

PMO-078 TECHNICAL FEASIBILITY: MECHANICALLY-RETAINED LOW-PROFILE BUTTON GASTROSTOMY

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Introduction A replacement button-gastrostomy has been developed, retained by a mechanical internal fixator formed by loops of the tube shaft. When stretched by the introducer/extractor tool it returns to a completely flat tube profile, avoiding the need for oversizing the stoma, reducing pain on exchange and potentially increasing the tube dwell time beyond the recommended 3 month intervals of balloon tubes. We assessed whether the prototype is applicable to clinical practice.

Methods Suitable patients referred for replacement of a conventional gastrostomy were invited to receive a 14Fr prototype instead of a 12Fr balloon gastrostomy requiring a 16Fr track. Gastrostomies were inserted without local anaesthesia, unless required for removal of the existing PEG/RIG. Regular follow-up at increasing periods was performed and difficulties and complications recorded. Informed consent and approval by the institutional review board was given, the device is CE marked.

Results All tubes were sited and subsequently exchanged without difficulty and essentially pain-free. Two patients had PEGs removed fluoroscopically under sedation prior to siting the tubes, 14 patients with an existing balloon tube found the exchange from much less painful. Initially the prototypes were changed routinely after 6 months. At present they are left until the patient indicates a need for review. No complications occurred during the insertion of the feeding tubes. No accidental displacements occurred. Seven



Abstract PMO-078 Figure 1

feeding tubes (47%) are still in situ after a median of 250 days. Of the remaining tubes five were removed due to end of treatment, 4 were changed back to a balloon tube (two patient preference, two for infection and leakage). 14/16 patients indicated a clear preference for the prototype because of lack of balloon-maintenance, reduced number of tube changes and painfree tube removal and insertion.

Conclusion The feasibility study proved the mechanical retainer to have sufficient internal fixation with much reduced need for maintenance and applicable to clinical practice. Dwell time can easily exceed 1 year and patient acceptability was much higher than expected. The reduced number of tube changes and lack of pain of these would be particularly important in children.

Competing interests J Cain: None declared, T Westwood: None declared, L Wilbraham: None declared, D Edwards consultant for: Vygon, H U Laasch consultant for: Vygon, Kimberley-Clarke.

PMO-079 FEASIBILITY OF BEDSIDE NASOJEJUNAL TUBE PLACEMENT "BLINDLY" OR USING AN ELECTROMAGNETIC DEVICE

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Introduction Some enterally fed patients require placement of a nasojejunal tube (NJT) which is often considered to need time-consuming, costly radiological or endoscopic input which can delay feeding commencement. This study examined the feasibility and accuracy of bedside NJT placement.

Methods As part of a study comparing nasogastric tube (NGT) with NJT feeding in dysphagic stroke, we assessed bedside NJT placement using a "blind" technique (standard 140 cm 8Fr tube) or an electromagnetic tracking device (Cortrak® with compatible Corflo® 8Fr tubes, donated by MerckSerono) to identify tube shape and hence likely position in the GI tract. In the parent study, 19 patients were randomised to receive an NJT and for the first 10, placement was blind while for the last nine the Cortrak® was used. The basic technique used to pass tubes was the same in both groups; tube measurement against patient's xiphisternum to ear to nose to anticipate length needed for tip to be in the stomach; passage of the tube into the stomach; then advanced using gentle clockwise torque (a "flick" may be felt when the tube traverses the pylorus). Additional manoeuvres such as repositioning the patient, flushing small amounts of air/water, waiting 10 min before tube advancement and prokinetic administration were used as necessary. Correct placement in all cases was confirmed using aspirate from the stomach (acid pH),¹ aspirate from the small bowel (neutral/alkaline pH if obtained) and abdominal x-ray (AXR). Tubes placed using Cortrak® showed the expected pattern of small bowel placement on the tracking screen.

Results Bedside NJT placement was successful in 17 (89.5%) of the 19 patients—9/10 (90%) of blindly placed tubes and 8/9 (89%) Cortrak® placed tubes. All 17 NJTs were confirmed as correctly positioned on abdominal x-ray.

Conclusion NJTs can be safely placed at the bedside by trained staff in stroke patients to reduce endoscopy and radiology costs and achieve faster commencement of feeding. Placement can be achieved using a blind technique but use of an electromagnetic device can probably obviate the need for an AXR to check position.²⁻⁴

Competing interests K Smith grant/research support from: MerckSerono, T Smith: None declared, Z Leach: None declared, S Harding: None declared, M Stroud grant/research support from: MerckSerono.

