

Burn injury in our region's Indigenous population

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Indigenous people are at increased risk of burn injury and may require more resources to treat their injury.

Burn injuries in our Indigenous population account for 31% of all burn admissions in our region although our Indigenous population makes up only 13% of our region's total population.

Inclusion criteria: Inpatient with LOS > 1 admitted between 2008 to 2017 inclusive with a Manitoban postal code

Type	N	tbsa	age	sex	indig	wpg	procedures	km
Mean	456	13.48	33.48	0.73	0.24	0.42	0.99	185.14
SD		14.62	23.85	0.44	0.43	0.49	1.56	261.01

Type	N	indig	los	tbsa	age	sex	wpg	procedures	distance to care
Mean	347	Non-Indigenous	17.39	13.29	36.71	0.73	0.49	0.94	111.52
SD		Non-Indigenous	21.29	14.7	23.77	0.45	0.5	1.47	173.29
Mean	109	Indigenous	23.19	14.08	23.18	0.74	0.19	1.16	419.51
SD		Indigenous	33.63	14.41	21.1	0.44	0.4	1.82	343.44
P Value			0.09	0.62	<0.0001			0.26	<0.0001



Data was collected from our regional burn unit registry and all burn injury in-patients, including both pediatric and adult patients, from the province of Manitoba were included.

Indigenous burn patients in our region are younger at the time of burn injury and while they have a similar TBSA, they have a considerably longer length of stay in hospital. In addition, flame injury was more common among Indigenous pediatric patients compared to non-Indigenous patients.

Indigenous patients are more likely to live in rural or remote locations that are far from burn care services and they are on average a farther distance away from these services compared to non-Indigenous patients. Distance from hospital creates unique challenges at discharge and repatriation to home communities.

Fitting a Linear Model to the Data: Adults Only, LOS < 150. Predicting Length of Stay with Other Variables

term	estimate	std.error	statistic	p.value
(Intercept)	-2.67	2.53	-1.06	0.292
age	0.13	0.05	2.92	0.004
tbsa	0.78	0.06	14.08	0.000
wpgTRUE	5.63	1.76	3.19	0.002
indigTRUE	9.67	2.66	3.64	0.000
wpgTRUE:indigTRUE	-15.12	4.95	-3.06	0.002

Our research suggests that further investigation into rural/remote Indigenous burn patient experiences could help reduce hospital length of stay in this population. Indigenous patient's experience with burn injury is complex and multifactorial and likely has influences beyond distance from burn centre.

Future research directions include gaining a better understanding of the experiences of these patients to inform home community repatriation strategies for Indigenous burn patients.