

PEDIATRIC READINESS PROGRAM EDUCATION SESSION



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PEDIATRIC ACCIDENTAL AND INTENTIONAL FOREIGN BODY INGESTION

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May 21, 2026

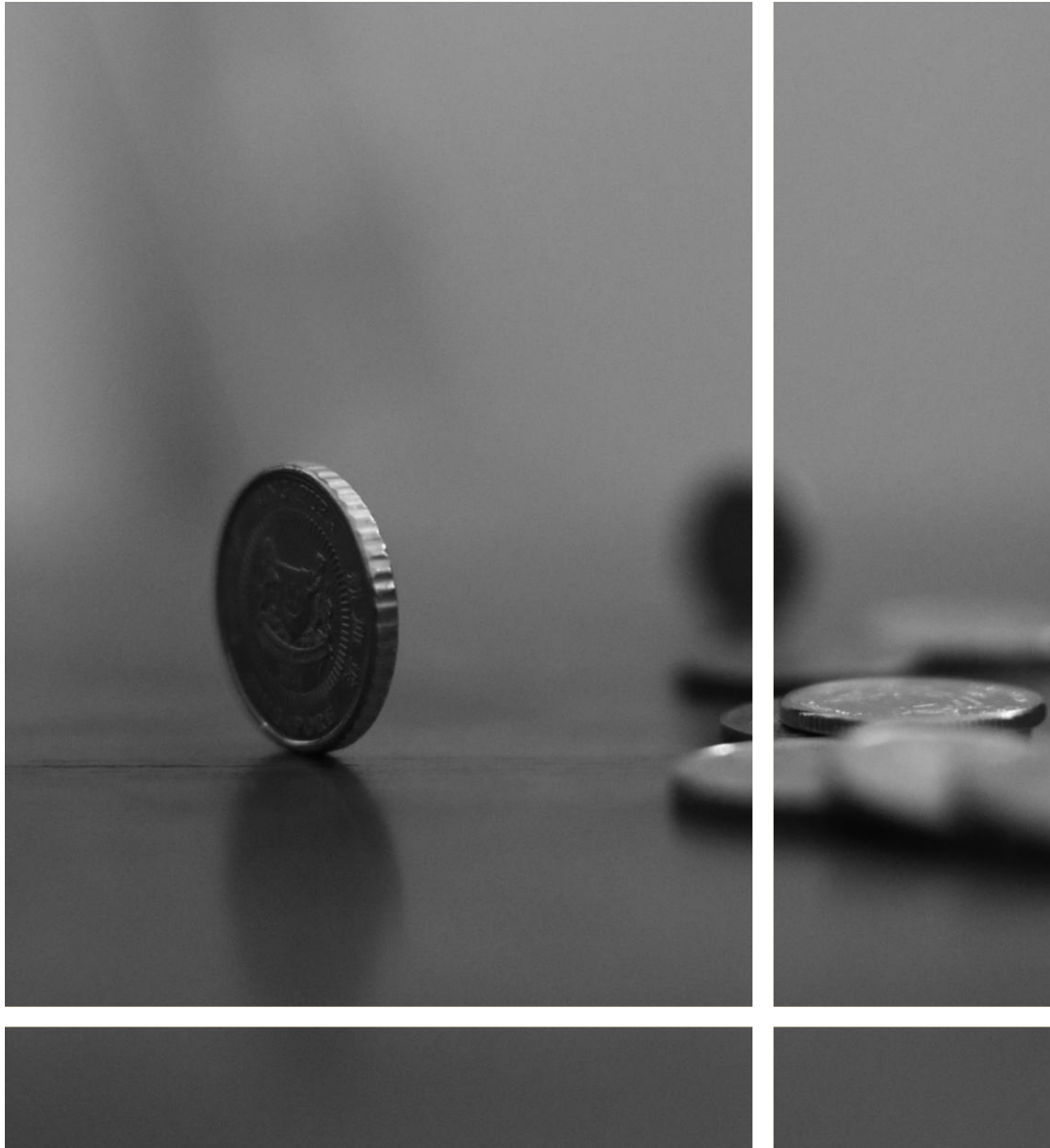
CME DISCLOSURE

None of the planners and faculty for this educational activity have relevant financial relationship(s) to disclose with ineligible companies whose primary business is producing, marketing, selling, reselling, or distributing healthcare products used by or on patients.

OBJECTIVES

- Devise an initial management plan for a wide range of swallowed foreign objects in the pediatric population
- Identify button battery ingestions and initiate rapid medical treatment
- Summarize unique management strategies for patients presenting with intentional ingestion





STATS

- 100,000 to over 120,000 cases of foreign body ingestion (FBI) annually in the US
 - Significant increase over the past decade
- Pediatrics: 75%–90.5% of cases
- 6 months to 3 years
- Mortality low

