**INDICATIONS FOR USE**

- Jejunostomy (J) and Gastro-Jejunal (GJ) Tubes are placed to enable feeding into the jejunum (small bowel) and may be indicated if it is neither safe nor effective to feed into the stomach:
  - Long term post-pyloric feeding (usually > 6 weeks) and/or medication administration
  - Congenital gastrointestinal abnormalities
  - Gastric dysmotility
  - Severe vomiting causing faltering growth
  - High risk of aspiration

- The jejunal tube will usually be sited by the surgical/radiology Team. It must not be ‘blindly placed’ by Nursing Staff at the bedside

**TYPE OF TUBE**

- Refer to [Enteral Feeding Equipment Management SOP](#)
IMMEDIATE CARE POST INSERTION

- If you observe any of the above, stop feeding immediately and alert the Medical Team

- The Surgical Team must notify the Dietitian immediately after placement or changing a tube by faxing an **Enteral Feeding Tube Change Notification Form**

- The initial position of a GJ Tube must be confirmed by an abdominal X-ray before the jejunal tube can be used to administer feed, fluid or medications

- Feeding will usually begin from 4 – 12 hours post insertion, at the Consultant’s request

DOCUMENTATION

- The Medical Team must document the rationale for a J Tube or GJ Tube in the medical notes, including discussions held with Parents/Carers and the multi-disciplinary team

- The Consultant must record the make, size (fr), and length (if required) of tube on a pink protocol sheet, including date / time of insertion and any specific care instructions

- The Nurse must record insertion date, tube make, size (fr) and length (if noted) in the patient’s Core Care Plan Booklet ‘Eating and Drinking’ and **Gastro-jejunal/Jejunostomy Teaching Pack**

  **GJ Tubes only:**

  - Clinician to mark the external length the jejunal extension is passed to with permanent marker at the exit site and record on the pink protocol sheet (to aid safe checking of jejunal tube position)

  - Nurse to record this external length at the exit site in the Core Care Plan Booklet ‘Eating and Drinking’ and **Gastro-jejunal/Jejunostomy Teaching Pack**

ONGOING CONFIRMATION OF JEJUNAL TUBE POSITION OF A GJ TUBE (PEG-J TUBE)

- Jejunal extensions can fully / partially dislodge and migrate upwards.

- Prior to each use, 4 hourly during continuous feeding (12 hourly once target rate has been maintained for 24 hours) and if any concerns around displacement, confirm jejunal tube position:

  - **Check the marked insertion length at the exit site has not changed i.e. jejunal tube has not moved significantly in or out of the PEG tube and the tube is securely taped**

    If the marked insertion length at the exit site has not changed and the patient is tolerating feeds without cause for concern, feed as directed by the Dietitian

In the first 72 hours after insertion observe for;

- Pain on feeding
- Fresh bleeding
- Leakage of stomach contents around the gastric tube

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• If the marked insertion length has moved significantly and/or the risk of jejunal tube displacement is high (retching/vomiting feed, aspiration, abdominal distension) the jejunal tube may be malpositioned. Do not use the tube – follow the advice below:

• If the patient has been receiving continuous feeds and/or medications, stop using the jejunal tube and wait at least one hour to help intestinal contents to empty (pH level of gastric aspirate may be elevated by acid-suppressant medications and enteral feeds)

• Instil 2 – 10ml of air into the jejunal port; if unable to aspirate the air back, the NJT is likely still in the jejunum. If a large volume of air (> 15ml) is aspirated, the tube may be coiled in the stomach

• Attempt to gently aspirate fluid from the jejunal port and check colour and pH (aspirate is very difficult to obtain from the jejunum, so only a small amount, if any, can be obtained)

• If only a small volume (< 15ml) ‘light/dark golden yellow’ aspirate is obtained, it is likely the tube is still positioned in the jejunum. The pH should test 6 – 8 (alkaline).

• If a large volume (> 15ml) of ‘grass green’ clear or ‘cloudy white with residual formula’ aspirate is obtained, the tube is likely to be in the stomach. The pH should test ≤ 5.5 (be aware of acid suppressant drugs which may elevate gastric pH above this level).

