

ABSTRACT SUBMISSION FORM

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Exploring the role of sex and gender on health research



CHR D 2020: Abstract Submission Form

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Title

Age and the Risk of Severe All-Terrain Vehicle-Related Injuries in Children and Adolescents: A Cross Sectional Study of Hospitalized Patients in Canada

Background

Thousands of children and adolescents are injured every year in Canada after using all-terrain vehicles (ATV).

Objective

We tested the hypothesis that youth under 16 years of age hospitalized following an ATV-related injury would be at a greater risk of mortality and severe injuries compared to older adolescents and young adults.

Methods

We tested the study hypothesis using a cross sectional design that included all youth and young adults (1-20yrs) admitted to hospitals in Canada between 2003 and 2014 for an ATV-related injury (n=12 043). The primary exposure was age less than 16 years. The outcome measures were mortality, head injuries, spinal cord injuries, and injury severity scores (ISS) over 25, all determined from ICD-10 codes. Multi-variable logistic regression models were used to calculate adjusted odds ratios (aOR) with 95% confidence intervals.

Results

Among 11,612 patients with complete data, 52% were <16 years, 79% were boys, 52% lived rurally and 55% were from central and western Canada. After adjusting for confounding, the odds of dying from an ATV-related injury was 1.9-fold higher (95% CI: 1.14 to 3.13) in older patients compared to younger patients. The odds of spinal cord injury (aOR: 2.66; 95% CI: 1.62-4.54) and an ISS > 25 (aOR: 1.48; 95% CI: 1.19-1.83) were also higher in older patients compared younger patients. Rates of head injury were not different between groups. Older patients remained in hospital one day longer (4.9 vs 3.9 days, p< 0.001) than younger patients.

Conclusion

In contrast to our original hypothesis, patients 16 to 20 years old are at an increased risk of death and severe injuries compared to youth < 16 years old. These data suggest that policies and public health messaging for reducing ATV-related injuries should also be targeted at riders within the legal age range.

Theme:

Clinical

Do you have a table/figure to upload?

No

Are you willing to participate in Goodbear's Den?

Yes

Presenter Status:

Residents

What was your role in the project?

Analyze Data

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