

Overview

Common presentation and cause of morbidity and death in patients <45. Most at risk are children <5yo and F 15-44yo.

Types of poisoning

- Deliberate (OD, child abuse, Munchausen±proxy, attempted homicide, terrorist, warfare)
- Accidental (Most paed OD, dosage error - iatrogenic/patient, recreational use)
- Environmental (Plants, food, envenomation)
- Industrial exposures

Resuscitation

Airway: Ensure patent/protected. Intubate as necessary.

Breathing: Give O₂. Note ↓RR (opiates, BDZ) or ↑RR (metabolic acidosis).

Circulation: Treat hypotension with fluids initially. Treat arrhythmias usually by antidote rather than conventional antiarrhythmics. E.g. for sodium channel blockade → NaHCO₃. ↑HR (sympathomimetics, TCA, antihistamine, anticholinergics, digoxin) - avoid β-blockers, or ↓HR (OP, GHB, digoxin, CCB, β-blockers) - atropine may not work unless block above AV node.

Disability: Treat seizures with BDZ (then barbiturates or pyridoxine, avoid phenytoin). Check BSL (& treat if low), & for clonus. Check pupils (if pinpoint, ↓RR & comatose: trial naloxone).

Exposure: Take temperature (& correct hyperthermia)

Risk Assessment

- Agent: (toxin, dose, when taken, and route)
- Clinical features & course. Sometimes serum drug level.
- Patient factors (age, weight, pregnant, PMHx)

Histories may be taken from patient, family, friends, paramedics, police and observers.

Poison Information Centre (131126) or Clinical Toxicologist may help with risk assessment.

Supportive Care

Continued support of ABCs e.g. intubation, O₂, IV fluids, pacing, inotropes, etc

Sedation and seizure control/prophylaxis (BDZ)

Metabolic - maintaining normoglycaemia, acid-base balance

Fluid, electrolyte balance & renal function - adequate hydration, haemodialysis if required.

General - e.g. nutrition, IDC, pressure sore prevention, DVT prophylaxis

Investigations

Screening: ECG (rate, rhythm, PR, QRS width, QTc, terminal aVR), BSL, paracetamol level

Others bloods as indicated: FBC, UEC, anion /osmolar gaps, ABG, COHb, LFT, CK, RBC ChE

Drug levels if appropriate: paracetamol, salicylates, theophylline, digoxin, lithium, Fe, EtOH, ethylene glycol, MeOH, MTX, phenobarbitone, carbamazepine, phenytoin, valproate

Urinalysis: ?rhabdomyolysis, save sample for possible toxicological analysis.

Imaging: CXR (?APO, aspiration), AXR (concretions), CT brain (DDx for ↓LOC).

Decontamination, Enhanced Elimination, Antidotes - see specific articles.

Disposition

Retrieval vs EMU vs ward vs ICU. Other specialist teams (paediatric, medical, psych, SW).