

The Cost of a Large Burn

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A large total body surface area (TBSA) burn requires extensive management and reconstruction. The severity of these injuries and extensive reconstruction, often in unstable patients, can result in costly hospital admissions.

Aims

The aim of this study is to determine the actual cost of a large burn that was managed at Royal North Shore Hospital (RNSH) Acute Burn Service.

Methods

A retrospective case study was conducted on a patient who was admitted to the Burns, Plastics, Maxillofacial and Reconstructive Surgery unit at RNSH.

Following ethics approval, data was accessed via electronic medical records to determine the cost of management. Expenditures were calculated using a costing spreadsheet.

The Patient

A 39 year old gentleman was involved in a motor vehicle accident, in rural New South Wales, where he was trapped in the car for approximately 20 minutes. He sustained significant burns, unstable thoracic fractures, a small subdural haematoma and a dislocated hip.

The Burn

35% TBSA: 6% face and neck, 9% left upper arm, 4% anterior chest and 15% left lower limb.

Spectrum of Care

The length of stay was 94 days, including 48 days in Intensive Care. During inpatient management, he underwent 25 procedures, culminating in over 35 hours of surgical time utilising extended dressing, skin grafts and dermal substitutes (Integra®) in his treatment.

The care was provided by an extensive multidisciplinary team including Nursing, Surgical (Plastics, Orthopaedics, Ophthalmology), Medical (Infectious Disease, Endocrinology) and Allied Health (Physiotherapy, Occupational Therapy and Social work).

Cost Management	
Operations	\$166,080.34
Materials	\$108,617.31
Investigations	\$20,275.53
Medications	\$7,464.82
Staffing	\$89,206.11
Length of Stay	\$268,510.00
Total Cost	\$660,154.11

Conclusion

A large TBSA burn is a significant injury, requiring extensive multidisciplinary inpatient management. Subsequently, the cost of a large burn can be extremely high as the most significant costs were length of stay, operative management, materials and staffing. Further research is required to minimise the costs of large TBSA burns.







