

## **RELATIONSHIP BETWEEN REPORTED SINGLE ACUTE DOSE OF DIPHENHYDRAMINE HYDROCHLORIDE EXPOSURES IN CHILDREN ≤6 YEARS OF AGE AND CLINICAL OUTCOMES**

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The aim of our study was to determine the relationship between reported single acute dose diphenhydramine hydrochloride (DPH) exposures in children ≤6 years of age and clinical outcomes.

A retrospective study was conducted of all single, acute, accidental, DPH exposures in children ≤6 years of age reported to the AAPCC-TESS from 1/1/2000 to 12/31/2001. Demographics, symptoms, treatment, and treatment site (patients' residence vs. health care facility) were obtained from the medical records. Patients were divided into four groups based on symptoms severity: asymptomatic, minor symptoms (vomiting, lethargy, mydriasis, flushing, and fever), moderate symptoms (agitation, confusion, hallucinations, psychosis) and severe symptoms (loss of consciousness, seizures, respiratory depression) and symptoms were subsequently compared to dose (mg/kg).

Nine hundred and thirty-nine cases were reported: 48.7% were male, mean age was 29.7±13.0 months (range=1-72 months) and mean dose ingested was 6.4±6.1 mg/kg (range=0.22-67.9 mg/kg). Sixty-seven percent of children were asymptomatic (mean dose 6.4±6.0 mg/kg); about 33% of patients were symptomatic: minor (23.9%), moderate (7.9%), severe (0.3%) and unknown description (1.1%). No deaths occurred. The moderate and severe cases had ingested doses of 7.7±7.8 and 7.8±7.6 mg/kg, respectively. In the moderate group, 56% were observed at home and 44% were seen at healthcare facility. In the severe symptoms group, 1 case were observed at home and 2 were seen at healthcare facility. The relationship between diphenhydramine dose ingested (<7.5 mg/kg or ≥7.5 mg/kg) and severity of symptoms reported (mild versus moderate to severe) was not statistically significant ( $\chi^2=2.50$ ,  $p=0.474$ ).

DPH dose as well symptoms must be considered to determine the management approach for children.