



The impact of the ongoing genocide in Gaza on the healthcare system and its surgical capacity

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The ongoing acute on chronic military aggression on Gaza, which plausibly amounts to genocide according to the International Court of Justice (ICJ), resulted in an unprecedented healthcare crisis that has impacted all facets of healthcare delivery, particularly in surgery.¹

In addition to the numerous mass casualty events caused by carpet bombings in Gaza that would overwhelm any healthcare system, the Israeli military has systematically destroyed the already fragile healthcare infrastructure in Gaza, committing patients with survivable injuries to certain deaths due to lack of access to care. The International Court of Justice (ICJ) has ordered Israel to ensure its military does not act in a way that violates the Genocide Convention.¹ However, since the ICJ's decision, the Israeli military has continued and arguably even bolstered its military aggression in Gaza. In March alone, Israel has targeted the Shifa Hospital and the surrounding medical complex. Israeli troops have also formally invaded Al-Nasser Hospital, where the only remaining general surgeon serves nearly 1.5 million internally displaced Palestinians in Khan Younis in the south of Gaza.

Gaza's reality is dire. There is not a single fully functional hospital due directly to the Israeli military's bombardment.² Only twelve out of the thirty-six hospitals in Gaza are 'partially functioning'. These hospitals operate far beyond their capacity while simultaneously contending with shortages of healthcare supplies, clean water, fuel, anesthetics, and sterile instruments.³⁻⁵ Moreover, the Al Kheir Hospital, which was previously one of just three hospitals capable of providing maternity care in Gaza, is now non-functional.⁵

Targeting Gaza's healthcare system has not been limited to the destruction of its infrastructure. The healthcare workforce has also been a clear target of Israeli military campaigns, resulting in their killing, abduction, or

displacement. According to data published by Healthcare Workers Watch – Palestine, as of March 11, 2024, 458 healthcare workers (HCW) were killed by Israeli forces in Palestine, particularly in Gaza, since October 7, 2023.⁶ Those include 153 doctors, 124 nurses, and 181 other healthcare workers. Of the doctors killed, nine were surgeons or surgical trainees, including Dr. Medhat Saidam, a senior burn and plastic surgeon at Al-Shifa Hospital in Gaza City and a Burn Care alumnus from Queen Mary University of London. Eight were anesthesiologists/intensivists and trainees. Seven were emergency medicine physicians and residents, and seven others were obstetrics and gynecology (OBGYN) physicians and trainees, including Professor Nahed Al-Harazin, Chief of OBGYN at Al-Shifa Hospital. Medical students were also not spared: at least thirty-three medical students have so far been killed. At least another 100 healthcare workers have also been abducted by Israeli military forces, and those include several surgical department chairpersons including Dr. Akram Hussein, Chief of Surgery at the Indonesia Hospital in Beit Lahiya in Gaza's north.⁷

In yet-to-be-published data from our first nationwide surgical capacity assessment study in Palestine (SCALPEL), there were 175 surgeons, 43 surgical trainees and 72 junior doctors working in various surgical departments in Gaza between May and October 2023. While the exact number of attending surgeons and other physicians currently working in surgical departments cannot be confirmed, it is expected that those numbers have significantly dropped to less than fifty in total. Reports from the ground showed that most surgical services are now provided by junior doctors and medical students.

Two of the major challenges to improving surgical capacity in Gaza are the blockade and the frequent military attacks on healthcare settings, which have only worsened since



October 2023. Israel has been depriving Palestinians of adequate access to basic necessities including, but not limited to, food, water, medical equipment, and medications.⁸

In one example, prior to October 7, 300-500 aid trucks were allowed entry into the Gaza Strip every day. These trucks were still inadequate to address the needs of a population of 2.3 million people. Now, despite the humanitarian catastrophe looming, the number of trucks permitted by Israel into Gaza has been limited to approximately 100.^{9,10} Moreover, according to the Integrated Food Security Phase Classification (IPC) report, 100% of Palestinians are encountering crisis levels of food insecurity resulting in what has been termed a “man-made famine”.^{8,11}

The impact of restricted access to basic necessities is two-fold: First, it worsens the baseline health status of Palestinians, meaning they are more likely to acquire illnesses or sustain injury and suffer poorer outcomes. Second, it prevents Palestinians from receiving the resources they need to provide safe and effective healthcare, including surgical care, to address and treat these worsening illnesses and injuries.¹² Hence, to address the immediate healthcare needs of the region, Israel must cease its military campaign in Gaza and the blockade of the Gaza Strip must be lifted as a matter of humanitarian concern.

This is nevertheless only part of the solution. Fundamentally, the healthcare system in Gaza will not recover unless the ongoing and decades-long military occupation and the targeted military attacks on healthcare infrastructure are stopped. It is imperative that healthcare facilities and workers are fully protected, as mandated in international humanitarian law.

Importantly, the Palestinian people and healthcare system need a ceasefire that is permanent and enforced. Without this, the projected traumatic injuries toll could reach as high as 170,329. Of these injuries, 68,545 could result in death, up to 40% of which could have been prevented had the surgical system and healthcare system more widely been able to function at capacity.¹³

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