PAEDIATRIC NURSING PRACTICE MANUAL
SECTION 3

## GENERAL CARE OF THE SICK CHILD

### 3.3 NUTRITION

# 3.3.5 MANAGEMENT OF A LOW-PROFILE TRANSGASTRIC-JEJUNOSTOMY FEEDING DEVICE OR NASO-JEJUNAL TUBE

**Aims**

1. To maintain patency of the jejunal device.
2. To confirm the correct location of the naso-jejunal tube.

**Background Information** [1]

Transgastric devices combine both a gastric and jejunal feeding tube, with separate access ports. They are inserted via a gastrostomy site and held in place with a water filled balloon.

Naso-jejunal tubes (NJT) allow feeding directly into the small intestine. The feeding tube is passed, under radiological guidance into the stomach, through the pylorus and into the jejunum.

This type of feeding is also known as trans-pyloric. It is indicated in children who have a functioning GI tract, but who have an absent gag reflex, delayed stomach emptying and/or persistent vomiting.

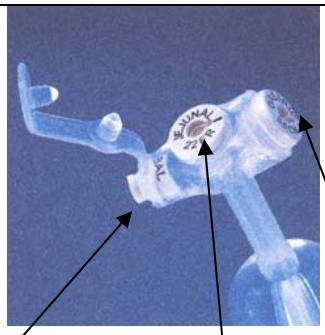
**Key points**

1. For the management of postoperative, stoma care and gastrostomy tubes refer to PNPM 3.3.4.
2. Provide oral hygiene, prior to feeds as per PNPM 3.2.1.
3. The child's usual Dietitian should be informed that the gastro-jejunostomy device or naso-jejunal tube has been placed.

**Low-Profile Transgastric-Jejunostomy Feeding Device** MIC-KEY™

**Key points**

- These devices have separate access ports; one for the jejunal feeding and one for gastric feeding.
- **Do Not** rotate gastro-jejunostomy tubes.[1-3]
- Feeds administered via a gastro-jejunostomy should be delivered continuously, via a feeding pump.[1, 2, 4]
- Replace displaced gastro-jejunostomy tubes immediately with a MIC-KEY™ button OR a Foley catheter (refer to PNPM 3.3.4) and inform treating team immediately, as G-J tube will need to be replaced in radiology.
- Jejunal tubes should not be routinely used for administration of medications.[1, 2] The gastric port should be used instead. Discuss with pharmacy and medical team first if this is not an option.



## Flushing Transgastric-Jejunostomy Device

| PROCEDURE | ADDITIONAL INFORMATION |
|---|---|
| **Flush** with 30mL water;<br>• Prior to and after each feeding session [1, 5]<br>• Prior to and after administration of medication [1, 5]<br>• 6 hourly if the tube is not in use or when on continuous feed [3] | Drinking water may be used for children > 1yr.<br>Cooled boiled water may be used for infants < 1yr.<br>Discuss with the treating team if the manufacturer recommended flushing amount may need to be reduced ie. for infants/ fluid restricted patients.<br>Document revised plan in patient's notes. |

## Feeding via a Transgastric-Jejunostomy Device [3] MIC-KEY™

**Equipment**

Disposable catheter tip syringe (50mL)

Water

Prepared feed at room temperature

| PROCEDURE | ADDITIONAL INFORMATION |
|---|---|
| Remove the feeding port cover from the top of the transgastric-jejunal feeding device. | |
| Insert the extension set into the port labelled "JEJUNAL" by aligning the lock and key connector. | Align the black orientation marking on the set with the corresponding black orientation line on the jejunal feeding port. |
| Lock the set into the jejunal feeding port by pushing in and rotating the connector CLOCKWISE until you feel a slight resistance.<br><br>**NOTE:** DO NOT rotate the connector past the stop point. | Approximately a 3/4 turn. |

