

## Surgical needling for management of hypertrophic scars following burns injuries at Queensland Children's Hospital



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57 patients



94 occasions of service



180 procedures performed

### Background + Methods

Hypertrophic scarring following a burns injury is common and there is currently very little evidence demonstrating effectiveness of surgical interventions, especially in a Paediatric population. This project investigated the effectiveness of surgical needling on hypertrophic scar thickness in Paediatric burns patients. A retrospective chart review of all patients who had surgical needling for scar management through the Department of Paediatric Surgery at Queensland Children's Hospital from July 2018 – July 2019 was conducted. Ultrasounds were performed on the day of surgical needling as well as two months following the surgical needling and scar thickness measurements were compared for each site.



60% of patients who received surgical needling were female



6 years, 3 months

was the average age of the patient



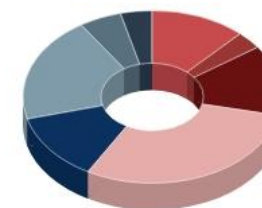
13.1%

average decrease in scar thickness post surgical needling

### Results

We identified 57 patients who received surgical needling at QCH between July 2018-July 2019. There were 94 occasions of service during which 180 individual procedures were performed. Pre-operatively, the average scar thickness was 3.6mm (range 1.6mm - 8.2mm) while post-operatively the average scar thickness was 3.2mm (range 1.1mm - 7.0mm). The average difference in scar thickness measured 2 months post surgical needling was a decrease of 13.1% ( $p > 0.05$ ).

### Sites of surgical needling



● Chest	11.9%	● Back	3.3%
● Face/Neck	13.2%	● Arm	29.8%
● Hand	12.6%	● Leg	19.9%
● Foot	5.3%	● Abdomen	4.0%

### Conclusions

These results suggest surgical needling is an effective tool in hypertrophic scar management following burn injury. More robust data collection is needed to ensure the decrease in scar thickness is significant in this population