population continues to live longer.

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P167 Modelling Solé-Padullés Cognitive Reserve Questionnaire: Construct Validity and Association with Cognitive Function

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Background: Various proxies have been shown to account for the brain's ability to protect against acquired or progressive pathology, otherwise termed cognitive reserve (CR)—premorbid intelligence quotient (IQ); executive function; processing resources; cumulative and current complex mental activities such education and occupation, social networks, cognitive, physical and social activities (Satz et al. 2011). Solé-Padullés et al. (2009) developed a brief questionnaire to measure CR in both the healthy elderly, those with subjective memory loss or mild cognitive impairment. However, the construct validity of this questionnaire has not been established in a young to old healthy sample. The first aim of this study was to identify the underlying structure of the Solé-Padullés questionnaire. The second aim was to identify the relationship between CR, IQ and Executive Function (EF). **Methods:** Analysis was conducted on data from a neurotypical Irish sample (n = 70; aged 18–81). The validity of the Solé-Padullés questionnaire was investigated. Exploratory factor analysis or EFA (ML extraction/orthogonal rotation) was performed and the predictive relationship between CR, IQ and EF was also examined.

Results: Results of the EFA revealed a three-factor structure representing social activities, complex mental activities, and social economic status.

Conclusions: Investigating the construct validity of the Solé-Padullés questionnaire has revealed an underlying three-factor structure. Further research will involve multivariate modeling to investigate the predictive relationship between the latent CR construct, IQ and EF.

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P168 The Distress Management System for Stroke, an Approach for Screening and Managing Psychological Distress Post-Stroke

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Background: The term 'Psychological Distress' has been proposed as a way to describe the range of emotional consequences following stroke. Evidence suggests that mood disorders following stroke occur

in 30–50 % of cases and impact on rehabilitation outcome, adjustment and quality of life. Approximately 25 % of stroke survivors experience anxiety post-stroke.

Methods: The Distress Management System (DMS) (Roth et al. 1998) was designed to assess psychological distress in individuals with cancer. The DMS was modified as a pilot tool for use in Stroke. 53 stroke patients attending a follow up secondary prevention clinic with Clinical Nurse Specialists in Stroke (CNSp) on average 4 weeks post-stroke completed the concerns checklist. The person is asked to indicate which of the problems has been a concern to them in the past week. The CNSp in Stroke obtains an overall measure of distress as well as an indication of the current issues that are impacting on or causing the person's distress.

Results: Consistent with the literature 18 patients reported no concerns or distress. Of the remaining patients, 55 % reported distress levels in the mild range while 65 % were moderate. 52 % received advice and psychologically based self-help material pertaining to managing symptoms. 15 % received direct referral to psychology. 20 % declined intervention. 20 % reported that discussion about their concerns had relieved distress.

Conclusions: The modified distress management system is a potentially useful tool for nurses working in stroke settings. It is a brief tool that captures emotional concerns of stroke survivors & is acceptable to service users. Further research is required to determine if the agreed cut off point indicating a need for referral to Neuropsychology is clinically accurate and to determine the most beneficial timeframe to assess emotional responses and concerns post-stroke.

P169 The Influence of Lifestyle Factors on Cognitive Performance in Irish Adults Aged 50 and Over

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Background: There is growing evidence to support the idea that potentially modifiable lifestyle and health factors are related to cognitive function in old age; and that these factors may influence both risk for cognitive decline, and the successful maintenance of brain health and cognitive function, as we get older (Kramer et al. 2004; Mangialasche et al. 2012). For example, engaging in negative health behaviours such as smoking, or low levels of physical activity, may result in an increased risk of cognitive decline among older adults. Protective factors that have been suggested to promote successful maintenance of brain health include engagement in social and mentally stimulating activities, high socioeconomic status, education and optimal levels of physical activity. We aim to build on the existing literature by investigating relationships between a range of lifestyle factors and cognitive performance among a large sample of normally ageing Irish adults.

Methods: Participants were normally ageing adults aged 50+ (N = 556) with a mean age of 64.5 years (SD 7.4). Participants completed a comprehensive assessment battery including neuropsychological, cognitive, and psychological measurement tools, along with self-report questionnaires and scales to measure lifestyle factors that may be associated with the successful maintenance of cognitive function and brain health among older adults.

Results: Cross-sectional analyses will be presented to examine the relationships between cognitive performance and various lifestyle factors, including physical activity, participation in mentally stimulating activity, health behaviours, social engagement, and socioeconomic status indicators.

Conclusions: Implications of the findings in relation to future research and possible intervention strategies will be discussed.

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P170 Cognitive Interventions for Healthy Older Adults: A Systematic Review

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Background: Lifestyle interventions that might reduce the risk of cognitive decline have been gaining increasing interest. Of these strategies, cognitive interventions are specifically targeted at improving cognitive performance. This systematic review and meta-analysis examines the impact of cognitive training and general mental stimulation on the cognitive and everyday functioning of healthy older adults without known cognitive impairment.

Methods: Thirty-one randomised controlled trials (RCTs) were included in the review.

Where meta-analysis was not possible, results were supplemented with a description of results from individual trials. Primary outcomes of interest were cognitive and everyday functioning. A secondary outcome of interest was subjective measures of cognitive performance. We also examined transfer and maintenance of intervention effects, and the effect of training in group vs. individual settings.

Results: Meta-analysis revealed that compared to active controls, cognitive training improved performance on measures of executive function (working memory, $p = 0.04$; processing speed, $p < 0.0001$) and composite measures of cognitive function ($p = 0.001$). Compared to no intervention, cognitive training improved performance on measures of memory (face-name recall, $p = 0.02$; immediate recall, $p = 0.02$; paired associates, $p = 0.001$) and subjective cognitive function ($p = 0.01$). Results on general mental stimulation were inconclusive. The impact of cognitive training on everyday functioning is largely under investigated. Transfer and maintenance of intervention effects are most commonly reported when training is adaptive, with at least ten intervention sessions and a long-term follow-up. Memory and subjective cognitive performance might be improved by training in group vs. individual settings.

Conclusions: More research is required to determine if general mental stimulation can benefit cognitive and everyday functioning. If cognitive interventions are to benefit everyday functioning, training should target improvements in executive function. Standardised training protocols and outcome measures are required to allow for more pooling of homogenous data.

