

# Prehospital Trauma Experience of the Israel Defense Forces on the Syrian Border 2013-2017.

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## **Abstract**

### **BACKGROUND:**

The Israeli Defense Force Medical Corps (IDF-MC) is routinely collecting pre-hospital data to establish a pre-hospital registry. Since February 2013, Israel has been providing medical care to Syrian refugees. This unique humanitarian aid begins in pre-hospital settings and typically culminates in Israeli civilian hospitals. This report describes the accumulated experience of the IDF-MC to provide Syrian refugees with prehospital treatment.

### **METHODS:**

Care provided by IDF-MC medical teams, including pre-hospital casualty care, is regularly documented and after-action reports are conducted. Records of casualties arriving at the Israeli-Syrian border from February 16th, 2013 to December 31st 2017 were prospectively extracted from the IDF Trauma Registry. Patients who did not have a casualty card were excluded. The database included demographic information, injury signature and treatment given.

### **RESULTS:**

During the study period, 2785 Syrian casualties were treated, of whom 2339 were trauma victims. The most common mechanism of injury was penetrating (60.4%). Pre-hospital life-saving interventions included 127 endotracheal intubations, 30 cricothyroidotomies, 55 chest decompressions, and 58 tourniquets for extremity hemorrhage control. Remote Damage Control Resuscitation included reconstituted freeze-dried Plasma (FDP; n=75) and tranexamic acid (TXA; n=222 casualties) with no adverse effects.

### **CONCLUSIONS:**

The experience of the IDF-MC teams in caring for civilian casualties along a hostile international border is unique. In this capacity, the IDF-MC has demonstrated effectiveness in providing life-saving and resuscitative interventions including TXA and FDP. In this experience, tourniquets have been effective in controlling hemorrhage when applied early and endotracheal intubation and cricothyroidotomy have provided effective airway options in select patients. Prehospital combat casualty care presents a significant challenge both in terms of providing adequate care and in terms of data collection and analysis. The experience described in this paper is one example of effective, ongoing pre-hospital data gathering process. Efforts to provide medical relief to victims of the

Syrian civil war continue to this day. While we hope for a better future, as long as these lessons continue to accumulate, it is our obligation to use them to support improvement of trauma care and hopefully save more lives.

**LEVEL OF EVIDENCE:**

Study type - therapeutic III.