

Nasogastric Feeding Tube Care Pathway

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To avoid the risk of serious harm from misplaced feeding tubes, all NG tube assessments, insertions and checks to confirm correct gastric position (pH of aspirate or x-ray) must be documented on this NG feeding tube care pathway.

The patient's doctor in conjunction with another healthcare professional **must** undertake a risk assessment that evaluates the benefits against the risks of introducing a nasogastric (NG) tube for the purpose of administering feed or medications. Consent must also be obtained, or an assessment of mental capacity and a best interests decision. Details of the assessments and consent process must be documented in full in the patient's record and reviewed when appropriate.

Reason for NG tube insertion:

Confirm assessment of risks and benefits has been undertaken and documented	Yes
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Confirm informed consent given, or assessment of capacity and a best interest decision undertaken – and documented	Yes
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Detail of *two* staff confirming the decision to insert NG tube:

This must be the patient's senior clinician, and another healthcare professional involved in the patient's care.

- Name Designation
- Name Designation

Are there any contraindications or cautions for NG tube feeding? (*Circle any that apply*)

Contraindications

- Ileus
- Gastric outlet obstruction (for feeding purposes)
- Base of skull fracture
- Severe trauma to the face or nasal cavity
- Acute surgical admission
- Acute severe epistaxis

Cautions

- Maxillofacial disorders or surgery
- Head and neck surgery
- Laryngectomy
- Any disorder of the oesophagus, this includes carcinoma
- Gastro-oesophageal reflux
- Poor gastric emptying

NO **YES** →

If 'yes', seek senior clinical help. For patients with altered anatomy NG tube insertion should only be attempted under fluoroscopic control

Indicate Yes or No

Confirmation of decision to proceed with NG tube placement completed by:

Print Name (Doctor):

Signature:

Designation:

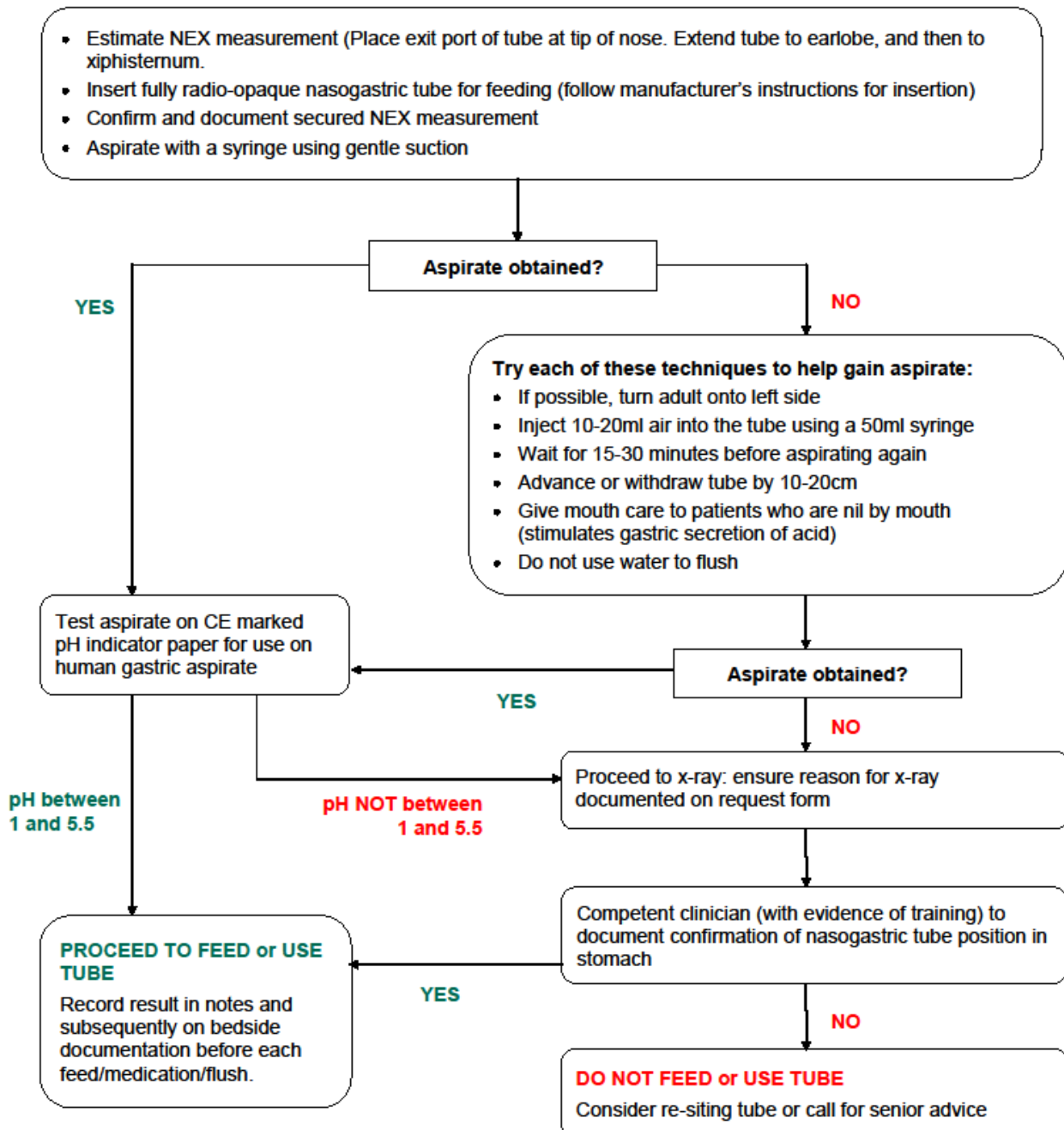
Date:

