

# Abstracts of Oral Presentations-WADEM Congress on Disaster and Emergency Medicine 2019

## AUSTERE SURGERY

### Surgical Procedures Performed by Emergency Medical Teams in Sudden-Onset Disasters: A Systematic Review

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**Aim:** To describe the types of surgical procedures performed by emergency medical teams (EMTs) with general surgical capability in the aftermath of sudden-onset disasters (SODs) in low- and middle-income countries (LMICs).

**Methods:** A search of electronic databases (PubMed, MEDLINE, and EMBASE) was carried out to identify articles published between 1990 and 2018 that describe the type of surgical procedures performed by EMTs in the impact and post-impact phases a SOD. Further relevant articles were obtained by hand-searching reference lists.

**Results:** 16 articles met the inclusion criteria. Articles reporting on EMTs from a number of different countries and responding to a variety of disasters were included. There was a high prevalence of procedures for extremity soft tissue injuries (46.8%) and fractures (28.3%). However, a significant number of genitourinary/obstetric procedures were also reported.

**Discussion:** Knowledge of the types of surgical procedures most frequently performed by EMTs may help further determine the necessary prerequisite surgical skills required for the recruitment of surgeons for EMTs. Experience in basic plastic, orthopedic, urological, and obstetric surgery would seem desirable for surgeons and surgical teams wishing to participate in an EMT.

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### Training Australian General Surgeons for Humanitarian Emergencies: A Comparison Between Trainee Logbooks and Emergency Medical Team Caseloads

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**Introduction:** Emergency medical teams (EMTs) have helped to provide surgical care in many recent sudden onset disasters (SODs), especially in low- and middle-income countries (LMICs). General surgical training in Australia has undergone considerable change in recent years, and it is not known whether the new generation of general surgeons is equipped with the broad surgical skills needed to operate as part of EMTs.

**Aim:** To analyze the differences between the procedures performed by contemporary Australian general surgeons during training and the procedures performed by EMTs responding to SODs in low- and middle-income countries (LMICs).

**Methods:** General surgical trainee logbooks between February 2008 and January 2017 were obtained from General Surgeons Australia. Operating theatre logs from EMTs working during the 2010 earthquake in Haiti, 2014 typhoon in the Philippines, and 2015 earthquake in Nepal were also obtained. These case-loads were collated and compared.

**Results:** A total of 1,396,383 procedures were performed by Australian general surgical trainees in the study period. The most common procedure categories were abdominal wall hernia procedures (12.7%), cholecystectomy (11.7%), and specialist colorectal procedures (11.5%). Of note, Caesarean sections, hysterectomy, fracture repair, specialist neurosurgical, and specialist pediatric surgical procedures all made up <1% of procedures each. There were a total of 3,542 procedures recorded in the EMT case logs. The most common procedures were wound debridement (31.5%), other trauma (13.3%), and Caesarean section (12.5%). Specialist colorectal, hepato-pancreaticobiliary, upper gastrointestinal, urological, vascular, neurosurgical, and pediatric surgical procedures all made up <1% each.

**Discussion:** Australian general surgical trainees get limited exposure to the obstetric, gynecological, and orthopedic procedures that are common during EMT responses to SODs. However, there is considerable exposure to the soft tissue wound management and abdominal procedures.

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