

State of Emergency Health in the Palestinian Territories

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Abbreviations:

CISEPO = Canada International Scientific Exchange Program

ED = emergency department

EMAP = Emergency Medical Assistance Project

EMED = emergency medicine education and development

ICD = International Classification of Diseases

IDF = Israel Defense Forces

NGO = non-governmental organization

OPT = occupied Palestinian Territories

Abstract

The Palestinian emergency healthcare system faces numerous difficulties in its efforts to develop and improve patient care. The Emergency Medical Assistance Project, a four-year, emergency health capacity-building project, is described in this report. The factors contributing to the current lack of in-hospital emergency care and the measures performed to improve the situation are highlighted. The authors surveyed 48 emergency healthcare providers in the West Bank and Gaza Strip on key emergency care development indicators and compared the level of emergency health development with those of Israel and the United States using a model of structured development criteria. Survey results and project observations provide a basis for future recommendations in education and infrastructure.

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Introduction

Disputes over sacred land have occurred between Jews, Christians, and Muslims for millennia.¹ Following the ensuing 50 years of troubled history, the Second Al-Aqsa Intifada “uprising”, that began in September 2000, has resulted in 3,972 Palestinian and 1,013 Israeli deaths.²

The Oslo Accord (1994) documented the Palestinian right to self-government within the occupied Palestinian Territories (OPT), specifically the West Bank and Gaza Strip (Figure 1). Through the Oslo Accord, Israel returned to the Palestinian National Authority (PA) the responsibility to provide health care to Palestinians living in the OPT. Palestinians who live in Arab East Jerusalem, which is considered under international law as still occupied but since being unilaterally annexed to Israeli West Jerusalem (and thus inaccessible to Palestinians living in the adjacent West Bank), are entitled to Israeli health insurance. In theory, the Palestinian National Authority health insurance covers all Palestinians in the Territories, not including Arab East Jerusalem. Palestinian health facilities include four levels of primary care, in addition to secondary and tertiary care. These facilities are provided through the Palestinian Ministry of Health (PA MOH), the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA), the Palestinian Red Crescent Society (PRCS), and a variety of local, private, non-governmental organizations (NGOs). The PRCS provides the majority of prehospital care in the West Bank and roughly half of such care in the Gaza Strip. In-hospital emergency care is provided almost exclusively through the PA MOH and NGO sector.

Emergency health for Palestinian civilians increasingly has become hampered during the Second Intifada. Frequent changes in senior leadership

PA = Palestinian National Authority

PA MOH = Palestinian Ministry of Health

PRCS = Palestinian Red Crescent Society

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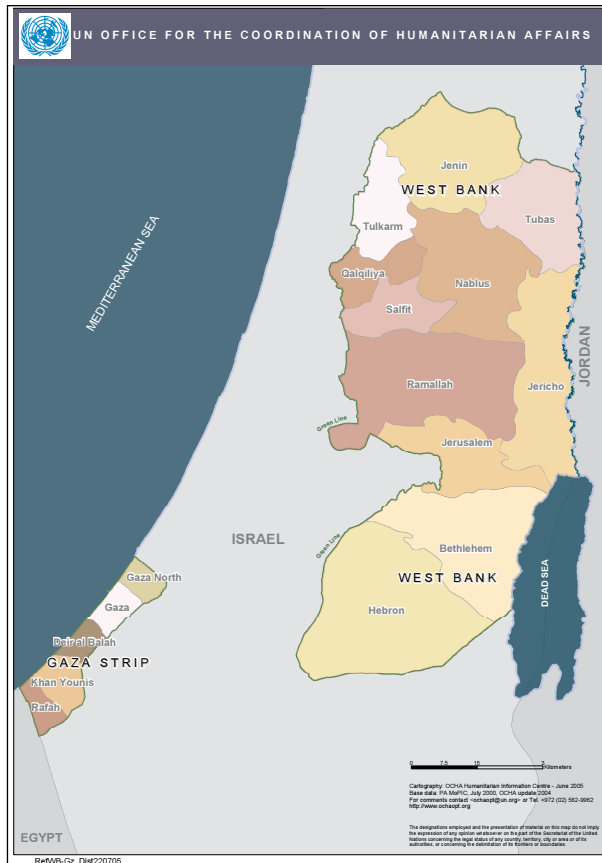


Figure 1—Map of the Gaza Strip (Republishing rights can be granted by the source only; Courtesy of ReliefWeb).

