JOURNAL OF JPOSNA®

Volume 4, Number 2, May 2022

Coding Corner

Coding Challenges in Common Pediatric and Adolescent Hip Preservation Procedures

*David D. Spence, MD[1]; Sarah Wiskerchen, MBA, CPC[2]; Christopher A. Makarewich, MD[3]; Alfred A. Mansour, III[4]; Courtney M. Selberg, MD[5]; Geovanny F. Oleas-Santillan, MD, MSc[6]; Jonathan R. Schiller, MD[7]; Grant D. Hogue, MD[8]; POSNA QSVI Hip/Lower Extremity Committee**

[1]University of Tennessee-Campbell Clinic, Memphis, TN; [2]KarenZupkco & Associates, Inc., Chicago, IL; [3]University of Utah, Salt Lake City, UT; [4]McGovern Medical School at The University of Texas, Houston, TX; [5]Children's Hospital Colorado, Aurora, CO; [6]Nemours/Alfred I. DuPont Hospital for Children, Wilmington, DE; [7]University Orthopedics, Inc., Warren Alpert Medical School Brown University/Hasbro Children's Hospital, East Providence, RI; [8]Boston Children's Hospital/Harvard Medical School, Boston, MA

Correspondence: David D. Spence, MD, University of Tennessee-Campbell Clinic, 1400 S. Germantown Rd., TN 38138. E-mail: dspence@campbellclinic.com

Received: March 30, 2022; Accepted: March 30, 2022; Published: May 1, 2022

DOI: 10.55275/JPOSNA-2022-0032

Introduction

Pediatric and adolescent hip preservation is a rapidly evolving subspecialty that envelopes clinical and technical aspects of other subspecialties such as sports medicine and adult joint reconstruction. Despite many of the techniques having been established for several decades, numerous procedures performed in this field do not have corresponding CPT codes resulting in considerable variability in how different surgeons code for the same procedure. This article presents case scenarios for common hip pathologies treated surgically by pediatric orthopaedic surgeons. The intent is to clarify some discrepancies in coding for these procedures and aid the surgeon in proper billing. It is important to note that the following scenarios are hypothetical and therefore ultimate code selection should always reflect the procedure performed and reported within the operative documentation.

Case 1: Residual Developmental Dysplasia of the Hip

A 4-year-old female who underwent an initial closed reduction and casting at age 9 months for a dislocated left hip is undergoing a Pemberton osteotomy and spica casting for residual acetabular dysplasia.

> **What is the correct CPT coding for a single cut iliac osteotomy (e.g., Pemberton or Dega)?**

A single iliac osteotomy is reported using the CPT code 27146 *(Osteotomy, iliac, acetabular or innominate bone*). If an open reduction of the hip is performed in the same setting, then the procedure would be reported using the code 27147 (*Osteotomy, iliac, acetabular or innominate bone; with open reduction of hip*).

If the scenario is changed slightly, and the patient is a 7-year-old female who receives a Triple Innominate Osteotomy, how is a three-cut pelvis osteotomy coded?

Because there is no CPT code to reflect a triple innominate osteotomy, the procedure would be reported as an unlisted code, 27299 (Unlisted procedure; pelvis or hip joint). When reporting unlisted codes, practices should keep in mind that it is in their interest to provide the payor with a suggested comparison code or codes. We suggest 3 units of 27146 *(Osteotomy, iliac, acetabular or innominate bone*) as the comparison for a triple innominate osteotomy. Many practices ask, "Why not report 3 units of 27146 instead of an unlisted code?" One reason is that many payors utilize a set of reimbursement guidelines called the National Correct Coding Initiative (NCCI), established by the Centers for Medicare and Medicaid Services (CMS). One element of NCCI is a set of date of service edits called MUEs, for Medically Unlikely Edits. The MUE for code 27146 is 1, meaning that CMS (and payors that use the MUEs) would not allow payment for more than 1 unit of this code on a given date. These claims may be appealed when the documentation supports units in excess of 1, but it will require additional steps to be paid in full.

Case 2: Adolescent Hip Dysplasia with Labral Tear

A 17-year-old female ballet dancer with left hip pain, labral tear, and acetabular dysplasia undergoes an arthroscopic labral repair, femoroplasty, capsular closure, and periacetabular osteotomy (PAO).

What is the correct CPT coding for an arthroscopic labral repair, femoroplasty, capsular closure, and periacetabular osteotomy?