| PROCEDURE | ADDITIONAL INFORMATION |
|---|---|
| Flush the jejunal port via the extension set with 30mL water. | Do not use excessive force. |
| **Feeds via a feeding pump**<br>Clamp the line.<br>Fill feeding bag/bottle with required amount of the feed. | No more than 4 hours of feed should be placed into feeding set. |
| Prime line with formula and connect to feeding administration set to extension tube. | |
| Set the pump rate.<br>Unclamp the line and administer the feed. | |
| Flush 6 hourly with 30 mL water. | Or as per Dietitian instruction. |
| **Following the feed**<br>Disconnect the feeding line. | |
| Flush the extension tube/jejunal port with 30mL water. | |
| Remove the extension set by rotating the connector COUNTER-CLOCKWISE until the black line on the set aligns with the black line on the jejunal port.<br>Remove the set and cap the ports with the attached feeding port cover. | |
| Wash the extension tube in warm soapy water and air dry. | |
| Rinse feeding administration set through with water. | |
| Change feed administration set every 24 hours. | Extension sets are disposable and should be replaced every few weeks. |
| Record amount of feed and water on the Input and Output chart. | |

## Maintenance of the Transgastric-Jejunostomy Device Balloon [3] MIC-KEY™

**Key points**

1. Check the internal balloon integrity weekly.
2. Refer to manufacturer's instruction for syringe types and required amount of water.

**Equipment**

Syringe

Clean tap water for injection

| PROCEDURE | ADDITIONAL INFORMATION |
|---|---|
| Stabilise tube and remove water from balloon with syringe and discard.<br>Check compares with original volume instilled ie. 5mL Paediatric size / 10mL Adult size.<br>Report any discrepancies | The water aspirated should be equivalent to that instilled on the previous occasion. |
| Instil the appropriate amount of water to reinflate the balloon. | Follow manufacturer's instruction for amount required to inflate the balloon.<br>ie. 5mL Paediatric size / 10mL Adult size<br>Clean tap water can be used.<br>Do not use air. |
| Document in progress notes. | |

## Naso-Jejunal Tubes

**Key point**

1. NJT tubes are passed by medical staff under radiological guidance. They are usually changed on a monthly basis.

| PROCEDURE | ADDITIONAL INFORMATION |
|---|---|
| **Verification of Placement**<br>(Post insertion, pre feeding and medication administration).[1]<br>Using a 20mL syringe aspirate 0.5-1mL of fluid. | Measuring the pH of withdrawn fluid is helpful in differentiating between respiratory and gastric placement. |

| PROCEDURE | ADDITIONAL INFORMATION |
|---|---|
| Apply aspirate to pH testing paper and observe for colour change and read as per manufacturer instructions. | |
| Gastric position pH ≤5.5<br>Small bowel position [1, 6] pH 6-8 | Antacid medication or continuous feeds may raise the gastric pH. |
| If the tube is in the stomach it **must not** be used.<br>Inform child's treating team immediately. | |
| **Flush** with 5-10mL[1] of water;<br>• Prior to/after each feeding session<br>• Prior to/after administration of medication<br>• 6 hourly if the tube is not in use or when on continuous feed | The volume is dependant on the child's fluid balance and size.<br>Drinking water may be used for children > 1yr.<br>Cooled boiled water may be used for infants < 1yr. |

## References:

1. Great Ormond Street Hospital for Children. Clinical guideline naso-jejunal and jejunostomy management. 2009. Available from: http://www.gosh.nhs.uk/clinical_information/clinical_guidelines/copy2%20of%20cpg_guideline_00109. Accessed: 13 September 2010.
2. Addenbrooke's NHS Hospital. Patient information - transgastric jejunal tubes. In; 2008.
3. Kimberly-Clark. MIC-KEY Low-Profile Transgastric-Jejunal Feeding Tube – Tube Use and Care Instructions. Available from: http://www.kchealthcare.com. Accessed: 27 January 2011.
4. Khair J. Managing home enteral tube feeding for children [expert opinion]. British Journal of Community Nursing.8(3):116-126; 2003.
5. Children's Hospital. Helping Hand™ GJ Tube Daily Care Leaflet. In. Ohio; 2002.
6. Glasper A(eds) AMBC. Developing practical skills for nursing children and young people. In. UK: Hodder Arnold; 2010.

## Bibliography:

The Joanna Briggs Institute. Clinical information service; jejujostomy tube care. 2010.

White R & Bradnam V. Handbook of drug administration via enteral feeding. UK: BPNG. 2007.

Young R & Philichi L (eds). Clinical handbook of pediatric gastroenterology. Missouri: Quality Medical Publishing inc; 2008.