PEG MANAGEMENT GUIDELINES 2011– extracts for GP information

(see also full PEG Management Guidelines on DHB Intranet under 'Policies & Procedures – Clinical Practices Manual')

Team (MDT) Roles and Responsibilities

General Practitioner

- Provides primary care
- Maintain 3 monthly formula prescription and annual renewal of Special Authority number in liaison with senior clinician within appropriate specialty
- Liaise with MDT as required.

Community Pharmacist

- Ongoing supply of medications and formula as per prescriptions and the Pharmac schedule.
- Ensure medications appropriate for administering via tube.
- Liaison with hospital pharmacy as required. (After hours contact via hospital operator)

District Nurse (DN)

- Visit patient pre-operatively or prior to hospital discharge when possible
- Phone contact within 24 hours of discharge to arrange initial visit within 3 working days.
- Assess and monitor client using the DN Care Plan and PEG Assessment & Teaching Tool (Pg 3 of Critical Path)
- Provide phone support, home visit or clinic appointment as appropriate
- Reinforce patient pathway information and educate client and caregivers regarding stoma and tube cares and management of feeds
- Ensure adequate and timely provision of equipment supplies.
- Monitors patients general health & well-being, including feeding plan and procedures, PEG site, oral health, bowel function & report any concerns to Dietitian. Consult with MDT as appropriate
- Performs patient reviews and ongoing tube replacements as required

Registered Nurse (Private Hospital / Rest Home) or patient /family/carer if self-managing

- Follow the feeding plan as prescribed by the Dietitian
- Contact Dietitian if any concerns with feeding regimen
- Maintain adequate supplies of feeds and equipment
- Follow recommended procedures for administering enteral feeds and manufacturers instructions for use of equipment and devices
- Monitors patients general health and well-being including PEG site, oral health, bowel function and report any concerns to MDT as appropriate

Monitoring by District Nurse

- Whilst PEG in situ, the patient's District Nursing referral is to remain an 'Active', for the provision of ongoing support, supplies and patient reviews
- Body weight, fortnightly. Notify the Dietitian, GP or District Nurse if there is any significant weight change, adjust skin disc accordingly
- Routine Biochemistry; Blood glucose
- Accurate fluid balance/intake record
- Urinalysis
- Physical examination for flatus, abdominal discomfort
- Monitor oral health, ensuring clients or carer's oral hygiene practice continues according to client circumstances
- Monitor bowel function and client for any signs of intolerance such as diarrhoea, reflux, bloating or discomfort, and report any concerns to MDT as appropriate.

(NB. Other MDT members are: Hospital dietitian, medical team, nurses, case manager, and pharmacist, DN PEG resource nurse, Nutrition Company representative, and speech-language therapist)

Tube Replacement

1. **Removing initial placement device and insertion of replacement tube**
    - The initial tube can be replaced between 8 weeks and 15 months after insertion, depending on the patients circumstances and tube integrity.
    - Appointments at Endoscopy can be made by health professionals when the initial tube change is required or review is indicated. Notify endoscopy if a LPD not suitable
    - Analgesia or sedation may be required

2. **Changing The Balloon Replacement Tube**
    - Ongoing replacements are usually required 5-8 monthly
    - Ongoing tube changes will be performed in the setting appropriate for the patient eg home, residential facility, outpatient clinic or DN rooms
    - Tubes can be replaced by trained staff, patient or family/caregiver
    - Analgesia or sedation is not usually required, if so this will have to be arranged and an Endoscopy appointment made

3. **Urgent replacement**

Ideally a replacement BRT should be held on site/at home, and patient/family or caregivers aware of how to replace these if necessary. If tube is accidentally removed, a tube or catheter is to be inserted within 2-4 hours. A Foley catheter of the same gauge (usually 20 Fr) can be inserted until BRT available. **(Do not inflate balloon)**

Administration of medications via PEG (from Nutrition Support Guidelines .)

- Confirm with clinical pharmacist that the medication is suitable for administration via NG, NJ or PEG, or PEJ route and that the medication is physically and chemically compatible with the enteral feed.
- The pharmacist should advise on which medications are suitable for crushing. Please note that the crushing of a tablet or opening of a capsule before administration will in most cases render its use to be "unlicensed".

