The remaining 3061 (76.3%) outcomes recommended primary care management.

The number of iLFT requests rose each month from launch, from 159 in November 2018 to 431 in December 2019, and these now make up over 3% of all LFT requests in Tayside.

Conclusions iLFT safely and rapidly detects patients at risk of chronic liver disease using reflex fibrosis scores and autoimmune, virology and genetic tests. Secondary care referral is recommended in only 24% of cases, and thus 76% of patients can be managed in primary care. The number of iLFT requests is rising each month. GPs initially used iLFT to investigate patients known to have abnormal LFTs, resulting in high numbers of full test cascades. iLFT is now being used as the first test, so the number cascading is falling, but still improving the diagnosis of liver disease. This ensures patients who require secondary care are seen, whilst reducing unnecessary referrals.

O22 THE NATURAL HISTORY OF ADVANCED CHRONIC LIVER DISEASE DEFINED BY TRANSIENT ELASTOGRAPHY

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Introduction The clinical course of cirrhosis does not follow a predictable trajectory. Multistate models of disease progression have been adopted to assess its' natural history, mainly in cohorts with biopsy proven cirrhosis. Transient elastography (TE) is commonly used in clinical practice to diagnose liver fibrosis. The aim of this study was to assess survival and competing risk of liver and non-liver related events in a cohort of patients with advanced chronic liver disease (ACLD) defined by TE using electronic health record (EHR) data.

Method TE data was collected from St James's University Hospital in Leeds and the Queen Elizabeth Hospital in Birmingham between 2008 and 2019. Patients with a liver stiffness measurement (LSM) of >10 kPa were included. Disease and procedural coding information sent to NHS Digital and held in EHR was analysed. Validation of the coding information was done in a subset of patients using the full clinical record. Clinical events including decompensation (ascites, variceal bleeding, hepatic encephalopathy), hepatocellular carcinoma and death were identified. The cumulative incidence of these events was calculated using a competing risk regression model.

Results 2926 patients were included, 1608 with LSM $\geq$ 15 kPa. Median follow up was 38.4 months. 351 patients (12%) died and 109 patients (3.7%) received liver transplantation. Decompensation was the commonest liver event: 240 (8%) of patients had a liver event as their *first* clinical event of interest, 81 (3%) developed HCC. Cumulative incidence rates at 3 years are shown in table 1.

The cumulative incidence of liver-related morbidity and mortality increased with liver stiffness. Multivariable analysis showed that increasing age, male gender and baseline LSM were independent predictors of survival (all p <0.0001). Baseline LSM was also significantly associated with liver events and development of hepatocellular carcinoma (sHR 1.03 & 102 respectively).

Abstract O22 Table 1

Cumulative incidence at 3 years follow-up

	10–15kPa n=1318	15–25kPa n=799	>25kPa n=809
Liver event	0.04	0.07	0.18
HCC	0.01	0.02	0.06
Liver transplant	0.01	0.03	0.06
Death	0.03	0.04	0.07

Conclusions Transient elastography is strongly associated with outcomes in two large contemporary cohorts of patients with ACLD. EHR data can be used to accurately define clinical progression in these patients. The outcomes described above are comparable to landmark descriptions of patients diagnosed using liver biopsy. Identification of ACLD using TE is a rational basis for a national cirrhosis registry to facilitate quality improvement and clinical trials in patients with liver disease.

O23 CARVEDILOL IS ASSOCIATED WITH IMPROVED SURVIVAL IN CIRRHOTIC PATIENTS; A LONG TERM FOLLOW UP STUDY

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Introduction Primary prophylaxis of variceal haemorrhage with non-selective betablockers (NSBB) or variceal band ligation (VBL) is now standard of care. There has been debate with regards to the safety and efficacy of NSBB however it has more recently been hypothesised that NSBB may be associated with improved survival.[1 2] The aim of this study was to assess mortality in a cohort of patients randomised to either NSBB or VBL.

Methods We retrospectively analysed 146 patients recruited to a multi-centre RCT between 07/04/2000 and 24/06/2006 designed to assess the efficacy of VBL versus NSBB in preventing first variceal bleed.[3] We used electronic records to undertake a long term follow-up (up to 20 years) of this patient group with the primary outcome of all-cause mortality andsecondary end-points of liver disease-related mortality and transplant-free survival in patients within each treatment arm.

Results 146 patients were included in analysis with baseline characteristics well matched between the NSBB (n = 73) and VBL (n=73) group. Mean Child-Pugh score at inclusion was 8.01 in NSBB group and 8.31 in VBL group. 127 had died or undergone liver transplant (LT) in the follow up period. NSBB offers a significant survival advantage when all-cause mortality is assessed with median survival in NSBB group of 7.82 years (95% CI 5.54–10.16), whereas median survival in VBL group was 4.18 years (95% CI 2.91–5.46) [p = 0.027] as shown in figure 1. A significant survival benefit is maintained when transplant-free survival is assessed with median survival of 5.25 years (95% CI 2.54–7.96) in NSBB and 3.02 years (95% CI 2.48–3.56) in VBL group [p=0.049]. Significance does not extend to liver-related mortality with median survival 3.25 years (NSBB) and 2.33 years (VBL) [p = 0.238].

Conclusions These data suggests that NSBB offers a significant survival benefit for patients with liver cirrhosis and portal