
ROYAL HOSPITAL FOR WOMEN**LOCAL OPERATING PROCEDURE****CLINICAL POLICIES, PROCEDURES & GUIDELINES MANUAL**

Approved by

Quality & Patient Safety Committee

15/4/10

INSERTION OF NASOGASTRIC TUBE IN ADULTS

OUTCOME

The nasogastric (NG) tube is safely and accurately placed in the stomach with minimal discomfort to the patient

Rationale

To aid decompression of the bowel

To aspirate gastric contents, and for gastric lavage

A route for administration of medications and nutrition

Accredited personnel

Registered Nurse, Medical Officer

EQUIPMENT

- 1 Salem sump (PVC) NGT 12 -16Fr , Ryle's Tube (PVC) 12-16Fr or fine bore feeding tube (radiopaque polyurethane coated with hydromer) 8-12Fr as indicated
- 2 water based lubricant and water
- 3 Kidney dish
- 4 60 ml irrigation syringe (or 10 ml for feeding tube)
- 5 Hypafix/ tape to secure NG to nose
- 6 Safety pin
- 7 NG drainage bag and holder - or spigot - or feeding bag
- 8 pH indicator strips
- 10 cotton buds and normal saline
- 11 Blue Mackintosh undersheet
- 12 Non-sterile gloves
- 13 Ice to suck or Water to drink

PROCEDURE

- 1 Explain procedure and rationale to patient
- 2 Offer simple analgesia
- 3 Perform Baseline observations - temperature, pulse, respiratory rate, blood pressure and oxygen saturation
- 4 Organise equipment. Read manufacturer's instructions.
- 5 Screen patient for privacy
- 6 Establish a distress signal with the patient
- 7 Assess nostrils for patency by instructing patient to blow each nostril individually and assess which nares is most patent. Ask patient if they have any sinus conditions.
- 8 Perform hand hygiene and don Personal Protective Equipment (non-sterile gloves, apron, goggles)
- 9 Assist patient perform nasal toilet with cotton buds and normal saline
- 10 Assist patient into High fowler's position (unless contra-indicated by medical team)
- 11 Measure and mark the required cm length of the NGT for this patient, ie. the distance from - the lobe of the ear - to the tip of the nose - to the end of the xiphoid process.

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- 12 Ensure guide-line placement is locked within tubing.
- 13 Lubricate the NG tube from distal end for 5-10cm. If not self lubricating, apply water soluble lubrication. If self lubricating, apply water as per manufacturers instructions.
- 14 Insert lubricated tube into the selected nostril, directing it posteriorly and inferiorly.
- 15 Ask patient to sniff to ease passage of tube from nose to oropharynx. Ensure the patient is not coughing.
- 16 When the tube reaches the pharynx the gag reflex might be stimulated - instruct patient to keep swallowing (ice or water assists this) and advance tube with each swallow
If resistance is met, withdraw 1-2cm and rotate it slowly with downward advancement towards the closest ear. Do not force tube
- 17 Abandon procedure and withdraw NG if significant resistance or undue force is encountered, or if it causes gagging, coughing, cyanosis, coils in mouth or distress
- 18 Continue advancing the tube until the cm marked reaches the nostril
- 19 Secure NGT to nose with adhesive tape. Leave guidewire in until Xray confirmation
- 20 Check placement of NG tube by:
 - a) Aspirate fluid and test pH of aspirate with indicator strips.
 - b) pH must be < or equal to 5. If pH is >5 obtain an Xray to verify placement before using NGT NB. pH test not effective if patient on acid suppression therapy (antacids)
- 21 If no aspirate can be withdrawn, and the patient has no signs of distress, gently advance the tube 2 - 3 cm further and re-aspirate as 20.
- 18 If unable to aspirate fluid, an X-Ray will be required to confirm placement
- 22 Secure NG tube to nose with adhesive tape
- 23 Secure tubing to patient's gown with tape and safety pin
- 24 Attach drainage bag - or spigot - or feeding tube
- 25 Repeat observations – temperature, respiratory rate, oxygen saturation, pulse and blood pressure and compare to pre-procedure observations. Report if variance.
- 26 Terminate encounter appropriately
- 27 Dispose of rubbish appropriately
- 28 Perform hand hygiene
- 29 Document procedure in patient's Integrated Notes (reason for tube insertion, nostril used, type and size of tube, insertion distance in cm and nature and amount of aspirate if any. Document output on fluid balance chart

