Clinical Guideline

This guideline serves as a guide and does not replace clinical judgment.

Foreign Body Ingestion Algorithm

Pediatric Emergency Medicine

Concern for Foreign Body Ingestion

Are any of the following present?

- Choking
- Chest/throat pain
- Wheezing
- Retractions
- Drooling
- Altered mental status
- Impending/presenting shock/respiratory failure

YES

- Stabilize in resuscitation room
- STAT AP and Lateral CXR and KUB

NO

- AP and Lateral CXR and KUB

Ingested item identified from history or imaging?

NO

Consider additional imaging for potential radiolucent foreign body

YES

- Button Battery (p.2)
- Sharp Object (p.3)
- Magnet(s) (p.4)
- Coin/Blunt Objects (p.5)
- Esophageal Food Impaction (p.6)

History & Physical Checklist

Ingestion History

- Presumed object
- Time of ingestion
- Witnessed or unwitnessed
- Time of last meal/drink
- Personal history of GI pathology or surgeries in the past
- Choking, vomiting, pain present

Assessment/Exam

- Obtain VS
- Airway patent?
- Patient with significant drooling? Difficulty breathing?
- Tripod positioning present?
- Stridor, wheezing, poor aeration, unequal breath sounds?
- Diffuse abdominal tenderness?

Imaging Order Set / Foreign Body Series

- AP CXR, Lateral CXR, Lateral Neck, and KUB
- CT Chest, Abdomen
- MRI Chest, Abdomen
- Ultrasound
- Esophagram

Subspecialty Contacts – STAT page

- Pediatric GI: p9361
- Pediatric Surgery: p9993
- Pediatric ENT: p9864
- Pediatric CT Surgery: p9231

Place PEM Attending/Fellow number on page for callback for single line of communication between services.

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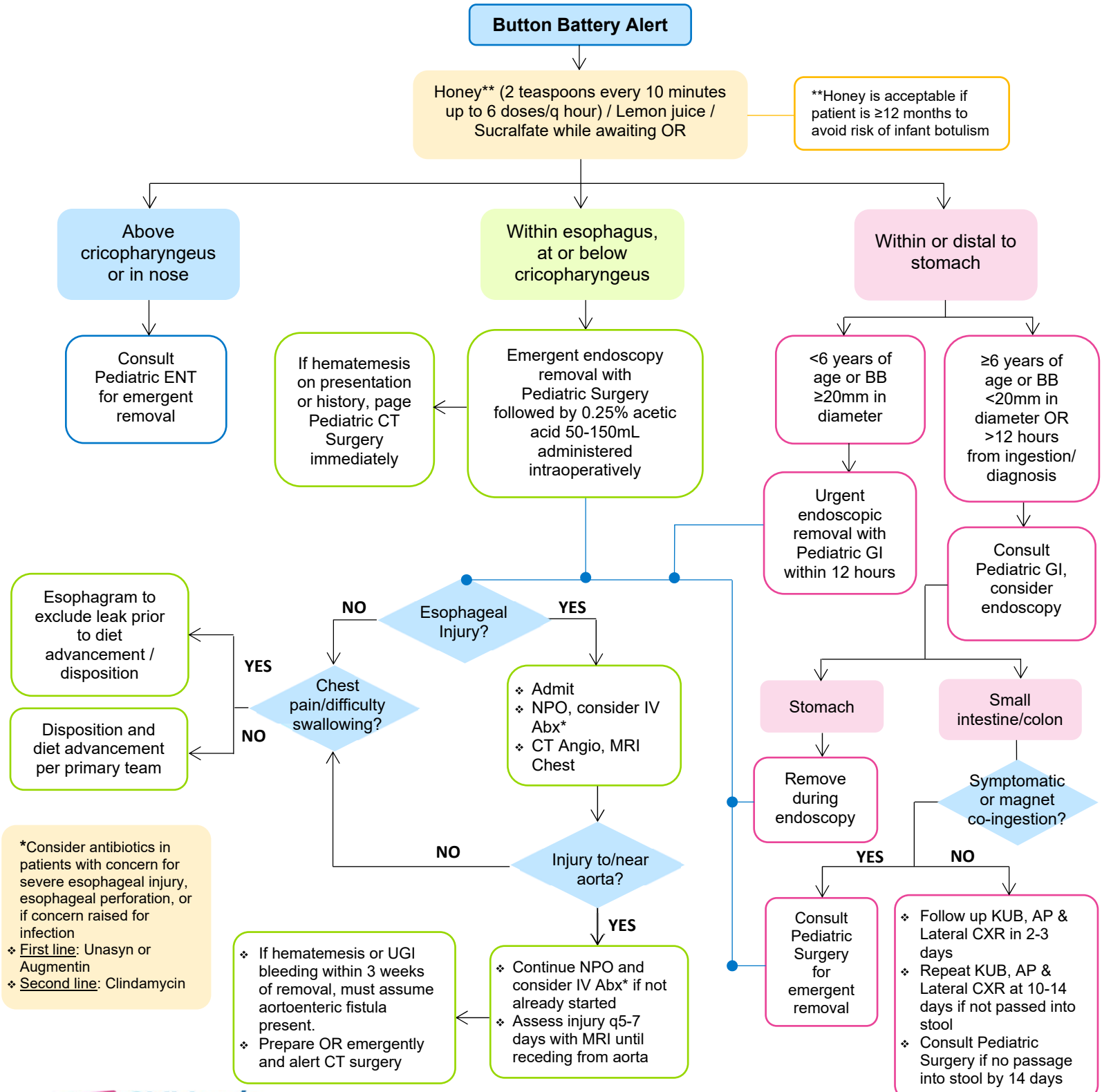
Button Battery: Foreign Body Ingestion Algorithm