McMahon, Conners, & Mohseni, 2025

Big Categories and Considerations

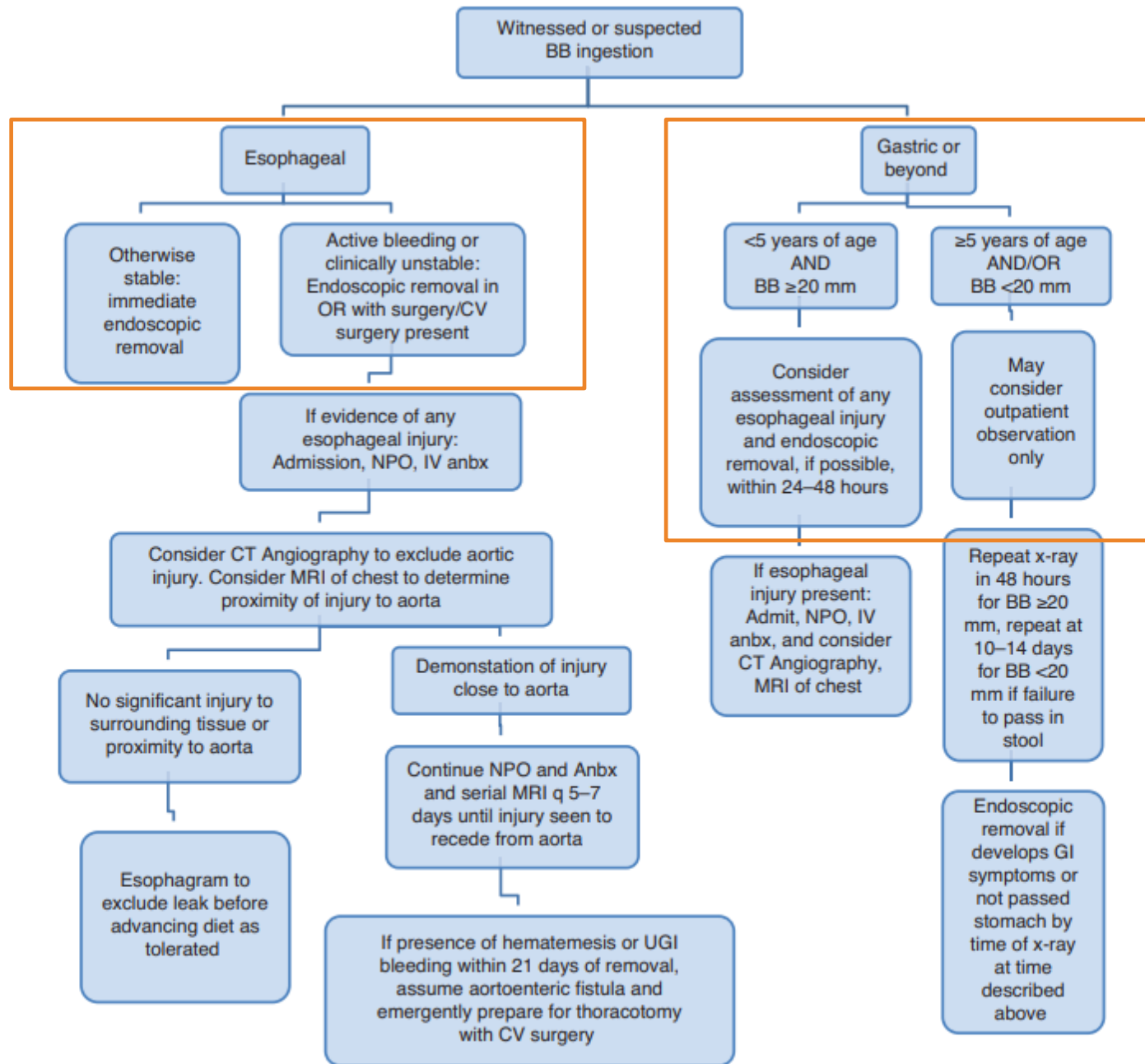
Multiple Magnets

Button Batteries

Sharp Objects

Food Impaction

Location (mouth to esophageal vs
gastric and beyond)



BUTTON BATTERIES

FIGURE 1. Proposed management algorithm for ingestion of BBs in children. anbx = antibiotics; BB = button battery; CT = computed tomography; CV = cardiovascular; GI = gastrointestinal; IV = intravenous; MRI = magnetic resonance imaging; NPO = nil per os; OR = operating room; UGI = upper gastrointestinal series.

MAGNETS

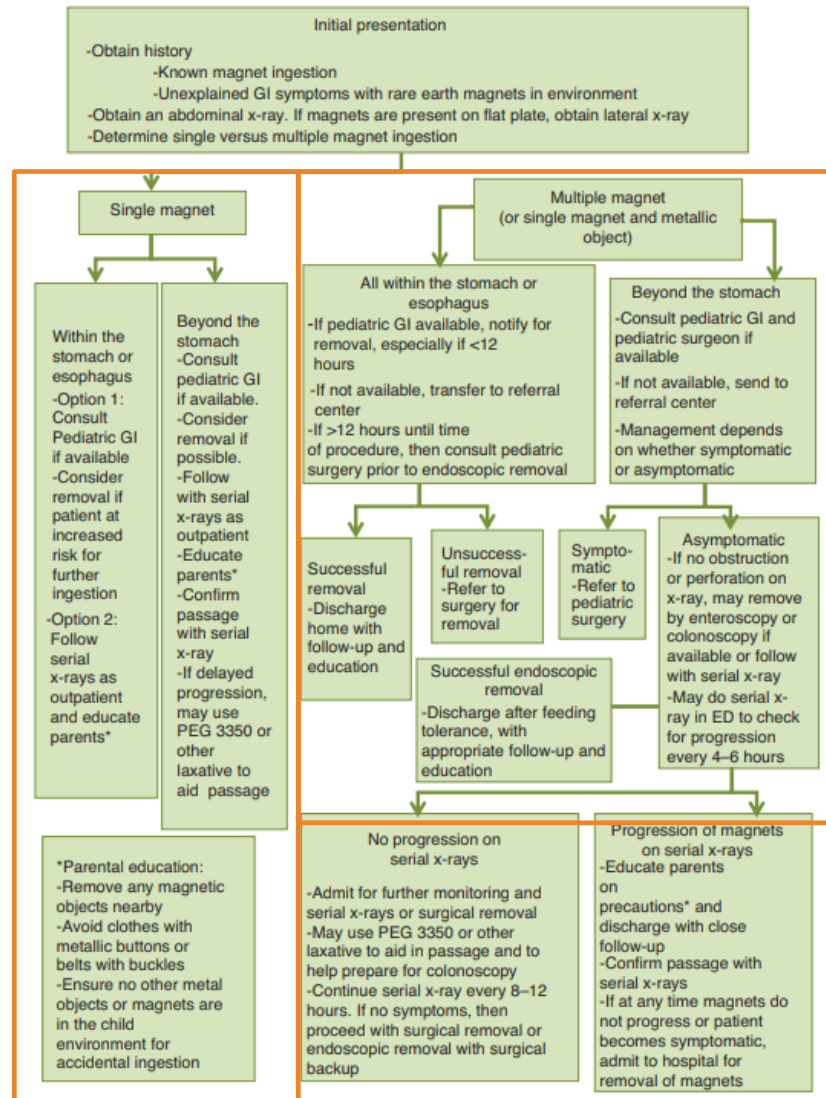


FIGURE 3. Proposed management algorithm for magnet ingestion in children. Adapted from Hussain et al (20). ED = emergency department; GI = gastrointestinal; PEG = polyethylene glycol.

