



NEWS RELEASE

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Study Shows Medication is Frequently, Unintentionally Given Incorrectly to Young Children

(COLUMBUS, Ohio) – According to Nationwide Children's Hospital researchers, 63,000 children under the age of six experienced out-of-hospital medication errors annually between 2002 and 2012. One child is affected every eight minutes, usually by a well-meaning parent or caregiver unintentionally committing a medication error.

The most common medication mistakes in children under the age of six occur in the children's home, or another residence and school. The most common medicines involved are painkillers and fever-reducers like ibuprofen and acetaminophen.

"This is more common than people may realize," said Huiyun Xiang, MD, MPH, PhD, director of the Center for Pediatric Trauma Research at Nationwide Children's Hospital, principal investigator at the hospital's Center for Injury Research and Policy. "The numbers we report still underestimate the true magnitude of these incidents since these are just cases reported to national poison centers."

Instances in which these mistakes can occur include caregivers giving one child the same medication twice, misreading dosing instructions or administering the wrong medication.

"We found that younger children are more apt to experience error than older children, with children under age one accounting for 25 percent of incidents," said Xiang, senior author of the study published by *Pediatrics* online today and also a faculty member at The Ohio State University College of Medicine.

"There are public health strategies being used to decrease the frequency and severity of medication errors among young children," said Henry Spiller, director of the Central Ohio Poison Center and co-author of the study. "Product packaging needs to be redesigned in a way that provides accurate dosing devices and instructions, and better labeling to increase visibility to parents."

Data for this first-known comprehensive national study of its kind, conducted by researchers at the Center for Injury Research and Policy and the Central Ohio Poison Center, both at Nationwide Children's Hospital, and The Ohio State University College of Medicine, came from the National Poison Database System, the most comprehensive and accurate database available for investigation of pediatric out-of-hospital medication errors in the U.S.

The Center for Injury Research and Policy (CIRP) of The Research Institute at Nationwide Children's Hospital works globally to reduce injury-related pediatric death and disabilities. With innovative research at its core, CIRP works to continually improve the scientific understanding of

the epidemiology, biomechanics, prevention, acute treatment and rehabilitation of injuries. CIRP serves as a pioneer by translating cutting edge injury research into education, policy, and advances in clinical care. To learn more about CIRP, visit www.injurycenter.org.

The Central Ohio Poison Center provides central and southeastern Ohio residents with state-of-the-art poison prevention, assessment and treatment. The center services are available to the public, medical professionals and industry and human service agencies. The Poison Center handles more than 42,000 poison exposure calls annually, and confidential, free emergency poisoning treatment advice is available 24/7. To learn more about the Poison Center, visit www.nationwidechildrens.org/poison-center.