1. Overview
   a. Intranasal foreign bodies (FB) occur most frequently in young children or developmentally disabled.
   b. Objects commonly found in nose include:
      i. Vegetation, i.e., beans, nuts, popcorn, seeds, modeling clay
      ii. Small solid objects, i.e., beads, small toys, coins, rocks, button batteries

2. Goal of the procedure
   a. Removal of intranasal foreign body to relieve pain and/or prevent infection.

3. References
      i. Textbook available online through the University of Arizona Health Sciences Library.

4. Required Reading and Video
   - UpToDate: UpToDate. (2019). Diagnosis and management of intranasal foreign bodies.
   - YouTube: Removing nasal foreign bodies video: https://www.youtube.com/watch?v=fjhW1F2grmE
     Katz Extractor video: https://www.youtube.com/watch?v=rQpI0dJrYtc

5. Required Procedure Competencies
   - Identify contraindications warranting referral:
     • Hard vegetation that has become swollen
     • Posterior FB not visualized by anterior rhinoscopy
     • Impacted FBs with gross edema, especially button batteries
     • Penetrating or hooked FBs
     • Uncooperative patient requiring sedation
   - Gather equipment for removal of intranasal foreign body:
     • Gloves-nonsterile
     • Drape or towel
     • Topical anesthetic: one part oxymetazoline, one part 4% lidocaine without epinephrine
       (weight-based considerations, DO NOT use with button batteries).
     • 0.9% sodium chloride for irrigation
     • Nasal speculum and foreign body extraction tools, i.e., nasal forceps, Alligator forceps,
       right-angle hook curette
   - Position the cooperative patient comfortably in upright sitting position.
     • Apply drape or towel to protect clothing.
     • Put on gloves and use nondominant hand to push the tip of the nose up.
     • Attempt positive pressure techniques before direct instrumentation. Unless FB is
       nonocclusive and in anterior portion of the nasal passage.
   - Instill topical anesthetic drops into nasal passages.
   - Insert nasal speculum.
• Insert appropriate tool through the speculum, grasp FB, and gently remove.
  • Non-occlusive compressible objects, i.e., foam, rubber, objects with rough surfaces, etc.: Alligator or nasal forceps
  • Smooth objects or others not easily grasped: Avoid using forceps. Use a right-angle hook or with balloon catheters/Katz extractors.
• Irrigate nasal passage with 0.9% sodium chloride to remove remaining debris with patient sitting up to decrease risk of aspiration.

6. During CSI Skills Lab
   a. Prior to arriving, you are expected to have read and watched the above. The skills lab is intended to build upon the above information and allow you to engage in a more patient-centered way.
   b. You will spend fifteen minutes at each skills station. This will be divided in the following manner:
      i. 5 minutes: Short introduction to the skill and focused HPI
      ii. 5 Minutes: Procedure
      iii. 5 Minutes: Final Report and Preceptor Presentation
   c. Please see the Case Study Worksheet on the next page
Case Study Worksheet - Student Guide

CC: Jane Dove is 2 y.o. female with malodorous, purulent unilateral nasal discharge and redness in right nostril.

<table>
<thead>
<tr>
<th>O</th>
<th>Onset</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Location/radiation</td>
</tr>
<tr>
<td>D</td>
<td>Duration</td>
</tr>
<tr>
<td>C</td>
<td>Character</td>
</tr>
<tr>
<td>A</td>
<td>Aggravating factors</td>
</tr>
<tr>
<td>R</td>
<td>Relieving factors</td>
</tr>
<tr>
<td>T</td>
<td>Timing</td>
</tr>
</tbody>
</table>

- Considering these answers, are there any follow up questions you would ask that would not be asked below in the ROS?

ROS: Given the above, which systems will you focus on?

<table>
<thead>
<tr>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEENT</td>
</tr>
<tr>
<td>Respiratory</td>
</tr>
<tr>
<td>Cardiovascular</td>
</tr>
<tr>
<td>Musculoskeletal</td>
</tr>
<tr>
<td>Endocrine</td>
</tr>
<tr>
<td>GI/GU</td>
</tr>
<tr>
<td>GU</td>
</tr>
<tr>
<td>GYN (if applicable)</td>
</tr>
<tr>
<td>Neuro/Psych</td>
</tr>
</tbody>
</table>

Exam:
- How would you document the exam?

Differential Diagnoses:
- List three differentials in their order of likelihood
  1. Probable:
  2. Possible:
  3. Unlikely:

Preceptor Report:

Documentation Example:

CC:

S:
Case Study Worksheet - Instructors Guide

CC: Jane Dove is 2-year old female with malodorous, purulent unilateral nasal discharge and redness in right nostril.

