

High prevalence of non-accidental trauma among deceased children presenting at Level I trauma centers in the Netherlands

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Aim

Investigate the prevalence of fatal inflicted trauma and neglect among children in the Netherlands

Methods

- **Retrospective cohort** study of all children (0-18 years old) who presented at a level-I trauma center between **January 2014 - January 2019**
- Non-accidental deaths (i.e. inflicted trauma or neglect) were diagnosed by Child Abuse and Neglect-team or Expert panel
- Medical files, forensic files and documentation of the Netherlands Forensic Institute were combined

Results

- N= 175
 - 17 (9.7%) inflicted deaths
 - 18 (10.3%) deaths due to neglect
 - 140 (80%) accidental deaths
- Preschool aged children (<5 years old) more frequent due to inflicted trauma compared to older children (44% versus 6%, $p < 0.001$).
- Drowning was the main cause of death due to neglect (78% of neglect died by drowning).
- Postmortem investigation performed in 20%.

Discussion

- Inflicted deaths: 64% presented to the ED as “sudden cardiopulmonary arrest”.
- Postmortem evaluation should be standardized and contain head-to-toe physical examination, CT-total body and toxicology screening.
- The danger of water, notably in water-rich countries such as the Netherlands, was largely underestimated.

20% of paediatric deaths is caused by non-accidental trauma; and in young children 44%.

Postmortem evaluation should be standardized and focus on excluding non-accidental trauma.

Educational programs should focus on drowning prevention.



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