• If there is still doubt over the correct position of the jejunal extension tube, contact the Medical Team to arrange an abdominal x-ray to confirm position before using the tube

NOTE: Routine aspiration of jejunal tubes is not advised (risk of tube collapse)

ADMINISTERING FEEDS AND FLUSHES

• Aseptic Technique and Aseptic Non Touch Technique Policy must be used when handling a GJ / J Tube and disposable gloves worn. Adhere to Enteral Feeding Infection Control Guideline

• Before using a GJ Tube, always check jejunal tube position as above

• Follow instructions on the Dietitian’s Yellow Feed Plan.

• Continuous naso-jejunal feeding will take place for up to 24 hours in the day and/or night. See Enteral Feeding Guidelines (Paediatric) ‘how to administer continuous feeds’

• Bolus feeds must not be given into the jejunum (‘dumping’ syndrome can occur)

• Thickened feeds must not be given into the jejunum (e.g. Thixo-D, Nutilis, Gaviscon)

• Slow flushing is recommended to avoid discomfort. Use a new 60ml enteral syringe for each episode (10 – 20ml small infants).

• Flush with 5 – 10ml sterile water (adjust to child’s age / size) or amount advised by Dietitian, before and after feeding (exception NICU – no water flushes usually given)

• Flush every 6 hours if the jejunal tube is not in routine use and during feeding to minimise the risk of blockage (exception NICU)

• If the gastric tube is not in use, flush well once daily to maintain patency (2 – 5ml only neonates)

• Administer flushes using a ‘push pause’ technique to minimise blockages

Extended until September 2020
- Never use vigorous pressure when administering any liquid through a feeding tube
- Elevate the head of the cot or bed by 30 – 45 degrees, or sit the patient upright during feeding and for 30 – 60 minutes after feeding has finished to minimise nausea

ADMINISTERING MEDICATIONS

- Refer to [Enteral Feeding Guidelines (Paediatric)](Paediatric) ‘how to administer medications’
- Medications should not be given through a jejunal tube if an alternative administration route is available. Check with a Pharmacist, as some drugs are not effective unless given in the stomach
- Flush with 5 – 10ml sterile water before and after each medication with a new 60ml enteral syringe for each episode (exception NICU)
- Medications may be administered in smaller size syringes if the dose is very small

ORAL HYGIENE

- If the patient is not able to take any oral fluids, give mouth care every 2 – 4 hours to help prevent their mouth getting very dry and brush their teeth as usual

GENERAL DAILY CARE

- All jejunal tubes bypass the anti-infection mechanisms in the stomach, therefore it is important to maintain a good standard of hygiene
- Daily care of the stoma site is essential to reduce the risk of soreness or infection
- Clean the skin around the site and the tube carefully with sterile water and clean gauze once or twice daily (depending on skin condition) and dry carefully. A dressing is not required
- Clean more often if there is oozing around the stoma site. Keep the skin dry
- **GJ Tubes MUST NOT BE ROTATED** (may dislodge the jejunal tube)
- The external length of jejunal tube at the exit site should be marked with permanent pen to check for tube migration
- Keep the tube taped securely to the skin to prevent accidental pulling or displacement
- If the tube is not secured well, due to the peristaltic movement in the intestine the site may become red and sore. A barrier cream may help to protect the skin from excoriation from bile
- If the skin becomes red / excoriated, “Cavilon” may be applied after swabbing for infection
- See [Enteral Feeding Infection Control Guideline](Guideline) for advice on re-use of equipment
- See [Enteral Feeding Equipment Management SOP](SOP) for type of extension sets and repair kits

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Extended until September 2020
Care of a Freka PEG J tube (GJ Tube)

- These are placed under general anaesthetic and have both a gastric and a jejunal feeding tube. Each feeding port is labelled clearly. The jejunal tube is passed through the gastrostomy tube.

