

Overdose and Poisoning (Adults) [60, 128, 457–468]

1. Introduction

Overdose and poisoning is a common cause of calls to the ambulance service accounting for 140,000 hospital admissions per year.

Poisoning

Exposure by ingestion, inhalation, absorption, or injection of a quantity of a substance(s) that may result in mortality or morbidity.

Common agents include:

- **Household products** e.g. washing powders, washing-up liquids and fabric cleaning liquid/tablets, bleaches, hand gels and screen-washes, anti-freeze and de-icers, silica gel, batteries, petroleum distillates, white spirit (e.g. paints and varnishes), descalers and glues.
- **Pharmaceutical/recreational substances** e.g. paracetamol, ibuprofen, co-codamol, aspirin, tricyclic antidepressants, selective serotonin uptake inhibitors (SSRIs), beta-blockers (Atenolol, Sotalol, Propranolol), calcium channel blockers, benzodiazepines, opioids, iron tablets, cocaine and amphetamines.
- **Plants/fungi** e.g. foxglove, laburnum, laurel, iris, castor oil plant, amanita palloides, etc. For further details of poisonous plants refer to: <http://www.toxbase.org>.
- **Alcohol**
- **Chemicals** – for details **refer to the Chemical, Biological, Radiological and Nuclear and Explosive Incidents guideline**.
- **Cosmetics**.

Poisoning may be:

- i. accidental.
- ii. intentional (self-harm), mal-intent.
- iii. non-accidental.

Overdose

Exposure by ingestion, inhalation, absorption, or injection of a quantity of a substance(s) above the prescribed/known safe dose; this is a common form of poisoning, involving prescribed or illicit drugs and may be accidental or intentional.

2. Incidence

- It is difficult to estimate the exact number of overdose and poisoning incidents, as not all cases are reported. In 2009/2010 there were 49,690 poison-related queries involving patients to the National Poisons Information Service.

3. Severity and Outcome

- There are a number of factors which will affect severity and outcome following exposure, including, age, toxicity of the agent, quantity and route of exposure.
- In 2009 there were 2,878 deaths related to drug overdose and poisoning in England and Wales. In patients that self-harm death commonly results from airway obstruction and respiratory arrest, secondary to a decreased level of consciousness.

4. Pathophysiology

- The mode of action following exposure will depend primarily on the nature of the toxin. For details of the actions of specific toxins refer to: <http://www.toxbase.org>.

5. Assessment and Management

For the assessment and management of overdose and poisoning in adults refer to Tables 3.67–3.68.

Duty of Care

It is not uncommon to find patients who have or claim to have taken an overdose and subsequently refuse treatment or admission to hospital. An assessment of their mental health state, capacity and suicide risk should be made; **refer to mental disorder guideline**. If, despite reasonable persuasion, the patient refuses treatment, it is not acceptable to leave them in a potentially dangerous situation without any access to care.

Assistance may be obtained from the medical/clinical director or a member of the clinical team and a judgement must be made to seek appropriate advice. Attendance of the police or local mental health team may be required, particularly if the patient is at risk.

KEY POINTS

Overdose and Poisoning

- Establish: the event, drug or substance involved, the quantity, mode of poisoning, any alcohol consumed.
- NEVER induce vomiting.
- If caustics and petroleum products have been swallowed, dilute by giving milk at the scene wherever possible.
- If the patient vomits, retain a sample, if possible, for inspection at hospital.
- Bring the substance or substances and any containers for inspection at hospital.