Results The mean age at diagnosis was 20 years (range 7-54 years) with 38 patients presenting due to liver involvement, 13 due to neuropsychiatric disease, 4 with both and 8 as a result of family screening. Of those presenting with liver involvement, 43% had asymptomatic liver disease with incidentally identified abnormal liver blood tests. In patients with a neuropsychiatric presentation, 95% had neurological signs while 53% had psychiatric symptoms. The mean delay between onset of symptoms and diagnosis was 2 years (max. 8 years). During disease management, 31 patients received one type of drug treatment while 32 received more than one. In total, 48 patients received Penicillamine; of these, 11 were noncompliant to treatment, 16 experienced adverse effects and 21 stopped treatment. The most common adverse effect was skin changes (38% of patients). In patients who stopped Penicillamine, 67% did so due to adverse effects. Trientine was given to 25 patients (1 noncompliant, 2 with adverse effects and 6 stopped treatment) while Zinc was given to 22 patients (4 noncompliant, 3 with adverse effects and 8 stopped treatment). At latest follow-up (mean 10.2 years), 92% of patients with symptomatic liver disease, 87% with neurological disease and 89% with psychiatric symptoms had clinically improved or were stable. In patients with no psychiatric involvement at diagnosis, 26% developed new psychiatric symptoms which was greater than new symptomatic liver or neurological disease. Four patients underwent liver transplant, 3 due to decompensated cirrhosis and 1 due to acute liver failure. There were 3 deaths, of which 2 were due to liver-related complications. In this cohort, 7 patients had 12 pregnancies; 10 were on Penicillamine and 2 were on Zinc therapy throughout the pregnancy. Of those pregnancies on Penicillamine, 8 were normal, 1 was a miscarriage and 1 was a termination. Both pregnancies on Zinc were normal.

Conclusions The majority of patients with Wilson's disease who present primarily with liver involvement are asymptomatic with incidentally identified abnormal liver blood tests. New psychiatric symptoms commonly develop after diagnosis and may warrant more proactive psychological input. Penicillamine and Zinc appear to be safe in pregnancy.

PWE-48 DISCHARGE FIB-4 IDENTIFIES HEPATIC FIBROSIS IN PATIENTS WHO DRINK ALCOHOL TO EXCESS

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Introduction The Alcohol-related Liver Disease guidelines recommend, irrespective of the reason for admission, men drinking >50 units and women drinking >35 units per week should have non-invasive assessment with Fibrosis-4 (Fib-4) or aspartate aminotransferase to platelet radio index (APRI). Patients at risk of fibrosis should undergo second-line non-invasive imaging or follow up.

Aim Primary endpoint was to identify how Fib-4 and APRI scores correlate with liver fibrosis. Secondary endpoint was to identify what percentage of those without a known diagnosis of advanced liver disease with an elevated/indeterminate Fib-4 score went on to have appropriate follow up.

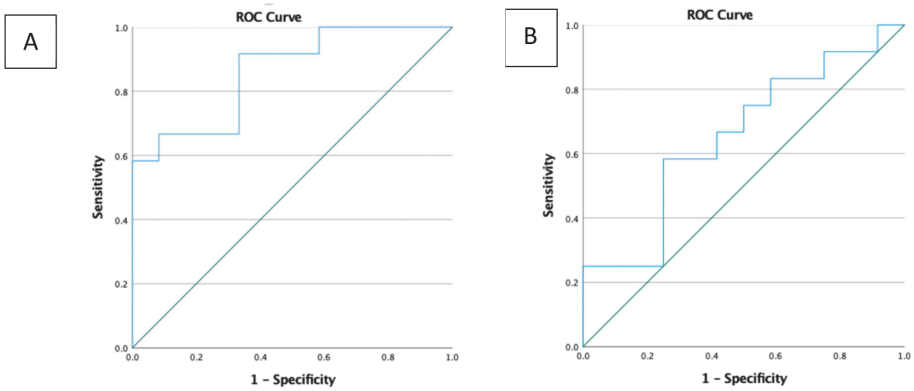
Methods Records of patients with a discharge diagnosis of an alcohol related condition admitted to the Gastroenterology unit at the Queen Elizabeth University Hospital (QEUH) between 1/1/2019 to 31/3/2019 were reviewed. A pilot study demonstrated the discharge diagnosis correctly identified 85% patients with a history of alcohol excess. Cut-off values for patients at risk of fibrosis were Fib-4 >1.45 and APRI >0.7. A Fib-4 >2.0 was used if patients were >65 years old. A Fibroscan of >12.5 kPa was used as a cut-off for high risk of hepatic fibrosis. Correlation and receiver operating characteristic curves (ROC) were calculated.

Results A total of 184 patients were identified for analysis of our first endpoint. Based on Fib-4 scores on discharge we identified 69, 36 and 64 patients at high, intermediate and low risk, respectively. 15 patients excluded due to incomplete data.

Results show a significant positive correlation between Fib-4 on discharge and Fibroscan results ($p<0.01$). ROC analysis for relationship between Fib-4 and significant fibrosis on Fibroscan revealed an area under the curve (AUC) (0.861, $p=0.003$) (Figure 1). No correlation was found between Fib-4 on admission nor APRI scores on admission or discharge and Fibroscan results.

