Abstract PTH-082 Table 1

	Borderline NASH				Definite NASH			
	Derivation		Validation		Derivation		Validation	
Analyte (* log transformed analysis)	NAS 0-2 n=50 (miR=26)	NAS 3-8 n=95 (miR=60)	NAS 0-2 n=25	NAS 3-8 n=65	NAS 0-4 n=107 (miR=64)	NAS 5-8 n=39 (miR=22)	NAS 0-4 n=62	NAS 5-8 n=28
sFas (pg/ml)	5847	6491 (p = 0.022)	5923	5653 (p=NS)	6150	6604 (p=NS)	5706	5777 (p=NS)
CK18 M30* (U/L)	132.43	182.81 (p = 0.007)	179.47	275.23 (p = 0.001)	146.55	223.36 (p = 0.001)	212.86	331.59 (p < 0.001)
CK18 M65* (U/L)	140.93	231.21 (p = 0.001)	167.92	351.4 (p < 0.001)	168.66	291.74 (p = 0.001)	239.88	422.67 (p = 0.003)
HMGB1* (ng/ml)	1.65	2.08 (p=NS)	1.70	2.42 (p = 0.003)	1.81	2.29 (p=NS)	2.02	2.63 (p = 0.028)
miR-122* (/let7d snRNA)	10.57	15.58 (p = 0.028)	7.71	12.32 (p = 0.002)	12.77	17.54 (p=NS)	9.71	13.61 (p = 0.018)

Results There were no significant differences in miR-122, HMGB1, sFas and CK18 M30 levels between those with low (0–2) and high (3–4) stage of fibrosis. Both CK18 M30 as well as CK18 M65 correlated with grades of ballooning (p = 0.003 and p = 0.001) and lobular inflammation (p = 0.006 and p = 0.001). Table 1 summarises the serum levels of all the evaluated markers in subgroups of patients classified as borderline or definite NASH when only patients with low grade fibrosis were included (derivation cohort, n = 145 and validation cohort, n = 90). Importantly, when the cut-off values for CK18 M30 (395 U/L) was used on its own, 57/86 (66%) patients with definite NASH were missed.

Conclusion Biomarkers, UKof cell injury and death in combination have a potential to detect on-going histological activity in NAFLD.

Disclosure of Interest None Declared.

PTH-083 MANAGEMENT OUTCOMES FOR PATIENTS WITH POSITIVE HEPATITIS C SEROLOGY OVER A THREE YEAR PERIOD IN YORK HOSPITAL

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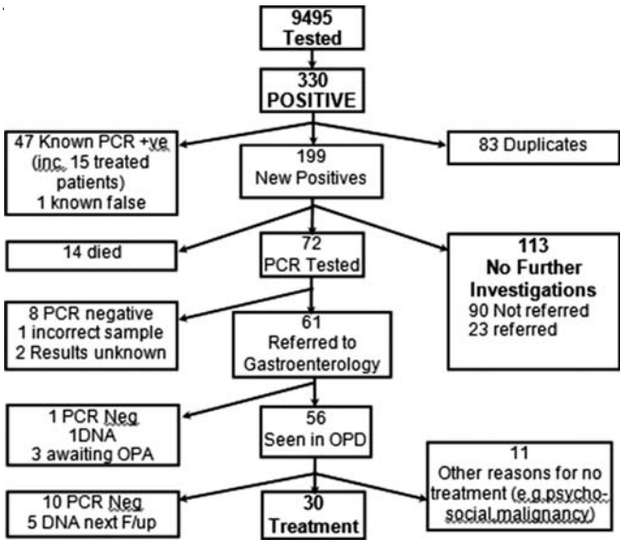
Introduction The majority of patients with Hepatitis C Virus (HCV) in England remain undiagnosed. There are an estimated 1298 patients infected with HCV in North Yorkshire,[1] but a fraction of these patients have been identified and successful treatment is rare. As part of the development process for an effective service in York, we audited existing referral patterns and outcomes for patients with a positive HCV serology test.

