intake and HGS after intervention, readmissions and deaths were assessed at 4 months.

**Results** 47 and 31 patients were identified in cycle 1 and 2 respectively. A Malnutrition Universal Screening Tool (MUST) was completed in 81% of cycle 1 patients. 47% did not trigger a dietetic referral on MUST (44% medium risk and 33% high risk for malnutrition). All cycle 2 patients had a dietetic referral via the INP (26% medium risk and 71% high risk for malnutrition) and received dietary education with 77% requiring oral supplements and 10% nasogastric feeding. At follow-up cycle 2 patients met higher caloric and protein requirements (average increase by 46% and 57% respectively vs 26% and 31% in cycle 1). HGS was measured in 74% in cycle 2 and 2% in cycle 1. Average HGS was 15.9 kg (cycle 2) and improved by 9% on reassessment. There was a 12% reduction in hospital readmissions in cycle 2 compared to 7% increase in cycle 1 with similar mortality at 4 months.

**Conclusion** MUST inadequately identifies cirrhotic patients at risk of malnutrition. CP and BMI appear more accurate. A dedicated dietetic team and the INP enable early patient identification, thorough nutritional assessment and intervention, improving patient compliance and sarcopenia. Hospital readmission rates reduced over 4 months despite a higher proportion of high risk patients in cycle 2 vs cycle 1. 12 month follow-up data will assess mortality more accurately. Our intervention forms a platform for wider service development in this area both in the inpatient setting and beyond.

## P197 THE DIAGNOSTIC BENEFIT OF ABDOMINAL ULTRASOUND SCANS IN INCIDENTALLY ABNORMAL LIVER FUNCTION TESTS

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**Introduction** An abdominal ultrasound scan (AUSS) is widely recommended in national and international guidelines for the investigation of abnormal liver function tests (LFTs). Abnormal LFTs exist in around 20% of cases in primary care, placing significant demand on radiology services. However, the evidence for performing AUSS in patients with incidentally abnormal LFTs is weak.

Non-invasive scoring systems such as the NAFLD fibrosis score (NFS) and Fibrosis-4 index (FIB4) are used in the assessment of liver fibrosis. Abnormal results prompt referral to secondary care for further review. It is unclear whether AUSS provides additional diagnostic information in such cases.

Intelligent liver function testing (iLFT) was launched in NHS Tayside in 2018. General Practitioners (GPs) provide relevant clinical details and those with abnormal LFTs have reflex tests without further venepuncture. Non-invasive fibrosis scores are calculated automatically. Management plans with recommended outcomes are then provided: secondary care referral; primary care follow-up; or further investigations and referral criteria.

**Methods** A retrospective analysis was performed of all patients who had iLFT performed between August 2018 and August 2019, and who had abnormal NFS ($\geq$-1.455 for patients aged under 65; $\geq$0.12 in patients aged 65 or over) and/or FIB4 ($\geq$1.45). The result of their ultrasound was documented and its impact on their diagnostic journey recorded.

Diagnosis at Ultrasound in patients with elevated NFS or FIB4
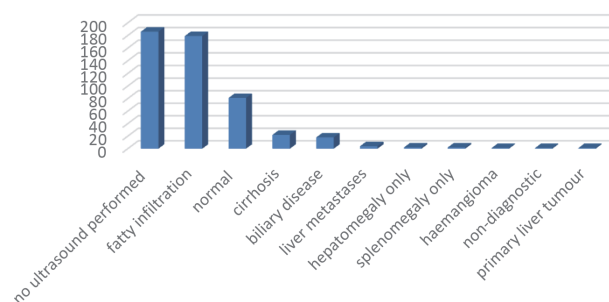


**Abstract P197 Figure 1** Diagnosis at ultrasound in patients with elevated NFS and/or FIB-4

**Results** 497 patients had an iLFT outcome with abnormal NFS and/or FIB4.

311 (62.6%) had AUSS either prior or parallel to referral. 81 patients had a normal AUSS. 179 (57.6%) patients had simple fatty infiltration of the liver. 22 (7%) had confirmatory radiological features of cirrhosis. Overall, AUSS did not add any diagnostic information or alter the clinical pathway in 306 of the 311 patients (98.4%).

4 patients (1.3%) were diagnosed with metastatic disease and 1 patient had a primary liver tumour (neuroendocrine aetiology on subsequent biopsy). All 5 of these patients had co-existent symptoms which would have separately prompted investigations other than AUSS (iron deficiency anaemia in 4 patients, unexplained abdominal pain in 1 patient).

The diagnoses are shown in figure 1.

**Conclusions** AUSS can play an important role in the diagnosis of biliary disease or malignancy in the setting of symptomatic abnormal LFTs or abdominal pain, but provides little diagnostic benefit in the diagnosis of asymptomatic or incidentally abnormal LFTs. Removing routine AUSS from diagnostic pathways could save significant time and money for radiology departments and GPs, while safely ensuring malignancy is not missed.

## P198 SOCIO-ECONOMIC DEPRIVATION ADVERSELY AFFECTS SURVIVAL FOLLOWING LIVER TRANSPLANTATION

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**Introduction** Liver transplantation is the only effective treatment for end stage liver disease. It is unclear how socio-economic deprivation affects survival in patients with severe liver disease both transplanted and not listed for transplant.

**Methods** All notes for adult patients assessed for liver transplantation in Scotland between January 2009 and December 2017 were reviewed. Patients with incomplete data, those who died before transplant, were listed for dual transplant or who were removed from the list were excluded (n=1045). We assessed survival using Kaplan-Meier curves to compare those transplanted to those not listed. Patients not listed as they had a hepatocellular carcinoma outside criteria, or were too well or too unwell to be listed were excluded from the relevant analyses to lower the risk of bias (n=253). We also assessed