

## LRI Emergency Department

Standard Operating Procedure for:

# Potential Magnet Ingestion or Insertion in Adults

Staff relevant to:	ED medical and nursing staff,
Approval date:	16/02/2024 Policy and Guideline Committee
Version / Trust reference:	2.0 / B28/2021
Revision due:	June 2027
Written by: V Pillai	V2

# Background and scope

## **Background :**

- This guidance has been produced in response to the NPSA alert issued on the 9<sup>th</sup> of May 2021
- <https://www.england.nhs.uk/wp-content/uploads/2021/05/NaPSA-Alert-Magnets-FINAL-v5.pdf>
- Neodymium magnets (also known as NdFeB, NIB, Neo magnet or Super Strong Rare Earth Magnets) have become easy to purchase.
- The ingestion of a single rare earth magnet is unlikely to cause significant harm, however, if multiple magnets are ingested, or if a magnet is swallowed along with a metal object, significant injury can occur.

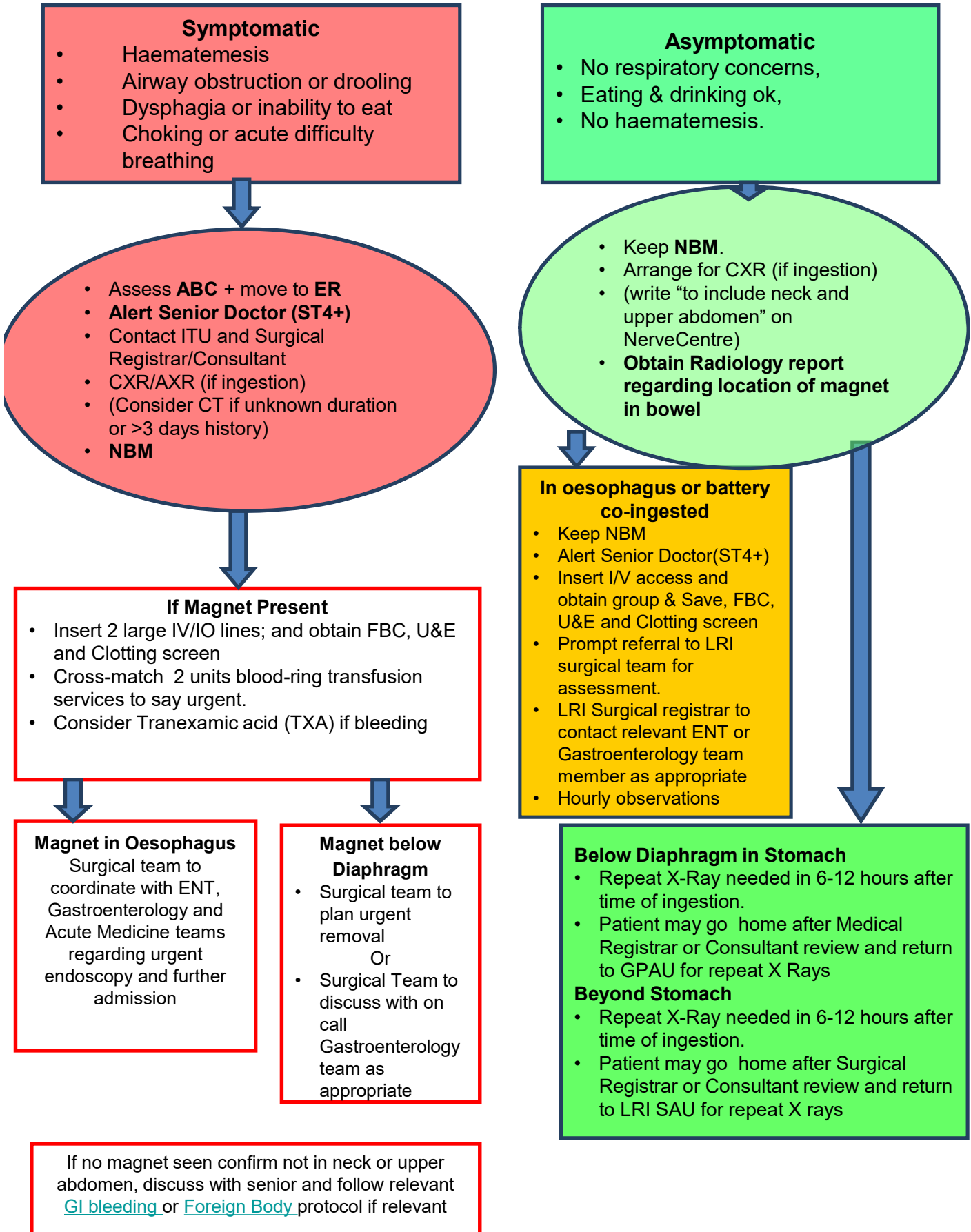
## **Scope:**

- This Guidance only covers any patient with suspected magnet ingestion who is 18 years or older.

# Magnet Ingestion or Insertion

## Key Points

Ingestion of super strong magnets can kill even if the adults presents asymptotically. There may be **no** history of swallowing the object at all if patient is cognitively impaired



# Magnet Ingestion or Insertion

## Super Strong magnets imaging notes

- A lateral AXR should be requested if a single magnet/suspected magnet is identified on the AP AXR
- All patients who are being discharged with rare earth magnet ingestion require follow-up imaging after 6-12 hours, repeated earlier imaging is not indicated.
- Follow up abdominal X-ray should be requested (only repeat CXR if magnets seen in the chest on the first image). It is essential that the abdominal radiographs are always performed in the same position (lying down, ideally prone).
- Interpretation of the abdominal x-ray and the finding of progression of the rare earth magnet through the gastrointestinal tract should be formally confirmed by a radiologist.
