

# The prevalence of non-accidental trauma among children with severe injuries:A nationwide level-I trauma centre study

<u>Marie-Louise Loos</u>, Rick R. van Rijn, Egbert Krug, Frank W. Bloemers, Jan A. Ten Bosch, P.M.M. Bossuyt, Michael J.R. Edwards, Alexander P.A. Greeven, Jan B.F. Hulscher, Claudia M.G. Keyzer-Dekker, Victor A. de Ridder, W. Richard Spanjersberg, Arianne H. Teeuw, Hilco P. Theeuwes, Selena de Vries, Ralph de Wit, Roel Bakx, on behalf of the RAFIKI study group

Emma Children's Hospital & Amsterdam UMC, Leiden University Medical Center, Maastricht University Medical Center, Radboud University Medical Center, Haga Teaching Hospital & Juliana's Children's Hospital, University Medical Center Groningen, Erasmus Medical Center & Sophia Children's Hospital, University Medical Center Utrecht, Isala Clinics, Elizabeth TweeSteden Hospital, Medisch Spectrum Twente



# Introduction

6% of injured children sustain severe injuries Severe injuries = Injury Severity Score >15

Non-accidental trauma

Inflicted trauma and neglect

→ Young age
→ Higher mortality

### **Methods**



Retrospective study 2010 - 2015 0 - 17 years Injury Severity Score >15 ľ



Child Abuse and Neglect-team Expert panel

Non-accidental trauma *versus* Accidental trauma



#### **Results**

#### Accidental n= 1452 (89%) Non-accidental n= 171 (11%)

Children aged <5 years old (n= 342)

- Accidental n= 203 (59%)
- Non-accidental n= 139 (41%)



#### Results

#### Accidental n= 1452 (89%) Non-accidental n= 171 (11%)

#### Indicators of non-accidental trauma

- Age	2 vs 13 years
<ul> <li>Cardiopulmonary arrest</li> </ul>	100% vs 0%
- Drowning	15% vs 2%
- Burn	8% vs 1%
- Fall from height	44% vs 27%
- Low socio-economic state	28% vs 17%
- Mortality	16% vs 10%



# Conclusion

Non-accidental trauma was the cause of injuries in 1 out of 10 children with severe injuries and in 4 out of 10 young children (< 5 years old)

Recognition of non-accidental trauma by professionals is pivotal: Non-accidental trauma kills



# Thanks to all collaborators and participating hospitals

