INTERIM GUIDANCE ON SITING NASO AND OROGASTRIC TUBES ON ICU/HDU AT RDH

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Background: The use of naso/ orogastric tubes is an integral part of managing the intubated critically ill patient for drainage and administration of enteral feed and drugs. Such tubes are collectively referred to here as "gastric tubes". This guidance applies to patients managed on ICU/HDU at RDH and was written in the context of an emerging COVID-19 outbreak and the likely implication resources.

Principles: The siting of gastric tubes will be by the clinician who secures the airway and performs endotracheal intubation to avoid transfer of COVID-19. Because most patients require prolonged mechanical ventilation we suggest nasogastric tubes, but where coagulopathy and thrombocytopenia are prominent orogastric may be considered. This document will omit large amounts of technical details as siting such tubes are within the competencies of ICU medical staff, rather the confirmation before use is most important and uses existing NPSA principles.

Siting: Will be with a laryngoscope to directly visualise passage into the oesophageal inlet. Nasogastric tubes should be passed to 55cm at least and oral tubes to 50cm with no visible coiling in the oropharynx. For the acutely unwell large bore (12- 16) tubes should be used *not* fine bore.
The depth of insertion should be clearly recorded mindful that conventional note writing is remote during COVID-19.

Confirmation of position: Is of most relevance where administration of feed or drugs will occur. We use the NPSA principles:

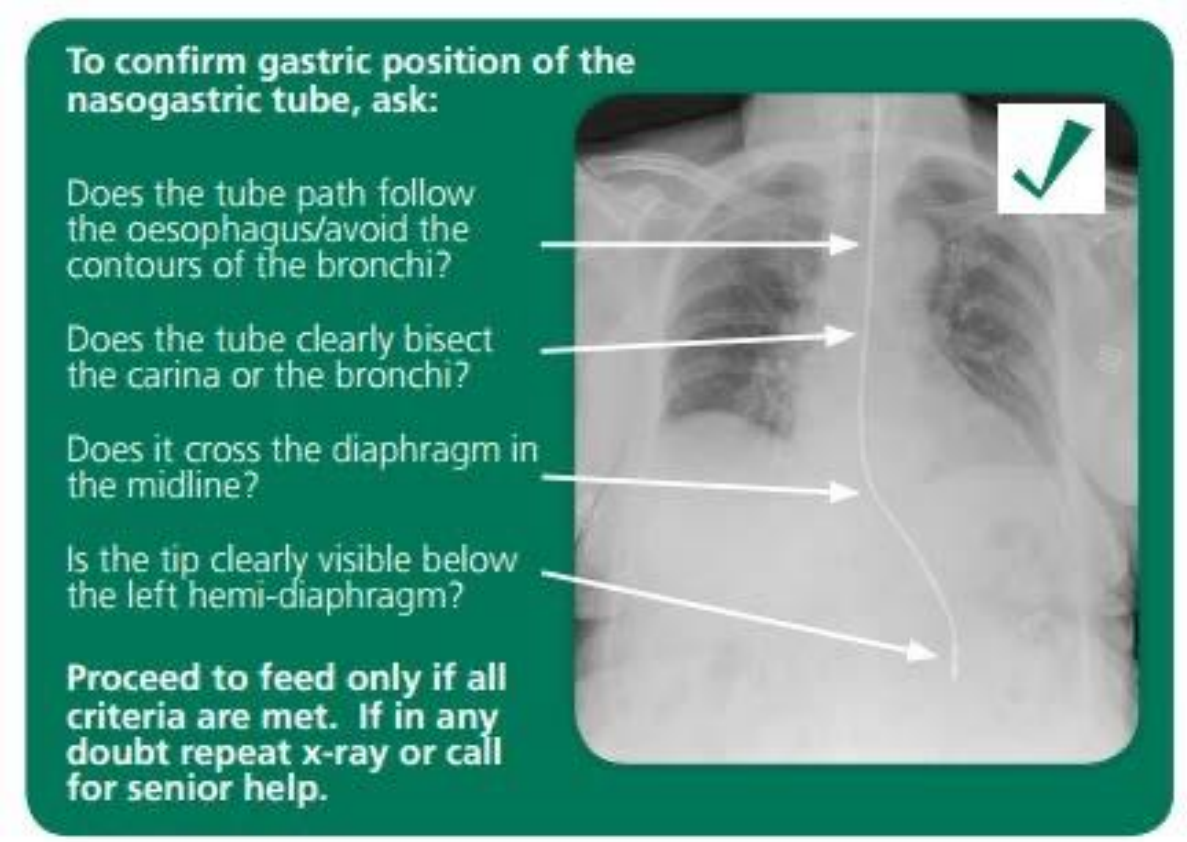
Confirmation by aspiration: A tube which has passed easily under vision and aspirates fluid (especially bilious) with a pH<5.5 can be used without requirement for a chest radiograph. There is no defined volume required in NPSA guidance but we recommend at least 5ml aspirating freely.

Confirmation by chest X-Ray (CXR) Where an NG will not aspirate or the pH>5.5 confirmation by CXR is required. It remains acceptable to use such a tube for drainage if the clinician is confident of its position but agents should not be administered down the tube until position confirmed by aspiration or CXR.
The CXR request should state "NG confirmation" if this is the indication.
Confirmation on CXR should be by "4 checks", see diagram overleaf. All 4 checks must be passed.

1) The tip of the nasogastric tube is below the left hemi-diaphragm
2) The gastric tube follows the line of the oesophagus
3) The gastric tube bisects the carina and is not constrained by it into a bronchus
4) The gastric tube crosses the diaphragm in the midline

Considering acuity of illness and care we are satisfied for two ICU SAS Doctors in collaboration or an ICU Consultant to interpret and confirm NG tube position on CXR eg to allow administration of emergency anti-platelet medication. Where feasible radiology reports will be used as is existing guidance. In the emergency setting it remains entirely acceptable to confirm the NG by aspiration according to the criteria above.

Where the checks cannot be performed eg poor penetration of a CXR film and no aspirate then discuss with ICU Consultant and/ or XR department. A small volume of contrast and repeating the XR is most likely appropriate.



Ongoing care

The confirmation of an NG tube is only valid at the time of the check. When patients are mobilised eg turned or cough or vomit, tubes can get displaced. A clear record of depth of insertion, checking for coiling or obvious displacement and regular aspiration checks as above or CXR will be needed where concern around displacement is present. Discuss with ICU SAS Doctor or Consultant.