ISRAEL DEFENSE FORCES
MEDICAL CORPS HQ
Military Post 02149
Tel. 972 3 7373003
Fax 972 3 7376333

Lessons learned from the 2023 Israel-Hamas war – a month into the ground maneuver in Gaza

Following the events of October 7th (described in my previous document), a large number of units strengthened the defenses along Israel's borders. While the IDF is fighting Hamas in the Gaza front, Hizballah started a series of attacks across the Israeli Lebanese border. The Houthis, another Iranian proxy, conducted numerous (unsuccessful) attempts to attack southern Israel using suicide drones and ballistic missiles.

On the night of October 27th, the IDF began a ground maneuver into Hamas strongholds inside the Gaza strip, focusing on Gaza city. Armored and infantry units are conducting urban fighting, with medical support provided by hundreds of military physicians and paramedics within the fighting companies and battalions (according to our doctrine, we deploy an advanced medical provider within every fighting company). Our medical personnel are doing a great job, considering the harsh fighting, providing advanced medical care at the point of injury and while en-route (for soldiers and injured Gazan population). Unfortunately, deploying to the front lines comes with a cost- we have already lost 26 members of the "medical corps family" (physicians, paramedics and mostly BLS level medics who are imbedded within the forces).

For the first time, we provided our forces with whole blood at (any) brigade level. Dozens of wounded received whole blood at point of injury, minutes from the time of injury. Seriously wounded soldiers were treated and evacuated to hospitals within Israel.

The current (cumulative) CFR is under 8%. An expert panel (including two trauma surgeons, a general surgeon, forensic physician, forensic radiology specialist, emergency medicine specialist and an anesthesiologist) reviewed all of the casualties' cases from the war, and concluded that only one death was potentially preventable. About 10% of the cases were potentially survivable, (= theoretically "if they would have injured within a trauma center").

These are some of the main lessons learned in combat casualty care since my last report:

1. Before the current war began, we implemented a new program for rapidly educating our life savers and medical personnel in hemorrhage control. This program was used during the extensive mobilization of the IDF reserve forces. Upon arriving to their units, the reservists exercised in hemorrhage control before going into battle. It is a top priority to refresh the knowledge and skills of hemorrhage control before going into battle, even for experienced soldiers.

2. Forward physicians and paramedics make a difference. Being there- at the point of injury (or a in less than 10 minutes), they provide advance treatment and clinical decisions (helping the tactical commanders to make operational decisions).
3. Although challenging from logistic point of view, dozens of forward medical teams were equipped with whole blood (LTOWB). Injured soldiers in state of profound shock, were treated with whole blood within minutes from their injury, with improved clinical outcomes, thus showing the whole blood's importance. No adverse effects or negative outcomes were recognized.
4. Although we have known it for years, our forces are not always acting in accordance with the "spheric threat"; armed drones, artillery, ground assaults and the usage of sub-terranean tunnels (which means that even areas that were thought to be cleared from enemy presence are actually not). This knowledge must be considered in the way the IDF-MC equip, the way we train, and how we plan our medical and evacuation plans for any operation.
5. We have seen more blast injuries than in previous operations. More anti-tank missiles and RPGs are used on armored vehicles and on buildings our forces enter, while injuries from explosive devices are less common. It is worth mentioning that we are not at a phase of a stationary war (therefore the extensive use of RGPs reflects a change from what was observed on other conflicts).
6. After struggling for years with the fact that casualty cards do not always arrive with the wounded to the hospital, we decided to interduce a "casualty card application". An application was developed in a two week period (!). Each ALS provider receives a handheld tablet with the application installed. After filling in the casualty data in the application, the data can be transferred to the next echelon of care through NFC (a brief approximation of the handheld computers, along the chain from point of injury to the hospital). The last link in the chin- at the hospital level- synchronizes with the electronic medical record and our trauma registry, thus allowing for better care and more rapid learning. Within days we started receiving the information from the hospitals. In the next update I will share what we learned from the process.

LTC Ofer Almog, MD, MHA
Head, TCMB
IDF MC