

CASE REPORT 7 [ID#92]

Review of Acute Poisoning Patients Admitted to High Dependency & Intensive Care Units from the Accident & Emergency Department

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BACKGROUND: The Toxicology Service at Changi General Hospital (CGH), Singapore, provides round-the-clock consultation for patients with poisoning, and receives approximately 320 calls annually. Local data on patients with poisoning requiring HD/ICU care is scarce. In this study, we describe the epidemiological, clinical characteristics, implicated agents, and outcomes of patients with toxic exposures admitted to HD/ICU.

METHODS: Retrospective, observational study. All cases referred to CGH Toxicology Service from 1 January, 2015 to 31 March 2019 were reviewed. Hospital records of those admitted to HD or ICU were reviewed to extract demographical data, implicated agents, clinical characteristics, interventions, and outcomes. The likelihood of poisoning exposure, poisoning severity, and relative contribution to fatality (for mortality cases) were determined.

RESULTS: Of the 1421 patients reviewed, 121 (8.5%) required HD or ICU care. Amongst those admitted to HD or ICU, 60% were male, and the commonest age group was 31-40 years old (20.7%). Deliberate self poisoning or drug abuse accounted for 70% of cases.

Psychiatric medications (n=45) and benzodiazepines (n=43) were the commonest drug classes. Amongst the benzodiazepines, nitrazepam, lorazepam and alprazolam were most commonly implicated. Quetiapine and olanzapine were the most commonly implicated psychiatric medications.

There were 56 patients (46%) who required intubation, and 32 patients (26%) who required inotropic/vasopressor support. Antidotes were administered to 36% of patients, and 16% of patients required hemodialysis.

Median HD and ICU length of stay (LOS) were 37.5 hrs (IQR=19.5-63.1) and 41.8 hrs (IQR=28.1-89.5) respectively. There were 10 mortalities; 6 were deemed to be poisoning exposure related, contributing to a fatality rate of 5% amongst all HD and ICU admissions. The commonest drug class involved in the fatalities was cardiotoxic drugs.

CONCLUSION: Psychiatric medications and benzodiazepines were the commonest class of agents associated with HD or ICU admissions, while cardiotoxic drugs were the most lethal.