



There's A Fraction Too Much Friction

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INTRODUCTION

Data from the Bi-National Burns Registry (Bi-NBR) Annual Report Year 2, July 2010-June 2011, shows that 5.7% of national admissions are due to friction burns. Data extracted from Bi-NBR showed that 27% of burns admitted the Royal Darwin Hospital (RDH) were due to friction.



AIM

To describe and compare the friction burns admitted to the RDH with other Burns Units participating in the Bi-NBR (Other Bi-NBR).

METHOD

2 year (2010-2011) retrospective database analysis of friction burns on the Bi-NBR with comparison to patients admitted to the RDH Burns Service.

RESULTS

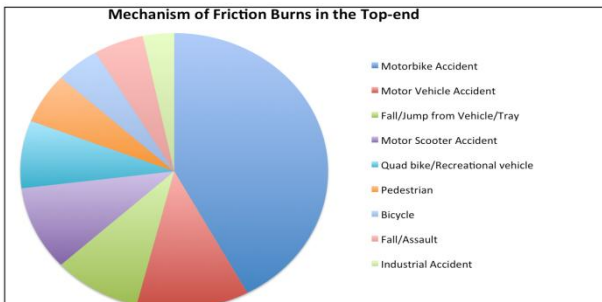
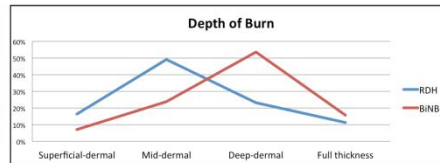
The rate of admissions for friction burns in the NT was 1 in 2,417 per annum, 100 times greater than for Other Bi-NBR (estimated at 1 in 220,000 per annum)

The peak age group for RDH was 16-29 years, whereas nearly two-thirds (65.5%, n=131) of the Other Bi-NBR friction burns were children (0-15). Both RDH (76.9%) and Other Bi-NBR (72.3%) had a strong male preponderance

Indigenous Australians were underrepresented at 13% (n=21) of friction burns despite making up 29% of the Northern Territory population.

Mechanism	RDH Paeds % (n = 17)	BiNBR Paeds % (n = 139)	RDH Adults % (n = 139)	BiNBR Adults % (n = 69)
Treadmill	11.76 (2)	60.43 (84)	0 (0)	2.90 (2)
Motor vehicle / motorbike	64.71 (11)	23.02 (32)	83.45 (116)	76.81 (53)
Bicycle	5.88 (1)	4.32 (6)	5.76 (8)	8.70 (6)
Other	17.65 (3)	6.47 (9)	10.07 (14)	11.59 (8)
Not Stated	0 (0)	5.76 (8)	0.72 (1)	0 (0)

Motor vehicle and motorbike accidents were overwhelmingly the most common cause of injury at RDH (87.6% n=127), whereas Other Bi-NBR were almost equally split between treadmill friction (43% n=86) and MVA/MBA (42.5% n=85).



The main source of referral in the Top-end was ambulance from the scene of injury 72.4% (n = 113) Inter-hospital transfers were the most common admission source nationally with 46.23% (n = 92) compared with 5.8% (n = 9) in the Top-end.

Alcohol intoxication was recorded in 35.1% cases in the Top-end compared with less than 5% in Other Bi-NBR.

TBSA	RDH Paeds % (n = 15)	BiNBR Paeds % (n = 123)	RDH Adults % (n = 127)	BiNBR Adults % (n = 64)
0.1-0.9	0 (0)	30.1 (37)	0 (0)	17.2 (11)
1-9.9	93.3 (14)	69.9 (86)	97.6 (124)	73.4 (47)
10-19.9	6.7 (1)	0 (0)	2.4 (3)	7.8 (5)

The extent and depth of burns appear comparable for RDH and Other Bi-NBR.

DISCUSSION

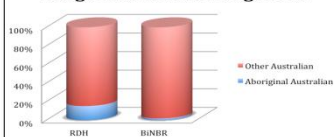
Friction burns were 100 times more prevalent at the RDH, the typical patient being a young male aged 16-29, involved in a transport related incident with a significant chance of alcohol being involved.

Some of this difference may be explained by the inclusion of friction burns in the RDH that are managed by non burns units given that the majority are <10% TBSA .

The Bi-NBR has been a valuable tool to highlight significant regional differences for an isolated burns service.

Due to the tropical climate there appears to be a low rate of usage of Personal Protective Equipment when riding motorcycles/scooters in the Top End. This information will enable the RDH Burns Service to engage with riders groups to address this issue.

Indigenous vs Non-indigenous



Age Distribution

