Pediatric Nasogastric Tube Placement and Verification

Best Practice Recommendations from the NOVEL Project

- **Use appropriate NGT placement, measurement, and securing methods**
  - Use the **N**ose→**E**arlobe→Xiphoid process→**M**idline of the **U**mbilicus (NEMU) method for determination of NGT insertion length
  - Document the centimeter (cm) marking on the tube where it exits the nose or mouth periodically
  - In a NGT with a stylet that has been flushed with sterile water, aspirate the entire fill volume of sterile water and discard. A second aspiration is necessary to obtain gastric secretions for pH testing.
- **Measure gastric pH**
  - Gastric pH should be the first line method for NGT location verification
  - A gastric pH value between 1 – 5.5 without a change in the patient's clinical status is indicative of gastric placement
- **Determine a schedule for frequency of NGT location verification. Consider an X-ray for any patient in whom there is any concern about the correct NGT placement, such as:**
  - Difficulty placing the NGT
  - Any patient at high risk of misplacement such as those with known history of facial fractures, neurologic deficit, respiratory concerns, decreased or absent gag reflex, and those who are critically ill
  - Any patient whose condition deteriorates shortly after NGT placement
- **If an X-ray is obtained:**
  - The X-ray requisition should clearly request "NGT placement verification" or similar language
  - The X-ray report should contain a statement of the tube path, the location of the tube tip, confirmation that the tube is positioned in the desired location and is appropriate for use

Videos on Proper Tube Placement: nutritioncare.org/novel

Reference: Irving SY, et al. Pediatric Nasogastric Tube Placement and Verification: Best Practice Recommendations from the NOVEL Project. *Nutr Clin Pract*. 2018;33:921-927. https://doi.org/10.1002/ncp.10189.

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