- **PEG-J tubes MUST NOT BE ROTATED** (may dislodge the jejunal tube)

- **In the first 4 weeks after PEG-J insertion:**
  - Showers and shallow baths are allowed after 3 – 4 days
  - Do not use bubble bath at this stage as they may irritate the skin
  - Do not remove the external retention device, but clean around and underneath it carefully
  - Keep the PEG-J tube taped to the abdomen to prevent too much movement
  - Do not advance the tube into the tract

- **After 4 weeks of placement once the tract has healed (if the tube is not stitched in place):**
  - The fixation device must be lifted to clean the skin around the stoma site daily (avoid rotation)
  - Once a week, advance the tube into the stoma tract by 3 – 4cm and gently pull back on the tube until resistance is felt. This is usually done by the Community Nurse
  - If the child is still an inpatient after 4 weeks, contact the Surgeon to check it is safe to do this
  - Return the fixation device to its original position 2 – 3mm above skin to prevent migration

- If the patient suffers from trapped wind, the *gastric feeding port* may be “vented”:
  - attach the barrel of a 60ml purple enteral syringe to the gastric port and unclip the clamp
  - allow the wind to escape by holding the syringe 5 – 6 inches above the child’s stomach
  - this can be done each time the gastric port is accessed, or if symptoms are severe
  - do not vent the jejunal tube

Care of a Low Profile Gastro-Jejunal Device (MIC* GJ Tube)

- **This combines a balloon-retained gastrostomy tube and a jejunal tube into the jejunum**

- There are 3 access ports (all labelled on the tube):
  - One for access into the stomach (G)
  - One for access to the jejunum (I)
  - One for inflating/deflating the balloon

- **To access the tube for feeding, medicines or flushes, an extension set must be used. DO NOT insert enteral purple syringes directly in the low profile device itself**

- **If the patient suffers from trapped wind, the *gastric feeding port* may be “vented”:**
  - attach barrel of a 60ml purple enteral syringe to an extension set attached to the gastric port
  - unclip the clamp, allow wind to escape by holding syringe 5 – 6 inches over the child’s stomach
  - this can be done each time the gastric port is accessed, or if symptoms are severe
  - do not vent the jejunal tube

- **The water must be changed 4 weeks post-insertion to check the condition of the balloon, and thereafter weekly.** Use the same procedure as for Balloon Gastrostomy Tubes. Refer to [Gastrostomy Tubes Clinical Guideline](#)
Care of the Freka J Tube (Jejunostomy)

- This will be surgically or endoscopically inserted into the jejunum and stitched in place
- Observe for loose sutures when accessing the tube. Contact the Surgeon if there are concerns
- Carefully clean around and under the fixation device daily with sterile water, using a circular motion and clean gauze. Clean the feeding ports as well. Dry well with clean gauze
- The J tube should not move in or out of the stoma site. Mark external tube length at the exit site to allow checking for tube migration and confirm tube position prior to each use until the stoma site is mature (4 weeks)

Care of a Low Profile Jejunal Device (MIC-KEY® J Tube)

- The use of these tubes is rare. They are surgically placed into the jejunum and retained with a silicone balloon. Discuss management and care of these tubes with the Surgeon
- The external bolster has a port with a one-way valve. This is opened to access the tube by attaching an extension set. DO NOT insert enteral syringes directly into the device itself
- The water must be changed 4 weeks post-insertion to check condition of the balloon, and thereafter weekly. Use the same procedure as for Balloon Gastrostomy Tubes. Refer to Gastrostomy Tubes Clinical Guideline

DISCHARGING THE PATIENT HOME WITH A GJ TUBE OR J TUBE

- Parents and carers must be educated and competent in safe management of a J Tube / GJ Tube using the Gastro-jejunal / Jejunostomy Tube Teaching Pack.
- The ‘Competency summary sheet’ in the Nurse’s section must be filed in the medical notes
- Adhere to the flowchart Discharging a Patient Home with a Gastro-jejunal / Jejunostomy Tube in the Nurse’s section of the teaching pack
- Balloon-retained GJ tubes only – a size 10fr or 12fr nasogastric tube must be sent home with the patient. This is used to keep the stoma hole open if a balloon-retained tube/device falls out, as the stoma hole can close in under 1 hour. The nasogastric tube must be inserted 3 - 4 cm maximum and taped in place before taking the child to hospital for a replacement tube. The parent / carer must NOT USE THIS TUBE FOR FEEDING
- A COSTOP a.c.e stopper of 30mm length (size 10 or 12fr) can be used instead of a nasogastric tube. Refer to Enteral Feeding Equipment Management SOP
- Parents / carers must not insert anything in the stoma tract before 6 weeks of placement
- For patients living in the Bristol area (under Home Management Services)
  - Parents and carers must be taught to flush with a 60ml syringe before discharge (community policy)
  - Parents and carers must be advised they may be given re-usable syringes at home and advised to use cooled boiled water (community policy)

