Introduction Patients with end stage liver disease (ESLD) and/or hepato-cellular carcinoma (HCC) may be considered unsuitable for liver transplantation (LT) due to disease severity at presentation or de-listed due to disease progression. These patients have complex medical needs and a limited life expectancy and would be expected to benefit from access to palliative care services.
Methods We performed a retrospective audit of patients assessed for LT between 2010–12 at the Royal Free Hospital. We studied patients who were either not listed at the time of assessment, or listed and subsequently de-listed prior to LT. Sources used included transplant meeting records, hospital notes, local death records and palliative care database.
Results 106 patients were identified. Median age was 58 years (IQR 51–72) and 67% were male. The median MELD score at the time of assessment was 13 (IQR 11–18.75) with a UKELD score of 52 (IQR 49–57).

Aetiology of liver disease was divided into Alcohol related Liver Disease (39), Viral (32), Autoimmune (19), Metabolic (8), Cryptogenic cirrhosis (3), other (5).

Reasons for not listing included poor clinical state/co-morbidities (48), tumour outside transplant criteria (25), psychosocial/compliance issues (18) and currently too well for LT (15).

Excluding patients who were 'Too Well' for LT, Kaplan-Meier Survival analysis calculated the median survival following delisting as 219 days (IQR 28–540). Specifically for those delisted for 'poor clinical state' median survival was 29 days.

Overall, 17 (19%) patients were referred to palliative care a median 4 days before death (IQR 2.5–47.5).
Conclusion Those patients who are unfit for LT due to poor clinical state should be referred immediately for palliative care due to limited survival. Patients with HCC outside criteria have a significantly longer survival but still appear to have limited access to palliative care. Liver Transplant programs should have access to dedicated liver palliative care services.
Disclosure of Interest None Declared.

OC-035 LIFETOUCH®: A NOVEL REMOTE MONITORING DEVICE TO IDENTIFY PATIENTS WITH ADVANCED CIRRHOSIS MOST AT RISK OF DECOMPENSATION – A PROOF OF CONCEPT STUDY

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Introduction Hospital readmission from inter-current illness is common in advanced cirrhosis. Community monitoring of these patients with simple information-based technology may facilitate early problem recognition and intervention. Heart rate variability (HRV) has been deemed the 'gold standard' tool to characterise autonomic dysfunction, which is widely reported in cirrhosis, and remains independent of aetiology, and its severity has been shown to correlate with prognosis. However, the methods to study continuous measurement of HRV and studies in advanced cirrhosis are limited.
Aims This study used a wireless-monitoring technology, Lifetouch® system (Isansys), to assess changes of HRV remotely in acute-on-chronic liver failure (ACLF) patients, and evaluated the relationship to the severity of disease and inflammatory indices.
Methods Following ethical and local site approval, nineteen patients (13 male/6 female; mean age 52.5 ± 12.0 years) had HRV assessment following presentation to The Royal Free hospital, using the Lifetouch® system, with the standard deviation of the R-R interval (SDNN) used to collect changes in HRV. This novel system enabled continuous, wireless evaluation of HRV, which was compared with clinical, biochemical and inflammatory indices (IL-6, IL-8 and IL-10 measured by multiplex cytokine analysis).
Results HRV, as determined by SDNN, was significantly greater in cirrhosis patients with Child-Pugh scores <10 compared to >10 (31.26 ± 14.90 vs. 10.80 ± 5.61 ms). Similarly, UKELD correlated inversely with SDNN (R^2 = -0.46; $p < 0.01$). Spearman's rank analysis of SDNN in relation to the inflammatory indices: WCC, CRP, IL-6, IL-8 and IL-10 levels were -0.60 ($p = 0.01$), -0.56 ($p = 0.01$), -0.77 ($p = 0.02$), -0.86 ($p = 0.01$) and -0.79 ($p = 0.04$), respectively. Using a SDNN cut-off of ≤20 ms to signify patients with advanced disease (Child C), all inflammatory indices were shown to be significantly increased ($P < 0.01$).
Conclusion This pilot study provides proof of concept that remote monitoring showing reduced HRV, identifies patients with increased inflammation, more advanced liver disease and those most likely to present with acute decompensation of cirrhosis. Further study and refinement of this system may facilitate community monitoring of advanced liver disease patients, to provide 'alarm' signals that highlight acute decompensation and precipitate early intervention care pathways.
Disclosure of Interest None Declared.

