

The cost of Self Immolation – 20 years of data from Royal Brisbane and Womens' Hospital

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Introduction

Treatment of burns often requires protracted hospital stay, Intensive Care Unit (ICU) admission, significant operative time and resources, as well as extensive Allied Health input equating to significant cost⁽¹⁾. Although previous studies have compared ICU cost for burns patients against non-burns patients and found no disparity⁽²⁾ there is a paucity of evidence comparing Self Immolation patients (severe, self inflicted burns with suicidal intent) to other burns.

Method

A retrospective review of all burns patients that were admitted to the Royal Brisbane and Women's Hospital, Queensland, Australia from 1997 to 2016 with self-immolations was performed. Length of hospital stay was determined from patient records and a literature review was used to identify the average Australian cost of a burns patients ICU and hospital inpatient unit stay.

Results

5814 patient were admitted to the Royal Brisbane and Womens' hospital Burns Unit between 1997-2016. Self Immolation patients compromised 2% of all burns admissions however 125 required ICU admission, representing 17% of all ICU admissions.

It is known the most significant burden of cost for Burns patients is length of hospital stay, and TBSA⁽¹⁾ both of which were significant in the Self Immolation patients. Over the 20 year period it is estimated Self imolators compromised 8% of all burns patients hospital days, and 24% of all ICU bed days. It was found 200,200cm² of Decellularised cadaver Skin were used in Self immolation patients, each unit at a cost of \$779 with a total of \$779,779AUD. Overall, ~ \$27,599,263.90 was spent on self immolation patients comprising 9% of all health care spending.

	Self Immolation	Other Burns
Total Ward Hospital Days	6216	8%
Cost	\$22,858,407.60	\$276,757,361
Total ICU Days	2245	9436
Cost	\$4,740,856.30	\$19,926,378.64
Total	\$27,599,263.90	9%
		\$296,683,739.64

Table: Comparison of cost of self immolations versus accidental burn over 20 year period



Average
1601 cm² of
Cadaveric
Allograft
used on Self
Immolators

Survival to Discharge - Self Immolators vs. Other Burns



Conclusion

Whilst Self immolation patients only contributed to 2% of total burns admissions to the RBWH Burns unit over the past 20 years it is estimated they cost ~9% of total cost based purely on length of Hospital stay and ICU admission. This confirms existing beliefs that although a small cohort, Self immolation patients consume a substantial proportion of burns health care resources.

References:

- (1) Ahn CS & Maitz PKM. 2012. The true cost of burn' Burns, 38(7): 967–974.
- (2) Patil, V et al, 2010, Do burns patients cost more? The intensive Care unit costs of burns patients compared with controls matched for length of stay and acutiy. Burns Care Res. 31(4) 598-602