SHARPS

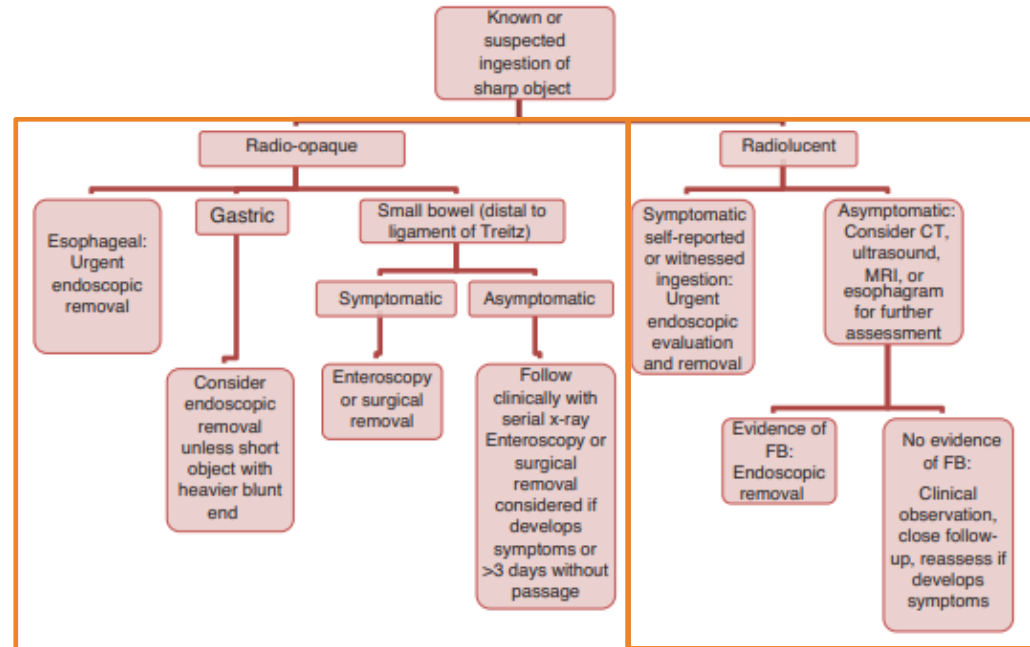


FIGURE 4. Proposed management algorithm for ingestion of sharp or pointed objects in children. CT = computed tomography; FB = foreign body; MRI = magnetic resonance imaging.

ESOPHAGEAL

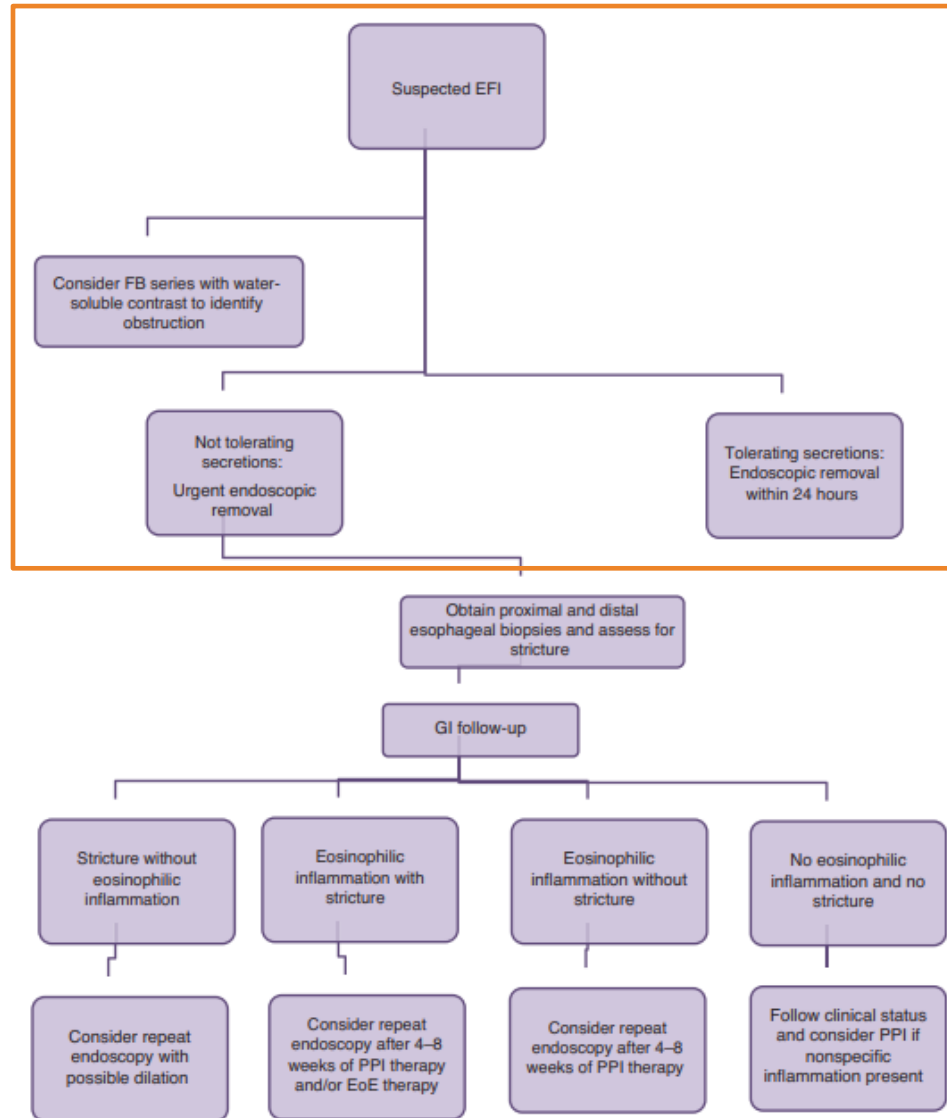


FIGURE 5. Proposed algorithm for management of EFIs in children. EFI = esophageal food impaction; EoE = eosinophilic esophagitis; FB = foreign body; GI = gastrointestinal; PPI = proton pump inhibitor.

