HOUSEHOLD CLEANING PRODUCT-RELATED INJURIES TREATED IN US EMERGENCY DEPARTMENTS, 1990–2006

L B McKenzie*, N Ahir, U Stolz, N Nelson Correspondence: The Research Institute at Nationwide Children’s Hospital, Center for Injury Research and Policy, 700 Children’s Drive Columbus, OH 43205, USA

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Objective The goal was to examine patterns and trends of household cleaning product-related injuries in children aged ≤5 years treated in US emergency departments between 1990 and 2006.

Methods Through use of the National Electronic Injury Surveillance System database, cases of unintentional, non-fatal household cleaning product-related injuries were selected using household cleaning product codes. Household cleaning products were categorised according to major toxic ingredients, mode of action and by type of product exposure. Sample weights were used to calculate national estimates. US Census Bureau data were used to calculate injury rates per 10 000 children aged ≤5 years. Computation of odds ratios and 95% CI was performed. Trend analyses of the rates over time were conducted using linear regression.

Results An estimated 267 269 children aged ≤5 years were treated in US emergency departments for household cleaning product-related injuries. Injuries decreased 46.0% from 22 141 in 1990 to 11 964 in 2006. The product most commonly associated with injury was bleach (37.1%). Children aged 1–3
years accounted for 72.0% of cases. The primary mechanism of injury was ingestion (62.7%). The most common source or container was spray-bottles (40.1%).

**Conclusions** While rates of household cleaning product-related injuries in children aged ≤5 years have decreased significantly over time, the number of injuries remains high. Research is needed to develop effective prevention strategies to further reduce household cleaning product-related injuries, including improved child safety measures for household cleaning product containers.