

need to have a validation process of surveillance referrals with a cost saving in our case of 115 less colonoscopies equating to 23 lists.

Further changes to processes could enhance patient care further such as nurse reviewers contacting patients by telephone or in appropriate clinics. Improvements in documentation and electronic data bases for surveillance patients which include family history of colorectal cancer to inform decision making.

**Disclosure of Interest** None Declared

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#### OC-078 COST SAVINGS AND OUTPATIENT CLINIC APPOINTMENTS SAVED: A 2 YEAR REVIEW OF A NURSE LED TELEPHONE ADVICE LINE FOR INFLAMMATORY BOWEL DISEASE

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**Introduction** In 2008 the Luton & Dunstable University Hospital set up a nurse led telephone advice line for inflammatory bowel disease (IBD) patients. This service was set up to provide specialist assistance for GPs, IBD patients and their carers in the community. A recent national audit looking into the role of the IBD specialist nurses highlighted the value patients attribute to easy access specialist advice at the point of need [1]. The patients can call for a range of issues including general advice, their blood results, to change clinic appointments or to discuss patient self management of flares in their IBD. The advice line has become a major component of the IBD nursing post.

**Objective** To assess the cost savings and number of outpatient appointments (OPAs) saved through nursing intervention using the IBD advice line.

**Methods** For a 2 year period every phone call to the advice line was logged and recorded. If the advice given help prevent or expedite a patient request for an urgent OPA, then this was recorded. Both the patients' GPs and IBD Consultants were informed of any changes in the patients' clinical management. A cost analysis was made using the national tariff of £85 for a routine OPA clinic visit.

**Results** In 2011 a total of 1252 phone calls were received. This led to 305 OPAs being saved and 44 being expedited. This saved our local primary care trust (PCT) £25,925. In 2012 a total of 2205 phone calls were received. This led to 194 OPAs being saved and 58 being expedited. This saved our local PCT £16,490.

**Conclusion** There has been a year on year increase in the number of patients using the IBD advice line. In the last 2 years 3457 calls have been received, 499 OPAs have been saved and 102 OPAs have been expedited. Over 2011 and 2012 this nurse led advice line has saved our local PCT £42,415. As a result of our audit we have managed to secure funding for the advice line where clinical management has been shown to saved a clinic appointment.

**Disclosure of Interest** None Declared

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#### OC-079 DEVELOPMENT AND VALIDATION OF NEW CLINICAL DISEASE SEVERITY INDEX FOR PATIENTS WITH INFLAMMATORY BOWEL DISEASE: A PROSPECTIVE MULTICENTRE STUDY

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**Introduction** Due to the different presentations of patients with inflammatory bowel disease, several clinical severity indices were used in the past. Interestingly, most (if not all) of these indices were not properly validated and did not go through a robust methodology. Our aim is to develop a new clinical disease severity index that valid, easy obtainable in the clinic and suitable to all IBD patients.

**Methods** The development of Swansea IBD clinical severity index (SICSI) followed a clinimetric approach. Items were devised using IBD experts opinions and through reviewing 17 clinical severity indices commonly used in studies for UC and CD. To ensure items are applicable, we asked a small focus group of IBD specialists, statisticians and methodologists to review these items and ensure good face and content validity. Psychometric properties were tested on 210 patients to remove redundant items and shorten the index. Construct validity was checked using biochemical markers like CRP, WBC, HB and albumin and clinical indices which are: Harvey Bradshaw index, simple clinical colitis activity index and perianal disease activity index. If patient is having an endoscopy, endoscopic indices will be recorded as well which are mayo clinic score, Rachmilewitz scores and simple endoscopic score.

**Results** We found that 7 items account for 98% of the variance of the total score and they are: Abdominal pain or discomfort, stool consistency compared to the usual, blood in stool, number of stool frequency, general well being, nocturnal symptoms and urgency. Items that had high item total correlation > 0.8 like physician global assessment were removed from the index as they are redundant. Temperature and abdominal mass had a zero variance score and did not add any value to the total score and were removed during factor analysis. Internal consistency (Correlation of items with each other) was acceptable (Cronbach alpha = 0.827). SICSI had good correlation with the clinical, biochemical and endoscopic severity scores ( $r > 0.5$ ).

**Conclusion** It is clear that the Swansea IBD clinical severity index will perform well in clinical practise. Further studies are going on to implement the index in clinical practise. The index has been incorporated into our local IBD registry to follow up and monitor patients. There are plans to develop an iPhone application.

**Disclosure of Interest** None Declared

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#### OC-080 IBD-SSHAMP (SUPPORTED, SELF HELP AND MANAGEMENT PROGRAMME); UK'S FIRST INTERNET BASED REMOTE MANAGEMENT SYSTEM FOR MANAGING STABLE IBD

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**Introduction** In February 2012 the Luton & Dunstable University Hospital in Hertfordshire, became the first hospital in UK to commence a remote management programme for stable inflammatory

bowel disease (IBD) patients. The project, entitled IBD-SSHAMP (Supported, Self Help And Management Programme), was funded by an Innovation Award presented by the East of England Primary Care Trust (PCT) Innovation Team. The aim was to discharge patients from routine clinic visits, whilst maintaining an efficient remote monitoring system that could be co-ordinated through our specialist nurses.