COINS

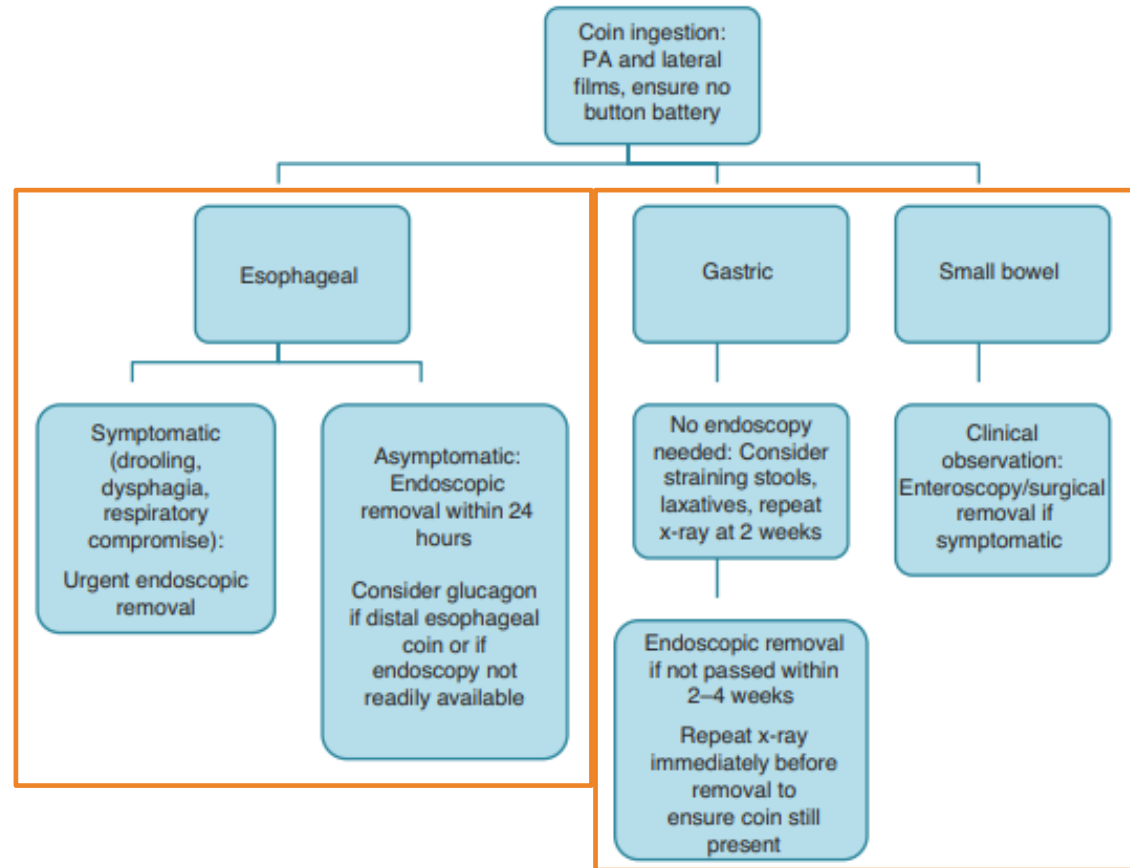


FIGURE 6. Proposed algorithm for management of coin ingestions in children. PA = posterior–anterior.

Clinical Resources for Women's and Children's Services

OHSU Clinical Practice Guidelines

Videos on Pediatric Procedures

Clinical References

OHSU PEM Pediatric Internal Residency

Clinical Resources for Women's and Children's Services > OHSU Clinical Practice Guidelines > Doernbecher

Pediatric Emergency

Pathways

Doernbecher Pediatric Emergency Department Pathways



Current pathways utilized to guide the care of children in the Doernbecher Pediatric Emergency Department

DOERNBECHER CLINICAL PATHWAYS

- <https://www.ohsu.edu/clinical-resources-for-womens-and-childrens-services/doernbecher-pediatric-emergency-department>

[Foreign Body Ingestion](#) 