Extended until September 2020
CHANGE OF GASTRO-JEJUNAL / JEJUNOSTOMY TUBE

● If a GJ or J tube is changed to a different tube, either after accidental removal or a planned change, a Nurse must provide basic teaching for Parents/Carers on how to use the new tube using the Gastro-jejunal / Jejunostomy Tube Teaching Pack

● The Nurse must give parents or carers an Enteral Feeding Tube Change Advice Sheet and provide 7 days’ supply of correct equipment before discharge

● The Surgical Team must fax a completed Enteral Feeding Tube Change Notification Form

ACCIDENTAL DISPLACEMENT OF A GJ TUBE or J TUBE

● If the tube is dislodged or accidentally removed, contact the Surgical Team immediately. This will need replacing in theatre or Radiology
<table>
<thead>
<tr>
<th>Complication</th>
<th>Potential causes</th>
<th>Possible actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tube blocks</td>
<td>• Medications</td>
<td>▪ Flush the tube gently and slowly (no force) with warm sterile water using a push/pull technique (exception NICU – no flushes)</td>
</tr>
<tr>
<td></td>
<td>• Not enough water flushes</td>
<td>▪ If blockage is visible, gently <strong>squeeze (do not roll)</strong> between your fingers to try to break it up</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Draw back and attempt to gently flush as before</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Review medications / form they are in / how they are being diluted or administered</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Contact Medical Team if unable to unblock tube within 30 minutes. An X-ray may be required.</td>
</tr>
<tr>
<td>Leakage around the tube</td>
<td>• Ill-fitting stoma site</td>
<td>▪ If the external fixation device is not stable (2mm from skin surface) feed may leak during feeding</td>
</tr>
<tr>
<td></td>
<td>• Feed given too fast</td>
<td>▪ Clean stoma area carefully at least once daily and dry well. DO NOT ROTATE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ If skin becomes excoriated, contact the Medical Team or stoma nurse for advice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Contact Dietitian to review the feeding regimen</td>
</tr>
<tr>
<td>Overgranulation</td>
<td>• Excessive tube movement</td>
<td>▪ Keep the fixation device (if present) well secured to prevent excessive movement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Contact the Medical Team for advice</td>
</tr>
<tr>
<td>Diarrhoea</td>
<td>• Medication related e.g. antibiotics</td>
<td>▪ Review medications with Pharmacist</td>
</tr>
<tr>
<td></td>
<td>• Infection</td>
<td>▪ Some medications may require dilution</td>
</tr>
<tr>
<td></td>
<td>• Feeding too fast</td>
<td>▪ May require stool samples and isolation(discuss with Medical Team)</td>
</tr>
<tr>
<td></td>
<td>• Feed stored incorrectly</td>
<td>▪ Slow feeding rate, then increase as tolerated</td>
</tr>
<tr>
<td></td>
<td>• Type of feed</td>
<td>▪ Check expiry date (powdered feeds or feeds with additives can hang no longer than 4 hours)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Throw away any leftover feed after 24 hours</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Contact the Dietitian if none of the above solutions help to review feeding plan</td>
</tr>
<tr>
<td>Nausea / vomiting feed / coughing spasms / respiratory distress Or External length of the tube at exit site moved/disappeared</td>
<td>• Tube migration (GJ tubes only)</td>
<td>▪ Signs of altered respiration/low oxygen saturations/cyanosis may show aspiration of feed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ If the child is nauseous / vomiting or has abdominal distension, this may indicate the jejunal extension tube has coiled in the stomach</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Evaluate and confirm jejunal tube position</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>ONGOING CONFIRMATION OF JEJUNAL TUBE POSITION OF A GJ TUBE</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ If unable to confirm position of the tube in the jejunum, or there is suspicion the tube is in the stomach, contact the medical Team. An x-ray or new tube will be required.</td>
</tr>
<tr>
<td>Pump malfunction</td>
<td>Several causes</td>
<td>▪ <strong>Nutricia Flocare Infinity Pump Instruction Manual</strong></td>
</tr>
<tr>
<td>Tube falls out after 12 weeks of insertion</td>
<td>• Accidental dislodgement (Balloon device)</td>
<td>▪ Alert the Medical Team immediately. The stoma tract can close in under 1 hour. Place gauze over the tract and tape down, or place a CORSTOP ace stopper in the hole to keep it open.</td>
</tr>
<tr>
<td>(if &lt;12 weeks contact surgical team immediately)</td>
<td>• Accidental dislodgement (Non-balloon device)</td>
<td>▪ Call the Surgeon immediately for advice. Place gauze over the tract and tape down. Some tubes may be able to be put back in the stoma tract, however the tract can close in under 1 hour.</td>
</tr>
</tbody>
</table>
APPENDIX 1