**Methods** The first stage was to ensure we had a complete and up-to-date database containing all of our IBD patients. After a retrospective 10 year review we identified a total of 2790 IBD patients, from 19 different ethnic backgrounds. Of these, 26 patients lacked mental capacity with learning disability or dementia and 117 did not have internet access. 370 of our original cohort had died by the time of commencing the project. Using Patient Knows Best we developed individualised websites to offer a communication portal between patients and specialist care, through which we could monitor their symptoms and offer management advice through a traffic light system. An alert is sent out to the IBD nurses and clinician involved if any patients symptom indices deteriorate markedly. Periodic faecal calprotectin and inflammatory markers will also be used to support the monitoring process. Virtual clinics will be held for these patients twice a year. If necessary patients can be seen in hospital clinics usually within 24–48 hrs.

**Results** Of the available 2,277 IBD patients, we have successfully discharged 400 onto the first wave of IBD-SSHAMP, with a further 300 due to follow shortly in the second wave. With confidence in the system building amongst the relevant clinicians the second wave will primarily contain patients stable on immunosuppressants eg. azathioprine. With most patients being seen at 6 monthly intervals, and follow up clinic appointments costing our PCT £85, this project could potentially save them £119,000 per year, whilst still providing a patient friendly and efficient management system.

**Conclusion** IBD-SSHAMP is the UK's first internet based remote management system for managing stable IBD patients. It aims to reduce cost and free up NHS outpatient time, whilst providing an efficient monitoring and management programme. This is a proof of concept project, from which further data outcomes will be presented.

**Disclosure of Interest** None Declared

#### OC-081 DEFINING CIRRHOSIS WITH FIBROSCAN FOR ENTRY TO HEPATOCELLULAR CARCINOMA SURVEILLANCE IN CHRONIC HEPATITIS C: A UK COST EFFECTIVENESS ANALYSIS

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**Introduction** Chronic hepatitis C (HCV) is a significant risk factor for cirrhosis and subsequently hepatocellular carcinoma (HCC). HCV patients with cirrhosis are screened for HCC every 6 months. Surveillance for progression to cirrhosis, and consequently access to HCC screening, is not standardised. Liver biopsy, the usual test to determine cirrhosis, carries a risk of significant morbidity. Ultrasound elastography (Fibroscan) is a non-invasive test for cirrhosis. This study assesses the cost effectiveness of annual surveillance for cirrhosis in chronic HCV and the effect of replacing biopsy with fibroscan to diagnose cirrhosis.

**Methods** A Markov decision analytic model simulated a hypothetical cohort of 10000 patients with chronic HCV initially without fibrosis over their lifetime. Cirrhosis surveillance strategies assessed were: (A) no surveillance; (B) current practise; (C) fibroscan in current practise with biopsy to confirm cirrhosis; (D) fibroscan completely replacing biopsy in current practise (definitive); (E) annual biopsy; (F) annual fibroscan with biopsy to confirm cirrhosis; (G) annual definitive fibroscan.

**Results** The model was calibrated with good visual fit. Annual definitive fibroscan is the optimal strategy choice. Sensitivity analysis shows this outcome to be robust. The cost-effective frontier holds strategies A and G with E dominated by extension. All other strategies are strictly dominated. It diagnoses 20% more cirrhosis than the current strategy, with 549 extra patients per 10000 accessing screening over a lifetime; consequently 76 additional HCCs are diagnosed. Lifetime cost is an additional £98.78 per patient compared to current strategy for an additional 1.72 unadjusted life years. Annual fibroscan surveillance of 132 patients diagnoses one additional HCC over a lifetime. The ICER for annual definitive fibroscan is £6557.06/QALY gained.

**Conclusion** Annual definitive fibroscan may be a cost-effective surveillance strategy to identify cirrhosis in patients with chronic HCV to allow access to HCC screening.

**Disclosure of Interest** None Declared

#### OC-082 THE DEVELOPMENT OF A WEB-BASED SYSTEM TO ENHANCE CARE IN INFLAMMATORY BOWEL DISEASE

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**Introduction** Engaging and empowering patients to have greater involvement in their care is central to the vision of many governmental health policies. It is widely recognised that facilitating self-management for patients by providing information to help support understanding, decision-making and motivating behavioural change can lead to significant improved health outcomes.<sup>1</sup> We describe the development of a web-based IBD system that specifically aims to support patients' in taking a more active role in managing their IBD.

**Methods** Design and implementation of a web-based system in the healthcare setting is complex with a number of human, technological and organisational factors that need to be considered from the start of the concept. Stakeholder involvement is essential throughout this process. Using the theoretical framework of self-efficacy we have designed a system with the specific aim to support patients to engage in their health. Our aim has been to develop a web-based system that is easily managed and sustainable for use in routine clinical practise.

**Results** 'My IBD Portal' has now been implemented. The web-based system is accessed via a secure login and provides patients with a number of components. This includes a summary of their disease, clinic letters and their latest test results. Functions known to further enhance self-management are included with electronic self-monitoring of symptoms and decision support. Secure messaging with the IBD unit is provided. Throughout the site personalised and trusted information links are integrated. The system is automated to populate the specific data fields each day from the hospital electronic medical record. The infrastructure of the system, has been specifically designed to be easily adopted throughout the UK healthcare setting.

**Conclusion** Design and implementation of patient-focused ehealth within the NHS is complex. Stakeholder involvement is essential. Evaluation of web-based interventions requires careful consideration, as they are often complex interventions by nature. The revised MRC framework provides a useful resource to develop a systematic process to evaluate such technologies.<sup>2</sup> We are currently evaluating the impact of 'My IBD Portal' in a formal trial setting.

**Disclosure of Interest** None Declared

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