FBI DISTINCTION

Intentional

Accidental

Resource utilization RIFBI



Costly



Often at low
resource times



More staffing



High need for
intervention



Treatment Considerations

Psychiatric comorbidities

Repeat ingestion while in care

Consent

Endoscopic management and risks

BPD

Psychosis

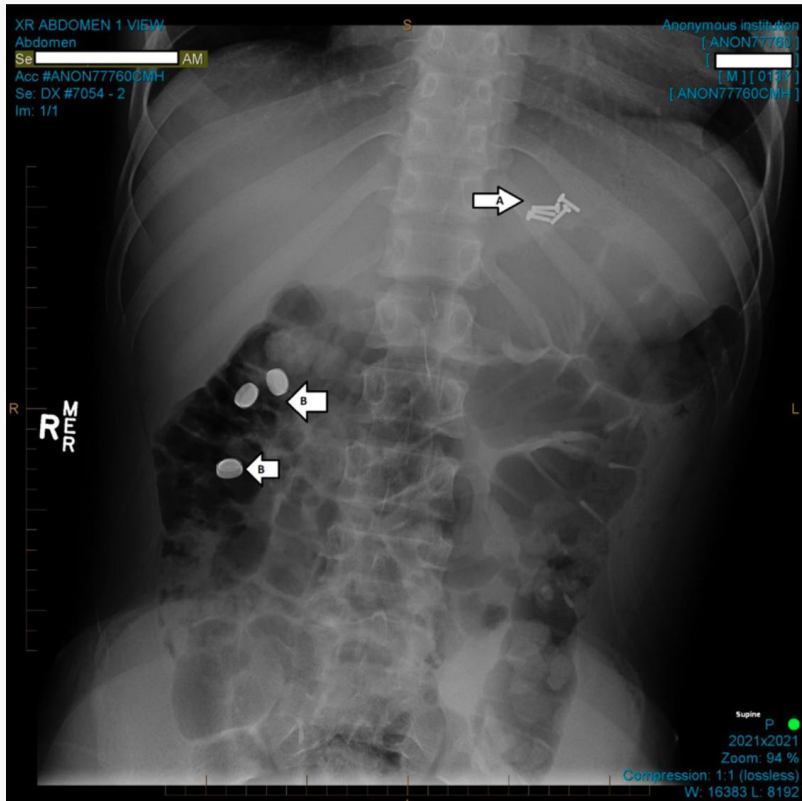
Depression

Neurodevelopmental disorders

Pica

Psychiatric comorbidities

RISK FACTORS FOR PEDIATRIC RIFBI



Environmental Risk Factors: Residential facility living placement ¹⁰

Emotional Risk Factors: Boredom, anxiety, depression, trauma ¹⁰⁻¹¹

Motives: Suicide, secondary gains, sensory seeking, self-stimulation ¹⁰⁻¹¹

STRATEGIES TO
REDUCE
RECURRENCE:
INPATIENT

Pediatric Recurrent Intentional Foreign Body Ingestion: Case Series and Review of the Literature

Christina M Low Kapalu¹, Nadia Ibrahim, Janelle M Mentrikoski, Thomas Attard

Affiliations + expand

PMID: 32404744 DOI: 10.1097/MPG.0000000000002757

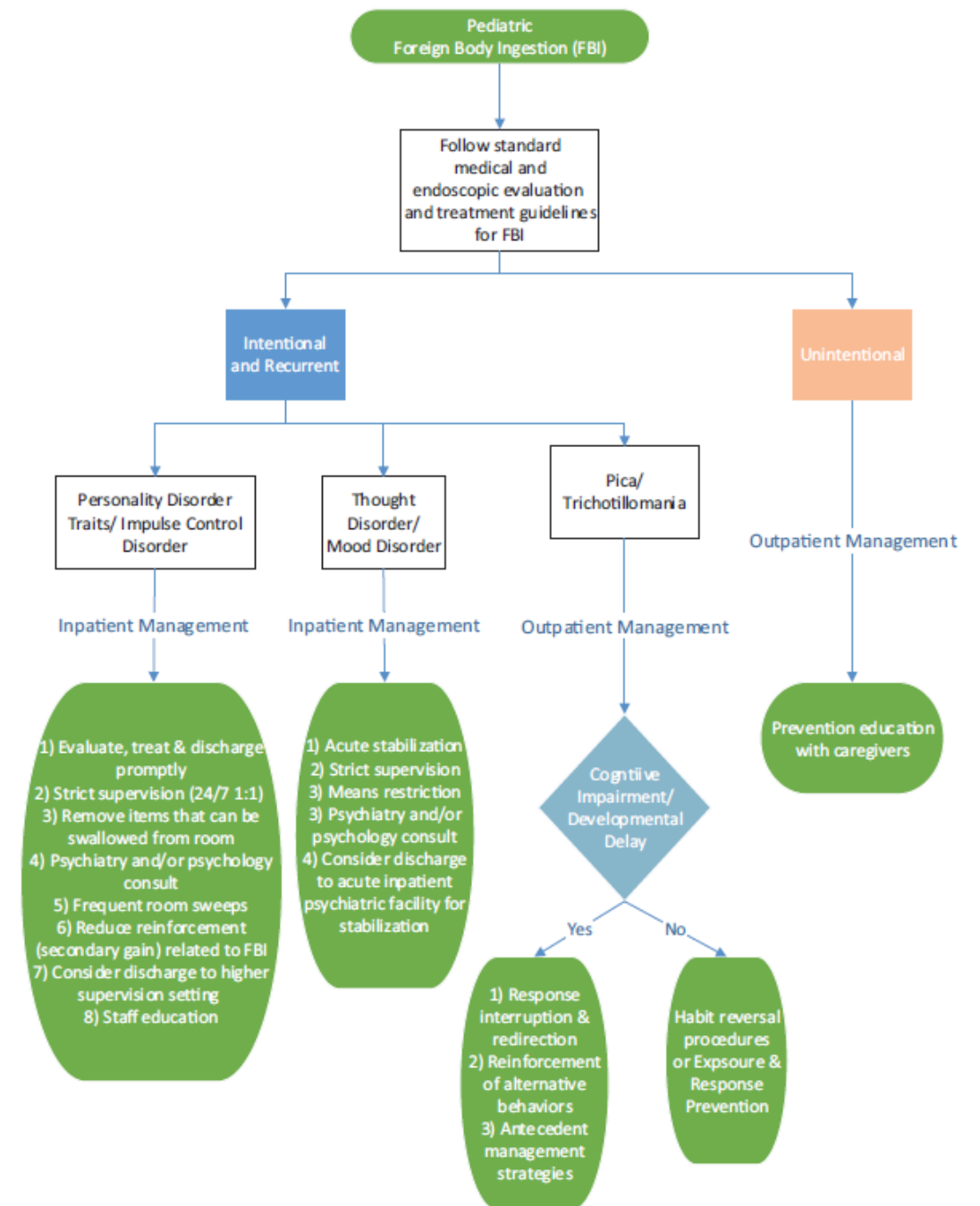
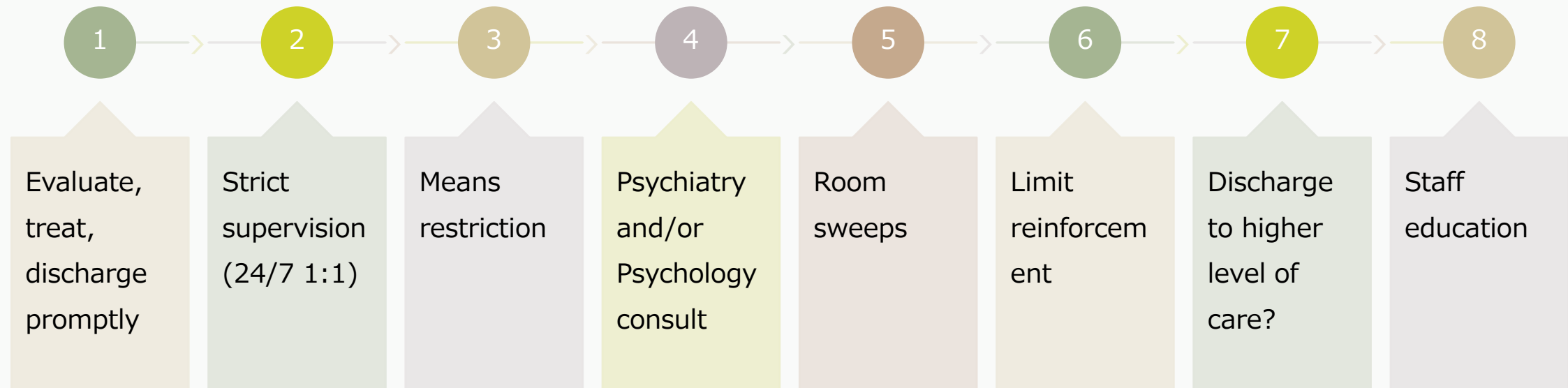


