BURNS IN SWEDEN: TEMPORAL TRENDS 1987-2010 (176)

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Introduction: The purpose of this study was to investigate the basic epidemiology of burn patients admitted to hospitals in Sweden and to examine temporal trends in burns during the last three decades.

Methods: Retrospective data of burn patients treated at Swedish hospitals, in the period January 1 1987-December 31 2010, was obtained from the Swedish National Board of Health and Welfare. Patients with primary or secondary diagnoses of burns (ICD-9/10 codes) were included, reviewed, and statistically interpreted in terms of gender, age, incidence, mortality at hospital, and length of stay. Absolute numbers, age-standardized incidence rates (admissions per million population) and mortality rates (deaths per million admissions) were calculated and statistically analysed for trends using Poisson regression (incidence rate ratios).

Results: A total of 30479 burn patients were admitted to hospitals due to burns. The absolute number of admissions declined by 42% (95% CI: 39-44). A highly significant reduction by 45% (95% CI: 38-51) in the age-standardized rate (admitted per million population) over the years was seen. The decrease was significant for both genders. Female 33% (95% CI: 22-42) and male 50% (95% CI: 44-54). Children aged 0-4 years (n = 8308) were most likely to be admitted to hospital (27%). The median length of stay shortened over time (p < 0.0001). There was an overall significant reduction in deaths at hospital per 1000 admissions over time (p < 0.0001).

Conclusions: There was a significant reduction in both absolute numbers and in the age-standardized morbidity rate due to burns. There was also a significant reduction in mortality at hospital, and length of stay. We believe that the improvements are due to a combination of preventive measures, improved treatment protocols, and an expanding outpatient strategy. However, the overall decreases hide/mask variations occurring in different age groups. Understanding these trends and the relationship between the age-standardized morbidity rates and the actual number of admissions that occur can provide valuable insight in the design of prevention measures and dimensioning of emergency and health care.