P171 Exercise Interventions for Healthy Older Adults: A Systematic Review

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Background: Data from epidemiological, cross-sectional, and neuroimaging research show a relationship between higher levels of exercise and reduced risk of cognitive decline, but evidence from randomised controlled trials (RCTs) is less consistent. This review examines the impact of aerobic exercise, resistance training, and Tai Chi on the cognitive function of older adults without known cognitive impairment. We investigate explanations for inconsistent results across trials and discrepancies between evidence from RCTs and other research data.

Methods: Twenty-five RCTs were included in the review. Meta-analyses compared exercise interventions to stretching/toning; no exercise; or no intervention controls. The primary outcome of interest was cognitive function divided into domains of memory and executive function. Secondary outcomes of interest were subjective cognitive performance and activities of daily living (ADL's).

Results: Meta-analysis revealed significant improvements on measures of reasoning ($p < 0.005$) for resistance training compared to stretching/toning; and on measures of attention ($p < 0.001$) and processing speed ($p < 0.00001$) for Tai Chi compared to 'no exercise' controls. There were no significant differences on any of the remaining 26 comparisons. No data were available for subjective cognitive performance. One study reported data for everyday functioning and found significant improvements for resistance training vs. no exercise active control ($p < 0.05$).

Conclusions: Results should be interpreted with caution as differences in study design and implementation contribute to discrepancies within the exercise research literature and inconsistent results across trials. Interventions combining aerobic fitness with resistance training may be most beneficial for promoting healthy cognitive function for older adults. Researchers should ensure that exercise interventions meet minimum requirements for duration and intensity, as recommended by public health authorities. Standardisation of both exercise training and cognitive testing batteries is required to produce more comparable results across trials and to minimise discrepancies across the exercise research literature.

P172 Modeling Cognitive Reserve: Investigating Construct Validity and the Impact of Age on Model Fit

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Background: Cognitive Reserve, the brain's capacity to cope with pathology in order to minimise symptomatology has been linked with differential susceptibility to age-related memory changes and dementia (Crowe et al. 2003). Models of CR have been challenged as explanatory constructs due to lack of evidence addressing the organizational structure of proposed indicators. However, Satz et al. (2011) have proposed a conceptual model of CR that is empirically testable. The a priori four-factor model is comprised of Executive Function (EF), Processing Resources (PR), Complex Mental Activity (CMA) and Intelligence ("g"). The first aim of this study was to identify the underlying structure of the CR model in terms of convergent and discriminant validity. The secondary aims were confirming the underlying structure and identifying the effects of exclusion of the oldest cohort of participants on model fit.

Methods: Analysis was conducted on data from the Maastricht Ageing Study (MAAS), a 12-year follow-up study on cognitive

ageing (n = 270; aged 24–82). Exploratory factor analysis (ML extraction/oblique rotation) was performed and confirmatory factor analysis (ML estimation) was conducted to confirm the factor structure that emerged from the EFA. Analyses were repeated following exclusion of participants aged 65 and older.

Results: Results of the EFA revealed a two-factor structure representing pre-morbid predicted ability and current cognitive function. Results of the CFA supported this two-factor structure. This suggests overlap and fluidity among the four proposed CR factors. Subsequent exclusion of those aged 65+ from the analyses resulted in a similar factor structure and improved model fit.

Conclusions: Investigating the construct validity of a four-factor model of CR has elucidated the underlying structure of the hypothesized constructs. Further research will involve multivariate modeling to investigate the predictive relationship between the two CR factors that emerged from this research and cognitive decline.

P173 Being With and Being Without: An Ethnography of Relating in Dementia Care

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Background: People with dementia living in long-term care are often characterised as passive receivers of care who are unable to participate in meaningful relationships; however, recent research has indicated that this may not be the case. The purpose of this research was to explore ways in which people with dementia living in care experience and participate both in the social sphere of their care setting and in personal relationships in that care setting.

Methods: This qualitative and longitudinal research utilised ethnographic methods in order to gain an ‘insider’s view’ of life in a dedicated residential dementia care unit in the south of Ireland. Field notes and interview data were coded and analysed using a process of Grounded Theory as described by Charmaz (2006).

Results: The results of this research describe three different ways in which people with dementia participate in relationships in care—(1) close and intimate participation in personal relationships—both existing and newly-formed, (2) defining social groups along lines of ‘functionality’, status and gender, and (3) ways of being with others—for example, adhering to extant social norms, or the employment of creative ‘resistance strategies’ against certain aspects of care.

Conclusions: In order to ameliorate care and services for those with dementia living in care, it is important to consider the ways in which their lives are affected by changes to, and participation within, their social environment. This research represents the first step in understanding the different ways in which participation in relationships is experienced by people with dementia living in care; running counter to common characterisations of those with dementia as disengaged and unsocial, these findings speak to a reconsidering of what is social and participative in dementia care.

P174 Individualised Cognitive Therapy through Stimulation and Individualised SIMS (Sonas Individual Multi-Sensory Session) with Long Stay Psychiatry of Later Life Subjects Who Have Cognitive Impairment

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Background: A recent randomised controlled trial on Cognitive Stimulation Therapy identified the need to evaluate its long-term benefits for people with cognitive impairment. Previous studies have aimed to evaluate its benefits in a group setting. This study aims to evaluate the benefit of and the sustainability of individual cognitive intervention on people with cognitive impairment.

Method: A mixed case analysis comparing two groups; Sonas Individual Multi-Sensory Session and Individualised Cognitive Therapy through stimulation. 10 participants were included and randomly assigned to an intervention group. The intervention comprised of 14 sessions. Assessment was carried out pre and post intervention with outcome measures used after each individual session. A 6-month follow up was conducted to explore sustainability.

Results: Individualised Cognitive Stimulation Therapy was found to be more effective than SIMS. However, both were identified to be of benefit cognitively as determined by scores on the Standardised Mini Mental State Examination (SMMSE) which had either been maintained or improved in all participants. Similarly other assessments and outcome measures used in the study maintained or improved their score with no cognitive decline detected.

Conclusion: The findings lend support that SIMS and Individualised Cognitive Therapy through stimulation have beneficial and sustainable effects as an individual intervention.

P175 Behavioural and Non-Cognitive Symptoms of Dementia in Acute Hospitals

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Background: Research suggests that the majority of people with dementia will experience at least one behavioural symptom during their illness. Acute hospitals pose particular challenges to the person with dementia and may precipitate responsive behaviours. This study

therefore explored behaviours and non-cognitive symptoms associated with dementia in older people admitted to hospital.

