Verification of Feeding Tube Placement (blindly inserted)

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Expected Practice

◆ Use a variety of methods to predict location during tube insertion
  • Signs of respiratory distress
  • Capnography if available
  • Visual characteristics of aspiration
  • Auscultatory and water bubbling are unreliable
Expected Practice

◆ Obtain radiographic confirmation of any blindly inserted tube
  - Radiograph should visualize the entire course of the tube
  - Should be read by a radiologist
  - Mark and document the tube’s exit site immediately after confirmation of correct placement

Verification of Feeding Tube Placement
Expected Practice

◆ Check tube location at 4 hour intervals after feeding is started
  - Observe for change in length of the external portion of the tube
  - Review routine chest and abdominal x-rays for tube location
  - Measure pH of aspirates
  - Observe appearance of feeding tube aspirates
  - If there is doubt about placement – obtain an x-ray
Scope and Impact

- Blind placement of a feeding tube can cause serious and even fatal complications.
- Even a small percentage of such complications can affect a significant number of people.
- Styleted small-bore tubes are most often associated with complications, however, large-bore unstyleted tubes are not without risk. Nasogastric feeding tubes were malpositioned in 1.3% to 2.4% of all insertions; malpositions resulted in pneumonia.
- Critically ill patients often have multiple risk factors for airway misplacements; among these are a decreased level of consciousness, altered gag reflex, presence of an endotracheal tube, and multiple insertion feeding tubes may be malpositioned in the brain.
- Risk for aspiration is greatly increased when a feeding tube’s ports end in the esophagus.
- Complications related to malpositioned feeding tubes can be minimized by explicit policies and procedures for feeding tube insertions.
Bedside Methods to Determine Placement

◆ Signs of respiratory distress

◆ Capnography

◆ pH and Appearance of Aspirate

◆ Listening over the epigastrum for air insufflated through tube is not reliable
Radiographic Confirmation

- Properly obtained and interpreted radiograph is recommended
- Marking and documenting the tube at exit after confirmation of correct placement
Checking Tube Location at Regular Intervals

- Change in length of external tube
- Review routine chest and abdominal x-rays
- Testing PH of feeding and appearance of tube aspirate
- Listening over epigastrum for air insufflated through tube is not reliable
- Obtain x-ray tube location if in doubt

Verification of Feeding Tube Placement
Actions for Nursing Practice

◆ Use a variety of techniques to assess tube placement during insertion
◆ Obtain x-ray that visualizes entire course of newly inserted tube
◆ Ensure that your unit has written policies and procedures
◆ If not already in place; develop documentation practices
◆ Monitor tube position at 4 hour intervals
Need More Information?

For more information or further assistance, please contact a clinical practice specialist with the AACN Practice Resource Network.

Email: practice@aacn.org