Pediatric Emergency Medicine



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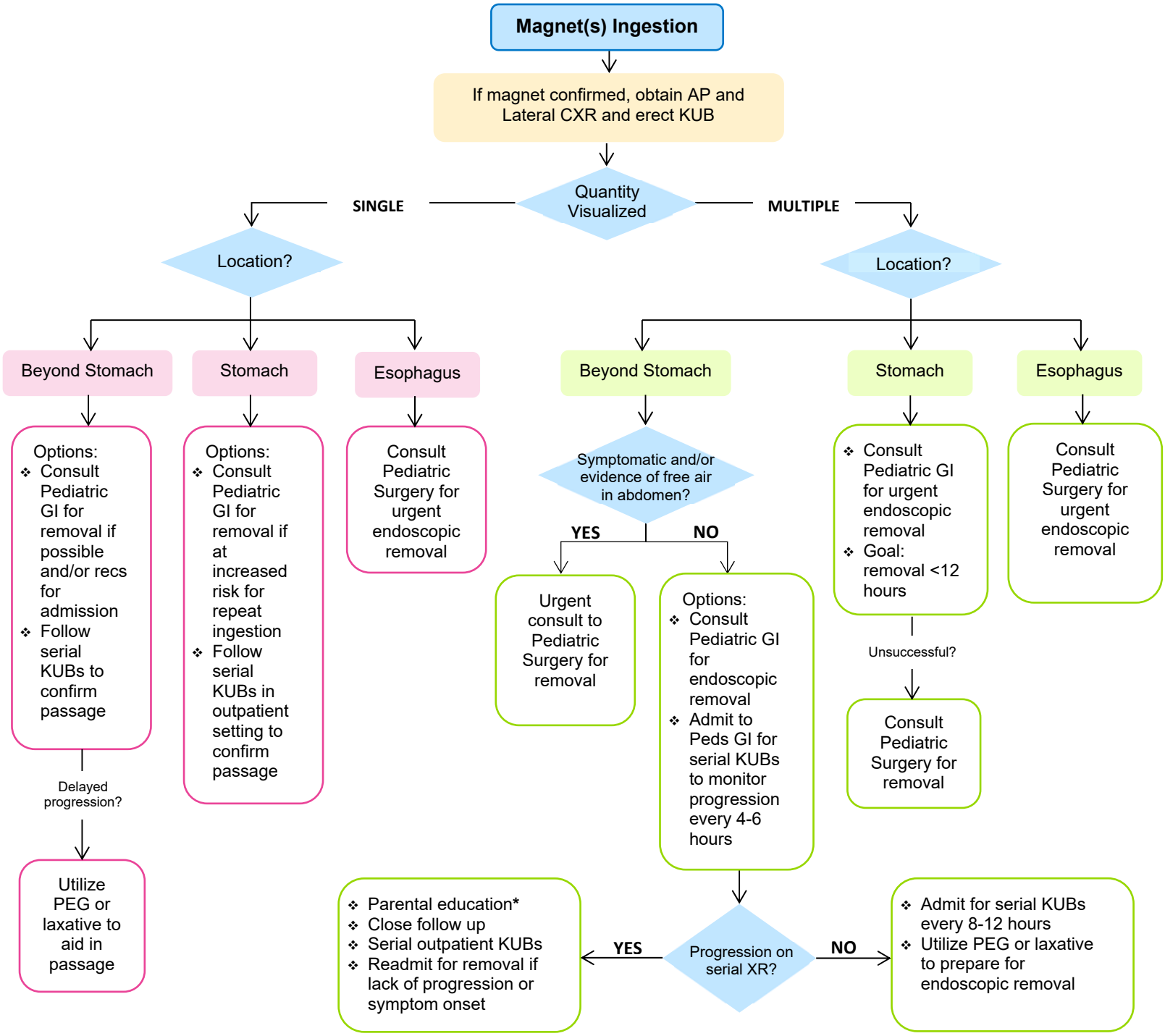
Magnet: Foreign Body Ingestion Algorithm

