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Alcohol intoxication, co-ingestion and withdrawal in Medical Toxicology consultations: a review of the ToxIC Case Registry

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Objective: Very few studies describe the type of patients seen by Medical Toxicology Consultation Services (MTCS). The Toxic Investigators Consortium (ToxIC) was developed by the American College of Medical Toxicology in January, 2010 to track patients seen by MTCS and to provide an infrastructure for research. In order to obtain information for further study, and for use in QA/QI projects involving ToxIC data entry, we reviewed and analyzed registry data regarding alcohol intoxication, co-ingestion and alcohol-withdrawal syndrome (AWS).

Methods: The ToxIC registry was queried from its inception to 4/10/2011 using the search terms -Alcohols (ETOH) and -Withdrawal (WD). Cases of WD not related to alcohol were excluded. Cases involving toxic alcohols (Methanol /EG) were also excluded. Analyses using WD and EtOH separately as well as concomitantly were performed to confirm data. Descriptive statistics were used to compare and report data. Data were not reviewed for outcome information.

Results: Nearly 6,000 patients were registered in the ToxIC database from its initiation to 4/10/2011. Alcohol was involved in 574 consults, 10% of all consults registered. Alcohol-related consults were more common in men than woman (60%M/40%F) and occurred most frequently as part of polydrug overdoses (62%). 24 EtOH as a sole intoxicant occurred only 4% of the time. Frequent co-ingestants included analgesics (14%), sedative-hypnotics (16%), antidepressants (12%), antipsychotics (6%), opioids (9%), and sympathomimetics (6%). 192 of the 574 consults (33 %) involved AWS. AWS was separately reviewed. Most consults for AWS occurred in males (76%M/24%F). 91% of AWS consults occurred in patients age 19-65, 5% in age > 65 and 4% in ages 13-18. 24% of patients with AWS had contributing substances coded for, the most common being sedative-hypnotics (8%). Other common substances in patients with AWS included: opioids, antihistamines and antidepressants. AWS represented approximately 3% of consults performed by MTCS involved in ToxIC (192 out of nearly 6,000 cases) Less than 0.5% ToxIC cases (23) were for alcohol intoxication alone (24 out of nearly 6,000 cases).

Conclusion: Medical Toxicologists are rarely consulted for poisoning solely related to ethanol. Most alcohol-related consults occur in polydrug ingestions. AWS represents 33% of alcohol-related consults but only 3% of all consults performed by Medical Toxicologists. Although alcohol is reported to be involved in 20-70% of all poisonings admitted to hospitals it was less frequently (10%) involved in poisonings in the ToxIC Registry.