

Policies, Procedures, Guidelines and Protocols

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2	May 2018	Reviewed and updated consultation list
3	May 2021	Updated references and consultation list
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1 Introduction

The information below is a guide to the clinical care required in the instance of an adult who has swallowed a cylindrical or button/disc battery. It requires clinical interpretation and a relevant clinical case history. In severe, or complex cases, including multiple ingestions, the case should always be referred to the accident and emergency department – and/or the poisons service (0844 829 0111).

2 Purpose

The document is aimed to assist clinical staff to prioritise care required in the instance of a prisoner patient reporting that they have ingested, or reported cases of suspected ingestion of a cylindrical or button/disc battery.

3 Duties

HMPYOI Stoke Heath primary care nurses and medical staff to implement the guidelines as required. This will be the primary care nurse attending the patient, and the GP reviewing the care required.

4 Definitions

GP – General Practitioner that visits the prison establishment. Out of hours GP cover is provided by 'Shropdoc'.

HMP&YOI – Her Majesties Prison and Young Offenders Institute.

ACCT – Assessment and Care in Custody, Teamwork. Process by which prisoners who are deemed to be vulnerable and at risk from self harm / attempted suicide are managed within the prison estate.

ADULT- prisoner patient aged eighteen years or over.

5 Guidelines for the management of ingestion of batteries in adults

5.1 Types of battery product

- Cylindrical and button/disc batteries
- Ingredients mainly alkaline and can include nickel, lithium, cadmium, manganese dioxide, zinc or silver
- Button batteries are imprinted with a code through which it may be possible to identify its chemical composition

5.2 Toxicity

Toxicity depends on how the battery is consumed;

Chewed – if the battery casing is still intact after being chewed, clinical features are unlikely to occur. If the battery casing is corroded or leaking, corrosive burns to the mouth and oesophagus may occur.

Ingested – if ingested the severity of symptoms will depend on several factors:

- Duration of mucosal/skin contact
- Location
- Size
- Chemical composition of the battery.

- Larger disc batteries are more likely to become lodged in the oesophagus

Symptoms are unlikely to occur if the battery has passed into the stomach (although they have been recorded does this mean there are recorded incidents?).

Passage through the gastrointestinal tract can take up to two weeks and prolonged transit time increases the likelihood of symptoms. (Toxbase, 2021).

5.3 Symptoms

If chewed;

- Pain or burning sensation in the mouth/throat.
- Inability or difficulty with swallowing.
- Burns may occur in the mouth/oesophagus or further down the gut.

If ingested;

- Symptoms include cough, dysphagia (difficulty swallowing), nausea, rash, diarrhoea or discoloured stools.
- In severe cases there may be abdominal pain, bloody stools, irritability, fever, haemorrhage and ultimately stricture or fistula formation.
- Burns, ulceration and perforation can occur within 2-4 hours of an ingested battery becoming lodged in the oesophagus or rarely the stomach (Alken et al 2004; Bernstein et al 2007)

5.4 Management

Chewed batteries;

- Ensure clear airway and adequate ventilation.
- Examine the mouth for signs of chemical burns to determine if the battery was leaking prior to ingestion. If there is no evidence of burns give a small glass of milk or water.
- If there is evidence of oropharyngeal erythema or burns – send immediately to the most appropriate accident and emergency department.
- If no evidence of oropharyngeal erythema or burns continue with guidelines for ingested batteries.

Ingested batteries;

- Ensure clear airway and adequate ventilation.
- Do not induce vomiting./ gut decontamination
- If patient is asymptomatic, contact the poisons unit for further care advice. Unless there is cause to suspect that the battery is lodged in the oesophagus they are unlikely to require hospital admission. How would you know this if lodged further down?
- Batteries lodged in the oesophagus need to be removed without delay – immediate transfer to the most appropriate accident and emergency department is required.
- Patients who remain asymptomatic should be advised to inspect stools to ensure passage of battery, with advice to inform the healthcare staff should symptoms develop. Further routine GP appointment within two weeks to review.
- The general practitioner should be informed of the event. In all cases, clinical judgement is required following a thorough clinical assessment. This should be clearly documented within the electronic clinical record (system 1), and an electronic task sent to GP to request review appointments.

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- Ensure all incidents and clinical actions are reported on NHS Datix System and Prison Service Intelligence Reporting System

At any point in the assessment and planned care the clinician may take the decision to refer to the accident and emergency department for medical assessment.

Deliberate self-harm – intentional ingestion of batteries will require planned after care through the prisons ACCT – Assessment, care in Custody and teamwork documentation processes for the management of those at risk of self-harm and suicide.

6 Consultation

Dr. Patrick Staite – Lead Prison GP

Dr A. Marsh – Accident and Emergency, Princess Royal Hospital

Governor J. Huntington – HMPYOI Stoke Heath

S. Mukwenya, Head Governance and Risk Shropshire Community NHS Health Trust

Mrs. W. Sweeney, Clinical Nurse Manager

Reviewed June 2021 by:

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7 Dissemination and Implementation

The policy will be disseminated to clinical staff through staff meetings, email and clinical supervision groups. The prison based GP will provide training and support to primary care nurses for the implementation of the policy.

8 Monitoring Compliance

The policy will be reviewed following reported incidents of adults swallowing batteries to ensure compliance with policy. These incidents are reported using the DATIX system.

9 References

Toxbase – [TOXBASE - poisons information database for clinical toxicology advice](#), 2021

Bernstein, JM, Burrows SA and Saunders MW 2007 – button and cylindrical battery ingestion. Emergency medicine journal 2007, 24:e.

Further reading; Kenton L Anderson, MD and Anton J Dean 2011, Foreign bodies in the gastrointestinal tract and anorectal emergencies – Published by Elsevier Inc.

10 Associated Documents

Prison Service Orders and Instructions relating to the management of those who self harm.

Shropshire Community Health NHS Trust Risk management policy.

Shropshire Community Health NHS Trust Consent Policy.