Pediatric Emergency Medicine



***Parental Education:**

- Remove any magnetic objects within environment as to prevent additional ingestion or attractive force on already ingested magnets
- Avoid clothing with metallic buttons, buckles, or belts

Children's Hospital of Richmond at VCU

For questions concerning this guideline, contact:
chorclinicalguidelines@vcuhealth.org

chrichmond.org
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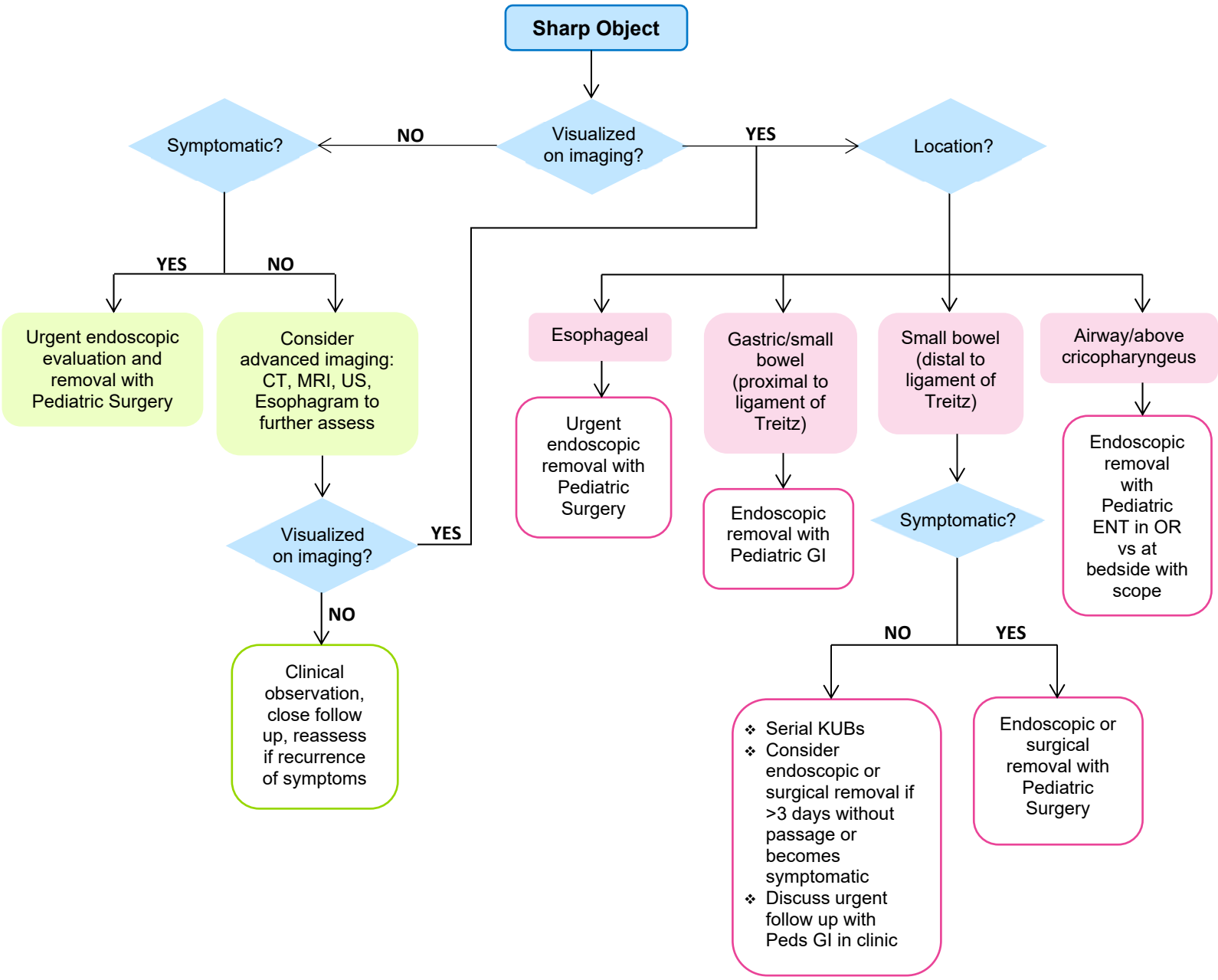
Sharp Object: Foreign Body Ingestion Algorithm