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PMO-080 HOME ENTERAL TUBE FEEDING VIA PERCUTANEOUS JEJUNOSTOMY: A 5-YEAR UK REGIONAL STUDY OF TRENDS AND OUTCOMES

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Introduction NHS Lothian home enteral tube feeding (HETF) point prevalence figures reveal that of the 328 adults on HETF in the Lothian region, 18 (5.4%) are being fed via jejunostomy. The aims of this study were to establish the trends in jejunostomy feeding over a 5-year period and to identify the associated complications.

Methods A retrospective review of the regional HETF database was carried out to identify all adults discharged home to the Lothian region on jejunal feeding between 01 January 2007 and 31 December 2011.

Results Ninety adults were discharged on jejunal feeding within the study period. The number of adults receiving jejunostomy feeding at home had increased with an average of 11 per year from 2007 to 2009 rising to an average of 28 per year from 2010 to 2011. Patient age at start of feeding ranged from 17 years old to 79 years old with a median age of 61.6. The most common reason for home jejunal feeding was post-oesophagectomy for oesophageal cancer (65%), followed by gastrectomy (8%) and oesophageal rupture (6%). Length of time on home jejunal feeding ranged from 7 days to 999 days with an average of 165 days, equivalent to 23.6 weeks. The most common clinical outcome was discontinuation of HETF and a return to normal oral diet (64%), 16% died due to underlying disease, and 14% continued on jejunostomy feeding. A review of the complications associated with use of a jejunostomy feeding tube revealed that 55% had documented complications and of this number, 36% had more than one complication documented. In practice, this incidence may be higher as not all patient records had tube site examination documented. A summary of the most common jejunostomy-related complications is shown in the Abstract PMO-080 table 1 below.

Abstract PMO-080 Table 1

Complication	Incidence (%)
Sutures fell out	18 (21)
Infection at tube site	15 (18)
Leakage at tube site	9 (11)
Dressing not changed as per local guidelines	9 (11)
Tube blockage	7 (8)
Inflamed tube site	7 (8)
Pain at tube site	4 (4)
Overgranulation of stoma	2 (2)

Conclusion This study has shown that the number of patients discharged home on jejunostomy feeding over a 5-year period has increased significantly. Average length of time on jejunostomy feeding was almost 6 months therefore the availability of ongoing and timely follow-up in the community is essential. Of particular note is the high rate of tube-related complications, some of which required admission to hospital or treatment at specialist clinics. This incidence could be reduced by improving training and information on prevention and early detection of complications for community

based health care professionals as well as for patients. These findings have direct implications for practice in highlighting the need for dedicated, specialist and individualised care for patients at home on jejunostomy feeding.

Competing interests None declared.

PMO-081 ENTERAL NUTRITION IN THE CRITICALLY ILL: THE IMPACT OF NURSING ADHERENCE TO FEEDING PROTOCOLS ON THE EFFECTIVENESS OF TREATMENT IN JORDANIAN INTENSIVE CARE UNITS

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Introduction The aim of the study is to assess nurses' adherence to enteral nutrition evidence-based guidelines in intensive care.

Methods Mixed-methods design was employed. This abstract will show the results of the survey which was concerned with the practical issues, the nursing process, and enteral nutrition complications. A cluster sample recruited intensive care nurses (n=253) from different health care sectors in Jordan.

Results Clinical nutrition is perceived by 79.7% of nurses as a secondary role. Nurses showed greater levels of knowledge and responsibility for "preventing complications" and "evaluation" than "assessment" and "identifying goals". Tube position is still confirmed via unreliable measures such as air bubbling technique (mean 4.00, SD 1.14). The mean for measuring Gastric Residual Volume was above the mid-point (3.70, SD 1.33). However, there was inconsistency in recognising the limit, threshold and frequency of measuring this volume. Diarrhoea is the most frequent complication of enteral nutrition (mean 3.36, SD 1.34) followed by abdominal pain, tube dislodgment, weight loss and uncontrolled blood sugar. Nurses perceived that the incidences of complications are less likely to occur in the presence of evidence-based guidelines than absence ($\rho=0.73$, $df=251$, $p<0.001$).

Conclusion Nurses show more concerns about the outcomes of enteral feeding instead of the preliminary assessment. Measuring gastric residual volume and confirming tube placement are still deficient and require further attention. Evidence-based practice is acknowledged by nurses where undertaking such protocols is emphasised.

Competing interests None declared.

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PMO-082 OUTCOMES AFTER "THROUGH THE PEG" PLACEMENT OF JEJUNAL EXTENSIONS

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Introduction Percutaneous endoscopic gastrojejunostomy (PEG-J) placement by conventional techniques is technically demanding,