

Overdose and Poisoning (Children) [60, 467, 468, 502]

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 quality of a substance(s) that results 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. Exposure generally occurs as a result of ingestion but can arise from eye and skin contact; exposure can arise from multiple routes of exposure.
- **Pharmaceutical agents** e.g. paracetamol, ibuprofen, co-codamol, aspirin, tricyclic antidepressants, selective serotonin uptake inhibitors (SSRIs), beta-blockers, calcium-channel blockers, cocaine, benzodiazepines, opioids, iron tablets.
- **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.**
- **Cosmetics.**

Poisoning in children

1. **Accidental** exposure to a poisonous substance or medicine by an inquisitive child. This usually occurs in young children and ingestion of tablets is common, although, almost anything, however unpalatable to the adult palate, may be ingested. The event may not be obvious and may only be found on detailed questioning, if old enough to give a history.
2. **Intentional** poisoning (usually a medicine), as an act of deliberate self-harm. Over-the-counter medicine e.g. paracetamol, or prescribed drugs are commonly used.
3. **Non-accidental** poisoning of children is extremely unlikely to be detected by the Ambulance Service, but if it is suspected it must be reported. **Refer to the safeguarding children guideline.**

KEY POINTS

Overdose and Poisoning

- Children and adolescents with serious poisoning and deliberate overdoses must be transferred to hospital.
- After an accidental poisoning that was found to be non-toxic, some children (see Table 3.88) may be considered for home management.
- Alcohol often causes hypoglycaemia even in adolescents.
- NEVER induce vomiting.
- If the child vomits, retain a sample, if possible, for inspection at hospital.
- Bring the substance or substances and any containers found to the hospital for inspection.
- Estimate the quantity of substance ingested.

Overdose

Exposure by ingestion, inhalation, absorption, or injection of a quality of a substance(s) above the prescribed 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. Over one-third concerned children under the age of five. The majority of incidents were accidental and occurred in the home.

3. Severity and Outcome

- There are a number of factors which will affect severity and outcome following exposure, for example, 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.

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 children refer to Table 3.88.

Methodology

For details of the methodology used in the development of this guideline refer to the guideline webpage. Important information can be gained from toxbase and local protocols should be followed to obtain this information