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Traumatic injuries and surgical interventions at the Médecins Sans Frontières Surgical Field Hospital in Gaza, from August 2024 to August 2025: a retrospective analysis of medical records

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Introduction

In August 2024, Médecins Sans Frontières (MSF) established a surgical field hospital annexed to al-Aqsa Hospital to support trauma care by expanding bed capacity and operating theatre availability for non-life-threatening cases. Despite the scale of traumatic injuries in Gaza, systematic evidence describing the characteristics of trauma, surgical management, and short-term outcomes is extremely limited. Since October 2023, literature on Gaza focused on the broader humanitarian crisis and primary care, leaving a critical gap in systemic documentation of physical trauma and surgical care. This study aimed to systematically describe trauma observed in the MSF field hospital. As a secondary objective, the study aimed to improve practices in MSF on collecting medical data from complex conflict-related contexts.

Methods

We did a retrospective analysis of medical records of patients who presented to the MSF surgical field hospital in Gaza between 1 August 2024 and 31 August 2025. We explored the associations between trauma typologies, injury characteristics, surgical interventions, patient demographics, and short-term clinical outcomes. Data were extracted from routinely collected in-patient records into a structured case report form (CRF) on REDCap. Descriptive statistics and bivariate analyses will be conducted in R. Data for this study are still being processed. Here, we describe the data collected so far, and in future analyses, we will conduct descriptive analyses and bivariate analyses using the R software.

Ethics

This study was approved by the Gaza Ministry of Health and the MSF Ethics Review Board (ID 2559).

Results

During the study period, 4,250 surgical admissions were recorded. Data for this study are still being processed. However, estimations from surgical field registers indicate 82% of admissions seemed to be trauma-related (violent and non-violent). Of all patients admitted, an estimated 7% were aged 0–4 years, 16% were aged 5–14 years, and 77% were aged 15 years or older. Emergency Room registers, with a total of 7,899 violent trauma-related cases, indicated that blast injuries, such as those sustained from bombs and shelling, were the leading causes of violent trauma (42%, n=3,318), followed by gunshots (23%, n=1,917), burns (16%, n=1,264), assaults (7%, n=553), and stabbings (3%, n=237). Detailed distribution of trauma cases admitted for surgery, their causes, and association with demographics are still pending analysis. These observations are consistent with preliminary patterns observed among the surgical admissions.

Conclusions

Preliminary analyses highlight the overwhelming burden of conflict-related trauma in Gaza, underscoring the need for sustained emergency surgical capacity and targeted resource allocation in high-intensity conflict settings. This study also emphasises documenting practices and tools to improve systematic trauma data collection in war and conflict and exploring how such data can be better used for advocacy.

Conflicts of interest

All authors declare no competing interests.