Burns through the ages: A Comparative Review of Chemical burns at the Tasmanian Burns Unit

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Background:

- Although accounting for only a small percentage of total admissions to hospital for burns, chemical burns require special consideration due to their potential for delayed presentation and progression of tissue destruction, and these burns frequently require surgical intervention.
- There has been an ongoing need for increased awareness and education about the risks of chemical burns and their management which have previously been outlined in many Burns centres.
- Ricketts and Kimble (2003) carried out a review of 31 patients with chemical injuries requiring inpatient admission between 1989-1999 at the Tasmanian Burns Unit, Royal Hobart Hospital.
- This study concluded that widespread inexperience in the treatment of chemical injuries highlights the potential for greater levels of knowledge, which is particularly apparent in the early management of these injuries.

Method:

- A review of 42 patients with chemical burns cases requiring inpatient admission between 2008-2018 at the Tasmanian Burns Unit, Royal Hobart Hospital.
- The results of this review were then compared with the findings of Ricketts and Kimble (2003).

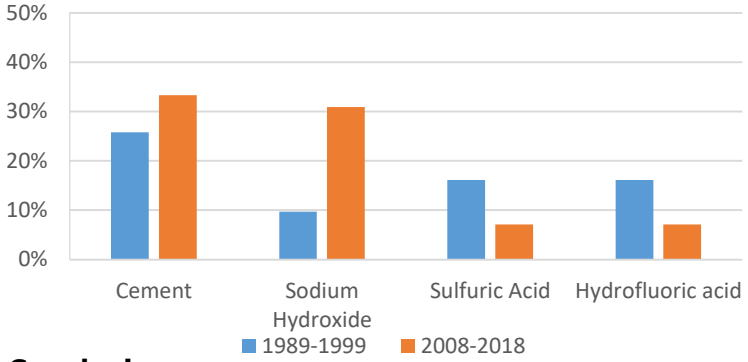
Results:

	1989 - 1999	2008 - 2018
Total patients	31	42
- Male	26	31
- Female	5	11
Mean age	32	38
Mean % TBSA	3.4%	2.2%
Length of stay (days)	9	5.5

In comparison to the data collected by Ricketts and Kimble (2003)

- Minimal change in location the injury occurred, with 50% occurring in a domestic, and 38% occurring in an industrial setting.
- There were more burns caused by cement and Sodium hydroxide, and less caused by sulfuric and hydrofluoric acids.
- The upper and lower limbs were involved in 79% of cases, with the face being involved in 24% of cases.
- Management of injuries continued to consist of various surgical and conservative management options which include debridement and split-thickness skin grafting as well as various dressings.

Proportion of chemical burns by aetiology



Conclusion:

- In comparison with the findings of Ricketts and Kimble (2003) there appears to be ongoing potential in both community and professional education for the prevention and management of chemical burns, with an emphasis on education and early management.

References:

1) Ricketts S and Kimble F, 2003. 'Chemical injuries: the Tasmanian burns unit experience'. *ANZ J Surg* 73 (1-2): 45-48