



Trends in childhood trauma mortality in the fast conomically developing State of Qatar

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Abstract

Background: The aim of this study was to explore the trends in injury mortality in children aged 0-18 years in the State of Qatar. No such study has been conducted previously in Qatar.

Methods: Univariate statistical analysis was used in this retrospective descriptive study. A total of 2934 children aged 0-18 years who died due to injuries in the period of 1 January 1993 to 31 December 2007 were studied.

Results: The leading causes of death were road traffic injuries (RTIs) (71.3%), drowning (9.3%) and accidental falls (6.0%). Injury death rates were higher in citizens (57.7%) than in non-citizens (42.3%). The children of 15-18 years old had the highest frequency of injury deaths (34.4%), followed by children of 10-14 years old (21.3%).

The mortality rate of RTI per 100 000 population increased remarkably in the year 2005 compared to previous years.

Conclusions: The present study suggests that RTI is a major cause of childhood death. Injury mortality is higher in boys than in girls. During the period of 1993-2007, there was a dramatic increase in childhood mortality caused by RTI. This study highlights the burden of RTI caused mortalities in children, which requires immediate action.



Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant haemorrhage (CRASH-2): a randomised, placebo-controlled trial

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Abstract

Background Tranexamic acid can reduce bleeding in patients undergoing elective surgery. We assessed the effects of early administration of a short course of tranexamic acid on death, vascular occlusive events, and the receipt of blood transfusion in trauma patients.

Methods This randomised controlled trial was undertaken in 274 hospitals in 40 countries. 20 211 adult trauma patients with, or at risk of, significant bleeding were randomly assigned within 8 h of injury to either tranexamic acid (loading dose 1 g over 10 min then infusion of 1 g over 8 h) or matching placebo. Randomisation was balanced by centre, with an allocation sequence based on a block size of eight, generated with a computer random number generator. Both participants and study staff (site investigators and trial coordinating centre staff) were masked to treatment allocation. The primary outcome was death in hospital within 4 weeks of injury, and was described with the following categories: bleeding, vascular occlusion (myocardial infarction, stroke and pulmonary embolism), multiorgan failure, head injury, and other. All analyses were by intention to treat. This study is registered as ISRCTN86750102, Clinicaltrials.gov NCT00375258, and South African Clinical Trial Register DOH-27-0607-1919.

Findings 10 096 patients were allocated to tranexamic acid and 10 115 to placebo, of whom 10 060 and 10 067, respectively, were analysed. All-cause mortality was significantly reduced with tranexamic acid (1463 [14.5%] tranexamic acid group vs 1613 [16.0%] placebo group; relative risk 0.91, 95% CI 0.85–0.97; $p=0.0035$). The risk of death due to bleeding was significantly reduced (489 [4.9%] vs 574 [5.7%]; relative risk 0.85, 95% CI 0.76–0.96; $p=0.0077$).

Interpretation Tranexamic acid safely reduced the risk of death in bleeding trauma patients in this study. On the basis of these results, tranexamic acid should be considered for use in bleeding trauma patients.

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Four-country surveillance of intestinal intussusception and diarrhea in children

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Aim: Establishment of baseline epidemiology of intussusception in developing countries has become a necessity with the possibility of reintroduction of rotavirus vaccine. The current study assessed the seasonal trend in cases admitted with intussusceptions and dehydrating acute watery diarrhoea in children aged 2 months to 10 years.

Methods: In a prospective surveillance study, teaching and research hospital sites in India (Lucknow and Nagpur), Brazil (Fortazela), Egypt (Ismailia) and Kenya (Nairobi) established a surveillance where a network of hospitals with surgical facilities catered to a reference population of about 1–2 million for reporting of intussusception. One large hospital per site also recruited admitted cases of acute watery diarrhoea.

Results: From April 2004 to March 2006, 173 and 2346 cases of intussusception and diarrhoea, respectively, were recruited. Cases of intussusception had no apparent seasonality. Most cases of intussusception (61.3%) (107/173) were in the ₁ year age group, with males comprising 68.8% (119/173) of all cases. Hospital mortality of



intussusception was 4.2% (4/96). Cases of diarrhoea peaked in March, with 56.6% (1328/2346) of admitted cases being males. Majority (83.1%) of cases of diarrhoea had

received antibiotics, and the hospital mortality was 0.8% (18/2280).

Conclusion: Intussusception in the four participating countries exhibited no seasonal trend. We found that it is feasible to establish a surveillance network for intussusception in developing countries. Future efforts must define population base before the introduction of rotavirus vaccine and continue for some years thereafter.

Key words: diarrhoea; intussusception; rotavirus; seasonality.

Global childhood unintentional injury surveillance in four cities in developing countries: a pilot study

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Abstract

Objective To determine the frequency and nature of childhood injuries and to explore the risk factors for such injuries in low-income countries by using emergency department (ED) surveillance data. **Methods** This pilot study represents the initial phase of a multi-country global childhood unintentional injury surveillance (GCUIS) project and was based on a sequential sample of children < 11 years of age of either gender who presented to selected EDs in Bangladesh, Colombia, Egypt and Pakistan over a 3–4 month period, which varied for each site, in 2007. **Findings** Of 1559 injured children across all sites, 1010 (65%) were male; 941 (60%) were aged 1–5 years, 32 (2%) were < 1 year old. Injuries were especially frequent (34%) during the morning hours. They occurred in and around the home in 56% of the cases, outside while children played in 63% and during trips in 11%. Of all the injuries observed, 913 (56%) involved falls; 350 (22%), road traffic injuries; 210 (13%), burns; 66 (4%), poisoning; and 20 (1%), near drowning or drowning. Falls occurred most often from stairs or ladders; road traffic injuries most often involved pedestrians; the majority of burns were from hot liquids; poisonings typically involved medicines, and most drowning occurred in the home. The mean injury severity score was highest for near drowning or drowning (11), followed closely by road traffic injuries (10). There were 6 deaths, of which 2 resulted from drowning, 2 from falls and 2 from road traffic injuries. **Conclusion** Hospitals in low-income countries bear a substantial burden of childhood injuries, and systematic surveillance is required to identify the epidemiological distribution of such injuries and understand their risk factors. Methodological standardization for surveillance across countries makes it possible to draw international comparisons and identify common issues



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