Time:

Doctors Bleep Number:

Note: Unless there are compelling clinical reasons, all NG tubes should be placed during working hours when expert radiological advice is routinely available should imaging be required to accurately confirm safe NG tube placement.

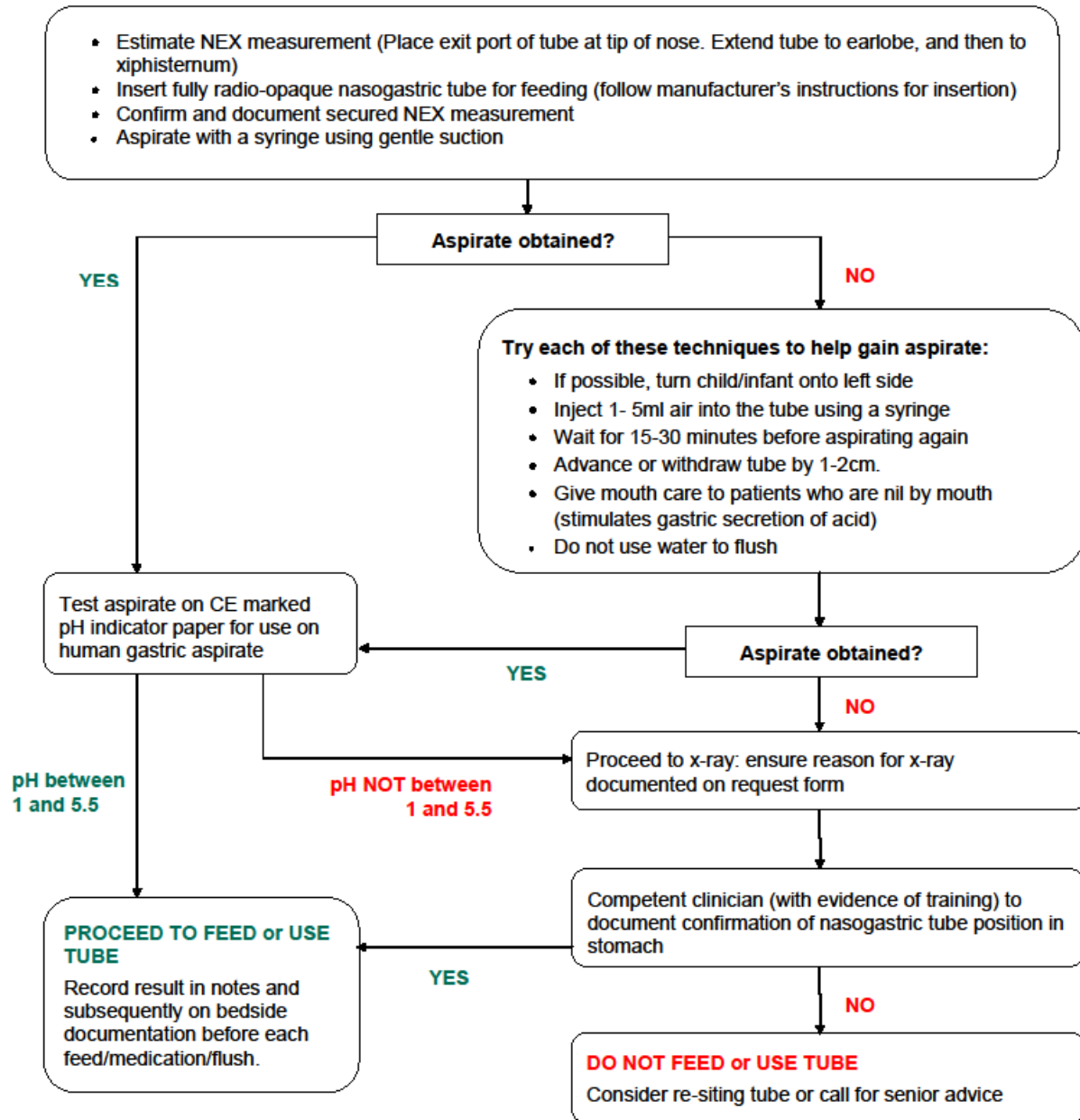
Decision tree for nasogastric tube placement checks in **ADULTS**



A pH of between 1 and 5.5 is reliable confirmation that the tube is not in the lung, however it does not confirm gastric placement as there is a small chance the tube tip may sit in the oesophagus where it carries a higher risk of aspiration. If this is any concern, the patient should proceed to x-ray in order to confirm tube position.

