

# Off road vehicle injuries

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# What is an off-road vehicle?

- Two-wheelers- Trail bike, dirt bike, pee wees, mini bikes & scooters
- Three-wheeled vehicles
- Four-wheeled bikes



# Back ground



- Little data on off-road vehicle injuries in children in Australasia
- Off-road vehicles are among the top four registered models sold in Australia
- 8-11% of on farm injuries
- 11 fatalities under 15 years and 13 in the 15-29 age group (1989-1992)
- Work Safe Australia- Off-road vehicles no.1 cause of death on Victorian Farms

# Background

- Children <16 yrs 47% of reported injuries and 35% of all deaths
- Extremity #s, soft tissue injuries commonest injuries (38%-53%)
- Poor use of helmets
- Significant morbidity & mortality
- Current legal & regulatory standards unlikely to reduce injuries

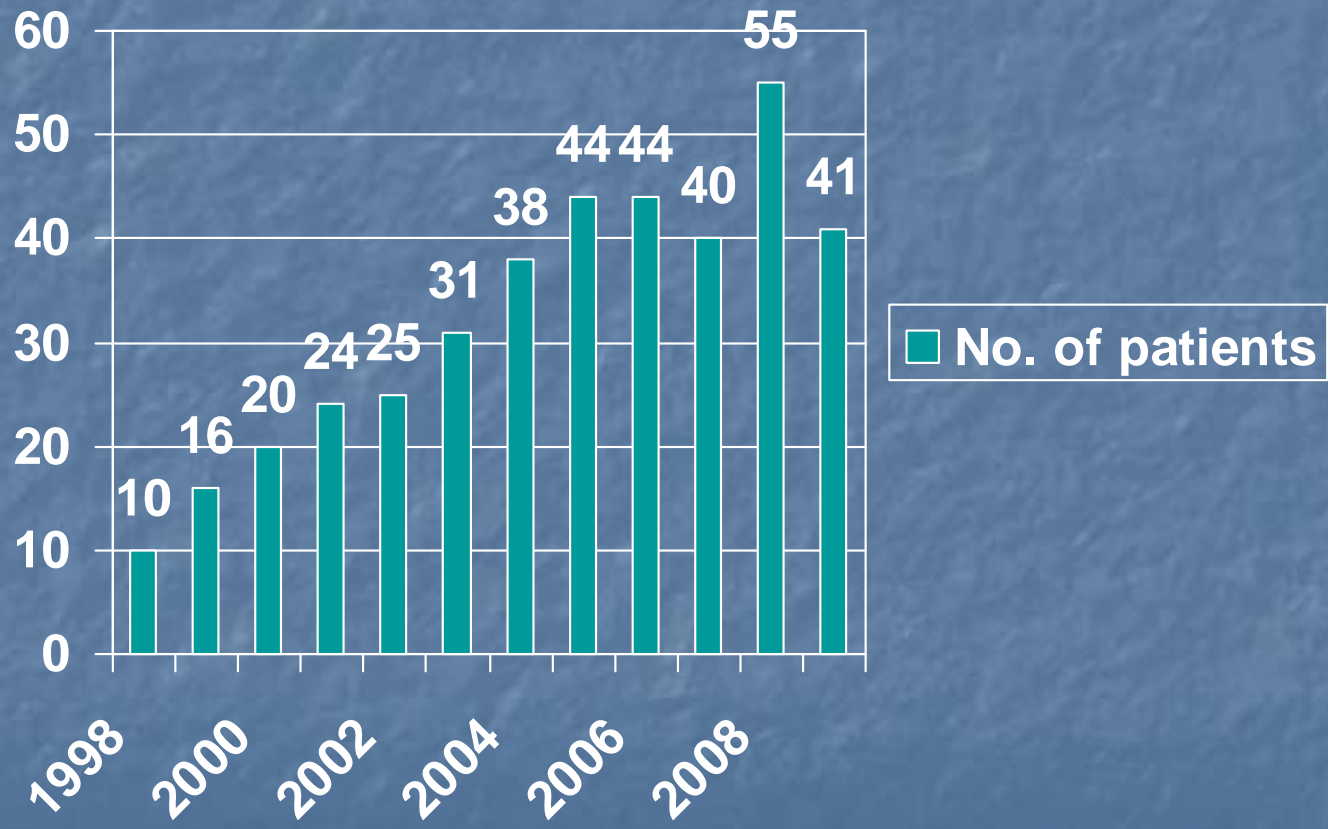


# The increasing problem of motorcycle injuries in children

Catherine A Bevan, Franz E Babl, Penny Bolt and Lisa N Sharwood

**Results:** The VEMD recorded 3163 patients aged  $\leq 16$  years presenting to EDs with motorcycle injuries during the study period; population-based rates of these injuries increased by an average of 9.6% per year (95% CI, 6.2%–13.1%;  $P < 0.005$ ). In the same period, there