established palliative treatment for patients with advanced HCC, but outcomes vary. In this retrospective observation study, we assessed radiological response and survival outcome following TACE in a single large centre.

Methods Data was collected between October 2013 and December 2017 for all TACE procedures at Aberdeen Royal infirmary by access to MDT records and radiological data. Basic demographics, aetiology and severity of underlying liver disease, lesion characteristics (number and size) and Barcelona staging (BCLC) were all recorded. Scans were reviewed by two consultant radiologists and modified RECIST criteria used to assess the radiological response (complete response: disappearance of all target lesions; partial response: minimum 30% decrease in sum of the longest diameter of target lesions).

Results 31 patients underwent TACE procedure (1 excluded due to loss of follow up). Mean age 68.5 ± 7.33 , 76.6% were male and 29/31 White British. All procedures used doxorubicin loaded beads. The main aetiologies were non-alcoholic fatty liver disease 11 (36%), Alcohol-related liver disease 10 (33.3%), hepatitis C virus 5 (16.6%). 86.7% had underlying liver cirrhosis. BCLC staging of patients was 12 (40%) A, 17 (56.6%) B, 1 (3.4%) C. 8 patients (26.6%) had TACE as a bridge for transplant or tumour resection.

A CT scan 6 weeks post-procedure showed 7 patients (23.3%) complete response while 19 patients (63.3%) had partial response, only 4 patients (13%) had no response. Of the 11 patients with a single tumour lesion <5 cm, 8 (72.7%) had complete response and 3 (27.3%) partial response. During the median follow up time of 17 months (1–41), 8/30 patients had progression of the same liver lesion (33.3%) while 11 (36.3%) developed new liver lesions, and 5 (16.6%) distant metastasis. 11 (36.3%) patients died during the follow up period, 3 (27.3%) had a small initial tumour lesion. Mortality rates at BCLC stage A was 5/12 (41.6%) and B 5/17 (29.4%). Of the 8 using TACE as a bridge to curative treatment, 3 underwent liver transplant, 2 remain active on transplant list, 1 underwent surgical resection and 2 were removed from the list. There were no major complications noted post TACE procedures.

Conclusions TACE helps to improve the survival and down-stage HCC to allow curative treatment options. Only a small number had no radiological response to TACE. Those with initial BCLC B appeared to have a better survival, likely due to smaller numbers in stage A group. Those with a single tumour lesion less than 5 cm showed the best radiological response rate and survival.

PTH-109 IS THE SOARING PREVALENCE OF NAFLD FLYING UNDER THE RADAR OF HOSPITAL STAFF?

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Introduction Non-alcoholic fatty liver disease (NAFLD) affects 25% of the population and is a frequent manifestation of the metabolic syndrome (MetS), therefore patients may be seen by healthcare professionals (HCP) in a variety of non-specialist secondary care teams. Awareness of the significance of NAFLD as a MetS co-factor, ability to offer basic lifestyle advice and recognise that specialist referral may be required is critical to optimising MetS care.

Methods A questionnaire study was conducted to examine non-specialist HCP knowledge of NAFLD in our large

teaching hospital. Questionnaires were distributed at random to medical (n=20) and nursing staff (n=36) in several wards and clinics. Questions explored understanding of NAFLD risk factors, assessment and management.

Results Respondents were predominantly female (n=40), with median age 35 (range 20–60). Most (51/56; 91.1%) had heard of NAFLD but significantly fewer nurses were aware of non-alcoholic steato-hepatitis (NASH) than medics (47% vs 100%; $p<0.001$). Most (55/56; 98.2%) recognised that steatosis could cause liver damage, although serious complications were poorly appreciated including risk of liver cancer (32/56; 57.1%) and cirrhosis (45/56; 80.4%), with nurses significantly less aware of cirrhosis risk than medics (72.2% vs 95%; $p=0.04$). Awareness of MetS features as NAFLD risk factors varied; whilst most identified overweight/obesity (96.4%), significantly fewer recognised type 2 diabetes (T2DM) (76.8%; $p<0.001$) or hypertension (48.2%; $p<0.001$). Symptom knowledge was poor with nobody recognising NAFLD may be asymptomatic, and many thinking even early disease would be heralded by jaundice (24/56; 42.9%) or ascites (18/56; 32.1%). The majority understood need for ultrasound (52/56; 92.9%) and liver function tests (43/56; 76.8%) for diagnosis but importance of risk stratification was under-appreciated; just 62.5% would calculate BMI and 57.1% would test for T2DM. Although most (42/56; 75%) said NAFLD was preventable, 7/56 (12.5%) did not know that weight loss could reverse NAFLD, and just 19/56 (33.9%) identified the correct targets to offer appropriate weight loss advice. Knowledge of how to lose weight was also limited, with 12.5% recommending rapid weight loss, and only 32.1% (18/56) aware of the Mediterranean diet.

Conclusions There was a lack of recognition that early NAFLD may be asymptomatic despite causing harm, and limited understanding of the impact of MetS and lifestyle factors on both causation and treatment. Since patients with NAFLD are frequently encountered by non-specialists and are at high risk of morbidity, HCP NAFLD education should be improved to ensure that those presenting to other teams are advised appropriately and referred for liver risk assessment.

PTH-110 'SAVE MY LIVER DOC, USE THE CARE BUNDLE!'

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Introduction The first 24 hours is the most crucial timeframe for reducing morbidity and mortality in patients with decompensated liver cirrhosis and the use of the Cirrhosis Care Bundle in the first 24 hour has been shown to improve clinical outcomes in several tertiary centres across the UK. Our aim was to introduce the Cirrhosis Care bundle on the Medical Acute Unit (MAU) to improve the care of patients with decompensated liver cirrhosis.