Pediatric Emergency Medicine



Clinical Guideline

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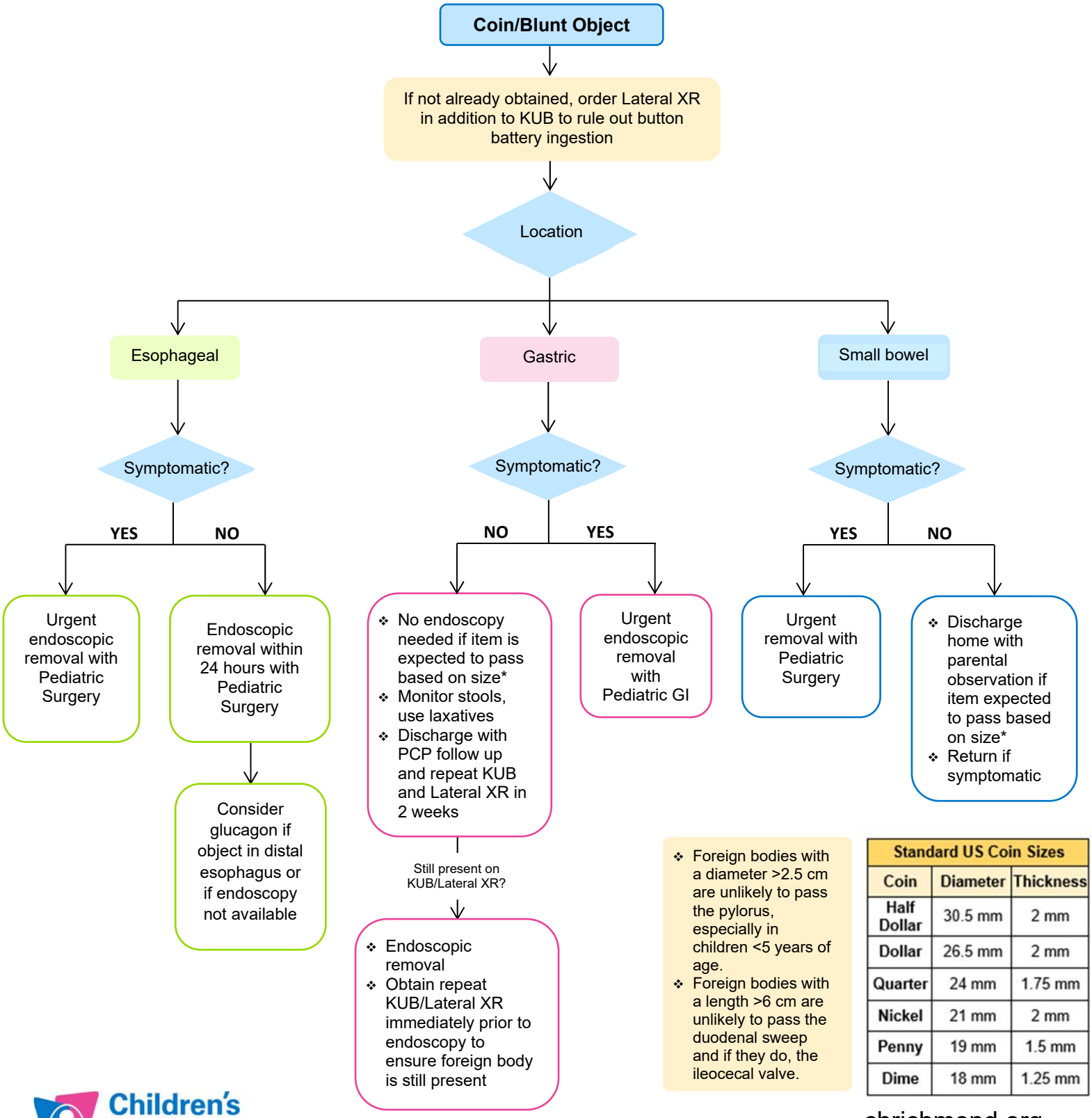
Coin/Blunt Object: Foreign Body Ingestion Algorithm

