

Home Enteral Nutrition: What happens after discharge?

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Nutrition Support Study Day
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Home enteral nutrition (HEN)

- Enteral tube feeding is considered for patients who are malnourished or at risk of malnutrition due to an inadequate or unsafe oral intake.

NICE Guideline 2006

- Enteral tube feeding is usually commenced in hospital and may often be required to continue in the community.

HEN: Indications

EUROPEAN MULTICENTRE SURVEY – 2003 ESPEN Home Artificial Nutrition Working Group (n=1397)

- Main indication for HEN
 - Dysphagia (84%)
- Main underlying diseases
 - Neurological disorders (44%)
 - Head & Neck Cancers (30%)

Prior to discharge...

Using feeding pump

Sourcing equipment

Medications

Tube dislodges

Care of stoma



Connecting feed

Feeding regimen

Flushing tube

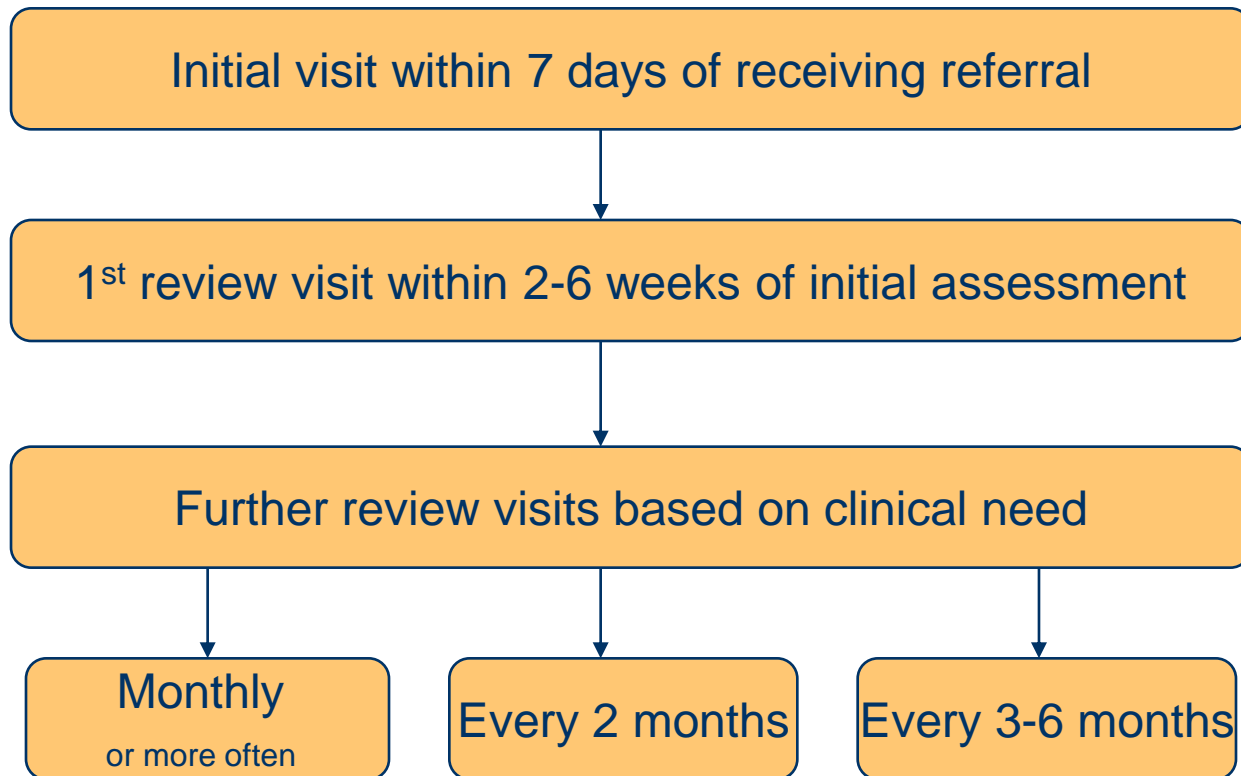
Unblocking tube

Community supports

HEN

- Patients and carers find the first weeks post discharge on HEN the most difficult. The greatest number of problems are reported during this time
Mensforth et al, British Journal of Homecare, 1999
- A comprehensive monitoring service helps to ensure that complication rates are minimised
Parker et al, EJCN, 1996

Monitoring Standard for Adults on HEN (HSE Dublin North East)



