

**Conclusions:** Approximately 5% of patients in an urban ED used the internet to obtain medications. Our hypothesis was not correct, i.e., younger patients were not more likely to use the internet for medications. Patients on multiple medications and/or those with prescription plans used online pharmacies more frequently, regardless of age.

### 230 Risk Factors for Complications of Drug-Induced Seizures

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**Objectives:** The purpose of this study is to determine the clinical factors associated with complications of drug-induced seizures.

**Methods:** This prospective observational study was conducted at an American Association of Poison Control Center (AAPC) certified regional center over a one year period. All consecutive calls for seizures were forwarded to investigators who obtained information regarding: drug/medication exposure, dose, reason for exposure, vital signs, laboratory data, treatment, and outcome. Patients were monitored by daily telephone follow-up until death or discharge. Subjects were excluded if the seizure was deemed to be unrelated to exposure. Odds ratios analyzed variables for associations with admission to the hospital for > 24 hours with multi-organ system involvement or death.

**Results:** There were 121 cases identified that met our inclusion criteria. Sixty three (52%) were male and they had a mean age of 30 (SD14) years. Common exposures included: antidepressants (33%), stimulants (15%), and anticholinergics (10%). One hundred and three (85%) of the exposures were intentional ones, 74 (72%) of which were suicide attempts. Forty-nine (40%) patients required endotracheal intubation, 12 (10%) had status epilepticus, 70 (57%) had hospitalization>24 hours, and one died. Mean hospital stay was 3.8 days. Factors significantly associated with complications include suicide attempt OR=2.2 (95%CI 1.02-4.7), initial hypotension (<100 mm Hg) OR=11.2 (95%CI 1.4-89.3), Glucose>130 mg/dl OR=5.4 (95%CI 1.6-18.1), HCO<sub>3</sub> <20 mEq/L OR=4.0 (95%CI 1.411.3), and stimulant exposure OR=11 (1.9-52).

**Conclusions:** Significant clinical factors associated with complications of drug-related seizures include suicide attempt, initial acidosis, hypotension, hyperglycemia, and stimulant exposure.

### 231 1,4-Butanediol Content of Aqua Dots Craft Toy Beads

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**Objectives:** The U.S. Consumer Product Safety Commission announced a voluntary recall of Aqua Dots on November 7, 2007, due to reports of children becoming

unconscious after swallowing beads from these toy craft kits. Lay press reports suggested that the beads contained 1,4-butanediol (BD), a chemical precursor to gamma hydroxybutyrate (GHB), rather than the more expensive 1,5-pentanediol (PD) as an ingredient in the beads; glue coating. We measured the BD and PD content of Aqua Dots beads to determine: 1) if PD had been completely substituted with BD by the manufacturer, and 2) if the reported clinical effects from swallowing Aqua Dots beads were consistent with the estimated ingested BD dose.

**Methods:** In vitro bench-research employing gas chromatography-mass spectroscopy (GC-MS). Dilute samples of BD and PD in water were used to calibrate dose-response chromatograms. We then soaked Aqua Dots beads in water for varying durations of time and at different temperatures. The resultant solutions were analyzed for BD and PD content, to determine the maximal amounts of these diols that could be extracted.

**Results:** Aqua Dots beads weighed  $79 \pm 4$  mg each, and contained  $13.7 \pm 2.4\%$  BD by weight; this corresponds to a BD content of  $10.8 \pm 1.9$  mg per bead. No PD was detected in any beads. BD was the major soluble component detected, with virtually no interfering substances. The maximal extraction of BD was the same at both 20C and 40C, although the time required to extract 50% of the maximum was shorter at the higher temperature (100 minutes vs. 140 minutes).

**Conclusions:** Aqua Dots beads contained a surprisingly high amount (nearly 14%) of extractable 1,4-BD. No 1,5-PD was detected, corroborating reports that this benign chemical had been completely replaced with a potentially toxic substitute that is metabolized into GHB after ingestion. Reports of ataxia, vomiting, and self-limited coma in children are consistent with the ingestion of several dozen Aqua Dots beads.

### 232 Risk Factors for Radiocontrast Nephropathy after Emergency Department Computerized Tomography

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Although radiocontrast nephropathy (RCN) is a known complication of emergency department (ED) computerized tomography (CT), risk factors for RCN in patients undergoing ED CT have not been definitively researched and established.

**Objectives:** To identify risk factors for the development of RCN in patients undergoing ED CT as part of routine care.

**Methods:** Design: retrospective cohort study of admitted patients; Setting: tertiary teaching hospital ED with 55,000 annual visits; Participants: patients with a serum creatinine measured prior to, then 48-96 hours after, contrast-enhanced CT from 1/2004 to 11/2006. Exclusion criteria: hemodialysis patients. Outcome: RCN (creatinine increase  $\geq 0.5$  mg/dl or  $\geq 25\%$  above baseline). Statistics: Patients with RCN were selected,