FIBROSCAN DELINEATES SIGNIFICANT FIBROSIS BETTER THAN THE KING'S FIBROSIS SCORE, APRI AND FIB4 SCORE WHEN CORRELATED TO LIVER BIOPSY IN A LARGE MONOCENTRIC COHORT OF HEPATITIS C PATIENTS

Introduction
In the context of consideration of antiviral therapy for hepatitis C virus (HCV), fibrosis assessment is critical. An increasing array of non-invasive blood panels are in use; in addition Liver Stiffness Measurements (LSM) by Fibroscan is an established clinical tool in some clinical centres. Liver biopsy is however still perceived as the “silver” standard for fibrosis assessment in HCV. The aim of our study was to evaluate the diagnostic accuracy of LSM, King's Fibrosis Score (KFS), APRI (aspartate aminotransferase to Platelet Ratio) and FIB4 score (age, platelets, aspartate aminotransferase and alanine aminotransferase) in predicting significant fibrosis (Ishak score F3–F6) and cirrhosis (F5–F6) in a large monocentric cohort of HCV patients.

Methods
Retrospective data collection was performed on 484 patients with hepatitis C that underwent both Fibroscan and liver biopsy at King’s College Hospital between November 2006 and November 2011. Data were analysed to correlate liver biopsy results with LSM, KFS, APRI and FIB4 score. Each biopsy was assessed via Ishak score with three specialist Liver Histopathologists. All Fibroscans were performed by two trained operators. Each test was correlated against liver biopsy scans performed by two trained operators. Each test was correlated against liver biopsy

Results
For predicting significant fibrosis (F3–F6), the area under receiver operating curves 95% CIs were 0.81 (0.77 to 0.85, p<0.001) for LSM; 0.71 (0.66 to 0.76, p<0.001) for KFS; 0.71 (0.66 to 0.76, p<0.001) for APRI and 0.79 (0.73 to 0.84, p<0.001) for FIB4 score. In the diagnosis of cirrhosis, the area under receiver operating curves was 0.83 (0.76 to 0.9, p<0.001) for LSM, 0.72 (0.64 to 0.79, p<0.001) for KFS, 0.67 (0.59 to 0.75, p<0.001) for APRI and 0.77 (0.68 to 0.85, p<0.001) for FIB4 score respectively. A LSM threshold of 7.3 kPa had a 65% sensitivity and 81% specificity to detect significant fibrosis and a threshold of 10.25 kPa had a sensitivity of 75% and a specificity of 80% in detecting cirrhosis.

Conclusion
In our real-life monocentric HCV population, liver stiffness measurement via Fibroscan performed best in prediction of both moderate fibrosis and cirrhosis in comparison to the KFS, APRI and FIB4. However, all these panels performed reasonably in delineating significant fibrosis and cirrhosis. An increased availability of Fibroscan, coupled with non-invasive fibrosis panels in primary or outreach settings can radically improve the clinical assessment and evaluation of HCV patients for HCV therapy, while also defraying cost and improving safety and acceptability from a patient perspective. Non-invasive fibrosis assessment needs to be widely available.

Competing interests
None declared.

REFERENCE

POTENTIAL IMPACT OF PROTEASE INHIBITORS IN THE SOUTH WEST PENINSULA HEPATITIS C POPULATION

Introduction
Treatment of hepatitis C virus (HCV) with pegylated interferon and ribavirin achieves a sustained viral response (SVR) in 40%–50% of genotype 1 patients. Protease inhibitors (PIs) increase SVR rates in treatment naïve genotype 1 patients to 63%–75%, but it is in those who failed to achieve an SVR with previous treatment that the most significant differences have been observed, particularly in those who relapse. This study assessed the potential beneficial impact of PIs in a real world population undergoing HCV treatment in the South West Peninsula, identifying the number of eligible patients and considering population-specific issues to treatment.

Methods
All patients treated for HCV in the South West Peninsula between January 2008 and December 2010 were identified by HCV

Competing interests
None declared.

REFERENCES
1. Saunders M, Sieberhagen C, Taylor L, Fry I, McKenna M, Needs S, Chimalakuri R, Cramp M. Royal Devon and Exeter Hospital, Exeter, UK; Department of Hepatology, Derriford Hospital, Plymouth, UK; Teeside Hospital, Truro, UK; Torbay Hospital, Torbay, UK; North Devon District Hospital, Barnstaple, UK.