Table A. Drugs that should not be crushed	
Medication/formulation	**Reason**
Enteric Coated (e/c en) preparations(including e/c coated capsules contents)	Properties of formulation destroyed Bio-availability could be modified Could cause tube blockage
Modified Release (m/r) preparations (Retard, Slow release, Long Acting, Sustained actions, SR, LA, SA, XR, LD, CD, XL, CR).	Properties of formulation destroyed. Bioavailability could be modified. May cause dangerous peak and troughs ie dose dumping
Sub-lingual or buccal preparations	Bioavailability may be dramatically reduced if absorbed via GI tract
Cytotoxic medications, prostaglandin analogues, potential carcinogens, hormone preparations, antibiotics	Hazardous to nursing staff
Microencapsulated products, bead or granule filled capsules.	Can cause tube-blockage

1. Medication charts should state route of administration e.g. NG, NJ, PEG or PEJ tube
2. Prepare the dosage for administration as shown in Table B below using a 50ml catheter-tip syringe. (Note: doses must only be prepared immediately prior to administration).

Table B	
Tablets	Crush the tablet to a fine powder using a pestle and mortar. Mix well with 10 ml of water[b] draw up into the oral syringe and shake well to mix
Liquids	Dilute the liquid in 10ml water[b] If the liquid is particularly viscous or irritating then a more dilute preparation in 20-30ml may be needed.
Powder Capsules	Mix capsule contents with 10 ml of water[b]
Soft Gelatine capsules	Aspirate contents from capsule using a fine needle and mix with 10ml water[b] Use immediately as drug may be light sensitive

a. *Catheter-tip syringes must be used to prevent potential errors of injecting the drug intravenously. Use a 50ml syringe to avoid excessive pressure and potential tube rupture.*

b. *Sterile water must be used for jejunal tubes (the stomach's acidity has a useful bactericidal effect). Sterile water must also be used for medications which are prone to chelation eg Ciprofloxacin, Doxazosin.*

3. Stop the infusion of feed when administering medications.
4. Flush the NG tube with 30ml of water before medication administration.
5. If more than one medication is to be administered flush the tube with 5ml water (3ml for children) between each medication. **(Do not mix medications in the same syringe).**
6. Flush the tube with 20ml water after final administration.
7. Document total volume of fluid given (including flushes) on the fluid balance chart.
8. Clean equipment used to crush tablet(s) and allow to air dry.
9. Restart feed. (note: some medications may require a time delay before recommencing feed. Check with clinical pharmacist for advice).

Other important points

- Patients who are fluid-restricted will need to be assessed individually and will need discussions involving the medical/surgical team, nurses and the pharmacist.
- Do not administer bulk-forming laxatives because they may block the tubes: use an enteral feed with high-fibre content instead.
- Do not add medications to feeds; this increases the risk of incompatibility, microbial contamination, tube blockage, and under dosing or overdosing if the feed rate is altered.
- Many "sugar free" liquid formulations contain sorbitol. This may cause GI disturbance such as diarrhoea, bloating, and stomach cramps. Patients will need monitoring for this. Reduce osmolality by diluting with as much water as is practical. Sorbitol in cumulative doses of >7.5g generally causes diarrhoea; often severe with doses of >20g (but have an awareness of the fact that the diarrhoea may be due to a microbe such as C.difficile.)
- Many tablet and capsules contents will disperse completely when crushed and mixed with water, even though they are not marketed as dispersible. Do not administer crushed tablets or capsule contents that have not completely dispersed in water; sediment increases the risk of blocking the tube.
- If feeds are being stopped for any length of time, eg. to avoid interactions with medication, the dietician must be made aware of this.
- A complete set of guidelines for administering medications through enteral tubes is available online in the Nutrition Support Guidelines . found on the Intranet under 'Policies and Procedures/Pharmacy.

Complications (see full PEG Management Guideline on DHB Intranet for details and intervention)

Bacterial Infection
Yeast Infection
Pressure Necrosis
Skin Breakdown
Hypergranulation
Peritubular Allergic Reaction
Abdominal discomfort
Aspiration
Balloon Burst or Leak

Bleeding
Blocked tube
Constipation
Diarrhoea
Leakage Around Tube
Peritonitis
Removal of or Displacement of tube
Tube Deterioration
Tube Migration