EBRP: NASOGASTRIC (NG) TUBE

MAYANA HAMILTON, ESTELA HURD, CAROLINE NHAM

LONGWOOD UNIVERSITY: NURSING, BSN

ABSTRACT

Conventional nasogastric tube placement is an essential clinical procedure. Therefore, this study was conducted to provide an accurate evidence-based practice to the audience regarding how and why it is done. At this level of nursing, our knowledge regarding NG tube is limited in terms of what it is used for, the procedure, the gold standard of checking its placement, and the possible complications that can occur if the NG tube is not placed properly. By utilizing peer-reviewed articles and sources from our institution's website, an extensive research was performed to share what we learned regarding the importance and why a nasogastric tube is used. It is the nurse's responsibility in ensuring that the NG tube is placed correctly in the stomach, by following the proper protocols.

WHAT IS NG TUBE

It is a flexible tube (made of rubber), threaded through the nose down to the stomach. It does not require surgical placement and can be inserted relatively easily and removed just as easily (Howley, 2019)

WHAT IS IT USED FOR

- Removes (lavage) substances in the stomach
  - Draining the stomach by gravity
  - Connecting to a suction pump
- Deliver nutrients and medicine for ill patients who can't swallow
  - Temporarily (6weeks)

Figure 1. procedural equipment for NG tube placement. Retrieved from https://www.ebscohost.com/assets-sample-content/Nasogastric_Tube_Insertion.pdf

PROCEDURE

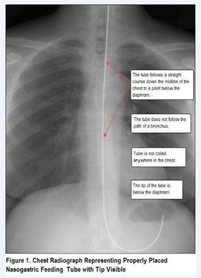
- When installing a patient's NG tube, the patient needs to be informed of the process, taught about its purpose, and the order needs to be checked that it is the right patient.

- STEPS:

1. Place a towel over the patients chest and then measure with the NG tube from the tip of the patient's nose to the tip of the patients earlobe, and then bend the tube down to the patients xiphoid process (Taylor, 2019, p. 301)
2. Don gloves. lubricate the tip of the tube at least 2-4 inches. (Taylor, 2019, p. 301)
3. After selecting the appropriate nostril, have the patient flex their head back against the pillow and gently insert the tube. direct the tube upward and backward on the floor of the patients nostril until the tube reaches the patients pharynx. (Taylor, 2019, p. 301)
4. When the pharynx is reached, instruct the patient to lean their head forward towards their chest and take in sips of water as the tube is being advanced. The patient will cough and gag, but if it persists stop and check placement of tube (this can be done by using a penlight to see the tubing in the patients throat). Do not force the tube and make sure there are no kinks in the tubing. (Taylor, 2019, p. 302)
5. Discontinue the procedure if the patient is in pain or is distressed (coughing, cyanosis, gasping, and inability to speak or hum) (Taylor, 2019, p. 302)
6. Loosely secure the tube to the patient's nose and check the placement of the tube. (Taylor, 2019, p. 302)
7. Measure the tubing and mark it, change gloves now provide personal hygiene care to the patient's nose, apply a barrier, and secure the tube to the patient (Taylor, 2019, p. 303)
8. remove equipment, dispose of gloves and perform hand hygiene, (Taylor, 2019, p. 303)

CONFIRMING PLACEMENT

- Gold standard:
  - Thoraco-abdominal radiograph (X-ray) (Judd, 2020)
  - Mark the tube's exit site from the nose or mouth and document the length (number on the tube)
- Assessment standards for nurses:
  - Every 4 hours
    - Assess for any length of the tube's exit site
  - At least two bedside methods
    - Gastric pH testing with pH strips (5 or less).
    - Observe the contents that is aspirated
      - Clear and colorless or green
- Auscultatory (air bolus) method & the bubbling method
  - Is no longer used



http://www.oxfordmedicaleducation.com/clinical-skills/procedures/position/

Figure 2 showing Ng tube is coiled. Retreived from https://doi-org.proxy.longwood.edu/10.1186/s12913-019-3907-6

COMPLICATIONS

Majority of complications that arise, tend to happen when the tube is not placed in the stomach correctly or during the initial insertion of the NG tube.

The different types of complications that can occur are:

- Injury of the nasal mucosa
- Sinusitis
- The NG tube curling during placement
- The tube entering the trachea
- The risk for aspiration
- Pneumonia
- Pneumothorax

(Oxford Medical Education, 2016)

Conclusion

The nasogastric tube placement is an essential clinical procedure that offers relief and can aid in the treatment process. The gold standard in confirming the NG placement is using an X-ray to visually check the placement. However, if an X-ray is unavailable, it is important to be aware of the other methods available. Complications can arise due to placement error or during the initial insertion. With the variety of different placement techniques offered this should decrease the likelihood of potential complications

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