

participation in self management programmes, open access appointments and the value of their hospital appointments when well. Thematic analysis of interviews was undertaken using NVivo 9.0.

**Results** No patients were enrolled into a self management programme. Only two had heard of self management. Four clear groups of patients perspectives of self management emerged: (1) patients who embraced the concept of self management and questioned why they had not heard of it prior to the interview; (2) patients who dismissed self management and could perceive no advantages to it, would not take “responsibility for their body”; (3) patients who were willing to embark on a programme with the caveat that if they could not manage, they could revert back to the traditional care system; and (4) patients who required more knowledge about their illness and body response before considering self management. All patients were concerned about open—access and a fear of not “getting in” when needed. This led to an unwillingness to accept this yet all but one of the 24 patients stated that, when well, their hospital appointment was often a waste of their time and the healthcare professionals’ time.

**Conclusion** Integrated care pathways for patients with inflammatory bowel disease should be responsive to their clinical needs, be feasible and acceptable to those delivering and receiving care. When designing new modes of care delivery, consideration must be given to the group of patients that will not, or cannot self manage. Patients also appear to lack confidence in new modes of care delivery. Re-building this confidence is vital to the successful implementation of integrated care pathways where there is an element of self management.

**PMO-025** **THREE-YEAR REVIEW OF LOCAL HEPATO-PANCREATOBILIARY (HPB) CANCER SERVICE & ITS IMPACT ON CANCER DETECTION IN A NON-TERTIARY CENTRE IN MERSEY REGION**

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**Introduction** Patients with HPB cancer pose complex clinical problems requiring close liaison between primary, secondary & tertiary care. Reconfiguration of cancer services in the Mersey region has led to standardisation of care for HPB cancer patients via referral to Regional Specialist Centres (RSC). However local cancer care remained fragmented and limited by the variable expertise of the respective clinical teams involved. Therefore we developed a local HPB Cancer Service (HPBCS) and hereby report 3-year impact of this service on overall patient care and cancer detection rates outside tertiary referral centres.

**Methods** The HPBCS was launched on the Wirral in June 2008, the first such service in a large district general hospital (catchment population of 360 000) in the Mersey region. All patients with suspected HPB cancer were referred to the local HPB Team comprising of two HPB consultants and a specialist nurse. Patients are identified via 2-week referrals from primary care, acute admissions, ward referrals and radiology flags—a new concept that year upon year provides a valuable resource to the service. All patients are managed as per the Mersey & Cheshire Cancer Network protocol with discussion at the appropriate RSC MDT meetings. The team meets weekly to discuss all new referrals, MDT outcomes and any sick patients. In addition to the consultant clinics, there is weekly HPB nurse-led outpatient & telephone clinics that provides urgent feedback of tertiary MDT decisions, rapid access for symptom control and ensures continuity of care.

**Results** There is a sharp increase in the HPB cancer detection and referral rates since establishing the local HPBCS which has sustained over 3-year period as summarised in Abstract PMO-025 table 1.

Abstract PMO-025 Table 1

Pancreatic lesions	Pre HPBCS 2007		Post HPBCS 2009/2010/2011	
	Pancreatic cancer resectable/non-resectable	NA	59/24	72/40
IPMN	NA	45	83	48
Benign pancreatic lesions	NA	47	33	40
Total	51	175	252	178

  

Hepato-biliary lesions	Pre HPBCS 2007		Post HPBCS 2009/2010/2011	
	Cancers (HCC/gallbladder/cholangio)	NA	34/13/9	42/2/8
Benign liver lesions	NA	25	65	51
Indeterminate liver lesions	NA	21	4	18
Total	26	102	121	139

**Conclusion** Since commencement of local HPBCS, there is sustained increase in number of suspected HPB cancers identified within the trust. These are referred on to the regional MDTs within 2 weeks, leading to timely and uniform care as per regional network guidelines with local ownership of care. Service was formally praised in MCCN peer review in 2010 and awarded Wirral Trust Foundation Award in 2011. There is small but consistent rise in detection of liver lesions which may reflect increasing incidence of chronic liver diseases nationally. Ever increasing pool of surveillance patients & radiology alerts contribute to significant ongoing work load.