was a total of 167 motorcycle-related admissions to the RCH, increasing annually in line with statewide ED presentations. About a quarter of paediatric motorcycle accidents occurred in children aged under 10 years (VEMD, 22%; RCH, 27%) and most occurred off road (VEMD, 89%; RCH, 71%). At the RCH, median length of stay was 3 days (interquartile range [IQR], 1–7 days) and the median Injury Severity Score was 9 (IQR, 4–10); 41% of patients required an operation, 13% were admitted to an intensive care unit, and two died.

# CHW admissions



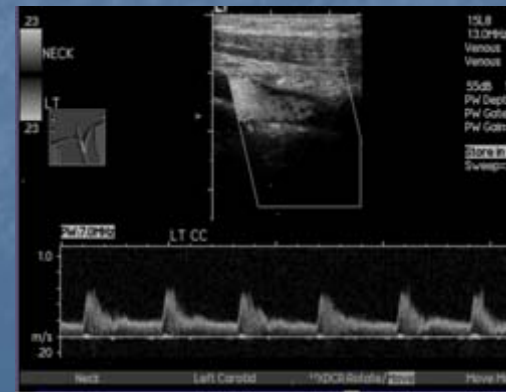
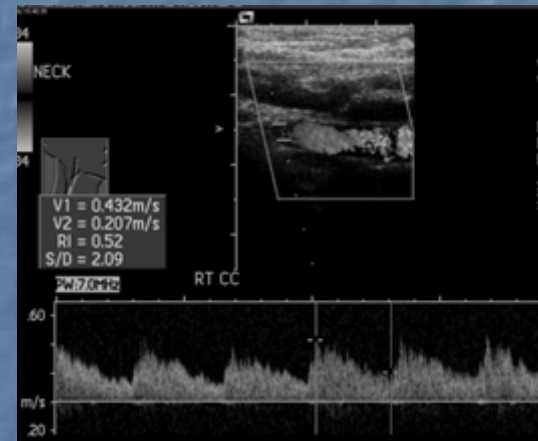
# Case 1

- Quad bike driver , no helmet
- Lost consciousness
- Severe head injury
- ICU for 7days
- Good physical recovery
- Ongoing behavioural changes
- Cognitive skills and learning affected



# Case 2

- 10 yr old
- Sitting on fuel tank in front of father and sister
- Bike hit a wire fence





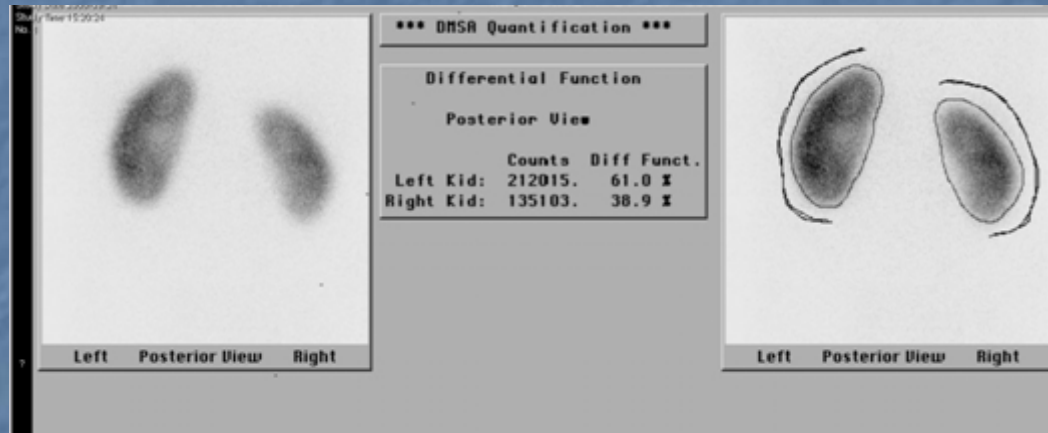
# Case 3

- 2yr
- Mini quadbike
- Dad sitting on the back
- Child accelerated & hit fence
- Injuries- # femur



# Case 4

- 10 yr old
- Pedal hit fence and impaled onto fence
- Renal injury



# Deaths

- 7
- All drivers
- 4 dirt bikes, 3 Quadbikes
- 3- no helmets, came off in 2
- All had extensive head injuries



# Safety issues