Method: Patients 70 years and older, admitted to 5 public and 1 private hospital, were screened within 48 hours of admission, over a 2 week period, and followed-up at fixed time points during admission, until discharge, or up to month 3 of admission (Cork Dementia Study). All patients ($n = 606$) were assessed for dementia and a range of other variables including behaviour on admission, and reassessed at fixed time points. Day-case admissions and actively dying patients were excluded.

Results: Behaviour scores were significantly higher for those with dementia ($n = 149$) than for controls ($n = 449$). 94.2 % (130/138) of those with dementia exhibited at least one behavioural symptom. The most common symptoms were repeating questions/stories (66.7 %), frustration (56.8 %), agitation (55.1 %), and being withdrawn (54.7 %). The least common behaviours were sexually inappropriate behaviour (2.6 %) and aggression (12 %). At least one-quarter of behaviours exhibited by dementia patients in hospital were chronic (consistent with Behavioural and Psychological Symptoms of Dementia, BPSD). A significant decrease in behaviour scores from baseline (prior to admission) to during the admission was found for those with dementia. Age, cognitive score (standardised MMSE), comorbidities (Cumulative Illness Rating Scale-Geriatrics), functional status (Barthel Index), and length of stay were significantly associated with behaviour scores.

Conclusion: Results suggest that behavioural symptoms of dementia are extremely common in hospital, with over 90 % experiencing at least one symptom. Behaviours are likely aggravated by acute illness, peaking just prior to admission, and reducing as the illness is treated in hospital.

P176 Brief Dementia Screens in Clinic: Comparison of the Quick Mild Cognitive Impairment (Qmci) Screen and Six Item Cognitive Impairment Test (6CIT)

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Background: Short cognitive screens are required to identify cognitive impairment in busy hospital clinics. The Six Item Cognitive Impairment Test (6CIT) is a commonly used instrument with high accuracy at identifying dementia though its accuracy (cut-off $\geq 8/28$ for dementia) in those with mild cognitive impairment (MCI) is less established. The Quick Mild Cognitive Impairment (Qmci) screen accurately differentiates MCI from normal cognition and dementia (cut-off $>60/100$ for cognitive impairment).

Methods: In all, 149 paired assessments were available (28 normal, 31 MCI and 90 with dementia), from patients referred with memory loss to a university hospital memory clinic underwent a comprehensive assessment and were screened using the 6CIT and Qmci administered in alternative order, by trained raters, blind to the diagnosis.

Results: The median age of patients included was 76 years (interquartile range $81-70 = \pm 11$). 100 (67 %) were female. The median Qmci score was 45/100 ($60-27 = \pm 33$) compared to 10/28 ($18-4 = \pm 14$) for the 6CIT. The median Qmci score for normal, MCI and dementia was 69/100 ($73-63 = \pm 10$), 57/100 ($62-52 \pm 10$) and

32.5/100 ($42-20 = \pm 22$) respectively compared to 2/28 ($4-0 = \pm 4$), 6/28 ($10-2 = \pm 8$) and 17/28 ($21-10 = \pm 11$) respectively for the 6CIT. The Qmci was more accurate than the 6CIT in differentiating MCI from normal, area under the curve (AUC) of 0.91 vs. 0.71. It also had superior accuracy in differentiating MCI from dementia, AUC of 0.97 vs. 0.86. Median administration times were 4.38 minutes for the Qmci vs. 2.05 for the 6CIT.

Conclusion: The Qmci was more accurate than the 6CIT, in patients referred for memory loss, particularly those with MCI. The 6CIT had a shorter administration time, suggesting it may be useful as a short screen when assessing patients with a high index of suspicion for dementia or monitoring progression of dementia over time. This study suggests that the 6CIT is not useful in differentiating MCI from normal cognition or dementia in clinic settings.

P177 Recommendations for Incorporating Lifelogging Technologies into Therapeutic Approaches for People with Dementia

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Background: In the absence of a medical cure for memory loss new technologies specialised in pervasive imaging are being incorporated to interventions for dementia. The practice of lifelogging is a digital capture of life experiences typically through mobile devices such as SenseCam. The lightweight wearable digital camera passively captures about 3,000 images a day. Lifelogging results in personal, recent prompts, potentially encouraging sharing of personal memories. However, there is limited literature on the practical recommendations on how to use lifelogging devices and their effect on People with Dementia (PwD).

Method: This research used exploratory and descriptive approach using the Multiple Case Study method. The case study is a method of empirical inquiry that enables investigation of phenomenon within its real life context. Purposive sampling was used to recruit three individuals with early stage dementia. SenseCam was used within a therapeutic approach, during which about 150,000 images were collected and reviewed.

Results: The results from this study indicate number of factors should be considered when using lifelogging technology with PwD. Firstly the contextual factors of PwD including the level of cognitive impairment, existing coping mechanisms and the interaction patterns with the carer need to be considered. Secondly the technology should be used within a therapeutic framework and tailored to suit the individual needs of PwD and carers. Lastly the researcher should anticipate discussing intimate and unexpected details from the participant’s life and be prepared to deal with them in ethical and sensitive manner. Implications of not working within these boundaries show clear potential for risk of damaging human right and potentially the wellbeing of PwD.

Conclusions: Practical recommendations for incorporating SenseCam into therapeutic approach for dementia are presented. While the research highlighted potential advantages of the new therapeutic approach it also demonstrated ethical risks, which require careful consideration in the context.

P178 Feasibility and Validity of Using Cognitive Training Applications to Assess Cognition in Community Dwelling Older People

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Background: Given the widespread availability of smartphone and tablets, and the popularity of “Brain Training” applications, we assessed the frequency and breadth of technology use by older community dwelling people; the ability of people with dementia to engage with a cognitive training (CT) application; and the relationship between CT scores and cognitive function/technology use.

Methods: Technology use in 220 community-dwelling older people attending the Assessment and Treatment Centre (ATC), as a patient or relative, was determined by a paper survey. An additional consecutively recruited 40 ATC patients with mild to moderate dementia were surveyed, then instructed how to use a tablet computer and complete three CT applications: a concentration task, memory task and visuospatial task. CT scores were correlated with demographics, questionnaire results and total Montreal Cognitive Assessment (MoCA) scores.