**Competing interests** None declared.

**PMO-026** **RE-AUDIT OF ACTION ON POSITIVE *H PYLORI* (HP) SEROLOGY: SIGNIFICANTLY BETTER ... NOT YET PERFECT**

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**Introduction** We identified a patient with duodenal ulcer re-bleed whose earlier *Hp* seropositive result was overlooked, hence not acted on. This triggered an audit<sup>1</sup> of action taken on hospital-initiated *Hp* seropositive results. It showed inadequate action in 17% due to multiple serology request sources, unclear advice from endoscopists & varied involvement of endoscopy specialist nurses (SpN). As most *Hp* serology tests were initiated at endoscopy, SpN were made the single point of contact to test, review/action results & confirm eradication by Urea Breath Test (UBT) in seropositives. Two actions were taken in November 2010: a copy of all hospital clinician initiated seropositive results to be sent by Microbiology lab to SpN & a code “ESN” created in the lab system for SpN to request & receive serology results directly.

**Aim** To re-audit management of *Hp* seropositive patients since introducing the above measures.

**Methods** Retrospective study of all hospital clinician initiated *Hp* seropositive results between January and June 2011 (list from microbiology lab database). Proof of action was got from our Medical Physics UBT database, SpN contact log, Endoscopy reporting software (endoscopist advice on testing & action if positive) and notes review when data not obtainable from these sources.

**Results** 90 seropositive patients identified; seven excluded from analysis as they died soon after test (cancer in most). *Action on Hp positive results*: 82/83(99%) results acted upon. One with metastatic cancer was tested (contrary to endoscopist advise) & result overlooked by ward team. SpN reviewed 75/82 (92%) patients and

treated 70:69 completed eradication but one did not (adverse reaction to the antibiotics). Five were not treated on advice of the test-requesting clinician. The remaining seven patients were managed by ward staff (treatment advised by SpN) or by patient's General Practitioner (GP) on advice given in the endoscopy report. *Post-eradication follow-up UBT*: All 69 patients treated by SpN had UBT arranged but 10 defaulted the appointment. No follow-up UBT request was recorded in our hospital for the seven treated by ward staff or GPs.

#### Conclusion

1. The measures put in place have resulted in near-complete action but gaps in after-care identified: All SpN managed patients had follow-up UBT arranged (15% failed to attend) while those treated by others had no follow-up UBT.
2. Hence our management system is being tightened particularly for patients treated by ward teams & GPs by:
  - ▶ Ensuring endoscopy reports give specific advice on *Hp* treatment and follow-up UBT.
  - ▶ SpN to be emailed an additional monthly collated list of seropositives from the Microbiology lab, enabling cross-check to identify/pursue those missed for treatment/follow-up UBT.

**Competing interests** None declared.

#### REFERENCE

1. *Gut* 2011;**60**(Suppl 1):A106. Abst PTU094.

## Intestinal failure

### PMO-027 VARIABILITY IN THE CONTENT OF ORAL REHYDRATION SOLUTION USED IN INTESTINAL FAILURE MAY RENDER IT INEFFECTIVE

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**Introduction** The focus of treatment in patients with intestinal failure (IF) is to reduce intestinal losses, therefore preventing dehydration and electrolyte disturbances. This is achieved by restricting oral fluid intake and using an oral rehydration solution (ORS) with a sodium content of 90 mmol/l. Compliance can be poor and it is usual to allow patients to add a small amount of flavouring to the ORS. Research has indicated that this reduces the sodium content rendering the solution no longer suitable.<sup>1</sup> We aimed to investigate the variability in composition and the effect of adding flavouring.

**Methods** A sample of ORS made up by the ward staff was analysed for sodium, glucose and osmolality daily over 5 days. The ORS from day 5 was then used and a further five samples were analysed after patients has added their preferred type and amount of flavouring. The mean and SD were calculated.