Where pH readings fall between 5 and 6 it is recommended that a second competent person checks the reading or retests.

Decision tree for nasogastric tube placement checks in **CHILDREN** and **INFANTS** (NOT NEONATES)



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Nasogastric tube insertion and ongoing tube position confirmation record

Use new confirmation record page for each NG tube insertion

Tube insertion record (All sections must be completed)

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Date and time of insertion	NEX measurement (cm) Usual measurement 52 – 60cm. Outside this range, consider position of NG tube	NG tube measurement at nostril (cm)	Make, size (fr) and length of NG tube (cm) Batch Number	Document pH of aspirate or mark "X" if unable to obtain aspirate Tube may be used if pH 5.5 or below	X-ray required	Does the X-ray result show the NG tube is positioned in the stomach? If NO (DO NOT USE TUBE)	Sign/print name/designation to confirm safe to feed
					Yes / No	Yes / No / Not Applicable	

- NEX is the distance in cm from the tip of the nose to the earlobe then down to the xiphisternum. In patients with a kyphoscoliosis it may underestimate the distance required for NG insertion. Seek advice from a senior clinician.
- Internal guide wires should NOT be lubricated before gastric placement has been confirmed
- X-ray confirmation of the NG tube tip is required if an aspirate cannot be obtained or the pH is 6 or above.
- The result of an x-ray used to determine tube tip position must be reported on ICE by a radiologist, or on ITU or SCBU documented in **patient's record by a trained and competent healthcare professional. Any tube identified to be in the lung must be removed immediately.**
- On the patient returning from Radiology the ward nurse / doctor:
 - Must document the X-ray result reported on ICE, on the above table
 - Re-check tube measurement at nostril and obtain aspirate (if possible) to confirm it is safe to feed, document on table below.

Ongoing tube position confirmation record

The position of the NG tube **MUST** be confirmed for all of the following reasons:

- Before starting the first administration of feed each day
- Before giving medications / water flushes when feeding is not currently being given
- If there are any new or unexplained respiratory symptoms/nasopharyngeal suctioning or if oxygen saturations decrease
- At least once every 12 hours during continuous feeds on ITU
- Following episodes of vomiting, retching or coughing spasms
- Reasons to suspect tube displacement e.g. loose facial stickers, external length change
- When patients return from being away from ward or department or after transfer of patient from another clinical area



When initial placement has been appropriately confirmed and there is no reason to suspect displacement, if a pH of <5.5 cannot be obtained (e.g. due to continuous feeding/acid reducing medication) seek senior clinical advice.

Medical / Nursing staff will decide whether or not to 'proceed to feed'. Document decision in action taken column.

Date & Time	Reason for checking * (see above a – g)	Tube measurement at nostril (cm)	Fixation tape secure (Yes or No)	Document pH of aspirate or mark "X" if unable to obtain aspirate Tube may be used if pH 5.5 or below	X-ray required	X-ray result of tube tip position reported by Radiologist or trained and competent healthcare professional on ITU or SCBU – and confirmed in stomach If NO (DO NOT USE TUBE)	Actions taken If able to confirm tube tip position – examples: • Feed commenced • Medication administered • Tube flushed If unable to confirm tube tip position – examples: • pH 5.7, to reattempt aspiration • NEX re-measured and tube advancedcm • Awaiting reporting of x-ray • Doctor to consider alternative routes for medication / hydration	Signature(s) / print name(s)
			Yes / No		Yes / No	Yes / No / Not Applicable		
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If the tube is removed and replaced – start a new sheet to document insertion and ongoing checks. If more than 3 tubes inserted – seek senior guidance

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Nasogastric tube enteral feeding regimen

- Ensure completion of the nasogastric tube insertion and ongoing tube position confirmation record
- Change giving set every 24 hours. Feed to be used within 24 hours or discarded
- Flush tube with ml sterile water, using a 60 ml purple enteral syringe, before and after feed & each medication. When several drugs are to be administered, each should be given separately & the tube flushed with 10-15ml water after each dose
- Ensure correct positioning either sitting up or elevated at an angle of at least 30 degrees during feeding and for at least 30 minutes after the feed has been stopped.
- For patients without diabetes monitor blood glucose levels 1 or 2 times a day (or more if needed) until stable, and thereafter weekly
- For patients with diabetes refer immediately to diabetes team and consider IV insulin, monitor blood glucose levels at least four times daily
- If Nil by Mouth ensure patient is assisted with mouth care
- Patient's weight.....Weigh patient once weekly and document

Date	Feed Type	Volume of Feed	Rate (ml/hr)	Duration of Feeding	Additional Information e.g. Extra Fluid / Oral Intake	Dietitian Name and signature

Dietitians Use Only

DIETITIAN (print name & sign):..... CONTACT No:.....

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Nasogastric tube enteral feeding administration record

Date	Time	Feed	Volume Hung	Rate	Batch Number	Expiry Date of Feed	Serial number of pump	Print Name & designation	Sign to confirm safe to feed (aspirate pH<5.5 or X-ray confirmed correct position)	Volume Received

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