Monitoring HEN – CREST 2004

Patient (& carers)	Changes in clinical condition, oral health, QOL, compliance & tolerance of feeding regimen, ability to perform procedures to acceptable standard, ability to cope with changes in lifestyle
Nutrition	Nutritional status, nutritional requirements, nutritional intake, feeding regimen, fluid balance
Biochemistry	FBC & biochemistry profile should be measured shortly after discharge & annually if clinically stable
Medications	Changes in medication, administration, side-effects
Feeding tube	Condition of tube, length of time insitu, tube rotation, evidence of blockage, internal balloon volume in appropriate devices, record tube details if recently replaced
Stoma	Condition of stoma, presence/ type of exudate, presence of overgranulation or leaking, fit of fixation device, presence of unnecessary dressing
Pump	Accuracy, cleanliness, annual servicing, appropriateness for patient

Gap in service

“The management of PEG’s in the community requires specialist resources, which are rarely provided, resulting in frequent, and sometimes inappropriate hospital admissions”

Sanders et al, European Journal of Clinical Nutrition 2001; 55: 610-614

“Ideally all HEN patients should have community follow-up by a dietitian, SLT and appropriately trained professionals who can deal with problems and advise accordingly”

Lowry et al, Ulster Medical Journal 2007; 76(2): 88-90

No follow-up.....!!

- BACKGROUND

- James, 67yo man with Tonsil Cancer
- Enteral feeding commenced during radiotherapy
- No review for 6 months post discharge

- ASSESSMENT

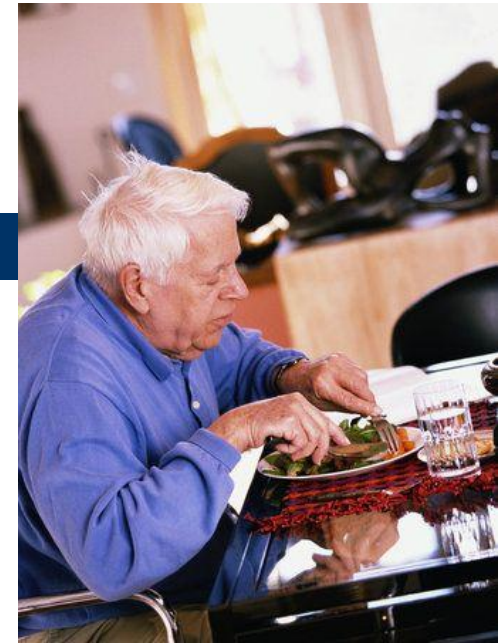
- NPO, fully dependent on enteral feeds
- Regained 9kgs
- Recurrent stoma infections, PEG too tight, unable to rotate tube

- ACTION

- Loosened external fixation device
- Feed reduced to achieve weight maintenance
- Referred to SLT to reassess swallow

- OUTCOME

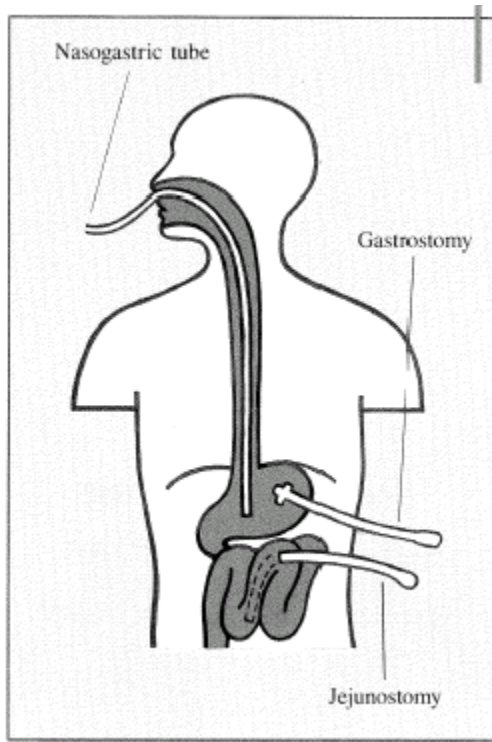
- Now meeting >50% of nutritional requirements orally