Results: The survey-only cohort had a median age of 78 years; 27 % had third-level education. Technology use varied by technology type: 75 % used mobile phones, 31 % any form of computer, and 4 % a tablet computer. The dementia cohort (median age 77; 25 % third-level education) used less technology, 60, 28, and 5 % respectively; and 50 % rated their skills as “poor”, vs. 37 % of the survey-only cohort. Total CT scores correlated moderately with the number of technologies used ($r = 0.41$, $p = 0.02$), and strongly with total MoCA scores ($r = 0.78$, $p < 0.001$). Correcting for frequency of technology use, CT scores were significantly predictive of MoCA scores. All three CT tasks were fully completed by 85 % ($n = 34$) of participants; 80 % would use them again, and 24 % found them ‘easy’.

Conclusion: Despite the infrequent use of tablet computers by older people in general, and people with dementia rating their technology skills as poor, older people with mild to moderate can use CT applications and their scores reflect MoCA scores, regardless of technology use.

P179 Resilience in Older Age: Living as Married and with Religious Belief Reduce the Negative Effect of Increased Disability on Quality of Life Among Older People in Ireland

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Background: Theories of resilience suggest that older people maintain well-being in the face of declining health by drawing on personal resources, such as personality or coping skills, and resources in their environment, such as support from friends and family. This paper

tests whether social support, religiosity and personality modify the effect of increased disability on change in quality of life (QoL) over a 2 year period.

Methods: We used data from two waves of The Irish Longitudinal Study of Ageing (TILDA), a population sample of adults aged 50+ living in the community ($n = 2,764$). QoL was measured with the two dimensions of the CASP-R12—control/autonomy (living your life the way you want to) and self-realisation/pleasure (purpose and enjoyment). Increased disability was defined as an increase in the number of body function and activity deficits, based on the WHO ICF framework. Conditional regression was used to examine the effect of increased disability on change in QoL over 2 years, with interaction terms to examine moderating effects of social support from relatives, friends and spouse, personality traits of extraversion and neuroticism, and religiosity.

Results: Two interaction effects were significant. Living as married, regardless of marital quality, reduced the negative effect of increased disability on control/autonomy (-0.69 for not married; -0.25 for married; $p = 0.008$). Religiosity reduced the effect of increased disability on self-realisation/pleasure (0.11 for “religion very important”, -0.17 for “religion not/somewhat important”; $p = 0.008$).

Conclusions: Living with a partner may provide key instrumental support which is not available to those living alone or with non-partners, helping older people to maintain independence in increased disability. Religious belief may reduce the importance of physical health to living a purposeful and fulfilling life. Further research is required to examine how contextual and personal resources modify the effects of disability over a longer time period.

SOCIAL GERONTOLOGY

P180 Nature and Extent of Elder Abuse in Ireland: Examining Role of Primary Care Practitioners

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Background: Elder abuse is a complex and multifaceted issue and now a global and human rights concern. The majority of older people experiencing elder abuse live at home and the perpetrator is most likely to be a close family member or other relative. Elder abuse affects approximately 2.2 % of the older population in Ireland this means that there could be as many as 10,000 experiencing abuse. Risk factors for elder abuse include poor physical and mental health. The aim of this paper is to critically examine the empirical literature to better understand the extent to which primary care professionals recognise and respond to elder abuse in their practice.

Methods: A carefully constructed search strategy was developed in order to identify key literature on the topic. The search strategy was applied to a number of electronic databases such as CINAHL, Medline and Pubmed. The empirical literature was analysed to identify key and recurrent themes.

Results: An analysis of the empirical literature identified the following key themes: Older people experiencing abuse are vulnerable because they are in need of primary care services. Elder abuse has serious health concerns for older people and the consequences are devastating. Primary care professionals are in a unique position to be able to recognise and respond to suspicions of abuse of older people in their care. However, empirical evidence suggests that variations in the practices of primary care professionals may hinder elder abuse detection. Public Health Nurses are more likely to recognise elder abuse than general practitioners and the role of practice nurses was not identified in the literature.

Conclusions: There are issues regarding the extent to which primary care professionals have the knowledge and skill to recognise and respond to suspected cases of elder abuse in their practice.

P181 Attitudes to Ageing and Perceptions of Working with Older People of Students of Health and Social Care

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Background: The European Older People's Platform urged appropriate training and education for all health and social care professions for work with older people. Vanwinkle et al. (2010, 2013) suggest that student' perceptions of caring for older people are positively influenced by specific curricular content, a structured approach to the educational preparation and support for their practice. In this context the EU-funded Project ELLAN (2013–2016) takes place with a consortium of 28 partners from all over Europe.

Methods: The aim of this study was to ascertain the attitudes towards ageing and views of working with older people among students of health and social care with 5 European partners (Ireland, Germany, Latvia, Finland and Italy). The objective was to compare results between groups of students and across the five countries. A descriptive correlational design was used. Ethical approval was sought and granted from the local ethics committees in each of the partner countries. A convenience sample of 150 students representative of health and social care professions in one University or Institute of Higher Education in each country were invited to complete a survey including two questionnaires: The Kogan Attitudes to Ageing Questionnaire (KOPS) (Kogan 1966). Students Perception of Working with Older people revised (Nolan et al. 2006). Correlation analyses using the Pearson Product Moment Correlation Coefficients were calculated to measure the relationship between variables.

Results: Findings of this research will show that there is a correlation between attitudes and interest in working with older people.

Conclusions: This study highlights important issues that are relevant to researchers, curriculum developers and policy makers. The findings of this study will inform an agreed Core European Competencies Framework for working with older people.

P182 Loneliness and Older Adults Living in Residential Care: An Exploration of the Factors That May Influence It

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Background: There have been few national and international studies examining the phenomena of loneliness in older adults living in residential care settings. The main aim of this study was to explore total, social and emotional loneliness in older adults living in residential care and the factors that influence it.

Methods: A quantitative, descriptive design using cross-sectional data collection was used and non-probability sampling was applied. The anonymous survey contained the validated De Jong Gierveld 11 item Loneliness scale and also included socio-demographic and loneliness related questions (gender, age, marital status, education, friends, participation in activities, prayer, children & grand-children, family & friend visits and responses to family & friends visits). Percentages and means were used to describe the sample and loneliness and t-tests and ANOVA to examine the influences on loneliness.

Results: From eight residential care settings 68 long-term residents aged 65+ years responded, a response rate of 45 %. The mean age was 84 years, the majority of respondents were female (59 %) and widowed (45 %). A total of 61 %, showed a moderate or higher level of total loneliness. Both the total and the subscale—social loneliness had a low mean score (3.7, 1.5 respectively). The study found an association only between prayer and total loneliness ($p = 0.006$) and emotional loneliness ($p = 0.009$), and emotional loneliness and family visits ($p < 0.001$).