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OC-036 NON-INVASIVE VENTILATION DURING PERCUTANEOUS ENDOSCOPIC GASTROSTOMY INSERTION IN MOTOR NEURONE DISEASE PATIENTS – A SAFE AND EFFECTIVE MULTI-DISCIPLINARY APPROACH

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Introduction Percutaneous endoscopic gastrostomy (PEG) is recommended for motor neurone disease patients with dysphagia and accelerated weight loss. However PEG has been suggested as inadvisable in the past in patients with impaired respiratory function. Recent small studies have found satisfactory outcomes using non invasive ventilation (NIV) to assist PEG placement in this setting. We set up a service performing this technique for our region, and analysed our outcomes.
Methods 26 patients with motor neurone disease were included in the study from Nov 2011 – Oct 2013; 11 (42%) were external referrals. Patients had respiratory assessment prior to the procedure including sniff nasal pressures, arterial CO_2 measurement, overnight oximetry and spirometry as directed by our respiratory physician. A modified oro-nasal mask with a endoscopic port was fitted prior to the procedure and NIV initiated and controlled by the respiratory physician. The PEG (Freka PEG, Bad Homburg, Germany) was inserted under continuous NIV which continued until the patient was fully awake in recovery. Prophylactic antibiotics were given routinely. Demographic and technical data, complications and survival were recorded.
Results Median age at time of PEG was 68 yrs (range 43–92), male 42%. Mean BMI was 22 (range 16–33). 3 patients (12%) were receiving NIV prior to referral. Mean dose of midazolam

was 1.4 mg (range 0–3.5). 2 patients had local anaesthetic spray as an alternative.

PEG tube was successfully placed in 25 (96%) patients; in 1 the procedure had to be abandoned due to laryngospasm and hypoxia. Median observed follow up post-PEG insertion was 186 days (range 16–677). There was 1 death within 30 days of PEG placement, at day 16 due to pneumonia superimposed on type 2 respiratory failure. 19 patients died (73%) during follow up, all due to complications of the index disease, with median time to death 150 days (range 16–441). There were minor complications in 3 patients (12%) (2 PEG site infection treated successfully, 1 respiratory depression requiring flumazenil).

Conclusion PEG placement can be safely and effectively achieved in MND patients with impaired respiratory function using non invasive ventilatory support. This offers a viable alternative to radiological or surgical techniques in these patients. We advocate a referral service for this specialised multi-specialty approach.

Disclosure of Interest None Declared.

OC-037 THE INCREASING ROLE OF ENHANCED SEDATION ASSISTED ERCP: IMPORTANT LESSONS FOR SERVICE PROVISION

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Introduction ERCP in the UK has historically been performed under conscious sedation (SED). However, given the increasing complexity of cases the role of enhanced sedation assisted ERCP (ENS ERCP) is increasing. A previous audit iat UCLH showed that intolerance of SED was a major factor in ERCP failure. BSG guidance was issued in 2011 regarding the use of propofol sedation for ERCP in the UK.[1] We describe our experience of ENS ERCP and highlight the importance of the regular availability of this service.

Methods Our prospective ERCP database was interrogated to include cases between Jan-Nov 2013. Two dedicated ENS ERCP lists run weekly at UCLH. Data collection included procedural information, patient demographics, ASA status, Cotton grade of difficulty (1–4), and endoscopic/anaesthetic complications. ENS ERCP was defined as the use of propofol +/- fentanyl without the need for intubation. ENS was administered by consultant anaesthetists. Data presented as median with range. Comparison was made between SED and ENS ERCP patients.

