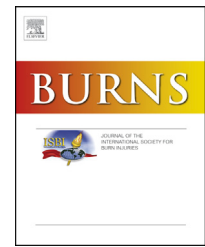


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Review

Burns in Israel, comparative study: Demographic, etiologic and clinical trends 1997–2003 vs. 2004–2010



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ABSTRACT

Objectives: To review hospitalised burn patients from 2004 to 2010 admitted to Israeli burn units and compare these result with data from 1997 to 2003.

Methods: Retrospectively, data was collected from the Israeli Trauma Registry (ITR) encompassing all burn admissions to Israeli burn units from 2004–2010 and compared to 1997–2003.

Results: Of the 5269 burn patients admitted from 2004 to 2010, 39.8% were non-Jewish. Infants under two years were the prominent age group (24.1%). Second to third degree burns 1–9% TBSA/first degree burns were 71%, second to third degree burns 10–19% TBSA were 16% and those 20% > TBSA consisted of 13%. Only 2.7% involved an inhalation injury. The average length of stay was 11.67 days and mortality rate 3.72%. All data was compared to the previous year's 1997–2003 and trends were identified.

Conclusions: Within Israel, high risk populations remain infants under two years of age, males and those from non-Jewish populations. National prevention strategies and campaigns are warranted to inform and educated parents of young children and those at risk of burns. Of note, advances in burn care and procedures might have contributed to a decrease in the length of hospital stay (LOS).

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1. Introduction

Despite major advancements in the field of burn care, burn remains a catastrophic event with profound physical and psychosocial ramifications with patients and their families enduring lengthy hospitalisation and rehabilitation [1]. Intrinsically, burn is a significant public health issue and is one of the leading causes of morbidity and mortality in the East Mediterranean region [2]. Within the state of Israel, it is reported that approximately 5% of all traumas admitted to hospital are burns [3] and therefore represent a significant resource intensive portion of healthcare expenditure. Israel currently trails both the United States and Europe concerning burn beds and burn centres per population [4]. Furthermore, per annum hospitalisation of burn injured patients in Israel vastly exceeds the amount required to justify the establishment of a burn centre as per the current American Burn Association guidelines [4].

As it stands, Israel has five burn units situated inside tertiary referral trauma centres strategically located in an area of approximately 20,770 km². These five hospitals vary greatly in the number of beds, availability and burn care practices. Consequently, in light of Israel's complex geopolitical reality, the Israeli healthcare system must be prepared to cope with victims of war and acts of terrorism as well as victims of natural and civilian disasters. Therefore the purpose of this study is to review and evaluate the data extracted from the ITR for the period of 2004–2010. The aim is to identify absolute risk for populations with the intention of revising and developing prevention strategies and existing policies and guidelines concerning the treatment of burns. Comparison will then be made with the previous data provided from 1997 to 2003. Consequently, it is important to first study and characterise the population of burn victims in Israel and focus on relevant

demographic, etiologic and clinical data that is fundamental in establishing such prevention strategies and goals to improve current burn care practices in Israel.

2. Methods

Data was analysed for 5269 consecutive patients with burns admitted for at least one day to one of the five major hospitals with burn units in Israel: Sheba (Tel Hashomer), Hadassah (Jerusalem), Soroka (Beer Sheva), Rabin (Petah Tikva), and Rambam (Haifa) during a seven year period (2004–2010). Data was retrieved from the records of the ITR which is coordinated by the National Center for Trauma and Emergency Medicine Research at the Gertner Institute for Epidemiology and Health Policy Research, at the Sheba Medical Center in Tel Hashomer. The registry collects data pertaining to demographic and clinical data including the aetiology, pre-hospital care, depth and size of burn, emergency management, acute and surgical interventions performed.

Data analysed included:

- Demographics of the patient's population.
- Aetiology of injury.
- Clinical characteristics and associated trauma.
- Operations.
- Admission to intensive care unit (ICU).
- Length of stay.
- Mortality.

All data was compared to similar data of previous years 1997–2003.

Statistical analysis included a preliminary examination of the relationship between variables. The relationship between

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