Clinical Management Watch

Nasogastric tube insertion and management

Safety Principles

- Ensuring correct tube placement is **critical**.
- The correct placement of the nasogastric tube (NGT) must be confirmed via aspirate or via x-ray reported by a radiologist or experienced medical officer.
    - A chest x-ray must be conducted if there are challenges or concerns, or if the pH test of the aspirate is greater than 5. Refer to GL2023_01.
- Never feed or administer medication via the tube until the direction to commence use of the tube is confirmed in line with dot point 1 and GL2023_01 and documented.
- Elderly, frail and critically ill patients have an increased risk of NGT complications and a low threshold of tolerance to aspiration and other complications.
- Patients undergoing surgery for bowel obstruction are at a higher risk of aspirating during general anaesthetic induction; NGTs should be inserted preoperatively.
- Gastric motility **must** be ascertained before a NGT is removed postoperatively.
- Clinicians performing insertion must be appropriately trained and have recency of practice in insertion or be receiving appropriate supervision.
- Follow advice outlined in the NSW Health *Insertion and Management of Nasogastric and Orogastric Tubes in Adults* Guideline (GL2023_01).
- For paediatric patients, follow advice outlined in the NSW Health *Infants and Children Insertion and Confirmation of Placement of Nasogastric and Orogastric Tubes* Guideline (GL2016_006).

Case Study

An 81-year-old male was admitted with left middle cerebral artery occlusion causing aphasia, facial droop and limb weakness. Speech Pathology assessment confirmed silent aspiration and NGT insertion was recommended. The patient was noted to be coughing significantly during NGT insertion. A chest x-ray was performed and the NGT was noted to be deviated to the left side, but with the tip well below the diaphragm and it was concluded that it was safe to use for enteral feeds. This however was not confirmed by a radiologist or experienced medical officer.

The patient deteriorated and the respiratory team reviewed the chest x-ray. A subsequent chest CT confirmed a large hydropneumothorax with a large locule of gas and suspected traumatic pneumatocele. The patient required surgery and ICU admission. After continued deterioration, additional intervention was deemed not appropriate, and the patient was palliated and passed away.

Learnings

- NGT placement must be confirmed by formal review of a chest x-ray by a radiologist or experienced medical officer, or via aspirate pH testing.
- Excessive coughing during insertion may be indicative of incorrect NGT placement.
- Senior medical review must occur in patients with high-risk conditions.

We value your feedback. If you have any questions or comments about this report, please email CEC-PatientSafety@health.nsw.gov.au

NSW GOVERNMENT
CLINICAL EXCELLENCE COMMISSION

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