within the PA MOH have resulted in stilted progress toward improved emergency care. Monetary support from Arab nations is deficient.³ Prehospital access is collectively restricted or denied to Palestinians due to many factors. Principally, the complex web of checkpoints, road barriers, imposed curfews, and occasional closures of cities and towns imposed by the Israeli military restrict most Palestinians from timely and efficient access to hospital emergency services. Palestinian prehospital vehicles and equipment have been destroyed by the Israel Defense Forces (IDF) and prehospital personnel have suffered and continue to suffer interminable delays, harassment, injury, or death while transporting critically ill patients.⁴ At the emergency department (ED) level, care is plagued by innumerable problems, such as limited staff, security concerns, and lack of specialized training, supplies, and equipment. Armed Palestinians have been known to threaten their own EDs inadvertently. After-hours access to specialists remains limited, and referrals to hospitals within the OPT or Israel are hampered by the aforementioned checkpoints or the time-consuming and improbable attempts to obtain individual travel permits from the Israeli government. Referrals to specialized care centers are more problematic in Gaza than in the West Bank, since until recently, the former has been under absolute land, sea, and air control by Israel. In regard to patient care and healthcare worker

training, cooperation between Israel and the OPT has eroded. Foreign aid efforts seeking to address this specific gap are viewed by prominent advocacy groups, such as Physicians for Human Rights-Israel, as helping subsidize the occupation, since it prolongs the unacceptable and untenable humanitarian situation in the OPT.⁵

The Emergency Medical Assistance Project (EMAP) was developed in response to the ineffective state of emergency health during the second uprising. The well-being of the Palestinians was/is threatened by violence and economic or social dislocation. The aim of this project was to help restore their well-being and to sustain or strengthen their healthcare system. Prior to EMAP, there were a few funded international efforts to improve Palestinian emergency education and/or services. However, there remains little or no academic literature on the state of emergency health. The initiative, led by the Canada International Scientific Exchange Program (CISEPO), has continued to operate during the Second Intifada using a “Peace through Health” model to bring together Palestinians, Israelis, and Jordanians to jointly address shared health concerns.⁶ Similarly, efforts by the Harvard Medical International Center for Emergency Medicine have been made to bring together Palestinian and Israeli emergency medical providers through joint medical education.⁷ Nonetheless, only one Palestinian physician has US residency-level emergency medicine training and no current sustained effort exists to ensure continuing emergency medical or nursing education.

In this study, recent efforts to improve the state of Palestinian in-hospital emergency services through EMAP are described. The current state of emergency health was assessed by querying Palestinian stakeholders and analyzing the national state of emergency medicine using a standard evaluation tool. Comparisons were made with the state of emergency health care in the US and Israel. The latter, as an occupying nation, is responsible for the health of the occupied population under their obligation as signatory to the Fourth Geneva Convention, despite giving responsibility to the PA for providing health care, since the PA is unable to operate freely. Problems not addressed by the standard evaluation tool also were identified. If and when a Palestinian state comes to fruition, an emergency health system with fully trained providers should be in place.

Methods

The Emergency Medical Assistance Project was funded by the United States Agency for International Development (USAID), through CARE International, under a subgrant to the Center for Refugee and Disaster Response of the Johns Hopkins Bloomberg School of Public Health. Johns Hopkins University was tasked to assess the in-hospital emergency care apparatus and build capacity through sustainable, educational programs and quality of care interventions.

The initial educational project for EMAP was the introduction of the principles of emergency medicine and nursing through a comprehensive emergency medicine education and development (EMED) course covering 36 clinical topics using training-of-trainer (ToT) methodology. Expatriate clinicians mentored 63 senior Palestinian

Survey Question	Response n = 48	%
1. Support for triage in own ED	48	100
2. Triage can be implemented in one year	29	58
3. Support for improved patient charting methods in own ED	48	100
4. Improved charting can be implemented in one year	29	58
5. Triage should be the role of senior nurses	21	44
6. Triage should be the shared role of senior nurses and physicians	27	56
7. ICD-10 coding should be implemented	42	88
8. ICD-10 coding can be implemented in one year	19	40
9. Not sure if ICD-10 coding can be implemented in one year	15	31
10. ICD-10 coding is already in use in their ED	7	15
11. Continuing emergency education is required	47	98
12. Graduate EM or nursing training programs are required	48	100
13. ED-based quality improvement strategies and projects are required	47	98
14. ED-based injury surveillance is required	44	92

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Table 1—Key survey results of Palestinian emergency health stakeholders (ED = emergency department; EM = emergency medicine; ICD = International Classification of Diseases; n = number of respondents)

physician and nurse clinical leaders from 14 hospitals in the West Bank and Gaza Strip on teaching techniques and technical medical content. Trainers instructed 573 prehospital, nursing, and medical providers in 24 EMED courses.