**Results** There was a large variability in the sodium (mean  $162 \pm 44$  mmol/l, range 100–224) and glucose ( $105 \pm 27$  mmol/l, range 85–150) content and the osmolality ( $413 \pm 109$  mmol/l) of the ORS made on the ward over the 5-day period. The addition of the flavourings decreased the sodium content (mean of  $33 \pm 14$  mmol/l, range 10–49) and increased the glucose content (mean  $93 \pm 59$  mmol/l, range 7–164) of the ORS. The osmolality also increased (mean  $229 \pm 113$  mOsmol, range 23–376).

**Conclusion** There was considerable variability in the content when ORS are made up on the hospital ward. Adding flavourings may render the ORS less effective by reducing the sodium and increasing the glucose and osmolality. The results indicate a need for a pre-flavoured packaged ORS with a sodium content of 90 mmol/l.

## Abstract PMO-027 Table 1

	Sodium (mmol/l)	Glucose (mmol/l)	Osmolarity (mOsmol)
Day 5	168	111	419
Flavouring added to day 5 ORS	Change in sodium (mmol/l)	Change in glucose (mmol/l)	Change in osmolality (mOsmol)
Lime cordial	−36	+123	+262
Lime cordial	−49	+164	+376
Orange squash	−10	+7	+23
Lemon barley	−37	+95	+187
High juice (pineapple)	−33	+77	+295
Mean ± SD	−33 ± 14	+93 ± 59	+299 ± 59

**Competing interests** None declared.

#### REFERENCE

1. Williams J, *et al*. Effect of flavouring on isotonic solutions for short bowel syndrome. *Gut* 2003;**52**(Suppl 1):A10.

### PMO-028 THE POTENTIAL OF SOUP AND SAVOURY DRINKS FOR ORAL HYDRATION IN SHORT BOWEL SYNDROME WITH JEJUNOSTOMY

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**Introduction** Patients with short bowel syndrome (SBS) and a jejunostomy are required to drink unpalatable electrolyte solutions. This is because the jejunal mucosa is permeable to sodium (Na) and whenever fluids containing <90 mmol/l Na are present in the lumen, water and Na are lost by diffusion leading to massive stoma losses. Patients are advised to consume 1000 mls of a glucose/saline electrolyte solution with >90 mmol/l Na while restricting other fluids to around 500 mls/day.<sup>1</sup> Electrolyte solutions are unpalatable and compliance is often poor. Although glucose is a significant component of these solutions due to coupled absorption of glucose, Na and water, a high Na content is of primary importance as there is considerable passive diffusion of Na and water across concentration gradients between the jejunal lumen and plasma.<sup>2</sup> Soups and meat extracts are high in Na but appear to be a relatively unused resource in SBS. This may be because health professionals are unaware of their Na content. A survey of such products was carried out to see if their Na content was high enough to replace some or all of the usual electrolyte drinks.

**Methods** Manufacturers UK websites were accessed to obtain the Na and fibre content of four brands of tinned soups (Heinz, Baxter's, Campbell's and Sainsbury's), four brands of instant cup soup (Bachelor's, Tesco, Campbell's and Ainsley Harriott) and one brand of meat extract (Bovril).

**Results** Results were obtained for 57 samples of tinned soup, 48 samples of cup soup and two meat extracts. Na content of soups reconstituted as per manufactures recommendations. Na concentrations of beef and chicken extracts were 96 and 156 mmol/l respectively when made up as 12 g in 250 mls water. Mean fibre content for tinned soup and cup soup was 0.65 g and 0.6 g per 100 ml respectively (range 0–3.3 g/100 ml).

**Conclusion** The majority of products investigated contain >90 mmol/l Na and are suitable for consumption by patients with jejunostomies. Patients can be advised to check food labels for products containing >0.21 g Na/100 ml (91 mmol/l). Fibre content of soup is relatively low however patients can be advised to seek lowest fibre varieties if this is an issue. In conclusion, soups or meat extracts could be considered as a partial replacement for electrolyte drinks where compliance is poor, provided there is careful initial monitoring of fluid balance and biochemistry.