<table>
<thead>
<tr>
<th>O</th>
<th>Onset</th>
<th>Mother states: “I just noticed how badly the drainage smelled today.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Location/radiation</td>
<td>Right nare, non-radiating</td>
</tr>
<tr>
<td>D</td>
<td>Duration</td>
<td>Symptoms have been occurring for two weeks.</td>
</tr>
<tr>
<td>C</td>
<td>Character</td>
<td>Mucopurulent and malodorous nasal discharge.</td>
</tr>
<tr>
<td>A</td>
<td>Aggravating factors</td>
<td>None- patient has not been able to blow her nose.</td>
</tr>
<tr>
<td>R</td>
<td>Relieving factors</td>
<td>None identified</td>
</tr>
<tr>
<td>T</td>
<td>Timing</td>
<td>Constant, worsening</td>
</tr>
</tbody>
</table>

- Considering these answers, are there any follow up questions you would ask that would not be asked below in the ROS?
  - Has the patient shown difficulty breathing?
  - Any nose bleeds?
  - Has the patient reported putting anything in her nose?
  - Have you noticed increased mouth breathing?

ROS: Given the above, which systems will you focus on?

<table>
<thead>
<tr>
<th>General</th>
<th>Mother denies any fever. Behavior has been WNL. Patient is eating/drinking/toileting the same.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEENT</td>
<td>Negative except for the above noted nasal discharge</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Negative for cough, SOB, wheezing</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td></td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td></td>
</tr>
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</table>

Exam:

- How would you document the exam?

Differential Diagnoses:

- List three differentials in their order of likelihood
  1. Probable: Intranasal foreign body
  2. Possible: Chronic sinusitis
  3. Unlikely: Intracranial abscess

Preceptor Report:
Jane Dove is 3-year old female who presents today with her mother for malodorous, purulent unilateral nasal discharge and redness in right nostril. This has been noticed over the last two weeks but is markedly worse today. She has had accompanying malodorous/mucopurulent discharge for the same amount of time. The discharge and odor seem to be worse from the right side. Mother has noted that patient is unable to blow her nose. Nothing seems to make this better or worse. Child is otherwise healthy and UTD on vaccinations. She is in preschool but the have not been reports of any illness. The ROS is negative except for what was just noted; mother has not noticed any SOB, epistaxis. Her mother has noticed increased mouth breathing. Mother nor preschool saw patient put anything in her nose. PE was negative except for overwhelming odor noted as soon as I entered the room and mucopurulent and malodorous nasal discharge. Once this was cleared, I was able to visualize moderate erythema and a small, green bead in the patient’s right nostril. Instructed mother on positive pressure technique. After two attempts, this was successful. Patient tolerated this well. The bead was noted to be intact. I then irrigated the nasal passage with 0.9% sodium chloride; no further debris was noted. Given mucopurulent discharge and seeming time of retention, I would recommend weight based augmentin BID x 10 days. Mother was already educated on importance of monitoring for fever, change of behavior, continued smell. Child and mother were educated on importance of not putting objects in ears, nose.

**Documentation Example:**

**CC:** Malodorous, purulent unilateral nasal discharge and redness in right nostril.

**S:** Jane Dove is 3-year old female who presents today with her mother for malodorous, purulent unilateral nasal discharge and redness in right nostril. This has been noticed over the last two weeks but is markedly worse today. She has had accompanying malodorous/mucopurulent discharge for the same amount of time. The discharge and odor seem to be worse from the right side. Mother has noted that patient is unable to blow her nose. Nothing seems to make this better or worse.

**O:** VS: Temperature: 98.2 Pulse: 96, regular. Respirations: 24, easy and unlabored. Blood Pressure: 80/54. Height: 39.5 inches (90th percentile). Weight: 34 pounds (90th percentile). PE was negative except for overwhelming odor noted as soon as I entered the room and mucopurulent and malodorous nasal discharge. Once this was cleared, I was able to visualize moderate erythema and a small, green bead in the patient’s right nostril.

**A:**

1. Probable: Intranasal foreign body
2. Possible: Chronic sinusitis
3. Unlikely: Intracranial abscess

**P:**

- Instructed mother on positive pressure technique. After two attempts, this was successful. Patient tolerated this well. The bead was noted to be intact. Nasal passage then irrigated with 0.9% sodium chloride; no further debris was noted.
- Given mucopurulent discharge and seeming time of retention, weight based augmentin BID x 10 days.
- Mother was already educated on importance of monitoring for fever, change of behavior, continued smell.
- Child and mother were educated on importance of not putting objects in ears, nose.