Pediatric Emergency Medicine



- Foreign bodies with a diameter >2.5 cm are unlikely to pass the pylorus, especially in children <5 years of age.
- Foreign bodies with a length >6 cm are unlikely to pass the duodenal sweep and if they do, the ileocecal valve.

Standard US Coin Sizes		
Coin	Diameter	Thickness
Half Dollar	30.5 mm	2 mm
Dollar	26.5 mm	2 mm
Quarter	24 mm	1.75 mm
Nickel	21 mm	2 mm
Penny	19 mm	1.5 mm
Dime	18 mm	1.25 mm

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Last Updated: March 2025
Next Update: March 2028

Clinical Guideline

Esophageal Food Impaction

Pediatric Emergency Medicine

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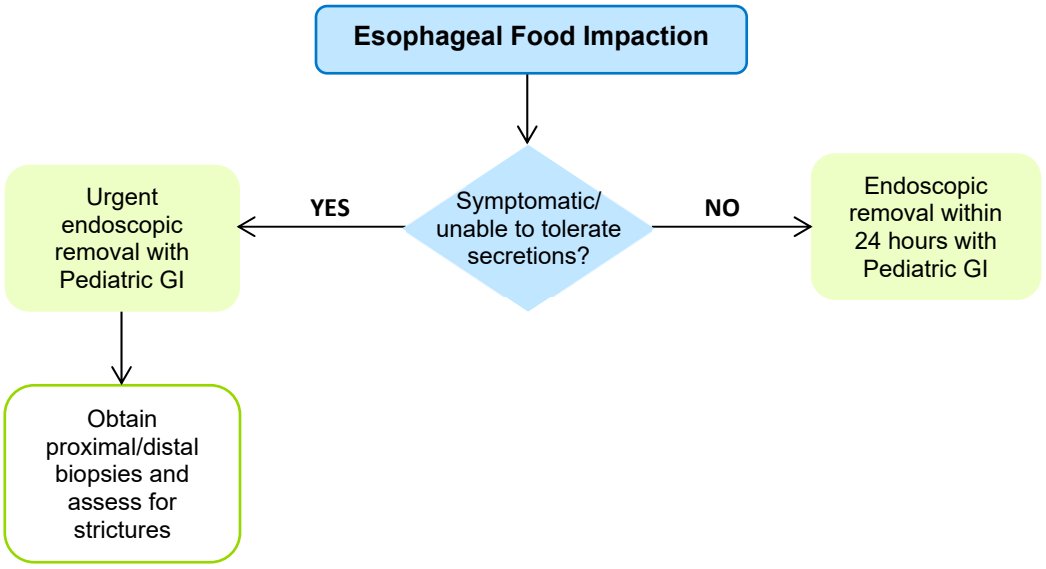

