



## Original Article

# Transport accidents among children and adolescents at the emergency service of a teaching hospital in the southern zone of the city of São Paulo<sup>☆,☆☆</sup>

Carlos Gorios\*, Renata Maia de Souza, Viviane Gerolla, Bruno Maso, Cintia Leci Rodrigues, Jane de Eston Armond

Universidade de Santo Amaro, São Paulo, SP, Brazil

## ARTICLE INFO

## Article history:

Received 1 May 2013

Accepted 10 October 2013

Available online 14 May 2014

## Keywords:

Accident prevention

Traffic accidents

Accidents

## ABSTRACT

**Objective:** to describe the victim profile and circumstances of transport accidents involving children and adolescents who were attended at a teaching hospital in the southern zone of the city of São Paulo.

**Methods:** this was an individual observational case series study among patients up to the age of 19 years who were attended at a hospital in the southern zone of the city of São Paulo, state of São Paulo, Brazil, due to traffic accidents. The files notifying suspected or confirmed cases of violence and accidents (SIVVA files) covering January to December 2012 were analyzed.

**Results:** among the 149 cases notified, 64.4% related to males and 35.6% to females. The transport accidents were predominantly among males, irrespective of age. The main injury diagnoses were superficial head trauma (24.8%) followed by multiple non-specified trauma (36.4%), in both sexes.

**Conclusion:** transport accidents among children and adolescents occurred more often among males. The main transport accidents among the children and adolescents attended as emergency cases were caused by motor vehicles and motorcycles. Among the accident victims, the largest proportion was attended because of being run over.

© 2014 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda. Este é um artigo Open Access sob a licença de [CC BY-NC-ND](http://creativecommons.org/licenses/by-nc-nd/4.0/)

## Acidentes de transporte de crianças e adolescentes em serviço de emergência de hospital de ensino, Zona Sul da cidade de São Paulo

## RESUMO

**Objetivo:** descrever o perfil das vítimas e as circunstâncias dos acidentes de transporte ocorridos com crianças e adolescentes atendidos em hospital-escola na Zona Sul da cidade de São Paulo.

## Palavras-chave:

Prevenção de acidentes

Acidentes de trânsito

Acidentes

<sup>☆</sup> Please cite this article as: Gorios C, de Souza RM, Gerolla V, Maso B, Rodrigues CL, Armond JE. Acidentes de transporte de crianças e adolescentes em serviço de emergência de hospital de ensino, Zona Sul da cidade de São Paulo. 2014;49:391-395.

<sup>☆☆</sup> Work performed at Grajaú General Hospital, São Paulo, SP, Brazil.

\* Corresponding author.

E-mail: [gorios@terra.com.br](mailto:gorios@terra.com.br) (C. Gorios).

2255-4971 © 2014 Sociedade Brasileira de Ortopedia e Traumatologia. Published by Elsevier Editora Ltda.

Este é um artigo Open Access sob a licença de [CC BY-NC-ND](http://creativecommons.org/licenses/by-nc-nd/4.0/) <http://dx.doi.org/10.1016/j.rboe.2014.04.019>

**Métodos:** trata-se de um estudo individuado observacional de tipo levantamento de casos, com pacientes até 19 anos, que foram atendidos por acidentes de trânsito em hospital na Zona Sul da cidade de São Paulo, estado de São Paulo, Brasil. Foram analisadas as Fichas de Notificação de Casos Suspeitos ou Confirmados de Violência e Acidentes (SIVVA), de janeiro a dezembro de 2012.

**Resultados:** entre os 149 casos notificados, 64,4% correspondem ao sexo masculino e 35,6% ao feminino. Os acidentes de transporte são predominantes no sexo masculino, independentemente da idade. Os principais diagnósticos de lesão foram o trauma superficial da cabeça (24,8%), seguido por trauma múltiplo não especificado (36,4%) em ambos os sexos.

**Conclusão:** os acidentes de transporte entre crianças e adolescentes foram maiores no sexo masculino. Os principais acidentes de transporte entre as crianças e os adolescentes atendidos na urgência foram ocasionados por automóveis e motocicletas. Entre as vítimas de acidentes a maior parte foi atendida por atropelamento.