Building on the EMED course, EMAP activities provided clinical continuing education mentoring for both leadership and administrative skills of ED managers. Triage, charting, and ED-based, electronic record keeping and quality improvement strategies were implemented in five of the largest EDs of the OPT. Also, EMAP provided teaching equipment and emergency health libraries to each of the five hospitals.

Regional meetings were held in Ramallah and Gaza City in June 2004. Bringing together Palestinian emergency providers from both territories was difficult due to IDF-imposed travel restrictions. Attending stakeholders were surveyed anonymously in writing, regarding the main goals of EMAP and the challenges facing the development of emergency health in the OPT. In addition, a structured assessment of the state of emergency health in the OPT was performed, based on the criteria developed by Arnold in 1999.⁸ These criteria assess: (1) the specialty status of emergency medicine; (2) the status of academic emergency medicine; (3) the status of ED patient care; and (4) the methods used for management of the ED. Sources of information included: (1) assessments of OPT EDs; (2) stakeholder surveys; and (3) full-time, expatriate emergency providers who had a local presence from 2002–2005. Results were compared with criteria from Israel

and the US. Criteria for Israeli and American emergency health were gleaned from personal knowledge, medical practice experience, and correspondence with Israeli emergency medicine leaders and published reports.^{9,10}

Results

Forty-eight respondents completed the written survey, including 21 nurses, 24 physicians, and three allied health workers. Among the respondents, 17% were nurses with emergency training. None of the physicians had any residency-level emergency training. No respondents refused to participate. Forty percent of all respondents had a general medicine or nursing background. Those with some specialty training were from internal medicine, surgery, or obstetrics and gynecology. Nurses in the West Bank and Gaza had mean values of 16 and 18 years of experience respectively, and physicians had 11 and 22 mean years of experience in the West Bank and Gaza, respectively.

Opinions regarding major areas of emergency development and the perceived likelihood of their development within one year are noted in Table 1. All questions were posed with reference to the respondent's own ED.

The status of emergency medicine in the OPT is analyzed in Table 2. This table also includes the status of emergency medicine in Israel and the US for comparison. The projected status of emergency medicine in the OPT (should EMAP goals succeed) is noted. A score of 1

	Current OPT	Israel	OPT in development	US
Specialty systems				
National organization	0	1	1	1
Residency training	0	1	0	1
Board certification	0	1	1	1
Official specialty status	0	1	1	1
Academic EM				
Specialty journal	0	1	0	1
Research	0	1	1	1
Databases	0	0	1	1
Subspecialty training	0	0	0	1
Patient-Care Systems				
Emergency physician source	0	1	0	1
ED director source	0.5	1	1	1
Prehospital care	1	1	1	1
Transfer system	1	1	1	1
Trauma system	0	1	0	1
Management Systems				
Quality assurance	0	0.5	1	1
Peer review	0	1	1	1
Total Score	2.5	12.5	10	15

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Table 2—Structured assessment of emergency medicine (EM) in the occupied Palestinian Territories (OPT) (ED = emergency department)

denotes presence, 0 denotes absence, and 0.5 denotes partial presence of emergency medicine criteria. A comparison of inputs that drive the development of emergency health services are summarized in Table 3.

Discussion

This assessment describes the current state of emergency health services and efforts to improve emergency health in the Palestinian Territories. Local emergency providers are keen to advance emergency service components such as triage. Prior to EMAP, triage did not exist in the OPT. Previously, patients, families, and armed militia would barge into a clinical area and demand to be examined, resulting in a disorderly mass of people and chaotic patient care. Urgent and non-urgent cases frequently would compete for the attention of the a single, overwhelmed clinician. Through EMAP training, a five-level triage system gradually is being implemented in order to facilitate patient flow and improve patient care. This is despite a variety of obstacles, including the inability to provide nursing staff for 24 hours/seven-days-per-week triage coverage.

