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Presentation Title
Surgeon Experience in Afghanistan and Iraq: Improving Outcomes in Low Resource and Austere Surgery

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Abstract
The challenge of providing medical and surgical care in military operations is multi-layered, depending on the type of operation, the responses required, the medical rules of engagement, and the underlying circumstances upon which these are overlaid. Combat surgical care focuses on providing appropriate stabilization, resuscitation, and damage control procedures for injured soldiers, with the anticipated course being their evacuation rearward, through established levels of care, with speedy repatriation so that definitive care can then be accomplished. Conflict ops may also involve caring for injured local soldiers and civilians; other military responses include efforts of humanitarian or disaster relief.
Humanitarian emergencies complicate standard conflict (trauma) care, and natural disasters, famine, and disease outbreaks are characterized by the collapse of infrastructure and basic health services. Emergencies are superimposed on longstanding needs, and on extreme poverty. Over 95% of the world's refugees and displaced persons are in low or middle income countries, and disproportionately represented are the countries with high maternal, newborn and child mortality rates. The special considerations are (1) care of more vulnerable populations, such as women, children, and the elderly (2) lack of standard equipment and medications (3) the need to alter surgical strategies, perhaps using older or more radical techniques (4) the need to provide definitive solutions for local patients (5) the need to be cognizant of the local resources, and the ability of the local organisations to care for complex patients (6) these considerations need to be balanced with the absolute requirement for ethical treatment.
We have the opportunity to enhance our clinical capabilities to tailor our medical response and to achieve the best outcomes for low-income, high-risk populations. Civilian medical databases (MEDLINE) and published literature from multiple humanitarian organisations (EM-DAT, ICRC, UNHCR, WHO, Oxfam, World Vision, UN Dept of Peacekeeping Operations, World Bank, Global Humanitarian Assistance, CDC, MSF, Canadian Global Surgery, Canadian Network for International Surgery), as well as available military databases (JTTR) can be systematically reviewed to detail the most common surgical issues treated and procedures required.
Once the most common problems are identified, a data-collection tool adapted from those extant, or formulated based on these can be used to form a prospective dataset to identify our own most commonly encountered global/conflict surgical problems, and most beneficial/lifesaving interventions.
Collating and reporting annually will allow us to formulate a training plan directed to these specific needs, to teach the relevant core surgical skills (already identified by civilian humanitarian organisations) and to facilitate ongoing re-evaluation, modification and enhancement of these competencies, tailoring them to new urgent needs. Morbidity and mortality data can then be reviewed, with clinical responses to appropriate surgical interventions.
Finally, a longterm data review program will allow transition from individual/group responses to a broader application to guide medical and surgical response planning and resource allocation in the face of a wide variety of wartime and humanitarian crisis situations.