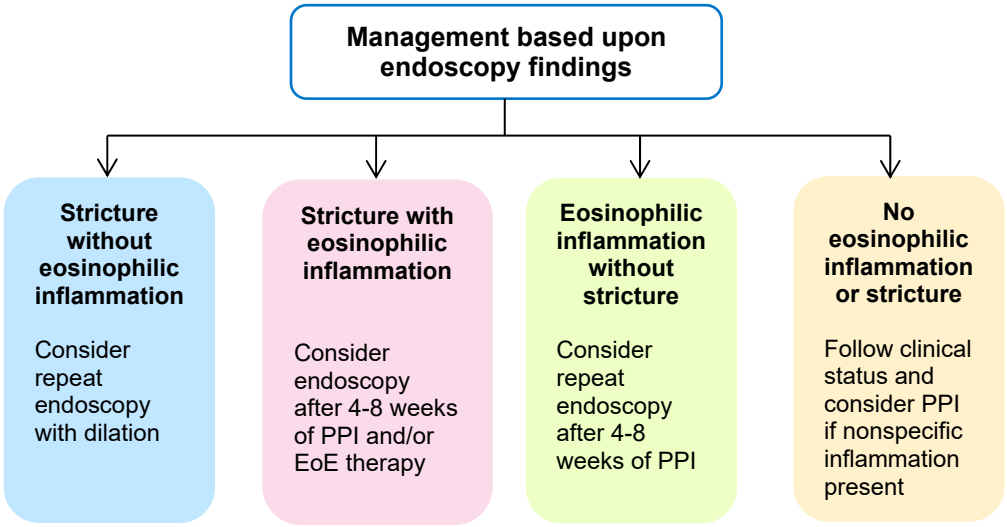

Executive Summary

Foreign Body Ingestion Algorithm

Pediatric Emergency Medicine

Children's Hospital of Richmond at VCU: Foreign Body Ingestion Algorithm Workgroup

Pediatric Gastroenterology Owner: Narendra Vadlamudi, MD
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References

Brumbaugh, D. E., Colson, S. B., Sandoval, J. A., Karrer, F. M., Bealer, J. F., Litovitz, T., &Kramer, R. E. (2011). Management of button battery–induced hemorrhage in children. *Journal of Pediatric Gastroenterology and Nutrition*, *52*(5), 585–589. https://doi.org/10.1097/mpg.0b013e3181f98916

Children's Hospital of Philadelphia: 2013 Emergency Department Clinical Pathway for the Evaluation/Treatment of Children with Foreign Body Ingestion

Jacobs, I. N., & Jatana, K. R. (2021). Current management of aerodigestive foreign bodies in children. *Seminars in Pediatric Surgery*, *30*(3), 151064. https://doi.org/10.1016/j.sempedsurg.2021.151064

Kramer, R. E., Lerner, D. G., Lin, T., Manfredi, M., Shah, M., Stephen, T. C., Gibbons, T. E., Pall, H., Sahn, B., McOmber, M., Zacur, G., Friedlander, J., Quiros, A. J., Fishman, D. S., & Mamula, P. (2015). Management of ingested foreign bodies in children. *Journal of Pediatric Gastroenterology and Nutrition*, *60*(4), 562–574. https://doi.org/10.1097/mpg.0000000000000729

Mubarak, A., Benninga, M. A., Broekaert, I., Dolinsek, J., Homan, M., Mas, E., Miele, E., Pienar, C., Thapar, N., Thomson, M., Tzivinikos, C., & de Ridder, L. (2021). Diagnosis, management, and Prevention of Button Battery Ingestion in childhood. *Journal of Pediatric Gastroenterology and Nutrition*, *73*(1), 129–136. https://doi.org/10.1097/mpg.0000000000003048

National Capital Poison Center: 2010-2024 Button Battery Ingestion Triage and Treatment Guideline

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Retrieval website: **https://www.chrichmond.org/health-care-professionals/chor-clinical-guidelines**

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