Conclusions: While the findings from this study is in part consistent with previous studies and confirms older adults are socially embedded, prayer and family visits may be important for emotional attachment. Health care staff should be aware of loneliness so a comprehensive assessment to plan appropriate interventions in which enable subjective attachment and social embeddedness to be realised for older adults living in residential care. Further research is needed to explore what factors are contributing to loneliness in older adults in residential care.

P183 Home-Care Re-Ablement Services for Improving and Maintaining the Functional Independence of Older Adults: A Cochrane Review

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Background: The cost of long-term care for people aged over 65 years living in OECD countries is expected to double or even triple by 2050. Therefore, many developed countries have actively promoted a shift from residential to home-based care as a potentially more effective and financially sustainable approach to meeting the health and social care needs of older adults. Importantly, most older people prefer to “age in place”, and, therefore to remain in their own homes for as long as possible, provided they have appropriate levels of support to meet their (changing) needs. ‘Re-ablement’ represents one innovative approach to home-care provision. The focus is on a re-orientation away from treating disease and creating dependency to maximising independence by offering intensive and time-limited (typically 6–12 weeks duration), multidisciplinary, person-centred, and goal-directed home-care services

Methods: A systematic review of randomised controlled trials, cluster randomised trials and quasi-randomised controlled trials of ‘re-ablement’ when compared to ‘usual domiciliary care’ or wait-list control group. The primary outcomes are: (1) functional status including independent living, and ability to complete activities of daily living; and (2) adverse events including mortality and hospital (re)admission.

Results: The preliminary results of the review, albeit with only a limited number of trials included for analysis, suggest that the intervention appears to reduce the need for ongoing social care. Further analysis is ongoing.

Conclusions: Whilst several previous Cochrane reviews have examined a range of home-based programmes, there has not as yet been a systematic review that has specifically focused on the effectiveness of ‘re-ablement’-based interventions. In the absence of appropriate evidence, important questions about the effectiveness and cost-effectiveness of these types of interventions remain unanswered. Thus, this review will address an important gap in our knowledge. This review is supported by an HRB Cochrane Fellowship to the first author.

P184 Capturing the Quality of Death and Dying in Long Term Care (LTC) Facilities: Family Perspectives

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Background: The Let Me Decide (LMD) advance care directive enables a person to record his/her healthcare wishes in advance so that they can be respected if he/she lacks decision making capacity in the future. Our study: ‘Systematic Implementation of LMD advance care directive and comprehensive palliative care training programme in LTC’ aims to improve the quality of death and dying (QODD) and increase staff awareness of advance care planning. One objective was to determine relatives’ perceptions of quality of care at the end-of-life before and after comprehensive training.

Method: Family members were invited to complete a retrospective questionnaire [(Quality of Dying & Death (QODD)), to determine their perceptions of the quality of care received by their relative at end-of-life. Twenty-two questionnaires were completed in three study sites by family of recently deceased residents. Overall perceptions of quality of care was measured on a scale from 1 to 10 (1 very poor and 10 excellent).

Results: Results showed that 73 % (n = 16) rated the overall quality of end-of-life care as excellent (score 9/10). However, 64 % (n = 14) indicated that end-of-life care wishes had not been discussed between the resident and doctor or other staff. Nonetheless, the majority reported (86 %, n = 19) that staff provided end-of-life care that respected their relatives wishes.

Conclusion: Initial results show that family members were very satisfied with end-of-life care received by their relatives. Staff education on advance care planning was completed in each of the sites prior to data collection and this may have contributed to the positive results. However, discussions about resident wishes only happened in 6 of 22 cases. Therefore, improvements in initiating conversations regarding care preferences at end-of-life and subsequent documentation are required. This is central to the LMD programme.

P185 Health Care Professionals’ Perceptions of a Connected Health Model for Dementia

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Background: Dementia care in Ireland is fragmented and reactionary. There is good evidence that integrated care pathways improve

efficiency and enhance inter-professional commitment to tailored care plans. Connected Health (CH) refers to a technology enabled model of healthcare delivery, designed around the patient’s needs, where health related data is shared between stakeholders in such a way that the patient can receive care in the most proactive and efficient manner possible. Barriers to adoption of the CH model by health care professionals (HCP) include concerns about efficiency and usability. In this study, we examine HCP’s perception of a Connected Health model deployed for 6 weeks for 28 people with dementia.

Methods: 19 general practitioners (GPs) and 2 consultant geriatricians were recruited and completed the Technology Acceptance Model Questionnaire post deployment. Detailed semi-structured interviews involving both geriatricians and a subset of GPs were conducted post deployment to investigate perceptions of the CH model.

Results: Preliminary findings demonstrate HCPs have positive perceptions regarding ease of use (usability/acceptance) of the CH portal; the benefits of connecting key stakeholders across primary and secondary care settings; and the potential for CH to defragment the current services in dementia care.

Conclusion: These findings are significant and indicate support of this model of care for people with dementia amongst HCPs in primary and secondary care.

P186 Caregivers’ Perception of a Connected Health Model for Dementia Care

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Background: Caregivers of people with dementia are at an increased risk of a variety of health complications which increase the risk of hospitalization and early institutionalization for the person with dementia (PWD). Connected Health (CH), a technology enabled model of healthcare delivery, has the potential to support and empower caregivers by placing them and the PWD at the centre of this CH ecosystem. In this model, the key stakeholders—the patient and caregiver, general practitioner (GP) and geriatrician—are ‘connected’ by means of timely sharing and presentation of pertinent information regarding patient status on a secure internet portal. In this study, we examine caregiver perception of a Connected Health model following a 6 week deployment.

Methods: 28 people with mild dementia (MMSE >17), their caregivers, and their GPs were recruited. Following a comprehensive health assessment, a health portal was created that included past medical history and care plan for the PWD. This portal was accessible to the key stakeholders throughout the 6 weeks. Caregivers were requested to record the PWD’s blood pressure, weight and activity levels as well as report sleep quality, medication adherence and challenging behaviours. Information regarding dementia, legal issues, entitlements and coping strategies were available on the portal and caregivers were encouraged to keep a journal. Semi-structured interviews investigating the perceptions of all caregivers towards the CH model were conducted post-deployment.

Results: Preliminary findings demonstrate predominately positive perceptions towards the CH model of care. Positive perceptions regarding ease of use/acceptability of technology, satisfaction with model of care, increased levels of empowerment and dementia health literacy have emerged from data analysis.

