Pediatric Emergency Medicine –
A New Discipline

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How does the discipline of Pediatric Emergency Medicine offers a remedy to the situation described?
800 B.C. – Elijah

A child of a Shunamite couple complained of a headache and died. The prophet Elisha prayed and then:

“Placed himself over the child. He put his mouth on his mouth, his eyes on his eyes, and his hands on his hands, as he bent over him. And the body of the child became warm. He stepped down, walked once up and down the room, then mounted and bent over him. Thereupon the boy sneezed seven times, and the boy opened his eyes.”  The Bible, Book of Kings
Pediatric Emergency Medicine

• What is Emergency Medicine?
  – Deals with providing emergency care for adults and children
• The goal: To provide children with the best possible emergency care
• Annual patients volume
  – Israel: 3 mil. Total/0.6 mil. children
  – USA: 136 mil. total/40 mil. children
  – Spain: 20 mil. total/6 mil. children, million
Pediatric Emergency Medicine

Why?

- Trauma: main cause of death in children
- Resuscitation: poor outcome; improved by early recognition of respiratory failure & shock
- Philosophy of ‘timely’ treatment, triage
- Comprehensive approach
- Prehospital component
- “Continuum-of-care” principle/philosophy

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Abstract:
This work describes the challenges encountered by the author in establishing and developing emergency medicine and, especially, pediatric emergency medicine as medical specialties in Israel. Many of the resources were largely based on the training in the United States, including a clinical fellowship in pediatrics, emergency medicine at the Children’s National Medical Center in Washington, DC, and a research fellowship at the National Institute of Health in Bethesda, MD. The article covers the clinical aspects of emergency care in Israel, its pediatric applications, administrative aspects, and new policies and guidelines. A major milestone was the submission of guidelines from the Pediatric Advanced Life Support course and other educational programs followed by the implementation of a computerized emergency medical record system and new emergency medical training programs.

Keywords:
Pediatric emergency medicine; training; children’s clinical medicine; traffic emergency department; continuing medical education; research and scholarly emergency medical services

Article in Press

Israel is a small country (23,495 km²) located along the eastern shore of the Mediterranean Sea, with a population of about 7.1 million. More than 90% of the population lives in urban areas, with the majority residing in the coastal plain. The country’s healthcare system is organized through three main branches: the Ministry of Health, the National Insurance Institute, and the National Health Insurance Fund. The Ministry of Health is responsible for the overall management of the healthcare system, while the National Insurance Institute provides health insurance for all citizens.

In recent years, the pediatric ED (PED) has become increasingly important in the context of the overall emergency department (ED) system, with the number of visits to the PED increasing significantly. The PED is a key component of the emergency medical system, providing rapid and effective care for pediatric patients, with a focus on injury prevention and resolution.

In 1990, the author returned to Israel from the United States to take up a position as a pediatric ED physician at the Hadassah Medical Center in Jerusalem. The PED was a small, understaffed unit, with limited resources and capabilities. In the early 1990s, the PED served as the medical and surgical emergency center for children, with a focus on trauma and critical care. In recent years, the PED has expanded its scope to include a wider range of pediatric conditions, with a focus on prevention and early intervention.

The challenges faced by the author in establishing and developing emergency medicine in Israel were significant, including funding, personnel, and infrastructure. The author’s work was supported by the Children’s National Medical Center in Washington, DC, and the National Institute of Health in Bethesda, MD, which provided a valuable resource for training and research.

In conclusion, the establishment of pediatric emergency medicine in Israel has been a significant milestone in the development of the country’s healthcare system. The author’s work has had a lasting impact on the development of emergency medicine in Israel, with a focus on prevention and early intervention, and a commitment to continuing education and research.
Our vision ...

“Provision of professional and efficient medical care, at the highest level, with an emphasis on the quality of service and sensitivity to the needs of the child and his companions”

Slogan: “Small Patients - Great Responsibility"
The Scope of Pediatric Emergency Medicine

- Clinical Aspects
- Academic
- Research
- Administrative
- Appropriate infrastructure
- Mass Casualty Incidents
PEM Concepts and Principles
(PEM vs. Pediatrics)

- Prioritizing patient care by severity/urgency
- Initiating therapy on the basis of the physiological/anatomical status
- Decision-making process under uncertainty
- Distinction between stable & unstable patients
- Ensuring efficient patient flow and minimal length of stay in the ED
- Approaching all patients and their families with respect and dignity considering the different cultural and beliefs
PEM Concepts and Principles

- A different differential diagnosis
  - We rule out severe conditions first
- Adhering to the continuum-of-care philosophy
- Hospitalization vs Discharge home
  - Experienced EP admit a smaller percentage
- Attention to continuous quality improvement
- 24h/day, 7 days/week, 365 days/year coverage of Eds by emergency physicians
Benefits of Establishing PEM

• Optimal patient care in a timely fashion
• Appropriate environment
  – Organized, provides support to the physical and emotional needs of our patients
• Patient satisfaction
• More cost-effective care
How does the development and recognition of PEM help improving patient care?

- Acquiring the necessary body of knowledge & skills (PEM curriculum, boards exams)
- Establishing standards of care
- Helps equality of emergency care
- Ensures appropriate infrastructure
  - Space/manpower/equipment/technologies
- Helps implementation of national regulations
What does it take to get PEM established?

- Clinical body of knowledge and skills
- Academic programs/medical education
- Research
- Lobbying - policy makers
- Public opinion leaders
- Public /press/media awareness of the need
- Official recognition by medical, academic and governmental authorities
Positive changes in Europe

- Pediatric Section at **EuSEM (2006)**
- **APEC** courses (2009)
- **REPEM** (research in European Pediatric Emergency Medicine, 2006)
- Recognition by UEMS of the **Curriculum for Pediatric Emergency Medicine**
- **PERN (2009)**
- **IFEM** guidelines for Pediatric Emergency Departments (2014)
Thank You