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164. Characteristics of intentional self-poisonings in adolescents versus adults in ToxIC Case Registry entries

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Background: Intentional self-poisoning (ISP) is the leading method of nonlethal suicidal behavior, with rates increased dramatically during adolescence, particularly among females. ISP during adolescence may be expected to have unique characteristics and require tailored treatment compared to adults yet there are few data. We compared the drugs ingested and the medical consequences and treatments for ISP in hospitalized adolescents and adults.

Hypothesis: We hypothesized that adolescents are more likely to be female; other comparisons were exploratory.

Methods: Cross-sectional analyses of hospitalized ISP cases contained in the American College of Medical Toxicology Investigators Consortium Case Registry (Toxic) from Jan 1, to Oct 22, 2014. Adolescent (ages 13–18, n = 758) and adult (ages 19–65, n = 1422) ISP patients were compared on demographic characteristics, the drugs ingested and the associated medical consequences, and the treatments provided. Unadjusted analyses were performed using chi-square. Due to multiple testing, $p < 0.005$ was used to determine statistical significance.

Results: Compared to adults, adolescents were more likely to be female (79% vs. 59%, $p < 0.001$), to ingest a single drug than multiple drugs (60% vs. 48%, $p < 0.001$), and to use non-opioid analgesic (35% vs. 18%, $p < 0.001$). Non-opioid analgesics were also the drug most commonly taken by adolescents in ISP. Adolescents were less likely to ingest an opioid (3% vs. 9%, $p < 0.001$) or a cardiovascular medication (4% vs. 8%, $p = 0.001$). They were also less likely to experience a sedative hypnotic toxidrome (6% vs. 15%, $p < 0.001$) but did not differ on other specific medical consequences or the overall number of organ systems affected. Adolescents and adults did not differ in the overall number of treatments received or in the likelihood of receiving specific treatments with the exception that adolescents were less likely to receive nonpharmacological treatment (29% vs 35%, $p = 0.002$).

Conclusion: Adolescents' greater tendency to ingest single drugs in ISP suggests that prevention efforts based on restriction of access to medications may be more straightforward in this group compared to adults, and analgesics are an important target of such efforts. The fact that adolescents and adults treated for ISP did not differ on the number of organ systems affected or the number of treatments received, markers for ISP severity and treatment complexity, underscores that ISP during adolescence must be taken seriously, with hospital stays providing a critical opportunity to initiate preventive interventions.