NAFLD: CASE-FINDING IN DIABETIC PATIENTS FROM PRIMARY CARE USING FIB4 SCORE

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Introduction In contrast to European guidelines, recent NICE and BSG guidelines state that further evidence is required to establish the cost-effectiveness of case-finding for non-alcoholic fatty liver disease (NAFLD) in high risk groups such as type 2 diabetics (T2DM) before it can be recommended. We present initial results of a pilot of case-finding for NAFLD in T2DM patients in a GP practice in the North East of England using Fib4 scores, in order to assess the likely cost implications of such screening in the community.

Methods 76 successive patients attending their GP practice for routine diabetic review had a Fib4 score calculated. Those who had Fib4 score above defined age-related cut offs (1.35 for <65 year olds, >2.00 for 65–80 year olds and >3.25 in over 80 year olds) were referred to secondary care for further evaluation (including fibroscan or liver biopsy). We looked at referral rates in order to extrapolate the number of likely referrals to secondary care and cost implications if this approach was rolled out across the local area.

Results 76 successive patients were screened with Fib4 scores at diabetic review. 18 (23%) were female and 58 (77%) male, age 31–93 (mean age 64 yo) with a mean BMI of 31.08. Alcohol consumption ranged from 0–40 units with a mean of 5.4 units per week. Of 76 patients, 10 (13.15%) were found to have scores above the age related cut-off (mean age 69.8). None of these had previously been referred to secondary care. Of these, 8/10 (80%) had an ALT within ‘these had previously been referred to secondary care. Of these, 8/10 (80%) had an ALT of <20, 4/10 (40% were thrombocytopenic (plt <150) and 8/10 (80%) had plt count <200. 6 of the 8 (75%) patients scored above the age related cut-off. 5 were unsuitable for referral because of significant co-morbidities or inability to consent. 5/76 (6.57%) were referred to secondary care for consideration of Fibroscan/ liver biopsy.

Conclusions This initial pilot confirms that abnormal liver function tests do not correlate well with fibrosis scores, and diagnosis of NAFLD based on abnormal liver function tests are likely to miss patients with advanced fibrosis. Based on this initial pilot, the referral rate for Type 2 diabetics following Fib4 screening would be 6.57%. In our local area, with an estimated 10 000 patients with T2DM, this would generate an estimated 657 referrals. These patients would require ultrasound scans, secondary liver screens and fibroscan and/or liver biopsy to stage disease, and there would then be additional costs associated with surveillance of patients who have to receive ultrasound scans, secondary liver screens and fibroscan and/or liver biopsy to stage disease, and there would then be additional costs associated with surveillance of patients who have advanced fibrosis or cirrhosis. The next step is to assess the patients referred via the pathway with Fibroscan/liver biopsy, to determine the proportion with advanced liver disease.

THE PREDICTIVE VALIDITY OF INDICES OF FUNCTIONAL DECLINE IN DETERMINING OUTCOME FOLLOWING LIVER TRANSPLANTATION

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Introduction Disease severity, disease aetiology and nutritional status are important determinants of outcome in patients with cirrhosis. Functional decline, reflected by health-related quality of life (HRQOL), mental health, and degrees of disability and frailty may also play an important role. However, it is unclear whether these factors influence outcome after liver transplantation. This study aimed to assess the predictive validity of...
indices of functional decline in determining transplantation outcome in patients with cirrhosis.

**Methods** Twenty-eight consecutive patients (mean [range] age 52 [29–66] yr; 75% men; four [14.3%] alcohol-related; mean MELD 13.2 [7–30] transplanted for end stage liver disease/ HCC were included. All were assessed pre-transplantation, as follows: disease severity: MELD and Child Pugh (CP); nutritional status: The Royal Free Hospital-Nutritional Prioritising Tool; HRQOL: Chronic Liver Disease Questionnaire and Euro Qol-5 Dimension Tool; mental health: Beck Anxiety and Depression Indices; disability: Activities (ADL) and Independent Activities of Daily Living (IADL); and frailty: Clinical Frailty Scale, Short Physical Performance Battery and Fried Frailty Criteria plus two composite instruments, the Bristol Prognostic Index and Karnofsky Age MELD Model. Variables associated with the primary outcome (death/retransplantation) were identified using Cox regression analysis. Variables associated with secondary outcomes, including the total units of blood transfused and the length of hospital stay, were identified using linear regression analysis.

**Results** Patients were followed for a mean of 143 [3–326] days; two (7.1%) died and four (14.3%) were retransplanted. IADL was the only tool significantly associated with mortality in this cohort. Each unit increase in the IADL (decreasing frailty) was associated with a 45% decrease in mortality after adjustment for MELD (Hazard Ratio (HR) 0.55, 95% CI, 0.33–0.92). The total mean LOHS was 28 [7–112] days. The CP score was significantly associated with LOHS (F(1, 25) =6.01, p=0.02, R²=0.19); each unit increase in CP was associated with an increase in LOHS of 6.5 days. The mean units of blood transfused was 46 [3–178]; The amount transfused increased by 11.33 (p=0.03) and 4.2 (p=0.01) units for each unit increase in CP and MELD scores respectively.

**Conclusions** Disease severity and functional decline, characterised by the IADL score are significantly associated with short to medium term transplant outcomes in this cohort. Longer-term follow is required to validate these Results.

**PTH-101** ALPPS: TECHNIQUE TO MINIMISE SMALL FOR SIZE SYNDROME AFTER MAJOR HEPATECTOMY FOR NEUROENDOCRINE TUMOUR METASTASES

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**Introduction** Hepatic resection has emerged as an effective treatment for secondary liver neuroendocrine tumours. Associated liver partition and portal vein ligation for staged hepatectomy (ALPPS) allows resection of liver tumours in two steps. We present our experience in ALPPS procedure as a Method which can minimise small for size syndrome, and provide an oncological benefit to borderline resectable neuroendocrine tumours within acceptable safety profile.

**Methods** 4 patients (male: female: 1:1) underwent ALPPS procedure for clearance of the metastatic liver disease. Liver segments I, IV-VIII were resected for each patient. Two of the patients had bi-lobar disease. Clearance to future liver remnant (FLR) was achieved with non-anatomical liver resection in one case and with irreversible electroporation to the other as the lesion was adjacent to the left hepatic vein during the 1st stage of the ALPPS procedure. Two patients underwent ALPPS...