A hip arthroscopy with labral repair and osteochondroplasty/femoroplasty would be reported using CPT codes 29914 (*Arthroscopy, hip, surgical; with femoroplasty (i.e., treatment of cam lesion)*) and 29916 (*Arthroscopy, hip, surgical; with labral repair*). If the patient also had pincer lesion pathology that required acetabuloplasty, it is acceptable to use either 29916 or 29915 (*Arthroscopy, hip, surgical; with acetabuloplasty [i.e., treatment of pincer lesion]*) but not both. CPT guidelines explicitly prohibit reporting 29916 with 29915. Capsular closure is included in these procedures and should not be reported as a separate code.

Since the PAO involves a superior pubic ramus osteotomy, an ischial osteotomy, an iliac osteotomy, and a posterior column osteotomy, like in scenario 1b, a single unlisted CPT code 27299 (*Unlisted procedure; pelvis or hip joint*) can be used. Based on the locations of the osteotomies, 27146 is similarly an appropriate comparison code, factored for 4 units instead of a single unit of service. Some payors may instead recognize the Healthcare Common Procedure Coding System (HCPCS) code S2115 for this procedure, defined as *Osteotomy, periacetabular; with internal fixation*. S codes are Temporary National HCPCS II Codes, but they are not recognized by Medicare. They are used by Blue Cross Blue Shield Association plans and may be used by other commercial payors and state Medicaid programs. Importantly, they are not assigned relative value units by CMS, so practices using them must monitor reimbursement carefully to confirm it is equivalent to what would be paid using the unlisted/comparative code method under CPT (also called HCPCS I).

The AAOS global service guidelines for comparison code 27146 do not include labral repair or femoroplasty procedures; thus, it would be appropriate to report the arthroscopic services (or open femoroplasty, if performed) that precede the PAO separately. Alternately, some practices might report the entire case as a single unlisted code but include the arthroscopic codes as additional comparative services. There is no published CPT standard.

Case 3: Femoroacetabular Impingement with a Labral Tear

A 14-year-old male wrestler who presents with right hip pain, femoracetabular impingement (FAI), and a labral tear undergoes right hip arthroscopy with labral repair,

femoroplasty, acetabular chondroplasty, and capsular closure.

What is the correct CPT coding for an arthroscopic labral repair, femoroplasty, acetabular chondroplasty, and capsular closure?

This case is similar to the arthroscopic portion of case 2. The labral repair and femoroplasty components would be reported using codes 29916 (*Arthroscopy, hip, surgical; with labral repair*) and 29914 (*Arthroscopy, hip, surgical; with femoroplasty [i.e., treatment of cam lesion]*). Acetabular chondroplasty and capsular closure are inclusive to these procedures and should not be reported separately.

Case 4: Legg-Calve-Perthes Disease

A 14-year-old male with a history of right hip Legg-Calve-Perthes Disease undergoes a surgical hip dislocation with femoral head/neck osteochondroplasty, open labral repair, and relative femoral neck lengthening.

What is the correct CPT coding for a surgical hip dislocation with femoral head/neck osteochondroplasty, open labral repair, and relative femoral neck lengthening?

This scenario is difficult to assess without an operative note and is dependent upon the level of detail of the surgical description in the operative note. There are no CPT codes for open osteochondroplasty or open labral repair, so unlisted code 27299 (*Unlisted procedure, pelvis or hip joint*) would apply for at least that portion of the case with 29914 and 29916 referenced as the comparison codes.

There are several codes that describe femoral osteotomy, either alone, or in conjunction with iliac, acetabular, or innominate osteotomy. For example, 27165 (Osteotomy, intertrochanteric or subtrochanteric including internal or external fixation and/or cast) might apply to the trochanteric osteotomy and femoral neck lengthening procedure. Code 27140 (Osteotomy and transfer of greater trochanter of femur [separate procedure]) might apply in some circumstances for trochanteric advancement; however, because it includes the component "separate procedure," code 27140 would generally not be reportable with other proximal femoral osteotomy procedures.

Summary

Proper coding and billing of hip procedures requires accurate and specific documentation. As for any reported CPT code, the surgical description should always support the code reported, and should always include acuity of the injury, description of the pathology being treated, and treatment techniques. Currently, there are not CPT codes pertaining to many of the common hip preservation techniques, including periacetabular osteotomy and surgical hip dislocation. It is important to use unlisted procedures when current CPT codes do not accurately reflect what was performed in surgery as opposed to reporting a similar code that does not adequately represent the work performed nor the risk involved with the listed procedure. Referencing the appropriate comparison code or codes will allow the payor to assess the appropriate level of work performed and therefore establish a more accurate level of reimbursement. In the future, CPT codes need to be expanded in order to accurately reflect the work being done without the use of unlisted procedures for evidence-based surgical procedures. Table 1 provides a summary of coding sequences for the above case scenarios and may serve as a guide to accurate CPT coding.