FIGURE 1. Recurrent foreign body ingestion (RFBI) treatment algorithm by behavioral phenotype.

Inpatient Safety



Care Plan Template

Multidisciplinary Management



NURSING



MA



GI



SURGERY



PSYCHIATRY



PSYCHOLOGY



SOCIAL WORK

Ingestion/Insertion Incident Information

******Bring to Emergency Department at each visit ******

Date: _____

Object Ingested or reported to be ingested: ___

Estimated length of object: _____

Object Inserted and location of insertion: _____

Time of Ingestion: _____

Time of notification of ingestion/insertion: ___

Symptoms:(Check all that apply):

*** Please note, do not specifically ask about symptoms as this may cue their report of symptoms. Instead, just record what he has reported.***

Staff Member Reporting: _____

Symptom	Reported by patient	Witnessed/Observed by staff (Y/N)
Abdominal pain		
Nausea		
Vomiting		
Bloody emesis		
Diarrhea		
Coughing/choking		
Difficulty breathing		
Chest pain		
Drooling		
Altered mental status		
Other pain: _____		

**STRATEGIES TO REDUCE
RECURRENCE:
OUTPATIENT**



Other RIFBI Strategies

1. Prevention Education
2. Response Interruption and Redirection
3. Differential reinforcement
4. Antecedent management strategies
5. Habit reversal

TAKE CHARGE...

of button batteries around your home

identify | secure | elevate | eliminate

Identify items with button batteries in them, secure the battery compartment, keep them out of reach of children and dispose of them safely.

If you think your child has swallowed or inserted a button battery, immediately call the 24 hour **Poisons Information Centre on 13 11 26** for fast, expert advice.

For more information visit www.kidsafeqld.com.au or www.qld.gov.au/fairtrading



Dangers of High-Powered Magnets



#MagnetSafety



10-30x **stronger** than refrigerator magnets



stomach pain



vomiting or throwing up



When swallowed, the magnets will attract to each other and cause **serious tissue damage.**

There is **no safe way** to have high-powered magnets in a home with kids. Scan to read how you can keep your child safe!



CLUSTERS

Open Journal of Psychiatry, 2014, 4, 99-103
Published Online April 2014 in SciRes. <http://www.scirp.org/journal/ojpsych>
<http://dx.doi.org/10.4236/ojpsych.2014.42014>



Management of a Cluster of Foreign Body Ingestion Incidents in Patients with Borderline Personality Disorder