Conclusion: Findings thus far would suggest that caregivers of PWDs have predominately positive perceptions of a CH model of care. This is a significant step in the adoption of a CH model for dementia care.

P187 An Exploration of the Experiences of Formal Carers Who Participate in Life Story Work with People with Dementia in the Residential Care Setting

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Background: Life Story Work (LSW) is a biographical approach to care that adds a depth of knowledge about the person with dementia's past, values and beliefs, facilitating the delivery person-centred care. Many care facilities in Ireland fail to incorporate LSW in the assessment, planning and provision of care for residents with dementia.

Methods: A qualitative descriptive approach using semi-structured interviews was adopted for this study. Eight formal carers described how Life Story Work was utilised in a residential care setting during day to day care-giving.

Results: Utilisation of LSW in practice facilitated the delivery of person-centred care that promoted the wellbeing of the person with dementia by relieving loneliness, reducing anxiety and agitation and promoting feelings of trust and security. Both the nurses and healthcare assistants recognised that they had role in Life Story Work, whether it was gathering, documenting or communicating the information. LSW promotes the building and strengthening of relationships for the person with dementia and their family carers with their formal carers.

Family carers are recognised as a source of Life Story information but, uniquely this study found that the friends of the person with dementia were an important source in Life Story Work. This study acknowledges that the person with dementia, irrespective of communication difficulties can be assisted by formal carers to contribute to the gathering and sharing of their own Life Story.

This study also provided insight into the effectiveness of commencing gathering Life Story information in the community prior to admission.

Conclusions: LSW may be helpful if incorporated in the assessment, planning and provision of person-centred care for people with dementia. Residential services for people with dementia need to consider a staffing rota that ensures continuity to facilitate meaningful relationships for that the person with dementia and their formal carers.

P188 Combatting Elder Abuse: Learning from Each Other/Working Together

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Background: From 2010 to 2012 partner organisations from Finland, Ireland and Italy participated in a European level project 'Wellbeing and Dignity of Older people, WeDO'. The purpose of this project was to develop a lasting and growing European partnership of organisations committed to working together to promote the wellbeing and dignity of vulnerable and disabled older people and prevent elder

abuse through the promotion of quality long-term care. Building on this work, these three countries, along with Romania have come together to share knowledge, training materials and further develop existing tools to raise awareness about elder abuse. A common need of the partner organizations is to continuously find new knowledge and ways to educate, train and support local and national authorities, informal and professional carers and volunteers to protect older people from abuse, to empower older people themselves to take over their own lives and to create opportunities for their participation in society.

Methods: The work of the partnership organisations differs from each other to some extent. This enables us to take different and interesting angles to the prevention of elder abuse. The development of the training materials is undertaken through participation at transnational partner meetings, workshops, elder abuse campaigns and field visits. During the country workshops each partner presents the material, experiences and knowledge sharing these with a larger group of actors in the field.

Results: As we are at the mid-point of our project we will share our learning to date including case study examples of approaches taken in addressing elder abuse in each of the four areas.

P189 Informal Carer Perceptions of Providing Mealtime Assistance to People with Dysphagia in a Long Term Residential Care Facility

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Background: Incorporating family members and friends into dysphagia care plans can empower and support them to take an active role in providing mealtime assistance to residents with dysphagia in long term care. However, while nursing and care staff are educated to identify indicators of aspiration, volunteers such as families and friends are oftentimes not.

Methods: A questionnaire was distributed to thirty residents with dysphagia and their informal carers, across six long term care units, at a single care of the elderly facility.

Thirteen questionnaires (43 %) were completed. 76.92 % surveyed were female, 23.08 % male (3:1). Relationships between the volunteer assisting the resident with Dysphagia were; daughter (30.77 %), wife (23.08 %), husband (15.39 %), female friend (15.39 %), son (7.69 %) and sister (7.69 %). The majority described the role as either "important" or "very important". 70 % of the female population (daughters, friends and sisters) provided assistance on a weekly basis and 30 % (wives) on a daily basis, 80 % described their knowledge of dysphagia as "adequate", 66.67 % of males described their knowledge as "poor".

Results: 53.85 % of the respondents failed to demonstrate knowledge of modifications made to the resident's fluid consistency. 38.46 % could not list any indicators of distress due to aspiration. 80 % of females reported to be either "comfortable" or "very comfortable" providing mealtime assistance. 20 % of females (wives) were "not comfortable" but reported the role was "very important" to them. Male respondents were both "comfortable" (66.67 %) and "very comfortable" (33.3 %) providing mealtime assistance.

Conclusions: The majority of volunteers who provide mealtime assistance are family members, for whom the role is of significant importance. It is imperative that volunteers are continuously informed regarding food and fluid modifications and receive education to

identify risk factors and indicators of aspiration. SLT services should include family members, particularly spouses, in dysphagia sessions and care plan formation.

P190 The Role of Driving for Older Adults in Rural Ireland

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Background: It has been projected the number of older adults in Ireland is to increase by 38 % by 2046, (Central Statistics Office 2013). Little is known about the aging rural population in Ireland and the unique challenges they may face. This study aims to explore the role driving plays in the participation in daily occupations for older adults in rural Ireland. Furthermore the study aims to establish the importance of maintaining driving skills for older adults in rural Ireland.

Method: A qualitative study was conducted employing a descriptive phenomenological method to gain a rich and deep understanding of the lived experience of participants. Data was gathered using individual semi-structured interviews. Interviews were audiotaped, transcribed verbatim and subsequently analysed using thematic analysis.

Results: Participants demonstrated a great dependency on their personal vehicles. It was highlighted that their ability to drive provided independence and freedom. Thematic analysis revealed four key themes that captured the diverse meaning of driving. The themes that arose were: freedom including independence and choice; social connectivity; adjustment; and cost. These themes are documented with direct quotes from the participants.

Conclusion: Older adults in rural areas are solely reliant on their personal vehicles to access out of home activities. Occupational therapists are uniquely placed as they acknowledge the value of participating in daily occupations as well as the impact of social isolation. Occupational therapist need to address the occupation of driving as part of standard practice to prolong older adult's ability to drive. Recommendations for practice and future research are discussed.

P191 Implementing an Age-Friendly County Programme: No Easy Job, a Stakeholder's Perspective

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Background: In recent years developing age-friendly communities has become a significant issue for policy makers. The WHO published age-friendly cities guidelines in 2007, and established the WHO Global Network of Age-Friendly Cities in 2010. Age Friendly Ireland developed a national Age Friendly Programme. However, we know little about the achievements of age-friendly community programmes (Lui et al. 2009), and research is only just beginning to examine their implementation (Fitzgerald and Caro 2014). This paper contributes to emerging scientific debates by exploring the internal dynamics of the Fingal Age Friendly County Programme and by identifying the significant factors which have impacted on its implementation. Fingal is affiliated to Ireland's national programme and belongs to the WHO Global Network.

