PWE-158 SCREENING IMMIGRANTS ORIGINATING FROM HIGH PREVALENCE AREAS FOR HEPATITIS B USING PRIMARY CARE DATABASES – EXPERIENCE FROM A SINGLE GP PRACTICE WITH A LARGE MIGRANT POPULATION

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Introduction Chronic Hepatitis B (HBV), a major cause of liver disease, is underdiagnosed in the UK with pockets of high prevalence in areas with large immigrant populations. Identifying individuals through a screening programme dedicated to high risk individuals would be beneficial if that target population could be defined.

Our aims were to interrogate a Primary Care database (SystmOne) establishing the best way of identifying individuals suspected of having had a HBV test to exclude them from the target population.

Methods We used four search terms: age (>18), ethnic code, birth place, language spoken. Read codes (RC) were applied to identify individuals previously tested/diagnosed with HBV. RC were identified by using 'HBV' as a broad search term.

Results We identified 4256 individuals aged ≥18. 718 (18%) were excluded because of lack of demographic data; 3210 (75%) qualified as the target population. 81 RC pertaining to HBV were found and generated 413 'hits', only 224 'hits' (54%) satisfied our criteria. 206 individuals (6.4%) had HBV serology recorded, 9/3210 (0.28%) were coded for chronic HBV, a further 2 HBsAg positive patients (0.9%) had no RC. After reviewing individual notes electronically we established the following 8 RC to be the 'most useful': XaIq7, XaFuS, X306n, X306i, 43B4, XaMBL, XaG1R, XaPEy which would have identified the latter.

Conclusion We have identified the 8 most useful RC to help with a potential screening programme. Using all available HBV RC would be too time consuming. This study highlights that very few high risk immigrants are currently tested for HBV.

Disclosure of Interest None Declared.

Neurogastroenterology: functional disorders, motility and clinical physiology

PWE-159 THE COSTS OF IRRITABLE BOWEL SYNDROME (IBS) IN AN INCREASINGLY COST AWARE NHS

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Introduction The NHS is faced with increasing cost pressures making the efficient use of resources paramount. Both NICE and BSG guidelines state that patients with IBS should be managed in primary care.[1,2] Despite this up to 50% of patients with a diagnosis of IBS are referred to secondary care for investigation.[3] Outpatient visits and endoscopic investigations consume a considerable NHS resource.

Methods Hospital Episode Statistics (HES) data for 2012–13 for all the Care Commissioning Groups (CCGs) in England were analysed to calculate the financial cost of IBS. IBS symptom codes were included. Organic gastrointestinal (GI) disease codes were excluded from the analysis. Primary Care prescribing analyses and cost (PACT) data 2012–13 were analysed to calculate IBS treatment costs.

Results In England in 2012/13, there were 1,219,961 patients attending gastroenterology and colorectal surgery outpatient specialties, with a total cost of £365,868,937. Despite this, only a total of 1,982 patients who were coded as IBS with a total estimated cost of £744,812 were recorded. However, if we look at the total costs of patients under 50 years of age with excluded diagnosis as described above, we get a total of 28,849 patients with a cost of £11,002,874. In 2011/12, there were also 323,752 day case and outpatient diagnostic endoscopies with a total cost of £169,676,704 where no further activity was seen either as an inpatient or outpatient for the 12 months following the diagnostic endoscopy. This represents 49% of the total diagnostic endoscopies performed in this group of patients. In Primary Care, treatment with laxatives and antispasmodics totalled over 50 million pounds, with £40,219,270 spent on macrogol and £11,024,948 spent on mebeverine.

Conclusion Despite being poorly clinically coded it is clear that IBS is a significant costs burden to the NHS. Over half of patients seen for day case and outpatient diagnostic endoscopies have no further clinical activity coded over the subsequent 12 months implying functional symptoms. Better diagnosis and subsequent management of IBS within a Primary Care setting would provide direct savings in the cost of IBS management as well as enabling GI services to target its resources such as colonoscopy services towards other GI conditions more appropriately in areas of greater clinical need.

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PWE-160 THE JOINT HYPERMOBILITY SYNDROME IS ASSOCIATED WITH FUNCTIONAL DYSPEPSIA AND REFLUX AND IDENTIFIES A SUBGROUP WITH SOMATISATION, CHRONIC PAIN AND WORSE QUALITY OF LIFE

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Introduction The Joint hypermobility syndrome (JHS) is a non-inflammatory connective tissue disorder with a prevalence of 20%. It is characterised by joint hypermobility,chronic pain, fibromyalgia (FM) and dysautonomia. Gastrointestinal (GI) symptoms e.g., dyspepsia, reflux, bloating and constipation are present in up to 80% of affected individuals. Small studies suggest that FGID are common in these patients yet no controlled studies have systematically investigated if JHS is associated with particular GI diagnoses nor explored the effect of JHS on non-GI symptom presentation and quality of life (QOL).

Methods Using a nested case-control double-blind study in secondary care GI clinics, consecutive new referrals (without prior GI diagnosis), aged 18–70, completed validated questionnaires for GI, somatic, psychological and autonomic symptoms and QOL, and were assessed for JHS and FM. They then consulted a

gastroenterologist, underwent investigations and received a GI diagnosis. ROME III criteria were used to categorise FGID. A control group of patients, aged 18–70, who were referred to secondary care for non-GI related problems, were similarly assessed. The prevalence of JHS in various GI diagnoses and in controls, adjusted for age and gender,was compared. Non-GI characteristics and QOL was compared in JHS and non-JHS patients.

