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Pediatric poison center exposures and outcomes in the context of grandparent supervision



To the Editor:

We read with interest the report by Agarwal et al.¹ Our clinical toxicology service quite frequently manages pediatric poisonings that result from exposures to medications that are not in their original containers. In addition, we regularly manage patients who present in the context of being under the care of a grandparent. We applaud the authors for their timely and consequential study and would like to complement their results with some of our data focusing on outcomes in this patient population.

We retrospectively queried hospitalized pediatric (aged ≤ 6 years) cases from a 2-year period (2016-2017) reported to our poison center. The patients were then divided into 2 groups for comparison (126 cases with grandparent involvement vs 482 cases without grandparent involvement). Demographic data, clinical effects, and outcomes were then compared. Similarities in the 2 groups included average age (2.1 years), length of stay (< 1.5 days), rate of seizures (1%), and rate of intubation (3%). Respective differences between the groups included the following: medicinal product (96% vs 63%), antihypertensive agent (48% vs 15%), source of exposure (25% pill organizer vs 15% pill bottle), intensive care unit (ICU) admission (60% vs 47%), hypoglycemia (8% vs 3%), and death (1.6% vs 0.2%).

The presence of a grandparent is a known risk factor for unintentional pediatric exposure to pharmaceuticals.² Older adults are more commonly prescribed cardiovascular and diabetic medications, and these drugs may lead to higher rates of ICU admissions and severe effects, such as hypoglycemia and death. We agree with Agarwal et al that preventive messages should be targeted at intended recipients of medications. In addition, larger studies are needed to fully understand the risk of severe outcome in pediatric patients under the care of grandparents.

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