Methods Two prospective audit cycles were conducted between Nov 2016 to April 2017. In each cycle, we prospectively reviewed all patients admitted with decompensated liver cirrhosis on the MAU. The first audit cycle was conducted between Nov to Dec 2016. Following which, several teaching sessions were organised to educate the MAU staff and doctors on the Cirrhosis Care bundle, one of which was delivered by Consultant gastroenterologist. Paper copies of the Cirrhosis Care bundle were also made available in the MAU. Second

cycle was conducted after introducing the Cirrhosis care bundle.

Results

Astracts PTH-110 Table 1 Compliance with quality standards before and after introduction of Cirrhosis Care Bundle

No.	Quality Care Standards (Based on BSG guidelines)	Before (first audit cycle Nov – Dec 2016)	After (second audit cycle Mar – April 2017)
2.	Baseline investigations	100%	100%
3.	Blood culture if sepsis or SBP* suspected	100%	0%
4.	Ascitic tap	25%	50%
5.	Ultrasound abdomen ordered within 24 hour	55%	50%
6.	Alcohol history recorded	83%	77%
7.	CIWA completed	75%	88%
8.	Pabrinex given	75%	81%
9.	Broad spectrum antibiotics given in SBP	100%	100%
10.	IV Albumin given in SBP	0%	50%
11.	Fluid resuscitation in AKI	40%	0%
12.	Diuretics ad nephrotoxic drugs stopped in AKI	100%	100%
13.	Transfused if Hb<7 g/dL in a suspected or actual GI bleed	100%	100%
14.	Coagulopathy corrected in a suspected/actual GI bleed	100%	100%
15.	Referred for early endoscopy in a suspected/actual GI bleed	75%	100%
16.	Given Terlipressin in a suspected/actual GI bleed	0%	71%
17.	Given antibiotics prophylaxis in a suspected/actual GI bleed	0%	30%
18.	Lactulose or enema given in hepatic encephalopathy	71%	100%
19.	Dalteparin given in no contraindications	42%	50%

*SBP=spontaneous bacterial peritonitis

Conclusions After formally adopting the Cirrhosis care bundle, we have seen an improvement in the frequency of ascitic taps performed, treatment of spontaneous bacterial peritonitis, prescription of VTE prophylaxis and hepatic encephalopathy. Our targets have certainly approved but not enough to meet quality standards. It was decided to conduct third cycle to improve our targets. We decided to educate doctors in A and E because patients spend more time there before being transferred to MAU due to pressures on NHS. The teaching involved identifying patients presenting with signs and symptoms of decompensated liver disease and education about the cirrhosis care bundle, its importance. Third cycle is in progress and showing promising Results.

PTH-111 IMPROVING END OF LIFE CARE FOR PATIENTS WITH LIVER DISEASE

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Introduction Liver disease is the 5th commonest cause of death in the UK and the only major cause of death still increasing. National data show that 73% of deaths occur in hospital and few patients are referred to palliative care services (PC) despite complex symptoms and psychosocial needs. Although preferred place of death for patients with end stage liver disease (ESLD) is unknown, studies of other diagnoses show the majority of patients prefer to die at home, rather than hospital. We aimed to increase access to PC for patients with ESLD and to ascertain preferred place of death.

Methods We commenced a monthly ESLD MDT, comprising Hepatology and PC Consultants, community ESLD Clinical Nurse Specialist (CNS), Alcohol CNS, Social Worker and hospital PC CNS. Patients were identified as outpatients and inpatients and referred to the MDT for discussion. The MDT reviewed patient needs, coordinated care and initiated referrals to additional community services and ESLD CNS. Patients referred to the ESLD CNS received holistic assessment with advanced care planning and contingency plans for future acute decompensation events.

Results In the first 12 months of the new MDT there were 43 deaths with ESLD in our locality, 60% in hospital, 37% in community (home/hospice); contrasting to 73% and 26% nationally. 79% of all patients were known to PC at the time of death. Of 22 patients that expressed a preference for place of death, 11 chose home and 11 hospice; none preferred to die in hospital. Of 22 patients under the ESLD CNS in the community, 73% died out of hospital (7 home, 9 hospice). 68% of patients under the ESLD CNS died in their preferred place of care. Of 26 who died in hospital 30% died on the acute medical unit, HDU or ITU, 30% on the Gastroenterology ward and the remainder (40%) on outlying wards.

Conclusions Most patients with ESLD prefer to die out of hospital, consistent with other terminal illnesses. Although ESLD patients present a challenging symptom burden it appears that an MDT approach including a dedicated CNS can help increase referrals to PC, and help more patients die in their preferred place. However, a third of those dying in hospital did so in an acute environment or while receiving intensive care and therefore were unlikely to have received adequate PC. A notable number also died on non-specialist outlying wards which may imply they too did not receive wholly integrated specialist or PC during their terminal phase.

Although the preliminary Results of our local intervention are promising, we recognise that more can still be done and encourage a continued focus on improving end of life support and care planning for patients with ESLD.

PTH-112 INVESTIGATION UPDATE: A CLUSTER OF GENOTYPE A2 'PRISONER VARIANT' ACUTE HEPATITIS B INFECTION

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Introduction Between April 2012 and May 2015, a cluster of acute Hepatitis B virus (HBV) infection was investigated by Public Health England (PHE) in Southwest England. Compared nationally, it was observed that cases were above the average age, all male and did not belong to typical 'high-risk' groups; with a majority reporting no risk-factors for HBV exposure. It was hypothesised that these cases were