Results During the 10 month study period 629 ERCPs were performed in 532 patients (52% male). 423 procedures were performed under SED and 139 under ENS. ENS patients were younger compared to SED patients (54, 9–88 years vs. 66, 20–96 years, $p < 0.0001$) but ASA grade 1–2 status was similar between the two groups (84 vs. 78%, p=NS). An increased number of Cotton grade 3–4 ERCPs were perfomed in the ENS group (64 vs. 34%, $p < 0.0001$). Common indications for ENS included previously uncomfortable/failed procedure (30%), biliary/pancreatic sphincter of Oddi manometry (24%) and single operator cholangioscopy (20%). Patient choice accounted for only 4% of cases. 59% of cases were tertiary referrals, 12% of which had failed previously. 77% of referrals were elective cases, 12% urgent day-case referrals and 11% urgent in-patients. ERCP was completed successfully in 95% of cases. Anaesthetic complications occurred in 3 cases all relating to over sedation requiring intubation. ERCP-related complications occurred in 5% of cases. Where previous SED ERCP was unsuccessful due to patient intolerance, the procedure was completed in all cases using ENS.

Conclusion To date ENS ERCP has predominately been used for previously failed/poorly tolerated procedures and Cotton Grade 3–4 ERCPs. ENS ERCP improves outcomes and is safe when delivered with anaesthetic support. It is likely to be increasingly requested by patients and referrers. Regular ENS provision should be offered by all endoscopy units offering ERCP, and the anaesthetic resource and funding implications will need to be pursued.

REFERENCE

1 Guidance for the use of propofol sedation for adult patients undergoing ERCP and other complex upper GI endoscopy procedures, April 2011. RCoA and BSG guidance

Disclosure of Interest None Declared.

OC-038 EFFECTIVENESS OF A NURSE-LED ALCOHOL LIAISON TEAM IN REDUCING ADMISSIONS AT LANCASHIRE TEACHING HOSPITALS NHS FOUNDATION TRUST

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Introduction In 2010/11 alcohol related harm cost the NHS in Lancashire £141.92 million, with Preston having the highest rate of hospital admissions for alcohol related liver disease in the North West. At that time there was no alcohol liaison team within Lancashire Teaching Hospitals. In view of this, in April 2013, the Hospital Alcohol Liaison Service (HALS) was created providing a seven day service for both the Royal Preston Hospital and Chorley and South Ribble Hospital.

Methods The HALS team comprises 4 senior nurses with experience in managing patients with alcohol and substance misuse. The referral criteria are patients scoring 8 or more on the Alcohol Use Disorders Identification Tool (AUDIT). A prospective database was created to include numbers of referrals, types of alcohol misuse, referring wards and departments, dates of admission and discharge, and the numbers of bed days saved. Data collected from April-October 2013 were analysed.

Results 808 patients were reviewed with 68% being male. The majority referrals were acute admissions, with 23% referred from the Emergency Department and 47% from the Medical Assessment Unit. Patients were reviewed within an average of 12 h since referral time (range 3–36 h). Delayed discharges were frequently identified in patients on a reducing regime of Chlordiazepoxide. The majority of patients were being kept in to complete this regime, regardless of whether they planned to stop drinking or not. On discharge, patients were not being offered follow up in the community which often led to recidivism and re-attendance at hospital seeking further detoxification. The HALS team reviewed and assessed these patients with validated assessment tools including the Severity of Alcohol Dependency Questionnaire (SADQ) and Clinical Institute Withdrawal Assessment Score (CIWA). The level of misuse was calculated as low risk in 127 patients, dependent in 382, harmful in 126, hazardous in 166, detox in 1 and unknown in 6 patients. Existing treatment regimes were reviewed to ensure they were appropriate and timely,