Feeding tubes & accessories



Feeding routes

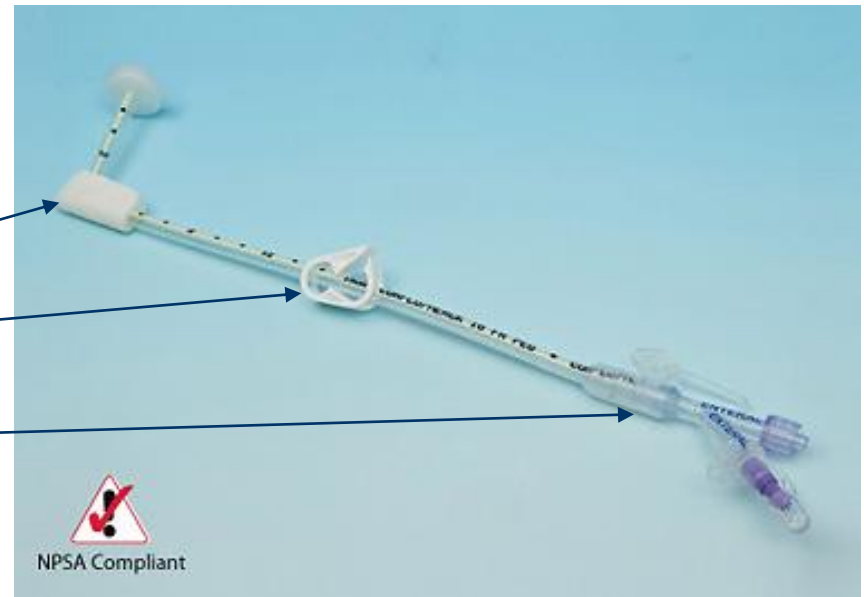


<p>NG Nasogastric</p>	<p>Short-term feeding, Rare in HEN</p>
<p>PEG Percutaneous Endoscopic Gastrostomy</p>	<p>Inserted in endoscopy, suitable for longer term feeding (>4-6 wks)</p>
<p>RIG Radiologically Inserted Gastrostomy</p>	<p>Inserted in radiology, when endoscopic placement is contraindicated.</p>
<p>Jejunostomy Surgically inserted</p>	<p>Inserted during laparotomy, post pyloric feeding</p>
<p>PEJ Gastrostomy with jejunal extension</p>	<p>Inserted in endoscopy or radiology, via pre-existing gastrostomy stoma. Post pyloric feeding</p>

Feeding tubes: PEG tube

Corflo PEG (Merck)

- Endoscopically placed
- Last 3-5 yrs
- Can replace
 - External fixator
 - Clamp
 - Y port

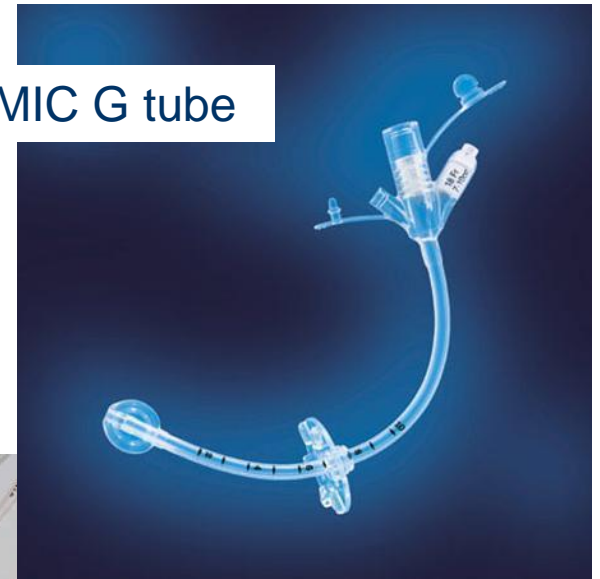


Feeding tubes: G-tube

G-tubes

- “balloon gastrostomy”
- Replacement tubes
- Internal balloon
 - Weekly volume check
- Last 3-6 months

MIC G tube



Corflo G tube

Alternative G tube

Wills Oglesby

- 12Fr – blocks easily
- Radiologically inserted



Feeding tubes: LPGD

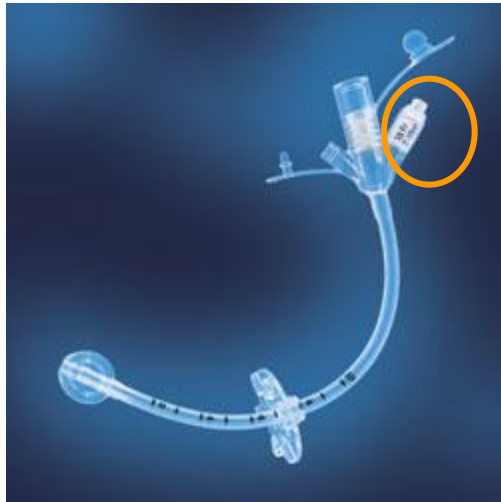
Low profile gastrostomy device (LPGD)

- “button gastrostomy”
- Radiology for initial insertion or use as replacement
- Internal balloon
 - Weekly volume check
- Last 3-6 months



MIC-Key

Checking balloon volume



- Volume indicated on balloon port – usually 5mls
- Withdraw water using 10ml luer slip syringe & record volume. Replace with fresh water.
- Schedule elective replacement if volume less than 3mls on 2 consecutive occasions
- If no water can be withdrawn, balloon is leaking or has burst – tape in position & replace asap!!