Prior to EMAP, ED charting and coding was either deficient or non-existent. Recognizing that charting could improve emergent patient care and that chart data could provide the basis for quality improvement in patient care, a PA MOH-approved, unified ED chart and a patient care database were created. On one sheet of paper, the new chart unified triage, nursing, and medical data for individual patients. This format allowed data entry of International Classification of Diseases

(ICD)-10 Accident and Emergency codes in such a way that clinical quality improvement could be tracked and analyzed, and coding data could be used to inform resource management. For instance, the new chart and coding could track and analyze whether chest pain patients received an electrocardiogram and aspirin in a timely manner, thus allowing for the measurement of quality of care as well as resource utilization.

The experience with the EMED course indicated that there is a pressing need for more emergency education. There was strong support for EMED by the PA MOH, and the course also gained popularity with hospital directors and clinicians. Survey data revealed that continuing ED education was perceived by respondents as an unmet need. This is supported by a recent bi-factor analysis of the EMED course.¹¹ Although EMAP provided Advanced Cardiovascular Life Support (ACLS) instructor and provider courses and a lecture series on cardinal emergency presentations, there was unanimous recognition among providers and at the PA MOH that a formalized, graduate-level, emergency specialist training program was needed. Specialty training overseas is nearly impossible for most Palestinian clinicians due to the current impoverished state of the PA MOH and stringent visa and travel restrictions imposed by the Israeli government. Incentive for developing a cadre of emergency specialists will thrive when emergency medicine and emergency nursing are considered valuable and are given a more enhanced status within the Palestinian medical community. Thereby, trainees could be provided with the professional role models and mentors. Currently, the only formal graduate program in the OPT

Input factor	OPT	Israel	US
System driven by fear of war or terrorism	Absent	Present ⁸	Present
International professional support	Lacking	Present ^{8,9}	Not applicable
International in-coming supply of qualified physicians	Non-existent	Present ⁹	Present
Funded international training opportunities for faculty	Limited or non-existent	Present ⁸	Not applicable
Public freedom to access hospital based-emergency health services	Lacking or restricted	Present	Present
Public freedom to utilize prehospital EMS system	Lacking or restricted	Present	Present
Staff freedom to access work-site	Lacking or restricted	Present	Present
Public support for system development	Non-existent	Lacking ⁸	Present
National government financial support	Limited or non-existent	Present ⁸	Present
National professional meetings	Since January 2005	Present ⁹	Present
Consultant or specialized support	Limited or non-existent	Present ⁹	Present
Off-hours emergency specialist back-up available off-hours	Non-existent	Present ⁹	Present
Capacity for specialized care for children	Non-existent	Present ⁹	Present
Aeromedical support	Non-existent	Present ⁹	Present
Regular ACLS, ATLS, and PALS training	Limited or non-existent	Present ⁹	Present
Presence of other medical specialists to become first EH specialists	Small number	Present ⁸	Not applicable
Academic recognition for specialization	Non-existent	Limited	Present
Respect among other medical professionals for discipline	Very low	Low	High

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Table 3—Differences among input factors to emergency health services (ACLS = advanced cardiac life support; ATLS = advanced trauma life support; EH = emergency health; EMS = emergency medical service; OPT = occupied Palestinian Territories; PALS = pediatric advanced life support)

is the Emergency Nursing Diploma Program at Bethlehem University. Skepticism exists among Palestinians of the probability of meaningful change within one year in all areas of emergency care development. Addressing the root causes for this skepticism will be necessary for future programming.

Comparisons of the current state of emergency medicine in the OPT, US, and Israel using previously published criteria indicate that the state of EM in the OPT is relatively underdeveloped, particularly in contrast to its Israeli counterpart (Table 2). Arnold *et al* would characterize the US as “fully developed”.⁸ If all EMAP components are implemented, it is projected that the state of EM in the OPT could lead to a “developed” system, and thus, parity with Israel. Peace and security, a political resolution ending the occupation, and greater international support are necessary for this to occur.

The EM deficits identified do not elaborate on the challenges facing emergency health in the OPT. When emergency providers were surveyed anonymously using semi-structured questions, they noted several debilitating problems in establishing emergency medicine. In-hospital security problems—specifically overcrowded and the violent behavior that often accompanies dire medical emergencies and the population’s lack of understanding of the limits of the health system and medicine in general—disrupt efficient patient care and the ability to establish meaningful triage. Overcrowding is ubiquitous in Israel. Chronic staff shortages result in overworked

clinical staff that suffers from exhaustion and low morale. Low pay and/or episodic pay (sometimes no paychecks are issued for months) reflect the bankrupt condition of the PA MOH. Equipment often is unusable or non-existent and critical medications are in short supply or simply unavailable. For example, at leading public hospitals in the largest cities, no intravenous beta-blockers are available for tachycardic patients actively suffering acute myocardial infarction. Although computed tomography (CT) scanners are available in most tertiary EDs, they breakdown frequently, and repair can take weeks or months.