Results 688 GI patients [254 organic: (55% F, 43y); 341 FGID: (65% F, 40y); 53 reflux: (40% F, 46y)] and 93 non-GI controls (67% F, 43y) were included. JHS prevalence was higher in FGID (38%) and reflux (40%) compared to organic disorders (26%) and controls (26%) ($p = 0.003$). JHS was significantly associated with FGID (ORadj: 1.7, CI:1.02–2.88), specifically postprandial distress syndrome (ORadj 2.2, CI: 1.2–2.2), and with reflux disorders (ORadj 2.2, CI: 1.1–4.7), but not with organic disorders (ORadj: 1.0, CI:0.6–1.8). FGID patients with JHS had significantly more FM (12.6 vs. 4.9%, $p = 0.02$), chronic pain (23.2 vs. 11.7%, $p = 0.01$), somatisation scores (13 vs. 10, $p < 0.01$), anxiety scores (0.5 vs. 0.36, $p = 0.02$) and urinary autonomic symptoms (30.5% vs 19.6%, $p = 0.047$), and worse pain related QOL scores (45 vs. 63.5, $p < 0.01$).

Conclusion JHS is associated with functional dyspepsia, and non-erosive reflux disease, and with FM, chronic pain, somatisation and anxiety. Clinical assessment for JHS in GI clinics is indicated in those with a combination of functional upper GI symptoms and extra-intestinal symptoms as this may help earlier identification of a more 'challenging' group of patients with multiple somatic symptoms and worse QOL. These may benefit from early multidisciplinary approach involving rheumatologists and pain specialists.

Disclosure of Interest None Declared.

PWE-161 THE MACROGOL DRINK TEST TO DISTINGUISH FUNCTIONAL CONSTIPATION (FC) AND CONSTIPATION PREDOMINANT IRRITABLE BOWEL SYNDROME (IBS-C): UNDERLYING MECHANISMS DEMONSTRATED USING MRI

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Introduction Patients with constipation may have either FC or IBS-C which require different treatments. They are often dissatisfied with their treatment because diagnosis relies on symptoms which frequently overlap.

Methods 46 CC patients (24 FC and 22 IBS-C), age 18–68 years, unresponsive to simple laxatives, were compared with 11 healthy volunteers (HV). Whole gut transit (WGT) was assessed using a MRI scan 24 h following ingestion of 5 marker pills as previously validated. Patients then consumed 1 litre of macrogol (MCG) followed by hourly MRI scans for 4 h and scored bowel symptoms from 0–10 (none-severe). Colonic movements were assessed using a motility index (MI) based on colonic wall movement and hypersensitivity index (HI) was calculated as bloating symptom/ascending colon (AC) volume.

Results Mean (SD) See Table 1. FC and IBS-C have slower WGT and higher HI than HV. FC showed significantly greater fasting SBWC, AC volume and reduced MI following ingestion of MCG compared to HV and IBS-C. Moreover, FC showed impaired response to MCG with longer time to first bowel movement and reduced stool frequency on the study day when compared with HV and IBS-C. Time to 1st bowel movement correlated significantly with AC volume 2h post MCG, $r = 0.44$, $p = 0.004$ and fasting SBWC,$r = 0.34$,$p = 0.035$. Using a cut-off >230 min distinguishes FC from IBS-C with sensitivity 55% and specificity 95%; this needs validation in a repeat study.

Conclusion Time to first bowel movement >230 min makes IBS unlikely and should help target treatments. Our MI studies show this is dueto greater motility response to distension in IBS-C who has lower fasting SBWC and AC volumes versus FC. IBS-C showed similar features to HV but can be distinguished by greater HI following distension which suggest hypersensitivity. This inexpensive test done without MRI could help clinicians to distinguish these 2 conditions.

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PWE-162 AN AUDIT OF TESTING FOR COELIAC DISEASE IN PATIENTS DIAGNOSED WITH THE IRRITABLE BOWEL SYNDROME AT A LARGE PRIMARY CARE CENTRE

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Introduction NICE guidance recommends that patients presenting with symptoms suggestive of the irritable bowel syndrome

Abstract PWE-161 Table 1

Mean (SD)	HV (n = 11)	FC (n = 23)	IBS-C (n = 20)	P value
WGT (h)	30.4	108.2*,**	71.4*	<0.0001
Fasting small bowel water content (SBWC) (ml)	83 (64)	114 (97) **	57 (61)	0.0383
Fasting AC (ml)	193 (84)	314 (100) *,**	219 (66)	0.0002
AC volume 2h post ingestion of MCG (ml)	357 (153)	597 (170)	376 (163)	<0.0001
MI 2h post ingestion of MCG (s)	80.2 (48.1)	28.3 (35.1) *,**	56.4 (42.9)	0.0044
Time to first bowel movement (min)	117.3 (62.4)	588 (1034) *,**	97.3 (72)	0.0001
Bowel frequency on study day	7.8 (2.7)	3.9 (4.1) *,**	7.8 (3.0)	<0.0001
Hypersensitivy Index (l^{-1})	5.7 (4.9)	12.3 (6.6) *	16.6 (14) *	0.0133

*p < 0.05 compared to HV, **p < 0.05 compared to IBS-C.