Methods A total of 9495 patients who had HCV serology checked from January 2009 to December 2011 were identified via the York hospital microbiology database. Retrospective collection of data was performed on all patients with positive serology test, using online patient database and patients' case notes where available. Analysis of data focused on further investigations and management of these patients.

Results Out of the 9495 patients who had HCV serology tested, 330 tested positive (199 new positives, 47 known PCR positive, 1 known false-positive and 83 duplicates). Majority of the referral sources were from primary care (37%), followed by medical services (31%), drug-dependence services (9.3%), GUM (8.1%), prison (7.3%) and obstetrics (6.9%). Intravenous drug use was the most common route of acquisition. Of the 199 new positives, 113 (57%) did not receive any further investigations. 61 (31%) patients were referred to gastroenterology and 10 patients per year successfully accessed treatment.



Abstract PTH-083 Figure 1

Conclusion This audit shows the majority of HCV positives had no further investigations and only 15% of patients received curative treatment. There was significant duplication of serology testing and only 72/ 199 (36%) underwent an HCV PCR, which is the next appropriate test. Throughout the UK a variety of initiatives are ongoing to increase public awareness of hepatitis C, and encourage testing. However, unless HCV service development improves, a positive test for HCV may have little or no consequence.

REFERENCE

1 Public Health England, Hepatitis C in the UK: 2013 report
URL: //www.hpa.org.uk/webc/HPAwebFile/HPAweb_C/1317139502302

Disclosure of Interest None Declared.

PTH-084 NUTRITIONAL IMPACT OF ANTI-VIRAL THERAPY OF GENOTYPE 1 HEPATITIS C PATIENTS

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Introduction Hepatitis C Virus (HCV) is a leading cause of chronic hepatitis and liver cirrhosis, with an estimated 170 million

patients infected worldwide. The, UKmost common genotype of HCV is Genotype 1. For many years, the 'Standard of Care' has been prolonged therapy with the combination of Polyethylene glycol interferon-α and Ribavirin for one year. The recent approval of drugs such as Telaprevir and Boceprevir has restructured treatment for genotype 1 HCV infection, both for previously treated or treatment-naïve patients. Specific dietary intake is warranted for adequate absorption of the protease inhibitors and this has led to a structured dietary advice being given to patients. We wanted to compare the nutritional impact of antiviral therapy in two groups of patients who underwent either dual or triple therapy.

Methods Treatment of hepatitis C patients at Aberdeen Royal Infirmary is undertaken by Hepatology specialist nurses who review these patients at designated time intervals. At each of these clinic visits the MUST score (Malnutrition Universal Screening Tool) is recorded in addition to the weight and BMI of the patient. Any patient who has a MUST score of 2 is referred for specialist dietetic input, which is also available at the clinic. At 4 weekly intervals, the HAD score for anxiety and depression is also recorded for all patients.

Results A total of 73 patients with Genotype 1 underwent therapy in the year 2012–2013, including 25 patients with dual therapy of PEG-IFN and Ribavirin and 48 patients on triple therapy of PEG-IFN, Ribavirin and Telaprevir. There was no statistical difference in the initial weight, BMI and MUST scores of these two groups of patients. The mean weight fell from 89.6 ± 17.9 kg to 83.7 ± 15.6 kg by the end of treatment in the dual therapy group with a parallel fall in BMI from 30.7 ± 5.4 to 28.8 ± 4.6 kg/m^2. However, in the triple therapy group, the mean weight increased from 82.2 ± 30.5 kg to 82.7 ± 26.0 kg and a stable BMI from 26.4 ± 9.5 to 26.2 ± 8.3 kg/m^2. Dietary referral and intervention was needed in 7/25 patients on dual therapy (28%) as opposed to 7/48 patients on triple therapy (14.6%) (p = 0.23)

Conclusion Weight reduction is a significant problem in patients undergoing dual therapy for hepatitis C as opposed to those undergoing triple therapy. Referral to the dietician was needed in a larger proportion of cases undergoing standard of care though it did not reach statistical significance. Dietary advice given with respect to protease inhibitors may have had a significant effect in combating the ill effects of the standard treatment of patients with Genotype 1 HCV infection. This specific advice should be extrapolated to all patients undergoing anti-viral treatment.

