A novel discharge pathway for patients requiring palliative home parenteral nutrition

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Declarations:

• Recipient of Shire Innovation fund (not for this study)

• Acted as speaker for Ferring and Shire
Palliative parenteral nutrition:

- One of the fastest growing indications for HPN worldwide
- In some countries is the leading indication e.g. Spain
- ESPEN provide guidance stating:
  
  - PN may be recommended in incurable cancer patients who cannot be fed orally or enterally:
  - (a) if they are estimated to die sooner from starvation than from tumour progression
  - (b) if their performance status and quality of life are acceptable; and
  - (c) if there is strong patient and family motivation

BUT........
• Discharge on palliative HPN can be complex in metabolically unstable patients

• ESPEN and British Intestinal Failure Alliance (BIFA) guidance advises the use of dedicated IFUs for the management of type II and III intestinal failure

• The increasing utilisation of HPN in the palliative setting is therefore set to increase the demand on such services

• The centralisation of oncology and IF care in many healthcare systems means that such centres are often not co-located in the same hospital
Solution- A remote discharge pathway:

- A quality improvement methodology was adopted to develop and implement the pathway

- Started in 2012

- The primary outcome of interest was the interval between referral to the IFU until discharge from the oncology centre

  - Specifically aiming to achieve a 50% reduction in this parameter over the lifetime of the project

- QI methodology applied tests of change, PDSA cycles, continuous data recording and analysis with the use of run charts and Statistical Process Control (SPC) charts
Remote discharge pathway:

- Suitable for remote discharge:
  - Yes – treatment plan formalised.
  - No – return care to Christie

- Finalise patient status

- Clinical information collated and acted upon accordingly

- Oncology centre discharge process

Steps:
- Referral from oncology centre
- Collation of information and addition of patient to waiting list
- Treatment plan formalised and patient progressed from the waiting list, with activation of remote discharge
- Final HPN prescription generated and homecare company appointed
- Home installation / start of HPN
**n=125 referred** | **n=82 on pathway**
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**Gender** |  |
Male | 24 | 16 |
Female | 101 | 66 |
**Age** |  |  |
mean age 58 (25 - 80) | mean 57 (24-80) |
**Malignancy** |  |  |
Ovarian | 60 | 41 |
Peritoneal | 9 | 7 |
Colorectal | 9 | 7 |
Gastric | 8 | 5 |
Lymphoma | 7 | 2 |
NET | 6 | 4 |
Pseudomyxoma | 5 | 4 |
Breast | 4 | 3 |
Endometrial | 4 | 3 |
Bladder | 3 | 3 |
Unknown | 2 | 2 |
Cervical | 2 | 0 |
Oesophageal | 1 | 0 |
Pancreatic | 1 | 0 |
Sarcoma | 1 | 1 |
Squamous cell skin | 1 | 0 |
Pathway points a-e: reduction from 29.4 to 10.1 days

**Working days between referral and remote HPN discharge**

- **UCL**
- **CL**: 20.5
- **LCL**

Referral period according to year:

- 2012-2013
- 2013-2014
- 2014-2015
- 2015-2016
- 2016-2017
- 2017-2018
Pathway points a-c: there was a reduction in the time spent on the waiting list from 8.4 days to 1.0 days.
Referral to HPN prescription: reduced from >30 days to 3.7
Survival and outcomes:

- Mean number of HPN days was **215.9** (1-2032, 95% CI 133.4-298.3)

- Equating to **17 706** catheter days, CRBSI rate of **0.169** per 1000 catheter days

- The mean number of days from discharge to death was **134.8** days (range 1-1715)

- Ninety day survival/time spent on HPN varied according to the underlying malignancy
Mean number of days from discharge to death was 134.8 days
Red= Gynae

Blue= Pseudomyxoma/NET

Green= Other
Summary:

• Demand for palliative HPN increasing

• Centralised healthcare systems require novel approaches

• Novel pathways can also such centres to cope with increasing demand

• Speedy discharge can be achieved whilst maintaining good quality of care i.e. CRBSI rates

Thank you- any questions?