***POSNA QSVI Hip/Lower Extremity Committee:** Grant D. Hogue, MD; Chris Makarewich, MD; Alfred A. Mansour, III, MD; Geovanny F. Oleas-Santillan, MD, MSc; Jonathan R. Schiller, MD; Courtney Selberg, MD; David D. Spence, MD; Tyler Stavinoha, MD.

Disclaimer

The authors have no conflicts of interest to disclose.

Table 1. CPT Codes and Associated 2022 Relative Value Units (RVUs)*

Case 1: Residual Developmental Dysplasia of the Hip

Procedure	CPT Code	Work RVU	MP RVU	PE RVU	Total Facility RVU†
Single cut iliac osteotomy (e.g., Pemberton or Dega)	27146	18.92	3.94	15.09	37.95
w/open hip reduction	27147	22.07	4.56	16.68	43.31
Triple innominate osteotomy (Three cut pelvic osteotomy)	27299 (Unlisted procedure pelvis or hip) **Consider suggesting 3 units of 27146 as comparison‡**	-	-	-	-

Case 2: Adolescent Hip Dysplasia with Labral Tear

Procedure	CPT Code	Work RVU	MP RVU	PE RVU	Total Facility RVU†
Hip arthroscopy with femoroplasty/ treatment of cam lesion	29914	14.67	2.85	12.09	29.61
w/acetabuloplasty (i.e., treatment of pincer lesion)	Add 29915	15.00	3.02	12.45	30.47
	OR Add 29916 if with labral repair (29915 and 29916 may not be reported together)	15.00	2.97	12.30	30.27
Hip arthroscopy with labral repair	29916	15.00	2.97	12.30	30.27
Capsular closure	Included in above hip arthroscopy codes	-	-	-	-
Periacetabular osteotomy (four cut pelvic osteotomy)§	27299 (Unlisted procedure pelvis or hip) **Consider suggesting 4 units of 27146 as comparison‡**	-	-	-	-
	OR S2115	-	-	-	-

Case 3: Femoroacetabular Impingement with a Labral Tear

Procedure	CPT Code	Work RVU	MP RVU	PE RVU	Total Facility RVU†
Hip arthroscopy with femoroplasty/treatment of cam lesion	29914	14.67	2.85	12.09	29.61
w/acetabuloplasty (i.e., treatment of pincer lesion)	Add 29915	15.00	3.02	12.45	30.47
	OR Add 29916 if with labral repair	15.00	2.97	12.30	30.27
w/labral repair	Add 29916 (29915 and 29916 may not be reported together)	15.00	2.97	12.30	30.27
Capsular closure	Included in above hip arthroscopy codes	-	-	-	-

Case 4: Legg-Calve-Perthes Disease

Procedure	CPT Code	Work RVU	MP RVU	PE RVU	Total Facility RVU†
Surgical hip dislocation w/relative femoral neck lengthening	27165	20.29	4.19	16.38	40.86
	OR 27140 (not reportable with other proximal femoral osteotomies)	12.78	2.62	11.16	26.56
Open femoral head/neck osteochondroplasty	27299 (Unlisted procedure pelvis or hip) **Consider suggesting 29914 as comparison‡**	-	-	-	-
Open labral repair	27299 (Unlisted procedure pelvis or hip) **Consider suggesting 29916 as comparison‡**	-	-	-	-

**Data from https://www.cms.gov/medicare/physician-fee-schedule/search*

†Total Facility RVU is made up of three RVU areas:

- *Work RVUs = account for the provider's work when performing a procedure or service*
- *Practice Expense (PE) RVUs = reflect the cost of clinical and nonclinical labor and expenses of the practice*
- *Malpractice (MP) RVUs = reflect the cost of professional liability insurance based on an estimate of relative risk associates with each CPT code*

‡When reporting unlisted codes, practices should keep in mind that it is in their interest to provide the payor with a suggested comparison code or codes.

§Healthcare Common Procedure Coding System (HCPCS) code for this procedure, defined as Osteotomy, periacetabular; with internal fixation. S codes are Temporary National HCPCS II Codes, but they are not recognized by Medicare.