© 2014 Sociedade Brasileira de Ortopedia e Traumatologia. Publicado por Elsevier Editora Ltda. Este é um artigo Open Access sob a licença de [CC BY-NC-ND](#)

## Introduction

In Brazil, accidents form the so-called external causes of morbidity and mortality and are the main problem in this regard among children over the age of one year and among adolescents. Accidents are becoming an increasingly important public health problem and therefore greater depth of study on their characteristics, magnitude and impact on people's lives is required.<sup>1,2</sup>

It has to be recognized that hospital morbidity and mortality data present limitations in characterizing the epidemiological profile of accidents and acts of violence. Accidents that do not end in death or hospitalization are not picked up.<sup>3</sup>

From birth until the end of adolescence, the injury mechanisms relating to traffic accidents may vary greatly, either through the gradual increase in the body's resistance, or because of the many types of impact that children may be subjected to at different ages. Being run over is not a risk during the first year of life, just as falling off a motorcycle is not typical at school age.<sup>4</sup>

The term "accidents" is little used internationally in the literature, because of the mistaken interpretation that these are something that is random or unpredictable, and therefore unavoidable or impossible to prevent. Terms like "crash" and "injury" have been used in the English language since they seem not to transmit this connotation. In Brazil, the concept of transport accidents is used as an unintentional but avoidable event. This concept is important because it translates the non-randomness of the event and the possibility of identifying factors that provide conditions for and determinants of intervention and prevention.<sup>5</sup>

According to the definition of the Brazilian Ministry of Health (2001), unintentional and avoidable events cause physical injuries and/or emotional distress within the domestic setting or in other social environments such as work, traffic, school, sports or leisure activities.<sup>3</sup>

Data on hospitalization and death due to injuries in the age group up to 19 years have shown that the highest frequency is in relation to transport accidents. Safety issues in traffic have become a public health problem and they also

involve other sectors, which need to have a commitment toward prevention.<sup>6</sup>

The current view regarding physical injuries is that both intentional and unintentional injuries are considered to be preventable. Their frequency is variable, according to age, gender, social group and geographical region.<sup>6</sup>

The implementation of the information system for surveillance of violence and accidents (SIVVA) in the municipal healthcare network of São Paulo, Brazil, has made it possible to gather data on the locations of occurrence of violence and accidents and to reveal the groups that are more vulnerable and the consequences stemming from these events, so as to establish criteria for interventions that take into account this diversity. The system also enables construction of information on the nature of accidents and for characterizing them.<sup>3</sup>

In 2010, the United Nations Organization (UNO) proclaimed that the period from 2011 to 2020 would be the decade of action for traffic safety and asked countries to reach the target of stabilizing and reducing deaths caused by traffic, through implementing a plan of action aimed toward five intervention pillars: strengthening of management; investment in road infrastructure; vehicle safety; safety behavior among transport users; and pre-hospital and hospital attendance for trauma cases.<sup>7</sup>

In 2012, there were 2238 notified transport accidents among children and adolescents (up to 19 years of age) in the city of São Paulo: 49.1% involved pedestrians, 47.3% involved vehicle occupants and 3.7% were unknown. In the same year, in the southern zone of the city of São Paulo, where our teaching hospital is located, 149 cases of transport accidents involving children and adolescents were notified: 55.8% among pedestrians and 44.2% among motor vehicle occupants. Among cases of being run over in the city of São Paulo, 55.9% were caused by motor vehicles. In our teaching hospital, among the cases of being run over that were attended, 51.2% were due to motor vehicles.

With regard to accidents, according to the characterization of the victim, 46.1% were drivers; while according to the type of vehicle, 43.6% were motorcyclists and 48.2% were on bicycles.

It was not possible to assess the use of helmets and seat belts, or the location of the victim (front or rear seats) in motor

Download English Version:

<https://daneshyari.com/en/article/2708217>

Download Persian Version:

<https://daneshyari.com/article/2708217>

[Daneshyari.com](https://daneshyari.com)