Notes for Feeding Tubes

Proceed as above for 1 - 15, then

- 16 Confirm correct placement by X-Ray - this is the only way to confirm placement of feeding tubes
- 17 Remove introducer
- 18 Secure NG Tube to nose with adhesive tape
- 19 Irrigate NG with 30 mls normal saline to ensure patency of tube
- 20 Attach spigot or feeding bag and commence feeding regime as ordered
- 21 Terminate encounter appropriately
- 22 Dispose of rubbish appropriately
- 23 Wash hands
- 24 Document procedure in patient's Integrated Notes and on the Fluid Balance Chart

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References

- Ngo, Q.D., Lam, V.W.T. and Deane, S.A. (2004) Drowning in Drainage?? The Liverpool Hospital Survival Guide to Drains and Tubes Division of Surgery, Liverpool Hospital, SWSAHS, Sydney, Australia
- NSW Health Policy directive PD2009_019 "Fine Bore Nasogastric Feeding tubes for Adults Policy"
http://www.health.nsw.gov.au/policies/PD/2009/PD2009_019.html
- Metheny, NA, & Titler, MG. Assessing Placement of Feeding Tubes. *AJN*, 2001;101(5):36-45.
- Switakowski, P. and Di Milo, AM. Nasogastric Tube Insertion, University of Ottawa (2003), web page at <http://intermed.med.uottawa.ca/procedures/ng/>
- Huffman S, Jarczyk, K.S., O'Brien, E., Pieper, P., Bayne, A., Methods to confirm feeding tube placement: application of research in practice. *Pediatric Nursing*. 2004;30(1):10-3.
- Hendry PJ, Akyurekli Y, McIntyre R, Quarrington A, Keon WJ. Bronchopleural complications of nasogastric feeding tubes. *Crit Care Med* 1986; 14(10):892-4
- Hand RW, Kempster M, Levy JH, Rogol PR, Spirn P. Inadvertent transbronchial insertion of narrow-bore feeding tubes into the pleural space. *JAMA* 1984; 251(18):2396 -7
- Metheny NA, Aud MA, Ignatavicius DD. Detection of improperly positioned feeding tubes. *JHealthc Risk Manag* 1998; 18(3):37-48
- Dobranowski J, Fitzgerald JM, Baxter F, Woods D. Incorrect positioning of nasogastric feeding tubes and the development of pneumothorax. *Canadian Association of Radiologists Journal* 1992;43(1):35-9
- Rassias AJ, Ball PA, Corwin HL. [A prospective study of tracheopulmonary complications associated with the placement of narrowbore enteral feeding tubes](#). *Critical Care* (London) 1998;2(1):25-8
- Metheny N, Dettenmeier P, Hampton K, Wiersema L, Williams P. [Detection of inadvertent respiratory placement of small-bore feeding tubes: a report of 10 cases](#). *Heart Lung J Acute CritCare* 1990; 19(6):631-8
- Metheny NA, & Meert, KL. Monitoring feeding tube placement - a literature review. *Nutrition inClinical Practice*. 2004; 19:487-95
- Torrington KG, Bowman MA. [Fatal hydrothorax and empyema complicating a malpositioned nasogastric tube](#). *CHEST* 1981; 79(2):240-2
- MHRA Notice [MHRS/MS/2004/026](#)
- Metheny N, Dettenmeier P, Hampton K, Wiersema L, Williams P. *op cit*.
- Hand RW, Kempster M, Levy JH, Rogol PR, Spirn P. *op cit*.
- Theodore AC, Frank JA, Ende J, Snider GL, Beer DJ. [Errant placement of nasoenteric tubes. A hazard in obtunded patients](#). *CHEST* 1984; 86(6):931-3
- Metheny NA, Clouse RE, Clarke JM, Reed L, Wehrle, MA, Wiersma L. pH testing of feeding tube aspirates to determine placement. *Nutr. Clin. Prac.* 1994;9: 185 – 19