

# Verification of Feeding Tube Placement (blindly inserted)

Issued August 2010

# 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



# 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 epigastrium 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 epigastrium for air insufflated through tube is not reliable
- ◆ Obtain x-ray tube location if in doubt



# 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](mailto:practice@aacn.org)