Of the 184 patients, 108 were excluded either due to a known diagnosis of advanced liver disease or drinking <50 units or <35 units for men and women respectively. Based on Fib-4 scores on discharge, 76 patient were drinking above these levels and without a prior known diagnosis of advanced fibrosis. Using Fib-4 scores on discharge we identified a total of 19, 22, and 35 patients at high, intermediate and low, respectively. 21/41 (51.2%) patients with intermediate or high risks did not have specialist liver follow up.

Conclusions Fib-4 score on discharge was superior to Fib-4 score on admission. Some patients identified with potential



Abstract PWE-48 Figure 1 Fib-4 on discharge and Fibroscan: ROC curve analysis showed a significant AUC (0.861 p=0.003). B) Fib-4 on admission and Fibroscan: ROC curve analysis did not show a significant AUC (0.653, p=0.204)

fibrosis using Fib-4 did not attend specialist follow up and represent a missed opportunity for intervention. The basis of our Quality Improvement Project.

PWE-49 ROUTINE PRE-PROCEDURE BLOOD TESTS ARE NOT REQUIRED TO RUN A SAFE NURSE LED PARACENTESIS SERVICE

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Introduction Patients with liver cirrhosis and ascites who require large volume paracentesis (LVP) may have an abnormal coagulation profile, with prolongation of the prothrombin time and thrombocytopenia. Current guidelines do not advocate the use of clotting factors or platelets prior to LVP. In 2017 we established a nurse led day case paracentesis service, pre procedure bloods were not routinely checked and drains inserted without imaging guidance.

Methods A retrospective review of patients undergoing LVP within our service between 2017-2019 was undertaken. All procedures were undertaken independently by 2 trained nurse practitioners. The results of blood tests taken, to the nearest date of each procedure, were used for analysis but not for routine practice. Any procedural complications were documented.

Results Fifty seven patients were identified who required a total of 239 LVP's over the time period. 91.6% of the procedures were successfully completed. 73% had alcohol related liver disease and median UKELD score was 54 (range 45-70).

69% of patients had their bloods checked more than 1 week prior to LVP and 21% of those were more than 4 weeks prior to procedure.

1 patient received 1 unit platelet transfusion, platelet count was 64 and no indication for transfusion was identified from the records.

No bleeding related complications occurred. 2 minor complications were recorded – one drain site cellulitis, one persistent drain site leak.

Conclusions Non medical paracentesis without routine pre procedure bloods is safe and effective, even in the presence of coagulopathy of liver disease and renal failure. This data supports the implementation of published guidelines into nurse led services.

Abstract PWE-49 Table 1 blood parameters prior to LVP (n=239)

	Median	Range
INR	1.3	1.0 - 3.2
Platelets (x10^9/l)	137	34 - 331
Creatinine (umol/l)	78	41 - 814

PWE-50 DEPENDENCE OF BMI ON C677T AND A1298C POLYMORPHISMS OF METHYL ENTRAHYDRAFOLATREDUCTASE-GENE IN PATIENTS WITH NON-ALCOHOLIC-FATTY-LIVER-DISEASE

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Introduction Non-alcoholic fatty liver disease (NAFLD) occurs in almost 50% of the adult population and is the cause of liver dysfunction in developed countries. The widespread use of overweight makes the problem of NAFLD relevant among both adults and children. The vast majority of patients with NAFLD are overweight and obese, which increases the risk of developing atherosclerosis, hypertension and type 2 diabetes and accelerates the progression of pathological changes in the liver. Genes associated with the onset and progression of liver disease and obesity are widely studied today. There is evidence that the methylenetetrahydrofolate reductase (MTHFR) gene affects the development and progression of NAFLD and hyperhomocysteinemia, associated with allelic polymorphism of this gene affects the development of pathological changes in the liver and in the body as a whole.

Aim The aim of our study was to investigate the dependence of BMI on C677T and A1298C polymorphisms of the MTGFR gene in patients with NAFLD.

Method We monitored 110 patients with NAFLD. The diagnosis of NAFLD was made on the basis of laboratory and instrumental methods of examination. The calculation of BMI was performed according to the formula Kettle - weight (kg)/height $(m)^2$. Determination of allelic polymorphism was performed by PCR with detection of results by hybridization-fluorescence method in real time.

Results As a result of our studies, we found that carriers of genotypes C677C, C677T and T677T of the MTGFR gene had BMI values of 34.7 ± 3.6, 37.9 ± 3.8 and 39.7 ± 3.2 kg/m2. We found that patients carrying the T-allele (C/T and T/T genotypes) had significantly higher BMIs compared to homozygotes for the main C-allele (C/C genotype). Studying the frequency of genotypes by A1298C polymorphism of the MTGFR gene depending on BMI, it was found that carriers of genotypes A1298A, A1298C and C1298C had BMI values of 37.1 ± 4.1, 36.6 ± 4.2 and 36.9 ± 3.8 kg/m2 in accordance. We did not find a significant difference in the frequency distribution of genotypes by A1298C polymorphism depending on BMI

Conclusions BMIs are favorably associated with the frequency of genotypes by the C677T polymorphism of the MTGFR gene and do not have such an association with the frequency of genotypes by the A1298C polymorphism of the MTGFR gene.