Foreign Body Aspiration (FBA)

Children's Mercy KANSAS CITY | Evidence Based Practice

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Evaluation for suspected Foreign Body Aspiration (FBA)

25 to 50% of FBAs **<u>are not</u>** witnessed and lead to a delayed diagnosis

Pt. has a history or physical exam that suggests a suspected FBA

History:
- Acute onset of choking
- Intractable cough which may diminish over time
- High suspicion of FBA per parent / caregiver
- High risk age group (≤ 5 yoa with peak incidence between 1- 2 yoa*)
- Developmentally delayed^

Physical exam:
- Stridor or focal "wheeze"
- Asymmetric breath sounds
- Decreased or absent breath sounds

*The American Association of Poison Control National Poison Data System (Gummin et al., 2018) reported that 73,503 FBA occurred, with 87% of these occurrences being in the pediatric population. In that same year, 73% of FBA ingestions were reported in children ≤ 5 yoa.
^Based on CM data (2012 - 2019) 12% of patients with a suspected FBA (*N* = 141) had a diagnosis associated with developmental delay.

Is there impending/actual respiratory arrest?
- Yes → Provide appropriate emergency airway care
- No ↓

Is CT available without requiring a transfer?
- No → May obtain chest x-ray (2 view). If patient had a CXR of good quality and it's reviewable, then no need to repeat.

Chest XR Suggestive of FBA:
- Focal air trapping (acute finding)
- Atelectasis or post-obstructive pneumonia (may be subacute or chronic)
- Note: Only 10-20% of FBA are radio-opaque

Continued FBA Concern:
- Focal findings on examination
- Acute onset of choking and intractable cough
- High suspicion of FBA per parent / caregiver

Does x-ray suggest an FBA **<u>or</u>** is there continued FBA concern?
- Yes → Transfer to higher level of care
- No → Consider alternative diagnosis, or discharge with close follow-up

Yes ↓

Order: Chest CT, w/o contrast, indicate airway foreign body protocol

FBA identified?
- No → Consider alternative diagnosis, or discharge with close follow-up
- Yes ↓

Consult ENT ASAP for consideration of a rigid bronchoscopy

The FBA Care Process Model is primarily a consensus document. The following reference was used to determine the epidemiology statement:
Gummin, D. D., Mowry, J. B., Spyker, D. A., Brooks, D. E., Osterthaler, K. M., & Banner, W. (2018). 2017 Annual Report of the American Association of Poison Control Centers' National Poison Data System (NPDS): 35th Annual Report. *Clin Toxicol (Phila), 56*(12), 1213-1415. doi:10.1080/15563650.2018.1533727

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Last Updated: 03/19; 01/20; 2/22