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# Neurosurgery-centred multidisciplinary team-based decisions. Experience from Iraq

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## ABSTRACT

A multidisciplinary team (MDT) brings together a group of healthcare professionals from different fields at a specific time to discuss a case. People in an MDT can contribute to the decisions and plans for diagnosing and managing the patient. [1].

MDT in healthcare settings is essential; the main aim is to bring together a group of healthcare professionals from different fields and combine their inputs—this assistance in discussing patients' presentations and findings, determining comprehensive treatment plans, and treatment side effects. The physical and psychological effects of impaired of these functions can significantly impact patients' quality of life and social well-being. [1].

In war-torn countries with limited resources and complex specialities like neurosurgery, MDT-based decisions may significantly impact the treatment process and outcome. In this paper, we try to highlight the differences in MDT-based work environments compared to the paucity of such organized decisions in war-torn regions of Iraq.

## MDT IN DEVELOPED VS. WAR-TORN COUNTRIES

Generally, in developed countries, studies suggest that MDTs help improve the offered services in clinical practice by making it easier to maintain local registries, enhancing the treatment planning process, and ultimately leading to better patient outcomes—communication and cooperation between team members and in some instances, patient involvement [1,4]. However, there is a concern regarding

## Keywords

LMICs,  
low and middle-income  
countries,  
MDM,  
multi-disciplinary meeting,  
MDT,  
multi-disciplinary team



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possible bias. Group thinking MDTs often experience challenges with team-based decision-making. This is a commonly recognized issue. Furthermore, the literature must provide more evidence on whether MDT discussion improves survival. Lamb et al. demonstrated that MDT discussion did alter treatment decisions, but studies generally failed to correlate these changes with actual improvement in patient outcomes. [1-3].

In war-torn and low-and middle-income countries (LMICs), this is not always the case. The relative lack of resources in a country like Iraq, which experienced for many years, has been a series of wars, blockades, and administrative corruption. It has led to serious consequences burdening the healthcare system and its existing resources [5]. There is no conspicuous national protocol for MDT care. However, there are scattered communications between disciplines in an attempt to provide the best possible care available to patients alongside a few trials from the government to enhance the healthcare system's potential. Based on those facts, occasionally, the patient is informed of one treatment plan without knowing there are other options available, and on other occasions, patients may choose the less invasive procedure, despite the risk to the outcome due to several factors, including the cost, and level of education of the patients and their awareness. Therefore, multiple-option treatments are considered a drawback regarding patient treatment and generally result in less than an average standard of care.

#### EXAMPLES IN MDT-DEFICIENT SETTINGS

The MDT approach is of extreme value in the field of neurosurgery for various cases. For example, in vestibular schwannoma treatment, no centers provide gamma knife procedures and surgery options in one setting. Therefore, the neurosurgeon's decision-making process is a random act depending on the geographical location of the patient, the suggestions of the patient's relatives, and sometimes, social media impacts, as well as individual judgment. Another example is that treating Arteriovenous malformation necessitates three options: surgery, endovascular embolization, and gamma knife. In most cases, the treatment usually combines two or three of those options. The above two examples show how the settings need MDT. Therefore, multidisciplinary meetings (MDM) exist nevertheless futile with the potential to be a

cornerstone for the future development of MDT treatment; on the other hand, the unavailability of the MDT may affect the patients, surgeons, and the hospital, and it might have a significant impact on patients' satisfaction due to the unavailability of adequate hospital quality care and effective communication with the healthcare providers, the unfavored outcomes, and the excessive hospital visits and time of each counseling. Furthermore, Neurosurgery requires essential decisions, such as the need for surgery, surgical approach, complications, and risk assessment. These decisions are the responsibility of neurosurgeons. In war-torn regions, Neurosurgeons usually rely on their patients' and colleagues' judgment, hypothetical deductive reasoning, experience, and values to make difficult and risky decisions. However, the demands of a large clinical workload can sometimes make this decision-making process less than ideal. [6].

#### RECOMMENDATIONS

Our experience with the absence of MDT in Iraq as an example of LMICs reveals the profound need for an MDT in all healthcare institutions that deal with complex cases as well as a necessity for a referral system and collaborations in such instances that ease patient access to MDT-based treatment. There is a constant need for more integrated healthcare centers and specialties concerned with providing maximal patient care standards.

Based on the above, MDT has a well-known advantage that impacts patient management plans and outcomes. This advantage can be of critical value when applied to a complex type of surgery such as neurosurgery, especially in a complex setting like the war-torn country of Iraq. Here we emphasize the importance of offering MDT-based treatment for patients with complex pathology in LMICs or worn-torn countries as a necessity rather than a luxury.

#### CONCLUSION

MDT plays an essential role in managing challenging surgeries or complex pathologies and may significantly impact the healthcare system and patient outcomes. In war-torn countries, there's an increasing need to implement MDT-based discussions to compensate for the existing deficits within the healthcare systems.

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