Methods: Adopting a qualitative case-study research design, in-depth interviews were held with three groups of stakeholders: eight members of the Fingal Age Friendly County Alliance, three key policy

makers from Ireland's national programme, and three senior policy makers from the WHO initiative.

Results: Stakeholders identify core elements for the successful implementation of age-friendly initiatives as including strong leadership, meaningful engagement of older adults, and effective political support at municipal level. Success also requires effective planning mechanisms and a clear action focus. Inter-agency collaboration is regarded as important but difficult to achieve. Initiatives need to be flexible, adaptable to changing national and international strategic priorities, and able to address the diversity that exists among older people. Involvement of the WHO and the national programme has facilitated implementation.

Conclusions: Age-friendly programmes have the potential to improve older adults' quality of life. This however depends on programmes having appropriate governance and implementation structures and processes, and the capacity to facilitate effective inter-agency collaboration and networking across projects. There is need for further research to explore programme implementation from the perspective of older people.

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P192 Exploring the Perspectives and Experiences of Business Managers When Working with Customers with Dementia

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Background: With an aging population, the prevalence of dementia in society will increase. As more aging individuals wish to remain living in the community, services need to be adapted to facilitate the needs of individuals with dementia. Businesses in the community need to be aware of how best to assist aging customers. There is a lack of research from business manager's perspective of working with customers with dementia. Therefore, it is crucial this perspective is understood in order to highlight areas that require development so services can be adapted to ensure individuals with dementia can remain active in the community, as long as possible.

Method: A qualitative study was completed using an explorative approach. Six semi-structured interviews were completed with six participants and one focus group with four/six participants. Interviews and the focus group were audio recorded and transcribed. Thematic analysis was used analyse the data. Combining multiple observers and data sources, peer review and using a variety of key informants from a variety of businesses ensured trustworthiness and credibility.

Results: Four key themes emerged from the data including: Understanding dementia, commitment to customer care, conflicting feelings of business managers and forming dementia friendly communities. Sub-themes were used to explore each theme in detail using direct quotes. Overall findings highlighted the need for increased awareness surrounding the disease and showed the willingness of businesses to understand more about the disease due to their commitment to customer care. Businesses are aware of the importance of forming dementia friendly communities but it is important the needs and concerns of businesses are recognised.

Conclusion: This study identified the importance of working with businesses during the process of forming dementia friendly communities. Increased training and education is required surrounding dementia to aid the formation of adapted services and to reduce stigma associated with dementia.

P193 An Audit of the Plate Pal Volunteer Programme in a Long Term Care Nursing Unit for Older Persons

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Background: Poor appetite and difficulty with eating and drinking are problems faced by many older people in long term residential care (Furman 2006). Feelings of loneliness and helplessness can be a common theme within this population group. The Plate Pal volunteer service provides one-on-one companionship to residents at mealtimes. They can provide assistance and gentle reminders to eat, provide company and stimulating conversation for residents.

The Plate Pal programme commenced in the nursing unit in June 2013 on a phased basis. A total of 12 volunteers visit. The Dietician and Speech and Language Therapist carried out an audit to measure the volunteer's experiences so far and help identify areas for service enhancement.

Methods: 12 Plate Pal volunteers were asked to complete a 5-question questionnaire using the Likert rating scale, with 1 being "I disagree" and 10 being "I agree". The questions aimed to measure the volunteers' overall experience including satisfaction, support, relationships with staff and residents, and confidence.

Results: Eight of eleven questionnaires were returned. Of those, 75 % of volunteers strongly agreed that they feel supported by staff in the nursing home. 87 % of volunteers strongly agreed that they find the volunteer experience rewarding. 62 % strongly agree that they feel confident as a Plate Pal volunteer. 62 % of volunteers felt strongly that contact with other volunteers within the nursing home was important. 50 % of plate pals felt strongly that they had developed a good relationship with their resident, 25 % were unsure and 25 % did not comment.

Conclusion: Overall the Plate Pal volunteers report to have a positive experience in the nursing home and find their service very rewarding. The feedback will help develop and improve our services to residents in our nursing unit.

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P194 Withdrawn

P195 'Double Edged Sword': Perceptions of Nurses to the Introduction of Pet Therapy for Older People with an Intellectual Disability

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Background: The introduction of pet therapy in Learning Disability is recognised as having the potential to enhance the quality of life for

clients and create a more 'home-like' atmosphere. Yet, information gaps exist in relation to how nursing staff perceive the introduction of such a new initiative and the challenges they face prior to and during its implementation.

Methods: Qualitative interviews were conducted with a purposeful sample of eight registered staff nurses who were working in long-term residential service for people with learning disability. Using thematic analysis, participants illustrated their responses with examples from their personal lives and previous work practice settings.

Results: Whilst recognising pet therapy as having many physical, psychological and social therapeutic benefits for clients, its proposed introduction was viewed as a 'double edged sword' with positive and negative implications for staff.

Conclusions: The introduction of pet therapy for older people with learning disability needs to be carefully planned and managed, taking into account the views and concerns of staff within the residential care unit. The involvement of service users and their families was highlighted as key to the successful planning and introduction of pet therapy. Finally, within the current constraints and cutbacks experienced within the Learning Disability Services and consequently a reduction in social outings for residents, this initiative was perceived by nursing staff as a mainly positive step in creating a 'home' for older residents.

P196 An Exploration of Older Adults' Internet Use in an Irish Context

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Background: The Internet is one of the most beneficial and applicable computer applications (White et al. 1999) and it enables older adults to stay in constant communication with others and maintain social contact (Cotton et al. 2013). Thus, health care professionals need to be familiar with and competent in enabling people through this medium. This research study aimed to explore the experience of older adults' use of the Internet in an Irish context.

Method: A qualitative study using a phenomenological approach was conducted. Six participants aged 65–84 were interviewed. Interviews were audiotaped, transcribed, analysed, categorised and themed.

Results: Four themes emerged: (1) The internet is a beneficial, purposeful but sometimes frustrating and fearful tool for participation in activities; (2) Internet use is a post-retirement activity integrated into a daily routine (3) The Internet is largely used for interpersonal contact and (4) The Internet is also a method of social and leisure participation.

