

Impact of first-aid on clinical outcome of large burns

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Introduction: Australia and New Zealand Burns Association (ANZBA) recommend giving first-aid to all burns within three hours of the injury by applying a minimum of 20 minutes of cool running tap water to the burn wound. Many animal studies have shown the benefits of first-aid on burn wound healing and scarring. The aim of this study is to assess the clinical outcome of first-aid in adult patients with large burns.

Methods: A database of all adult patients admitted to Concord Hospital burns unit in Sydney from 1/1/07 to 31/12/12 with burns equal or greater than 20% total body surface area (TBSA) was analysed.

Results: Of the 279 patients recorded 140 received adequate and 139 received inadequate first-aid as per ANZBA guidelines. Inadequate first aid was more likely in older patients (73%) and those with TBSA > 50% (63%). The inadequate group has a significant increase in: hospital length of 36.4 vs 27.5 days ($p=0.05$), ICU length of stay 9.9 vs 6.1 days ($p<0.01$) and wound infections 18% vs 12.9% ($p<0.05$). There was a relationship between inadequate first aid and poorer outcome in mortality 18.7% vs 3.6% ($p=0.16$).

Discussion: Despite the widespread recommendation worldwide for the use of first-aid in burns this is the first review of first-aid outcome in adult patients with large burns and shows only half the patients transferred had received adequate first aid as per ANZBA criteria. This study further suggests that first-aid reduces mortality and the hospital and ICU length of stay and the rate of wound infections.

Conclusion: This study provides evidence for continued use of first-aid in large burns and illustrates the need further research in this area.

Key Words

First aid, Large Burns, Outcome

Nominated Stream for Oral Presentations

- Medical
- Nursing
- Allied Health
- Scientific

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- Care
- Prevention
- Research