radiology reports, endoscopy records and histology were extracted and digitally trawled to identify the cohort characteristics.

**Results**

We identified 125 patients with PSC followed-up at UHS. 39.2% (49) of these patients were missed in a parallel criterion-based review of case notes.

We calculated an age-standardised point prevalence of 12.52 cases per 100,000 patients, 124% higher than typically cited UK figures. Service evaluation revealed high rates of clinic follow-up however lower than recommended rates of screening with colonoscopy and imaging (see Table 1). Introduction of a combined PSC/IBD clinic as a targeted service delivery intervention is addressing this shortfall with significant impact after 1 year.

**Conclusions**

PSC cohorts are difficult to identify due to a lack of a UK clinical code. An NLP based methodology proved highly effective at identifying all cases within our institution, with a 64.5% increase compared to conventional methods. This allowed rapid patient cohort identification and conversion of unstructured data to clinically useful structured data and could be reproduced at other institutions and for other diseases.

**PTH-37**

**OVER INVESTIGATION IN PATIENTS WITH CHOLEDOCHOLITHIASIS: ROOM FOR SERVICE IMPROVEMENT?**

Alice Lagnado*, Charles Broome, Amy Woods, Shwan Karim, Chris Wadsworth. Hammersmith Hospital, London, UK

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**Introduction**

Choledocholithiasis is the commonest reason for ERCP referrals, usually diagnosed with clinical history, blood results and imaging including ultrasound and cross sectional imaging if needed. The ESGE guidelines recommends three pathways in securing the diagnosis based on likelihood; low, intermediate and high. In those with intermediate risk, further imaging with MRI or EUS is recommended.

We noted that the majority of our referrals had multiple investigations including ultrasound and MRCP prior to finally having a referral for ERCP. The aim of this study was to review our performance, evaluate feasibility of offering EUS in same session of ERCP instead of MRCP and formulate a service improvement plan aiming at reduced patients’ length of stay and cost.

**Methods**

All patients who had undergone an MRCP or ERCP while being an inpatient for possible biliary stone disease in a single tertiary referral centre between January 2018 and March 2020 were included. Data was retrospectively collected using our electronic patient record system and the ERCP database.

**Results**

In total, 455 patients underwent an MRCP for possible choledocholithiasis and 129 went on to have an inpatient ERCP. The mean length of stay was 14.5 days (median 7, (1-297)) and the average time from admission to ultrasound scan was 3.4 days (median 1 (0-92)) (Figure 1). There was an average of 2.9 days between USS/CT to MRCP (median 2 (0-23)), equivalent of a total of 1319.5 days over 26 months. For the patients who had an inpatient ERCP there was an average of 3.4 days (median 2, (1-23)) between MRCP and ERCP, equivalent of 439 days over the 26 month period.

**Conclusion and Plans**

Only 157 (34.5%) of the MRCPs that were done for possible choledocholithiasis were positive in our cohort. The waiting times between procedures is correlated with an increase in LoS. In theory, if we had been able to offer these patients EUS (immediately pre ERCP) within 48hrs of admission, we would have saved approximately 848 inpatient hospital days over the 26 months. However, our results demonstrate this would have created a large number of negative examinations, which is neither feasible nor cost effective.

As part of a service improvement project, we propose applying the ESGE updated guidelines using US findings and blood tests on admission, to scrutinise patients’ pathways better, reduce number of ordered investigations (MRCPs in particular) and result in reduced length of stay, better use of resources and be more cost effective. Further research will be carried out to prove this in our cohort and will be reported separately.