

INDEPENDENT RISK FACTORS FOR INJURY IN PRE-SCHOOL CHILDREN: THREE POPULATION-BASED NESTED CASE-CONTROL STUDIES USING ROUTINE PRIMARY CARE DATA

doi:10.1136/injuryprev-2012-040590w.24

D Kendrick, E Orton, J West, L Tata. *University of Nottingham, UK*

Background Injuries in childhood are largely preventable but continue to be a public health problem. However, the factors that contribute to injury occurrence have not been quantified at the population scale using primary care data.

Aims/Objectives/Purpose We used The Health Improvement Network database from the UK to identify risk factors for thermal injury, fractures and poisoning in pre-school children in order to inform the optimal delivery of preventative strategies.

Methods We used a matched, nested case-control study design. Cases were children under 5 with a first medically-recorded injury, comprising 3649 thermal injury, 4050 fracture and 2193 poisoning cases, matched on general practice to 94 620 control children.

Results/Outcome Younger maternal age and higher birth order increased the odds of all injuries. Children's age of highest injury risk varied by injury type; compared with children under 1, thermal injuries were highest in those age 1–2 (OR=2.43, 95% CI 2.23 to 2.65), poisonings in those age 2–3 (OR=7.32, 95% CI 6.26 to 8.58) and fractures in those age 3–5 (OR=3.80, 95% CI 3.42 to 4.23).

Increasing deprivation was an important risk factor for poisonings and thermal injuries as was alcohol misuse by a household adult (OR=1.73, 95% CI 1.26 to 2.38 and OR=1.39, 95% CI 1.07 to 1.81 respectively) and maternal diagnosis of depression (OR=1.45, 95% CI 1.24 to 1.70 and OR=1.16, 95% CI 1.02 to 1.32 respectively).

Significance/Contribution to the Field Maternal depression, adult alcohol misuse and deprivation represent important modifiable risk factors for thermal injury and poisoning but not fractures in pre-school children. Since these risk factors can be ascertained using routine primary care records, at risk children can be identified and offered preventative interventions.