FLOWCHART FOR MONITORING GASTRO-JEJUNAL TUBE FEEDING IN CHILDREN

CONFIRM THE POSITION OF A GASTRO-JEJUNAL TUBE
- Before giving medication, fluids or feeds through the tube
- 4 hourly during feeding until target rate maintained for 24 hours and thereafter 12 hourly
- If jejunal tube displacement is suspected or there are signs of feeding intolerance e.g. child vomiting / aspiration / abdominal distension

Observe and document the externally-marked insertion length of the jejunal extension tube at the exit site and compare to the most recent insertion length documented on the pink protocol sheet

ARE THEY THE SAME?

YES
Start continuous feeding
Follow the Dietitian’s Yellow Feed Plan

NO
Jejunal tube may have migrated into the stomach

STOP USING THE TUBE

Wait 1 hour and then perform tests 1) and 2):
1) Instil 2 – 10ml air into jejunal port. If unable to aspirate air back, tube is likely still in the jejunum
2) Aspirate the jejunal port. A small volume (< 15ml ‘light/dark golden yellow’ aspirate indicates jejun placement (pH should test 6 – 8)

Recommence feeds and monitoring. If there is any doubt over jejunal tube position, arrange an abdominal x-ray to confirm position first

Indications the jejunal tube may have migrated into the stomach:
- Large volume (>15ml) of air aspirated back
- Large volume (>15ml) of ‘grass-green’ or ‘cloudy white with residual formula’ aspirate is obtained (and pH tests ≤ 5.5)

Be aware if the child is on acid suppressant drugs gastric pH may be falsely elevated and test > 5.5

Signs of intolerance or tube migration*: 
- Blood in the stools
- Worsening diarrhoea
- Respiratory distress / aspiration*
- Abdominal distension*
- Vomiting / nausea / coughing spasms*

IF ANY SIGN IS OBSERVED, STOP FEEDING
1. Alert Medical Team if tube migration is suspected and unable to safely confirm jejunal tube position
2. Alert Dietitian to review the feeding regimen if feeding intolerance is suspected

Extended until September 2020
REFERENCES

2. Cambridge University Hospitals “Transgastric jejunal tubes”
4. Fresenius Kabi FREKA® PEG-J Aftercare Sheet
5. Great Ormond Street Hospital (G.O.S.H) ‘Guidelines on NJ/Jejunostomy feeding.’
7. Nutricia Homeward “Patient Advice Sheets”

RELATED DOCUMENTS

- Enteral Feeding Infection Control Guideline
- Emergency Feeding Regimens
- Enteral Feeding Guidelines (Paediatric)
- Gastrostomy Tubes Clinical Guideline
- Gastro-Jejunal / Jejunostomy Tube Teaching Pack
- Enteral Feeding Equipment Management SOP
- Flocare Infinity Pump Instruction Manual

SAFETY

- Risk of infection – bypassing stomach defence
- Jejunal tube extension - displacement into the lungs or stomach

QUERIES

Paediatric Nutrition and Dietetic Services, Extension 28802

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