

Quad bike related injury hospitalisations in Queensland public acute hospitals between 2016 and 2020

Background

Quad bike-related crashes are still a major cause of accidental deaths and serious injuries on Australian farms. In Australia since 2011 there have been a 161 recorded quad bike deaths, including 24 children under 16 years of age (Safe Work Australia – current as at 18 March 2021)*. About 50% of these fatalities were workers and 11% were children aged 11 years or under. Rollover due to losing control of a quad bike was the leading cause of quad bike fatalities (Safe Work Australia)*.

It has been 5 years since an in-depth analysis of quad bike related injuries was conducted in Queensland. The following snapshot shows contemporaneous trends in Quad bike related injury hospitalisations in the most recent 5 years.

Key Findings

Between 01 Jan 2016 and 31 Dec 2020:

- 2,645 quad bikes related injury hospitalisations occurred in Qld public acute hospitals.
- Males aged between 15-24 years had the highest incidence.
- About 10% of hospitalisation in each year were work related and more than 20% were due to sports and leisure activities.
- Fracture was identified as the main injury (N=1,275, 48%).
- 77.6% of hospitalisations were funded by health service budget and 14.4% were covered by private health insurance.

Key Figures

Trends over time

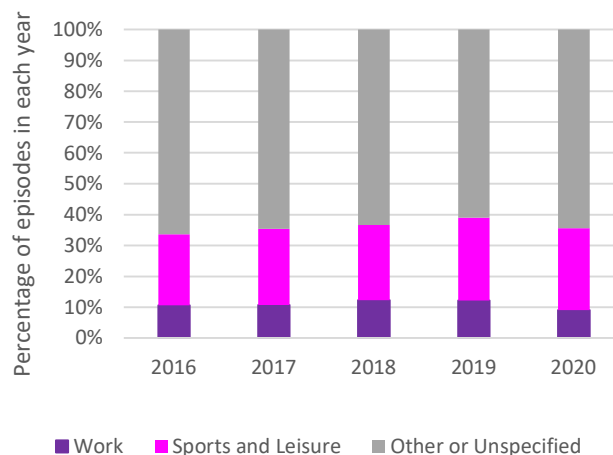
Activity/outcome	2016	2017	2018	2019	2020	Total
Episodes of care	517	412	614	511	591	2,645
Patient days	1,510	1,159	1,670	1,281	1,680	7,300
Average length of stay	2.9	2.8	2.7	2.5	2.8	2.8
% of died in hospital	0.4	0.5	0.2	0.4	0.5	0.4

*<https://www.safeworkaustralia.gov.au/quad-bikes>

Age and sex breakdown



Activity by year



Funding sources

Funding source	Episodes	
	N	%
Health service budget (not covered elsewhere)	2,053	77.6%
Private health insurance	381	14.4%
Worker's compensation	104	3.9%
Motor vehicle third party claim	56	2.1%
Self-funded	16	0.6%
Health service budget (reciprocal country patient)	11	0.4%
Department of Veteran's Affairs	10	0.4%
Department of Defence	10	0.4%

Injury severity

Injury severity	Number of episodes
Low threat to life	2,292
High threat to life	353
Total	2,645

Vehicle position

Vehicle position	Number of episodes
Driver	1,984
Passenger	391
Unspecified	270
Total	2,645

Nature of injury

Nature of injury	Number of Episodes
Fracture	1,275
Internal organ injuries	387
Open wound	277
Superficial & contusions	215
Other specified	200
Unspecified	179
Dislocation	63
Burn	15
Blood vessel	15
Crushing	10
Amputation	8

Body region

Body region	Number of Episodes
Extremities	1,296
Head&Neck all	660
Torso	490
Spine and upper back	193
Unclassifiable by body region	6
Total	2,645

Nature of injury and body region

Nature of injury	Extremities	Head & Neck all	Spine and upper back	Torso
Fracture	836	98	151	190
Internal organ injuries	-	243	17	127
Open wound	158	111	-	8
Superficial & contusions	76	63	-	76
Other specified	109	28	23	35
Unspecified	22	112	-	45

About Us

The *Jamieson Trauma Institute (JTI)* connects clinicians, researchers, government and industry partners striving to advance trauma prevention, research and clinical management, to deliver the best possible care for people who experience traumatic injury. JTI was established with funding from the Motor Accident Insurance Commission and Metro North Hospital and Health Service.

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DATA SCOPE AND DEFINITIONS

This overview was produced by the Jamieson Trauma Institute, in consultation with the Statistical Services Branch, Queensland Health using Queensland Hospital Admitted Patient Data Collection (QHAPDC) (derived subset of data tables comprising injury related hospital admissions from all public acute hospitals excluding Mater South Brisbane Hospitals).

Data Scope

- Includes episodes of admitted patient care with separation date between 01 Jan 2016 & 31 Dec 2020.
- Quad bike related hospitalisation is defined by ICD-10-AM principal diagnosis code between S00-T98 with first external cause code V86 or third external cause code U650.
- Includes acute care type episodes only (excludes newborns with qualified days).
- Data from 1 July 2020 are preliminary and subject to change.
- This overview presents raw counts and percentages, not age standardised rates, as data relate to episodes of care and not individual patients.