Disclosure of Interest None Declared.

PTH-085 SYSTEMATIC REVIEW OF PERFORMANCE OF ALT IN PREDICTING LIVER FIBROSIS: ALT IS A SENSITIVE, BUT NOT A SPECIFIC MARKER OF LIVER FIBROSIS IN POPULATIONS WITH/SUSPECTED LIVER DISEASE

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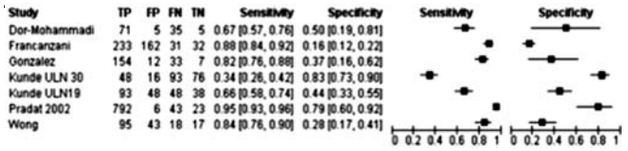
Introduction ALT is one of the most commonly used tests to detect liver disease for further investigation, but its accuracy is uncertain. Currently there is no systematic review of diagnostic accuracy of ALT in detecting liver fibrosis using liver biopsy as reference standard.

Methods Standardised methods for conducting systematic reviews were used. MEDLINE, EMBASE, and reference lists from articles were searched. Studies were included if they evaluated paired samples of liver biopsy and serum, with extractable data for ALT, >30 participants, and presented data as sensitivity, specificity, predictive values, likelihood ratios, or ROC curves or included sufficient data to calculate these parameters. ALT above upper limit of normal threshold were defined using local values and ranged from 30 to 60 u/l.



Abstract PTH-085 Figure 1

Results Initial search located 9563 abstracts, 344 papers were assessed, of which 9 met inclusion criteria. The majority of included studies were published in last 10 years, were from secondary specialist care, and conducted in USA (3), Europe (3), and rest of world (3). Median study size was 206 (IQR 124–341). Median proportion of moderate/severe fibrosis on biopsy was 22% (range 6–34), any fibrosis 81% (range 58–100). Pooled sensitivity for ANY fibrosis was 87% (95% CI: 85–88) specificity 34% (95% CI: 30–38), positive likelihood ratio 1.3 (95% CI: 1.2–1.4). Moderate/severe fibrosis sensitivity was 89% (95% CI: 87–91), specificity 35% (95% CI: 32–37), positive likelihood ratio 1.36 (95% CI: 1.3–1.42). AUROC values were reported in 2 studies - moderate/severe fibrosis AUROC=0.815, and severe fibrosis AUROC=0.59.

Conclusion ALT accuracy in predicting fibrosis has only been studied in specialist clinic populations where it has low specificity for both any or moderate/severe fibrosis, but high sensitivity for both. Predictive values in clinic populations with prevalences found in these studies show that ALT has high PPV for any fibrosis (because of high prevalence) but low NPV. In contrast it has high NPV for ruling out moderate/severe fibrosis but poor PPV. Results from this review suggest that ALT should be used in conjunction with other tests and clinical features and not alone to identify liver fibrosis in clinic populations. Spectrum effects are likely to be important especially in those with no fibrosis so affecting the specificity. Further studies are needed in primary care populations of the accuracy of ALT versus robust non invasive markers, but these findings would suggest that a normal ALT can rule out moderate/severe fibrosis with reasonable certainty due to its high sensitivity and likely low prevalence in primary care though this may not be the case for mild fibrosis.

Disclosure of Interest None Declared.

PTH-086 COMPARISON OF CLINICAL PRESENTATIONS AND OUTCOME OF HEPATOCELLULAR CARCINOMA BETWEEN HEPATITIS C AND NONALCOHOLIC FATTY LIVER CIRRHOSIS: A SINGLE CENTRE EXPERIENCE

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Introduction Hepatocellular carcinoma (HCC) is the most common primary liver tumour, and represents the third leading cause of cancer death worldwide.[1,2] The most important risk factor is liver cirrhosis, mainly due to chronic infections such as hepatitis B or C.[2] Increasing HCC cases are seen in nonalcoholic fatty liver disease (NAFLD).