Clinical Practice Guidelines:
Other/Button battery ingestion or insertion

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Date	June, 2025
Purpose	To ensure a consistent appproach to the management of button battery ingestion or insertion.
Scope	Applies to Queensland Ambulance Service (QAS) clinical staff.
Health care setting	Pre-hospital assessment and treatment.
Population	Applies to all ages unless stated otherwise.
Source of funding	Internal – 100%
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Button battery ingestion or insertion

June, 2025

Button batteries are small, coin shaped, single cell batteries most commonly used in residential households to power small electrical devices (e.g. hearing aids, watches, children's toys and musical greeting cards).

All suspected button battery ingestions/insertions should be considered a medical emergency. Mucosal trauma will commence in as little as 15 minutes and if untreated, may lead to life-threatening bleeding or death secondary to major vascular injury. [1,2,3]

Despite assurances from the parents/carers that no button batteries were available and/or the patient's denial of ingestion/insertion, it is essential that clinicians consider button battery ingestion for all patients.

Clinical features

High risk features for airway compromise:

Choking or gagging (sometimes overheard rather then directly observed)

- hoarse voice
- dyspnoea
- stridor
- drooling
- painful swallowing
- vomiting

Clinical features *(cont.)*

Common symptoms in cases of delayed button battery ingestion: [1,2]

- chest pain
- abdominal pain
- unexplained gastrointestinal bleeding (melena)
- bloody/black stools
- regurgitation or drooling
- vomiting without fever or diarrhoea
- haemoptysis
- hematemesis
- prolonged food refusal/inability to swallow solids

Common symptoms in cases of button battery insertion:

- Nasal bleeding or ear discharge
- Vaginal bleeding or discharge
- Eye pain or discharge

Risk assessment

- Any button battery with residual voltage can cause significant tissue damage.
- 12% of children who ingested a 20 mm button battery suffered severe or fatal injuries [3]
- Peak age for button battery related injury is 1–5 years; younger cases having been reported in literature (possibly fed batteries by siblings) [1]
- Signs and symptoms are non-specific; history provided at the patient's residence may alert officers to the possibility of button battery ingestion
- Denial of button battery ingestion in a child of any age cannot exclude it [1]
- Most fatal/severe cases are associated with occult ingestion of a battery (caregivers are often unaware that the battery is missing/has been ingested). In these situations, there may be no history suggesting battery related injury.

Additional information

- In patients **less than 1 year of age** and within 12 hours of suspected or confirmed button battery ingestion, administer 10 mL (2 teaspoons) of jam[5] orally. Repeat at 10 minute intervals. Total max dose 60 mL.
- In patients **greater than or equal to 1 year of age** and within 12 hours of suspected or confirmed button battery ingestion, administer 10 mL (2 teaspoons) of honey[4] or jam[5] orally. Repeat at 10 minute intervals. Total max dose 60 mL.
- The administration of these agents must not delay transport for definitive care.

Button battery safety measures

- Some button battery manufacturers have recently introduced safety measures that include the presence of a bitterant to discourage swallowing and a blue indicator dye that is triggered by moisture. The dye may appear on the person's hands or around their mouth. However, it must be noted that the presence of button battery bitterant does not eliminate ingestion or insertion risk and the absence of dye markings does not rule out button battery ingestion or insertion.

CPG: Clinician safety
CPG: Standard cares

Confirmed or suspected button battery ingestion/insertion?

N

Manage as per:

Appropriate CPG

Y

Attempt to identify type of battery. Take product packaging to hospital if possible

Nil by mouth (excluding honey or jam)

Consider:

- Oral honey or jam
- IV Access
- Analgesia
- Antiemetic
- IV Fluids

Transport to hospital
Pre-notify as appropriate

Note: *Clinicians must only perform procedures for which they have received specific training and authorisation by the QAS.*