ENTERAL FEEDING

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PEG

- P = Percutaneous (through the skin)
- E = Endoscopic
- G = Gastrostomy (an artificial opening through the abdominal wall)

Definition of a gastrostomy

A gastrostomy is essentially a controlled fistula – an artificial opening into the stomach through the abdominal wall.
RIG
Radiologically inserted gastrostomy

- Gastric obstruction
- Gastroparesis
- High risk aspiration
- Previous gastric resection/bypass
- Complications of acute/chronic pancreatitis
Transgastric jejunal tube

Advantages
- Allows for gastric decompression while feeding into the jejunum

Indications
- Gastroparesis
- Severe pancreatitis – decreases the stimulatory effects on the pancreas, therefore allowing it to rest.

Initial PEG/RIG tube can be replaced after 6 weeks with low profile device

Advantages
- Cosmetic.
- Reduced potential for accidental removal (great for patients with cerebral palsy).
- Easily replaced (approx. 6mthly).
Entristar low profile device (non balloon)

CH.CH Hospital survey
- 24% Patients malnourished on admission.
- Similar findings in NZ and overseas.
- Increased length of stay, morbidity and mortality.
- Early intervention for patients at risk.

Indications
- CVA
- Head injury
- Cerebral palsy
- Cystic Fibrosis
- Head and neck and oesophageal tumours
- Motor neurone disease
- MS
- Scleroderma
- GI dysfunction
Contraindications
- Morbid Obesity
- Ascites
- Oesophageal varices
- Oesophageal tumours
- Poor respiratory reserve
- Patients in permanent vegetative state or EOL
- Dementia
- Lack of consent

Risks of procedure
- Peritonitis
- Haemorrhage
- Infection

Ethical Issues
- ANH (artificial nutrition and hydration) is a life sustaining medical treatment
- Consider whether quality of life will be improved
- Benefits outweigh risks?
- Prolonging life or suffering
- Advanced directive
- Needs and wishes of patient and family? Education
Oncology referrals

- Prophylactic prior to chemo and or radiotherapy treatment – especially head and neck cancers
- Mucositis
- Nutritional support improves tolerance to treatment with fewer complications and hospital admissions

After Initial placement

- Hourly obs for 3 hours then 4hrly
- NIL by tube for 4 hours – then flush with 50mls water
- At 5 hrs – flush 50mls water
- AT 6 hrs feed as per dietitians instructions.
- Next day – remove dressings, clean site with saline and rotate tube 360 deg.

Daily PEG cares

- Tube should be rotated 360 deg daily
- Avoid gauze under flange.
- Clean with saline BD for first 14 days, then daily with soap and water.
- Note cm markings prior to commencing feeds.
- Ensure 1-2mm gap between skin and flange.
- Head of bed 30deg while feeding & 1hr after.
- Warm tap water flushes before and after feeding and 3hrly for pump feeding.
- Administer each well crushed med separately.
- Meds may need to be reviewed by pharmacist.
Jejunal tubes

- Patients are pump fed as the small bowel is volume sensitive. Bolus feeding can cause dumping syndrome.
- Jejunal tubes should not be aspirated or rotated.
- Sterile water flushes 3-4 hrly.
- PEGJ - Gastric access can be used for decompression – (attach catheter bag) relieving nausea/vomiting.
- PEGJ - Check xray if pt vomiting to ensure tube hasn't migrated.

Complications

- Perforation
- Pneumoperitoneum
- Necrotising fasciitis
- Infection
- Tumour seeding
- Overgranulation
- Aspiration

TUBE COMPLICATIONS

- Leakage
- Migration
- Blockage
- Accidental removal
- Buried bumper

Figure 4. Intraperitoneal leakage.
Pressure necrosis

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Complications

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Tumour reseeding

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- Infection
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- Hypergranulation
- Aspiration

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Prevention
- G tubes – flange should be 1-2mm above skin level and tube well secured to prevent excessive tube movement.
- Buttons – correct shaft length.
- Keeping stoma site clean and dry.
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Aspiration

Contributing Factors
- Volume and rate of gastric infusion
- Rate of gastric emptying
- Patient positioning

Ways to reduce the risk of aspiration
- Patient positioning
- Check residual
- Decompression of gastric air as necessary

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Leaking around the tube

Possible Causes:
- A too loose retention device.
- Too rapid delivery of feed/volume intolerance.
- Constipation.
- Infection or hypergranulation.

Treat cause appropriately once identified.
Important to ensure surrounding skin is protected with barrier creams or absorbent dressings.

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Tube migration

OUTWARDS –

Symptoms
- pain, redness and swelling at insertion site.
- pain on feeding
- altered stoma length – will be shorter.

Action
Stop feeding
Non balloon tubes will need to be replaced
Balloon replacement tubes - deflate balloon and reinsert and reinflate. If this is not possible contact Gastro.

Tube migration

Inwards
May cause partial pyloric or oesophageal obstruction accompanied by vomiting and/or abdominal distension

Action
- Stop feeding
- Check stoma length of tube. If known cm mark has disappeared into stoma tract – suspect this problem
- Gently pull back on tube until resistance of internal bumper is felt against stomach wall and readjust flange

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TUBE COMPLICATIONS
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- Migration
- Blockage
- Accidental removal
- Buried bumper
Tube blockage

Possible causes
- Inadequate flushing of tube.
- Backup of gastric content into tube – mixing with formula and causing curdling.
- Incorrect administration of medication.

If tube starts to block
- Try flushing with warm water using a “piston” action with the syringe plunger.
- Pancreatic enzyme (creon) may be beneficial.
- Tube will need replacing if all attempts fail.

ACCIDENTAL TUBE REMOVAL!!!!

Don’t Panic!!!
WHAT TO DO

- The stoma will begin to close over within 2 to 3 hours.
- If a replacement tube isn’t available – place a foley catheter of a similar french size or smaller into the stoma.
- Contact Gastro.

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Figure 1. Buried bumper percutaneous endoscopic gastrostomy tube
Figure 3. Correct placement of percutaneous endoscopic gastrostomy tube
Diarrhoea
Reasons for diarrhoea may include:
- rapid administration of formula.
- spoiled / contaminated formula.
- changes in formula, medication or feeding regime.
- problem may not be feeding related.

Notify dietitian/physician

Constipation
Reasons for constipation may include:
- type of formula
- increased inactivity
- change in formula, medication or feeding regime.

Notify dietitian/physician.
IMPACT ON PATIENT NO LONGER ABLE TO EAT/DRINK ORALLY

- Loss of socialisation – feeling of isolation.
- Loss of pleasure associated with eating/drinking.
- Effect on family members.