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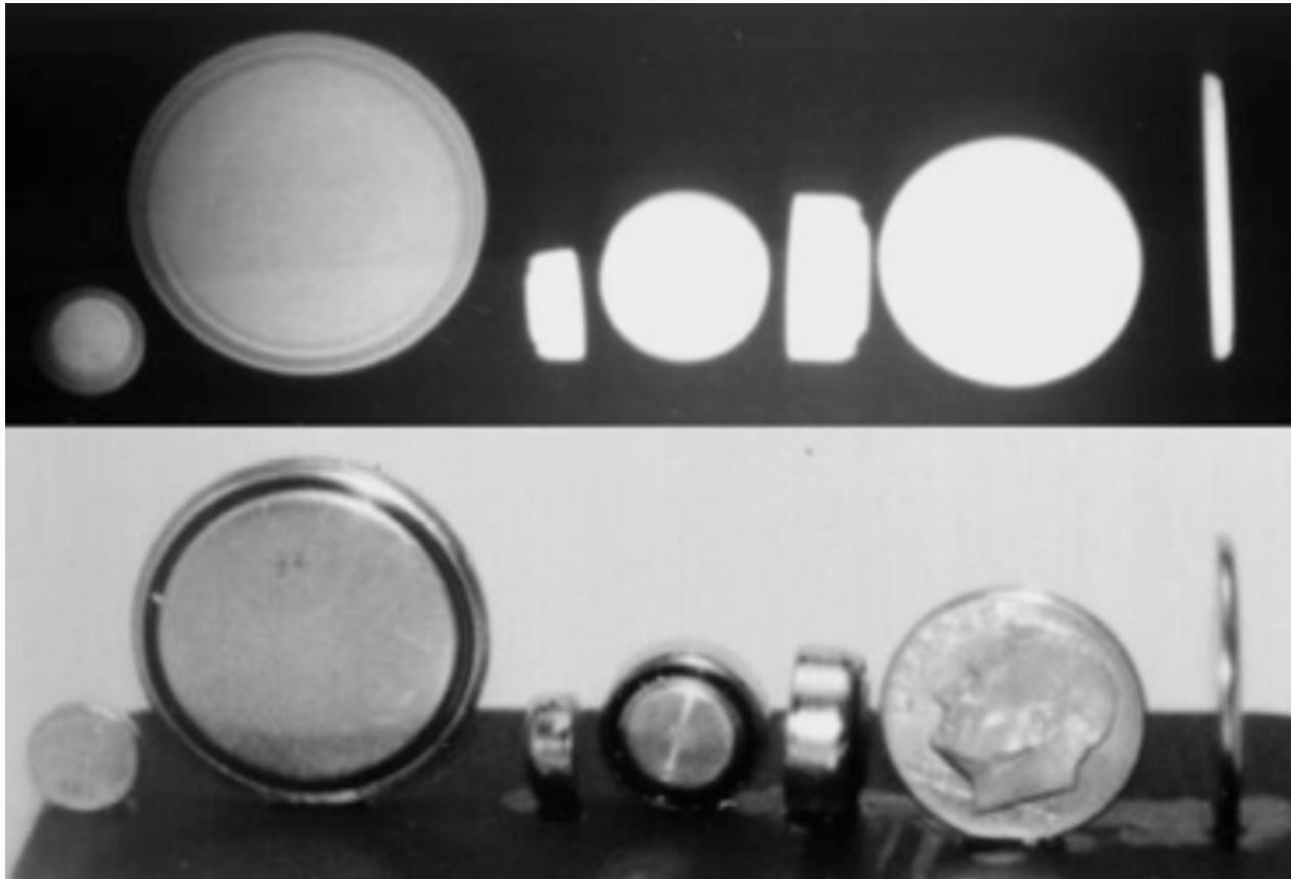
Abstract

Objective: Deliberate foreign body ingestion (DFBI) has been reported in patients with personality disorders as part of a spectrum of self-harming behaviours, however the published literature is small (15 case reports). **Method:** This was a retrospective audit of medical and psychological management of a cluster of 12 DFBI incidents over 9 months in 4 young female patients with Borderline Personality Disorder (BPD). **Results:** All four patients knew one another from outpatient psychotherapy programmes. DFBI was associated with substance use in 5/12 incidents, and with precipitants (experiencing strong emotions, witnessing self-harm) in 4/12 incidents. Most DFBI involved sharp objects (razor blades, glass, safety pins). Medical intervention was initially active (endoscopy/surgery) but progressed to a more conservative, observational approach. Psychological management was initially restrictive, but also changed over time to focus on identifying distress, enhancing coping mechanisms and patient responsibility. Co-ordination of patient care management involved intensive liaison (provision of interdisciplinary support and education) between medical, surgical and psychiatric teams. **Conclusion:** Management of DFBI in patients with BPD requires high levels of interdisciplinary collaboration. In this cluster of DFBI incidents, effective management was achieved with conservative medical/surgical methods (observation) and non-restrictive psychological approaches that enhanced patient self-efficacy.

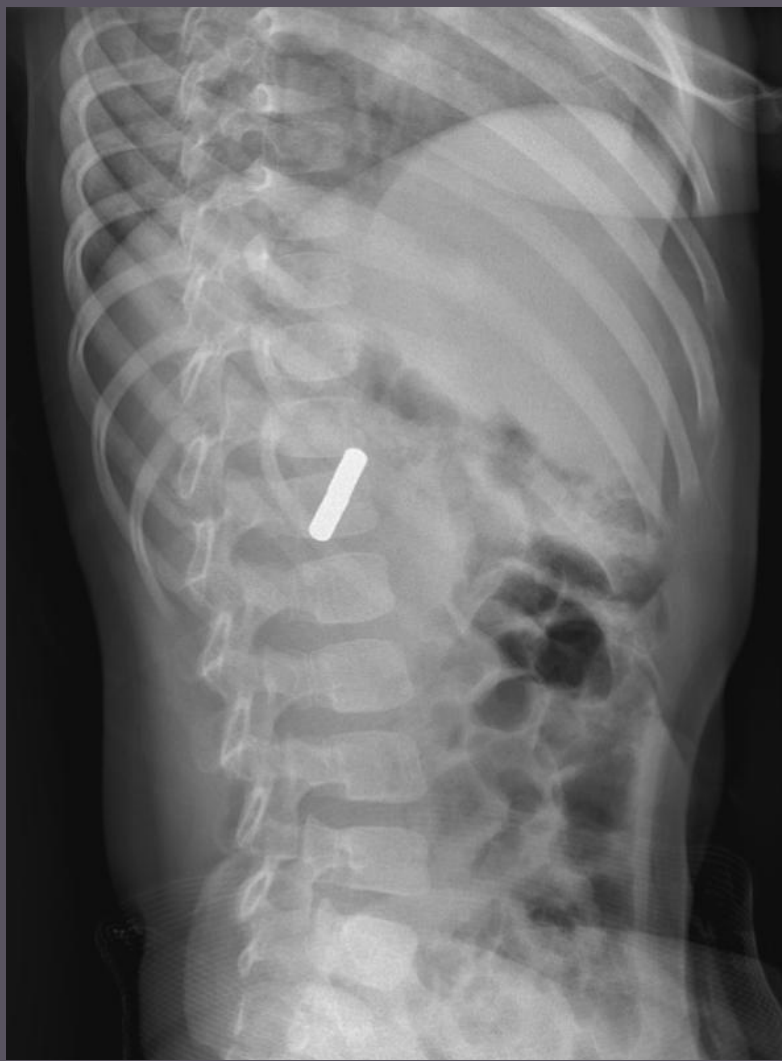
CASE STUDIES

A grayscale chest X-ray showing the ribcage and spine. A prominent, circular, radiopaque object is visible in the upper central region of the chest, consistent with a button battery. The text 'R' is visible on the left side of the image, indicating the patient's right side.