Other problems include: (1) a lack of standardized, evidence-based protocols for common emergency medicine problems; (2) a lack of a systematic communications network between prehospital and in-hospital providers; (3) a lack of emergency specialists to guide system development and education efforts; and (4) the tendency to rotate junior physicians through the ED without a permanent emergency medicine staff. Under such conditions, physicians stated that although they support the development of EMAP goals, they are working under “disaster” conditions daily and therefore, look for every possible “short-cut” to expedite patient care.

The ongoing occupation affects emergent patient care both directly and indirectly. The PRCS has documents examples of IDF delaying the transport of critically ill patients to higher levels of care. The new West Bank

Separation Barrier also is creating hardship, as moderately sized cities such as Qalqilya, Tulkarem, and Jenin are cut off from larger medical referral centers. Freedom of movement also would enhance the ability of emergency providers to deliver more dependable clinical services and allow these services to become more professionalized through specialty education, participation in international conferences, and networking with mentors and colleagues. Perhaps the more devastating effect of the Israeli occupation on Palestinian emergency care is the resultant distress placed on the Palestinian economy and the subsequent inability of the PA MOH to develop the self-sustaining capacity to provide emergency care at the level of the economically developed world. The developed state of Israeli emergency medicine should be an asset to the development of emergency medicine in Palestine if, and when, a two-state solution comes to fruition. In the meantime, Israel, as an occupying power (defined by the Geneva Conventions), should affirm its role in assisting the Palestinians in bringing emergency care to a level equal to their own. Many of the development inputs noted in Table 3 are affected directly by Israeli government policy and contribute to the disparity between Israel and the OPT. *De facto*, long-term international support through technical assistance is required to improve emergency medicine education and clinical emergency services until these disparities are addressed regionally.

Conclusions

Currently, the emergency healthcare system in the OPT is ill-equipped to meet the emergent medical needs of the Palestinian population. This situation is exacerbated by both internal and external factors, which dampen hope among practitioners and leaders in emergency health. However, there is initiative and energy among local stakeholders to change this situation. A multidisciplinary, international effort of EMAP has been made to improve this situation in partnership with the Palestinian MOH, NGOs, and academic institutions. Through EMAP, efforts have been made to improve key components of emergency medical care such as triage, medical documentation, surveillance, basic clinical skills, and leadership in management. However, there remains a great need for regional and international collaboration to continue to improve the provision of emergency health services to this population.

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It is suggested that international collaboration should focus on the areas of assistance described in this project, since the local partners are eager to improve these facets of their emergency health system. The US and the European Union have been consistent supporters of humanitarian initiatives within the OPT, and Jordan and Egypt have provided an academic home for other Palestinian medical and surgical specialties through board certification. These key stakeholders should be brought together for the focused goal of developing emergency medicine and nursing.

However, in order for emergency medicine development to occur, a few prerequisites must be in place. First, there is a need for stable leadership within the PA MOH that has the political will to develop and maintain the aforementioned aspects of emergency medicine and emergency nursing. It has been established that current providers already have the vision for emergency medicine development. Secondly, academic support from emergency medicine professional societies, including that of Israel, should offer opportunities for Palestinians to obtain training outside of Gaza, the West Bank, and Jerusalem. An initial infusion of emergency medicine training specialists with backgrounds in health system analysis may be needed to consult and work collaboratively with Palestinian emergency physicians, nurses, and Ministry officials who have demonstrated a commitment to emergency medicine development. The ultimate goal would be an emergency health system that has reached parity with Israel, and that can work cooperatively and collaboratively across the region, particularly in Jerusalem, where Israeli and Palestinian populations co-exist. To accomplish this, Israeli and Palestinian health providers must strive to meet international law standards in regards to health and civilian populations. Meanwhile, Arab and Western donors, along with professional organizations, should support mature and long-term funding and specialty development linked to transparent, apolitical, and common sense indicators that have been suggested herein.

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