Abstract PMO-164 Table 1

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Competing interests
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nurse specialists. Proformas identifying treatment centre, patient characteristics, viral response, treatment compliance and outcome were completed and entered into a database for further analysis. Viral data from genotype 1 HCV patients identified those who relapsed, had viral breakthrough or were non-responders. Non-responders were further categorised into partial and null responders. Results 361 patients from five centres (Plymouth, Exeter, Truro, Torbay and Barnstaple) were identified. 164/361 patients (45.4%) had genotype 1, of which 11.6% (n=19) were cirrhotic. 40.8% (n=67) achieved SVR, 15.9% (n=26) relapsed and 4.3% (n=7) had viral breakthrough. Of 33 (20.1%) non-responders, 20 were null responders, 11 partial responders and 2 had insufficient viral load data. 9.1% (n=15) stopped treatment early, 7.9% (n=15) were lost to follow-up and 1.8% (n=3) had no post-treatment viral load data available. 17 genotype 1 patients were treated in prison, of which, 11.7% (n=2) stopped treatment early and 41.1% (n=7) were lost to follow-up. Of the 97 (59.2%) genotype 1 cases who did not achieve SVR, at least 44/164 (26.8%) would have a very clear benefit from re-treatment with PIs. Conclusion A significant number (26.8%) of genotype 1 treatment-experienced patients treated in the South West would benefit from re-treatment, with addition of a PI to their HCV treatment. Adherence with treatment and reliable follow-up of patients are crucial for safe treatment with PIs. Despite the provision of a good HCV service, a significant number of cases did not attend for prearranged reviews. At present, 7.9% of cases treated were lost to follow-up, with prisoners disproportionately unlikely to attend planned clinics.

Competing interests M Saunders: None declared, C Sieberhagen: None declared, L Taylor: None declared, F Fry: None declared, M McKenna: None declared, S Needs: None declared, R Chimikurthi: None declared, M Cramp: grant/research support from Roche, MSD and Janssen, Conflict with: Served on advisory boards for Janssen, Roche, MSD and Gilead.

REFERENCE


PMO-167 EARLY EXPERIENCE WITH TELAPREVIR FOR PATIENTS WITH ADVANCED FIBROSIS OR CIRRHOSIS

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Introduction The direct-acting HCV protease inhibitor telaprevir has recently been licensed for treatment of chronic genotype 1 HCV infection, and promises significant improvements in sustained virological response for these patients. However the patients who may benefit most from novel HCV therapies, namely those with advanced fibrosis or cirrhosis who have previously failed to respond to pegylated interferon (pegIFN) and ribavirin treatment, are relatively poorly represented in the telaprevir clinical trials. Efficacy, safety and tolerability were assessed in patients with genotype 1 HCV and advanced fibrosis/cirrhosis who have received telaprevir-containing treatment at the Royal London Hospital.

Methods Laboratory results and case notes were reviewed for all patients treated with pegIFN, ribavirin and telaprevir at the Royal London Hospital between September 2011 and January 2012.

Results Eight patients with genotype 1 HCV had commenced telaprevir-containing treatment. All had advanced fibrosis/cirrhosis (median Ishak score 5, range 4–6). One was treatment-naïve, three had previously failed to respond to pegIFN/ribavirin and four had relapsed after therapy. All patients had completed at least 4 weeks of telaprevir-containing therapy. With one exception, all patients achieved undetectable HCV RNA at week 4 of treatment; the patient who did not had a viral load of 168 IU/ml at week 4 and undetectable HCV RNA at week 8. One patient had completed 12 weeks of therapy, with undetectable HCV RNA. The most common side effects were fatigue (8/8), pruritis (4/8), rash (3/8), anal pain (5/8), depression (5/8), nausea (5/8), gastrointestinal disturbance (2/8) and oral candidiasis (2/8). Most side effects were successfully managed, although telaprevir was stopped in two patients at week 8 due to worsening rash and one patient withdrew from all therapy at week 4 due to tolerability. The most common laboratory abnormality was an early, transient rise in bilirubin (5/8). Significant anaemia (Hb).

Conclusion Telaprevir in combination with pegIFN and ribavirin appears efficacious in patients with advanced fibrosis or cirrhosis, who have previously failed treatment with pegIFN and ribavirin alone. However, the incidence of significant side effects in this subgroup of patients is high and necessitates frequent follow-up with medical support. Side effects, particularly rash, may limit duration of telaprevir treatment. Whether this impacts on sustained virological response remains to be seen.

Competing interests M Cunningham: None declared, J Schulz: None declared, L Payaniandy: None declared, Y Kalis: None declared, P Kennedy: None declared, R Marley: None declared, G Foster: grant/research support from Roche, Janssen, Tibotec, Novartis, Consultant for: Abbott, BMS, Chughai, Janssen, Merck, Novartis, Roche, Tibotec.