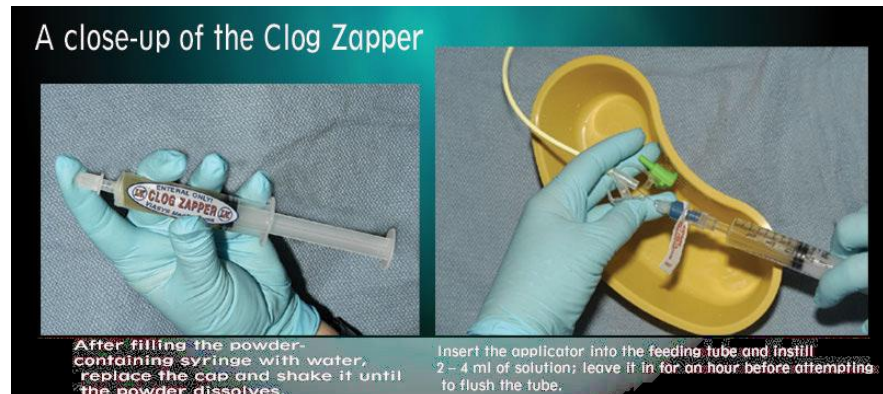
Unblocking tubes

You will need

- 60ml catheter tip syringe
- 30mls warm water
- Elbow grease & patience!

Alternatively

- Clog zappers



Stoma management



Stoma care - Leakage

- Leakage of gastric contents during and between feeds
- Area becomes red & excoriated



CAUSE

- External fixator poorly positioned
- Stoma enlarged
- Large internal balloon fixator (20cc)

PREVENT

- Correct position of external fixator
- Ensure LPGD correct size

TREAT

- Position external fixator
- Excoriation – barrier film e.g Cavilon
- Heavy exudate – absorbent dressing
- Review tube size/ type – switch to LPGD

Stoma care - overgranulation

- Overgrowth of pink, 'cauliflower-like' moist tissue



CAUSE

- Excessive movement of tube in & out of stoma

PREVENT

- Correct position of external fixator

TREAT

- Foam dressing to compress
- Foam dressing + Steroid ointment (e.g. Elocon)
- Silver Nitrate

Stoma care - infection

- Stoma red, inflamed, hot, pus, exudate, unpleasant smell



CAUSE

- Poor hygiene practice

PREVENT

- Hand hygiene
- Clean stoma daily
- Avoid dressings – keeps moist

TREAT

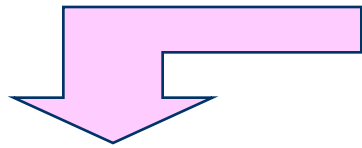
- Swab for culture & sensitivity. Antibiotics if indicated
- Loose gauze dressing if heavy exudate, change frequently
- Consider Silver/ Inadine dressing



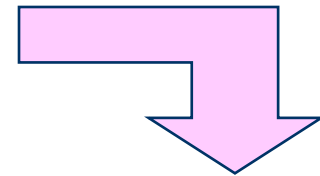
Replacing gastrostomy tubes



Replacement tubes



G tube



Button/ LPDG

Gastrostomy replacement in community setting

*Gastrostomy tube replacement in LHO Dublin North
(Older Persons Service only)
Oct 2010-Oct 2011*

- 22 HETF clients with G-tubes
- 82 tubes replaced (average 3.7 tubes per client)
- 93% of tubes were replaced in the community, avoiding hospital transfer
- **Estimated cost savings = 18,450 euro per annum**, based on avoiding ambulance transfer with average ambulance cost and agency fee for accompanying care attendant.



Confirming position

- pH < 5.5 prior to feeding



Further training

Beaumont Hospital offer training courses on

- Management of gastrostomy tubes
 - ½ day course
- Reinsertion of replacement gastrostomy tubes
 - 1 day theory & 2 replacements under supervision in endoscopy to be deemed competent

Further information, contact Dietitian Manager at Beaumont Hospital
paulaoconnor@beaumont.ie

HEN Resources

- **INDI (NSIG) 2007:** *Home enteral feeding resource pack*
http://www.indi.ie/docs/441_HEN_Resource_Pack_May_07.pdf
- **CREST 2004:** *Guidelines for the management of enteral tube feeding in adults*
<http://www.gain-ni.org/library/guidelines/tube-feeding-guidelines.pdf>
- **NICE 2006:** *Nutrition support in adults. Oral nutrition support, enteral tube feeding and parenteral nutrition.*
<http://www.nice.org.uk/nicemedia/pdf/cg032fullguideline.pdf>

Thank you