- Follow-up AXRs should continue to be performed until it can be demonstrated (and confirmed by a radiologist) that the magnet has passed through the stomach and serial X-rays (at least 6-12hrs apart) show that it is progressing through the small bowel or beyond. Failure of the magnet to progress through the gastrointestinal tract (the magnet having not moved from the last demonstrated position on AXR irrespective of location in GI tract after a period of 6-12hrs and confirmed by a radiologist) is an indication for review with the surgical team.

## Surgical Management

**A symptomatic patient who has ingested a magnet should be treated as a surgical emergency.**

The following are of **no** benefit:

1. Ipecac administration (ineffective).
2. Blind magnet removal with a balloon catheter or a magnet affixed to a nasogastric tube (can't determine extent of injury).
3. Blood or urine concentrations of magnet ingredients (unnecessary).
4. Chelation (unnecessary).
5. Laxatives (ineffective) or polyethylene glycol electrolyte solution (unproven effectiveness and unknown if solution enhances electrolysis).

**Turn over for Discharge Advice and Audit Priorities**

# Magnet Ingestion or Insertion

## Discharge Advice

Patients or their carers should be advised to bring their back immediately for medical review if the patient develops:

- Breathing difficulty
- Features of intestinal obstruction
- (e.g persistent vomiting, Distended tender abdomen)
- Blood stained vomiting
- Abdominal pain
- Any patient or carer concern about change in behaviour/refusing fluids or food
- These symptoms may develop after a magnet has been removed or passed and should warrant review as well.

## Research and Audit Priorities

Correct Management of symptomatic versus asymptomatic ingestions  
Time to removal of magnet (symptomatic ingestion or insertion)  
[The incidence of insertion or ingestion may be very low so this will not be a regular audit]

## References

### Web-based resources

[RCEM\\_BPC\\_Ingestion\\_of\\_Super\\_Strong\\_Magnets\\_in\\_Children\\_170521.pdf](#)

<https://www.england.nhs.uk/wp-content/uploads/2021/05/NaPSA-Alert-Magnets-FINAL-v5.pdf>