

# Association of therapy time with contracture development and quality of life outcomes after burn injury

Plaza, A<sup>1</sup>, Puglisi, M<sup>1</sup>, Jones, A<sup>2</sup>, Hoskin, B<sup>1</sup>, Muller, M<sup>3</sup>, Rudd, M<sup>3</sup>

1 Department of Physiotherapy, Royal Brisbane and Women's Hospital, Brisbane (anita.plaza@health.qld.gov.au)

2 Department of Occupational Therapy, Royal Brisbane and Women's Hospital, Brisbane

3 Burn Surgeon, Professor Stuart Pegg Adult Burn Centre, Brisbane

As burn injury mortality rates have improved, the patient's perception of Quality of Life (QoL) has become a more meaningful measure of outcome. The aim of this study was therefore to investigate QoL outcomes after burn injury and highlight associations between therapy time provided, contracture development and QoL.

**Method:** All patients admitted to the Professor Stuart Pegg Adult Burn Centre (PSPABC) with burn injuries greater than 10% TBSA requiring >14 days to heal conservatively or any patient requiring skin grafting were followed prospectively. QoL measures (BSHS-A and BSHS-B) were collected at 3, 6 and 12 months post injury. Physiotherapy (PT) and Occupational Therapy (OT) time, Contracture rates and Return to work rates were also collected.

**Results:** 167 patients were included. Mean age was 39.5 years, mean %TBSA was 13.86% (range 0.5-85%) and mean hospital LOS was 24.53 days (range 1-362 days). There were significant improvements in BSHS-A and BSHS-B scores from 3 to 6 months, 6 to 12 months and 3 to 12 months ( $p=0.01$ ) 63% of patients had returned to some form of employment at 3 months post injury, with 81% returned at 12 months.

39 patients (23%) had contractures present at 6 months post injury. PT and OT Time were significantly lower in the contracture group vs non contracture group (PT - 5.3 vs 3.1 min/%TBSA/day and OT - 4 vs 1.2 min/%TBSA/day,  $p<0.001$ ). When age and %TBSA were accounted for, BSHS-A and B scores at 3 months were significant predictors for contracture development at 6 months (Odds ratio - 0.98 and 0.97 respectively,  $p<0.002$ )

**Conclusion:** Patients managed at the PSPABC had favourable outcomes with respect to contracture development, quality of life and return to work. QoL measures are useful in providing a more descriptive explanation of outcome after burn injury.

## Key Words

Quality of Life, Outcomes, Physiotherapy, Occupational Therapy, Return to Work, Contracture

## Nominated Stream for Oral Presentations

- Medical
- Nursing
- Allied Health
- Scientific

## Nominated Stream for Poster Presentations

- Care
- Prevention
- Research