Conclusion: It is evident that the Internet is a meaningful activity for people over the age of 65 and they benefit from using the Internet for many purposes. However, Internet use can also be a cause for frustration and fear. Internet use is a significant post retirement activity, integrated into daily routines. It enables participation in social and leisure activities as well as interpersonal and social engagement. These findings have implications for healthcare professionals in clinical practice, research and education. Practitioners need to be prepared to facilitate, support and assist older adults' engagement in Internet use.

P197 Exploring the Impact of Frailty on the Health and Social Care System in Ireland

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Background: The challenge of healthy ageing today includes managing combinations of chronic disease, age related conditions, functional limitations and social or personal challenges. These needs are often referred in the gerontological and health sciences literature as 'complex needs' with multiple interacting problems. This study examines the population with complex needs, through the lens of the frail population in Ireland. People who are frail are more at-risk of functional and cognitive decline and vulnerable to using hospital and nursing home services than the non-frail population. This study examined the impact of frailty on Irish health and social care utilisation.

Methods: Secondary analyses were performed using data from the first wave of The Irish Longitudinal Study on Ageing. 8,175 participants (mean age 63; 54 % female) representative of the community-living population aged 50+ years in Ireland. Phenotype frailty was classified using the five criteria: low gait speed, low grip strength, unintentional weight loss, exhaustion, and low physical activity. Scores ≥ 3 , 1–2, and 0 indicated that participants were frail, pre-frail, and non-frail, respectively. Data on healthcare utilisation included hospital, primary care, allied health and home based service use. Descriptive statistics and regression analyses were employed to examine the relationships between healthcare use and frailty status.

Results: This study builds on the findings from previous work that demonstrates the importance of concepts of need in both explaining patterns in service utilisation and variance in response to need (Murphy 2012). Our preliminary findings demonstrate the usefulness of examining the impact of frailty on the whole system of care.

Conclusion: The exploration of service utilisation by frail populations tells an important story in understanding how Irish older people manage the challenge of frailty.

References:

1. Murphy C (2012) The distribution and determinants of home-based social care utilisation in older people: Irish and comparative perspectives., Trinity College Dublin

P198 A Review of Integrated Care Mechanisms Used to Better Coordinate Care Across Sectors for Community-Dwelling Frail Older People

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Background: Integrated care is a contemporary strategy for the Irish healthcare system. Internationally, much of the empirical work has examined the cost-effectiveness of integrated care interventions (ICIs). There is a gap in the literature in describing how these interventions function.

Methods: The authors examined the literature systematically by searching key electronic databases using search terms 'care coordination frail older people', 'integrated care frail older people' and

'case management frail older people', and hand searching high-yield journals. Literature was reviewed using the Care Coordination Measure Mapping Table (McDonald et al. 2010).

Results: Seventeen interventions were examined from Europe, North America, Australia and Asia. In all ICIs new work processes were designed to enhance communication between providers and older people such as multidisciplinary care planning and components to facilitate communication such as electronic health records. However, the analysis was severely constrained by the lack of detailed description. Consequently these interventions remain 'a black box'; we know some models produce good patient outcomes, but we do not know the exact mechanisms by which they achieve this.

Conclusion: While we can discuss integrated care at a theoretical level, describing it in reality is difficult due to insufficient data linking mechanisms to outcomes. This is problematic and limits our ability to distinguish poorly functioning mechanisms from mechanisms which have failed to be implemented. Consequently it is difficult to trust we are replicating the right mechanisms elsewhere and that we fully understand the influence of the context. Overall, this is a good lesson for the Irish system to develop frameworks to usefully describe the intended design and actual implementation of ICIs so we can understand the outcomes we see down the road.

References:

1. McDonald KM et al Care Coordination Atlas Version 3 in AHRQ Publication No.11-0023-EF2010, Agency for Healthcare Research and Quality: Rockville

P199 How a Night Nursing Service Supports Older People to Die at Home

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Background: Since 2006, funding has been provided for people with diseases other than cancer to receive a night nursing service to support them to die at home. This work outlines a 4 year review of this service with a focus applied to those over the age of 65. This work aims to outline the demand and delivery of the service and the illnesses older people are dying with.

Methods: This is a quantitative piece of work that analyses data gathered from applications made to a night nursing service. Statistical analysis was applied to applications made for people over the age of 65 for the years 2010–2013 inclusive.

Results: The demand for this service has doubled from 231 referrals in 2010 to 462 in 2013. Using the National Council for Palliative Care (UK) classification of illnesses it was found that the majority of people using this service are dying at home with heart failure and respiratory illnesses. The numbers of people dying with dementia have increased significantly, from 8 in 2010 to 53 in 2013. Gender differences have been noted in those dying with dementia and respiratory illnesses with the numbers of women dying with these illnesses increasing steadily.

Conclusion: The growth in this service coincides with increasing emphasis from Irish health policy for people to be cared for in their own home (DoH 2012). As people are living longer, it is certain that the demand for this service will continue to grow. This work outlines inequity that exists across the country when accessing this night nursing service. More research is required to understand variances and to support the night nursing services to be incorporated into health care planning so that more older people will be able to die in the place of their choosing.

P200 The Key to Meaningful Ageing in Residential Care

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Background: The HIQA quality standards for residential care for older people in Ireland recommend that the residents care plan should meet each resident's assessed needs which are set out in an individual care plan, developed and agreed with each resident, or in the case of a resident with cognitive impairment with his/her representative. This poses a challenge for nurses as many are only familiar with care planning in the acute hospital setting rather than in the residential care setting.

Methods: This paper describes the design, development and implementation of a new approach to care planning for older people in

residential care. This change project was undertaken by the largest national private provider of residential care in Ireland.

Results: Several key differences between acute patients care planning and gerontological residents care planning were delineated. Gerontological care planning uses an additional re-check step in the nursing process. Acute care planning centres upon patients problems whilst gerontological care planning centres upon residents' needs. Acute care planning focuses on nursing interventions while gerontological care planning focuses on residents' actual and potential needs. Acute care plans are nurse dominant whilst gerontological care plans are resident dominant. Acute care plans adopt a clinical writing style whilst gerontological care plans adopt a narrative and biographical style. Finally, acute care plans are often pre-prepared whilst gerontological care plans are individually prepared.

Conclusions: This new approach to care planning is now fully implemented. This project has significant impact for older people who must have their autonomy, dignity and personhood maintained amidst their physical and cognitive decline.