A 10-year review of burns treated at the QLD Adult Burns Centre

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Background

The last epidemiological review of adult burn injuries in Queensland was 15 years ago[1]. It is important to have updated data for this cohort so effective burns services can be maintained, and a base can be established for assessing the impact of new treatments and initiatives, such as the establishment of the Skin Culture Centre and the introduction of the National Injury Insurance Scheme Queensland (NIISQ).

Aims

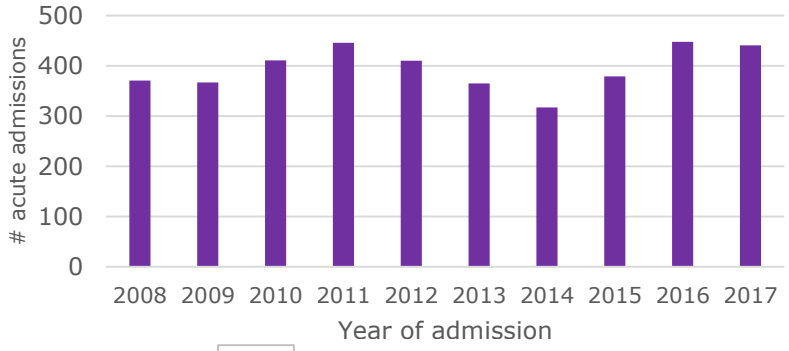
To describe the incidence, demographics, injury, acute treatment factors and acute care outcomes of adult burn patients admitted to the RBWH Burns Unit between 2008 and 2017.

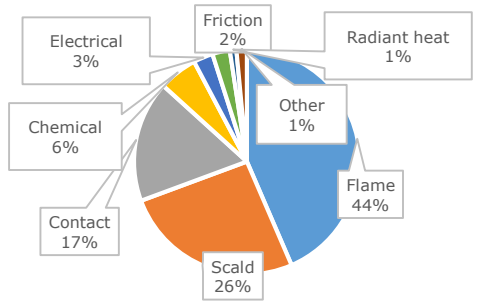
Method

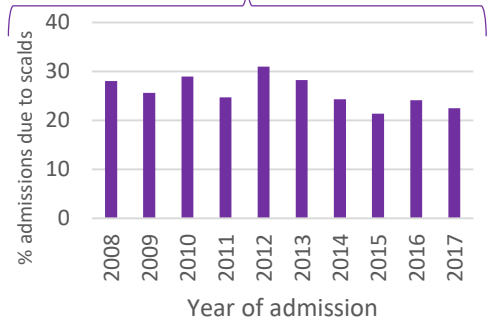
A secondary analysis of data collected by the RBWH Burns Unit was undertaken on new acute adult burns patients admitted to the RBWH Burns Unit from 01 Jan 2008 to 31 December 2017.

Results

- 2008-2017: **3,955** acute burn admissions
- 72% Male (Median age= 36; IQR=24-51)
  - **Significant change in median male age** (2008=34; 2017=39; Kruskal-Wallis $\chi2=26.5$, p=.002)







- 44% of all burn admissions were flame related, followed by scalds (26%) & contact burns (17%)
- **Significant change in % of burn admissions due to scald** over time (2008=28%; 2017=22%; $\chi2=17.8$, p=.038)
- 20% of burns were either motor vehicle or work-related

Results

- 43% (1,080) had a physical or mental health comorbidity
- 66% (2,599) had surgery (Range=1 to 24 operations)
  - **Significant change in surgery rate per year** (2008=61%; 2017=78%; $\chi2=74.6$, p<.001).
  - No significant change in median number of operations per patient per year
- Median length of acute care (LOS) = 7 days (IQR=2 -14)
  - **Significant change in median LOS** over the 10-year time frame (2008=9 days; 2017=5 days; Kruskal-Wallis $\chi2=60.48$, p<.001)
- 11% (452) had an ICU admission; no significant change in rate of ICU admission over the 10-year time frame
- There were 70 (1.8%) deaths; **No significant change in mortality rate** over the 10-year time frame

Conclusion

Compared to the last review of burns in QLD[1], contact burns have increased and flame-related burns have decreased. Mortality decreased from 2.1% (1997-2003)[1] to 1.8% (2008-2017). These finding are relevant to clinicians and trauma care services within Queensland, as well as to external key stakeholders such as WorkCover and Insurance Regulators.

[1]Pegg SP. Burn epidemiology in the Brisbane and Queensland area. Burns 2005;31S:S27-31

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