**BUTTON
BATTERIES**

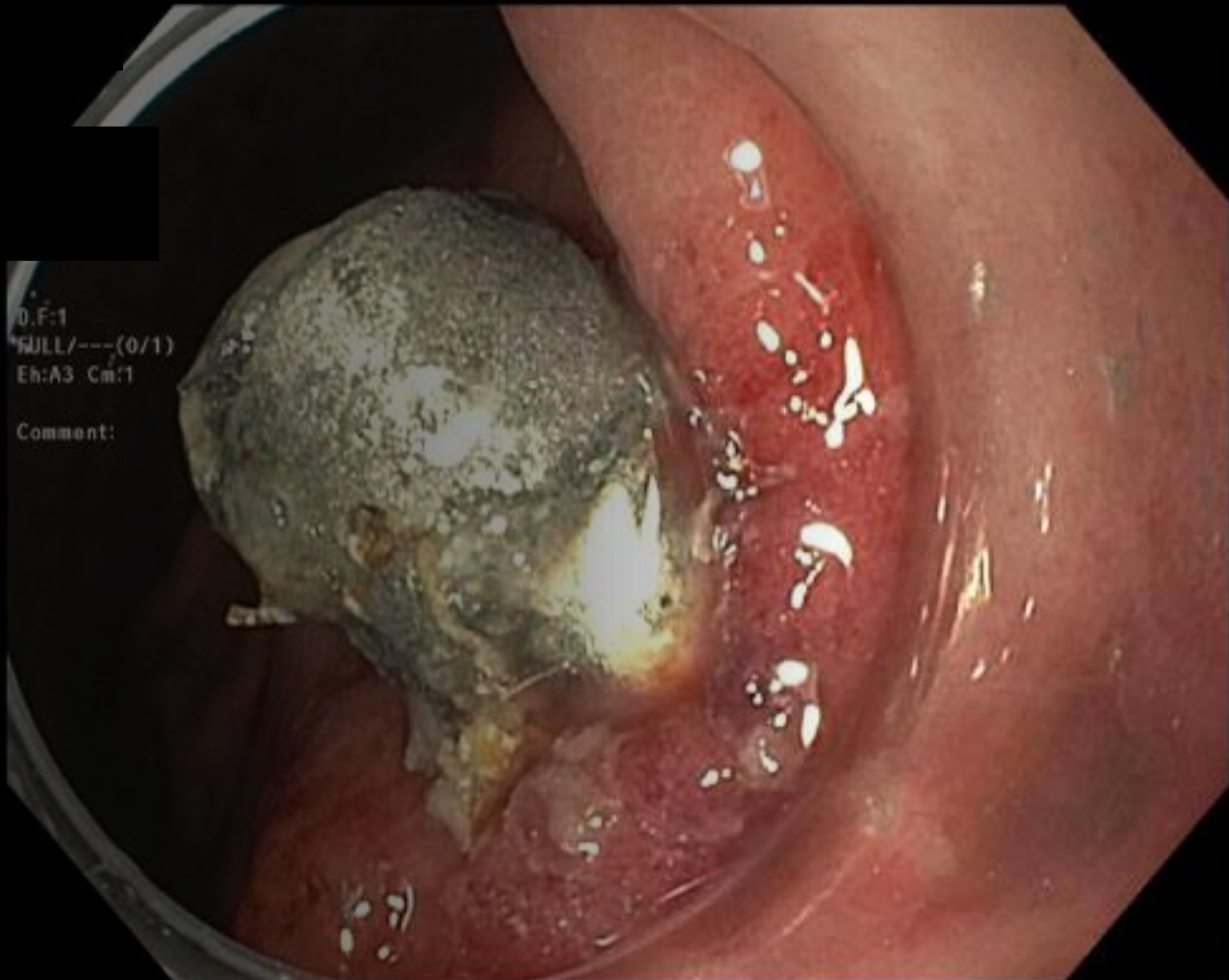


Button Batteries vs Coins



MULTIPLE
MAGNET
INGESTION

D.F:1
FULL/---(0/1)
Eh:A3 Cm:1
Comment:



CASE 3



A 15-year-old European American girl with history of bipolar disorder, conduct disorder, anxiety, and previous suicide attempts presented for abdominal pain following intentional ingestion of 2 AAA batteries. X-rays showed the batteries to be in her stomach. She was clinically stable and discharged to her inpatient psychiatric facility with instruction to do a MiraLAX clean out, then daily MiraLAX.

Serial X-rays were ordered and the batteries passed after 12 days. She presented 4 months later after intentionally ingesting a 3.5 cm metallic bolt in a reported suicide attempt. The bolt was thought to be in the stomach on an X-ray but not seen during EGD the next day.

Golytely clean out was started and serial X-rays showed the bolt moving through her bowel until passed.

You are called in to consult with primary team...

INPATIENT VS OUTPATIENT MANAGEMENT

```
graph TD; A[INPATIENT VS OUTPATIENT MANAGEMENT] --> B[DISCHARGE GOALS (IF APPLICABLE)]; B --> C[INPATIENT MANAGEMENT]; C --> D[OUTPATIENT GOALS/LEVEL OF CARE];
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DISCHARGE GOALS (IF APPLICABLE)

INPATIENT MANAGEMENT

OUTPATIENT GOALS/LEVEL OF CARE

CASE 3



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CASE 3



Application of a Multidisciplinary Management Model

- ✓ Intentional and Recurrent
- ✓ Impulse (CD) and Mood Disorder (BP, MDD, GAD, SI)

Acute stabilization, strict supervision, means restriction

Psychiatry and/or psychology consult

Discharge to acute inpatient psychiatric facility?

Consider function of SI vs secondary gain (escape)

Consider room sweeps and level of supervision needed

THANK YOU



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For more information visit
www.legacyhealth.org/pedinet



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