Liver III

PTH-076 DRIED BLOOD SPOT TESTING FOR HEPATITIS B AND C IN THE CHINESE COMMUNITY LIVING IN NORTHERN IRELAND

¹AA Mccurley*, ²N McDougall. ¹NI Regional Hepatitis BandC MC Network, Belfast Health and Social Care Trust, Belfast, UK; ²The Liver Office, Royal Victoria Hospital, Belfast, UK

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Introduction The epidemiology of hepatitis B and C in Europe is changing, with migration causing significant increases in prevalence rates. Northern Ireland still has a very low prevalence of viral hepatitis, with an average of 80–100 HBV and 100–120 HCV cases being diagnosed every year. Certain groups however are at higher risk of infection including those born in high or intermediate endemic areas.

Aim The aim was to set up a single viral hepatitis community screening event to offer testing to members of the Chinese community in Belfast and determine the prevalence of HBV and HCV in those tested.

Methods Members of the Belfast Chinese Community were invited to attend a Hepatitis BandC awareness and testing session held in the Chinese Welfare Centre. All those attending for testing were educated regarding the advantages and disadvantages of screening through a presentation (translated) and literature. Dry blood spot (DBS) testing was used as an alternative to venous sampling to try and encourage participation. All patients (and their GPs) were informed of results by letter. Those with positive HBsAg or positive HCV antibody individuals were contacted by letter and also by telephone with the assistance of an interpreter and asked to attend a hospital clinic. Those who tested HBsAg negative and HBcAb positive were advised to attend their GP surgery for follow up HBV serology and HBV DNA. HIV testing was offered to all those with a positive result.

Results 97 individuals expressed an interest in coming forward testing but 29 (30%) could not be screened as they were not registered with a GP in Northern Ireland. Of those that attended the event 55 individuals were tested (62% female, mean age 47, range 22–67). 13 (24%) individuals tested.

HBsAg negative and HBcAb positive, - suggesting previous infection. Five patients (9%) individuals tested positive for chronic viral hepatitis – 4 were HBsAg positive and 1 was HCV PCR positive. All 5 subsequently attended a hepatology clinic for follow-up.

49 (89%) of those presenting for testing reported they had never been vaccinated against HBV.

Conclusion DBS testing of a sample of the Chinese community living in a low prevalence area of the UK can detect chronic viral hepatitis in 9%. In addition, one third of those requesting screening were not registered with a GP and therefore could not be detected by current NHS services. This suggests that the NHS need to consider setting up screening services for ethnic communities even in low prevalence areas of the UK.

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REFERENCES

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PTH-077 GEOGRAPHICAL MAPPING OF HEPATITIS C INFECTION IN NORTH EAST SCOTLAND USING A GEOGRAPHICAL INFORMATION SYSTEM (GIS)

¹A Mukhopadhyay*, ¹L Nesbit, ²D Green, ¹A-M Sinclair, ¹P Dundas, ¹B Vijayan, ¹S English, ¹L Mclellan, ¹A Fraser. ¹Gastroenterology, Aberdeen Royal Infirmary, Aberdeen, UK; ²Department of Geography and Environment, University of Aberdeen, Aberdeen, UK

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Introduction Chronic HCV infection affects around 37,500 people in Scotland. A Geographical Information System (GIS) allows exploratory data analysis (EDA), mapping and visualisation of geographical data. GIS can be used to illustrate the geographical patterns and distribution of HCV infection to aid on the planning services for treatment of these patients

Methods Data was extracted from the NHS Grampian Hepatitis C database between the years 2002 to 2013 and input to the ESRI ArcGIS software. For confidentiality, each case was mapped utilising the first half of their postcodes. The Scottish Index of Multiple Deprivation was used to calculate the average deprivation score for each postcode sector. Exploratory data and statistical analysis were undertaken using Spearman's rank correlation coefficient.

Results A total of 2114 patients with hepatitis C were identified from the local NHS Grampian Hepatitis C database. The overall prevalence of hepatitis C in the Grampian region was 523 cases per 100,000 population. The highest rate of hepatitis C was from AB11 in Aberdeen city, with 1440/100,000 individuals. The area with the lowest occurrence was AB38 in rural Aberdeen with 21/100,000 individuals. The higher prevalence areas corresponded to Aberdeen city and the towns of Peterhead and Fraserburgh. Outreach centres for treatment of hepatitis C were adequately stationed in high prevalence areas. The most deprived post code, AB16 in Aberdeen city, had a rate of 940/100,000 populations. There was no statistical significance between the diagnosis of hepatitis C infection and deprivation scores of the post codes studied. There was a significant correlation between the percentage of untreated patients and average deprivation score with a correlation coefficient of -0.333 ($p < 0.05$).

Conclusion In this study GIS is useful to explore, visualise and present the data in a spatial context, highlighting areas with high prevalence and where individuals are being treated and where they are not. The Outreach centres were shown to be appropriately located. The higher prevalence in urban regions mirrors risk factors like drug usage in these areas. A statistically significant correlation, albeit not very high, was shown between the percentage of untreated patients and levels of deprivation. This may mean that more emphasis needs to be placed on assisting those individuals who live in the most deprived areas to gain access to the treatment programmes which are available. Aberdeen Royal Infirmary is the only referral hospital for the treatment of hepatitis C and it is likely that the study underestimates the true prevalence of the infection due to a referral bias

Disclosure of Interest None Declared.

PTH-078 FORWARD PROGRESS OR FINANCIAL EXTRAVAGANCE? COUNTING THE COST OF NICE GUIDELINES FOR CHRONIC HEPATITIS B

¹B Hudson*, ²H Badham, ¹TY Lim, ¹H Morrison, ¹CA McCune, ¹AJ Portal, ¹PL Collins, ¹FH Gordon. ¹Department of Hepatology, University Hospitals Bristol NHS Trust, Bristol, UK; ²Department of Pharmacy, University Hospitals Bristol NHS Trust, Bristol, UK

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Introduction An estimated 180,000 people in the UK are chronically infected with hepatitis B (HBV). NICE guidelines published in 2013 advocate changes in the management of this patient group. Recommendation toward use of peginterferon alfa-2a (PEG-IFN) as first line therapy, a reduced threshold for treatment initiation, and the monitoring of chronically infected individuals with annual elastography hold particular resource implications.

University Hospitals Bristol (UHB) serves a largely urban population of approximately 350,000, encompassing large immigrant communities, including a Somali population of approximately 10,000. UHB provides an elastography service to an additional 3 district hospitals.

Through analysis of our existing HBV patient population the resource implications of adopting 2013 NICE guidelines, in contrast to 2012 EASL guidelines, are assessed.

Methods Local HBV databases were scrutinised to identify all HBV patients attending over a one year period from november 2012. Patients defaulting follow-up during this period were excluded. A cost of treatment analysis was undertaken by reassessing each patient's treatment eligibility according to 2013 NICE guidance. Additional monitoring and clinic follow up costs were also calculated.

Results 154 patients were identified, 93 of whom were receiving antiviral nucleos (t)ide analogue treatment (24 initiated). 2 had initiated PEG-IFN. 61 were under monitoring only.

All 24 patients starting therapy met NICE criteria for PEG-IFN, the excess cost of which was £137,003 over a 1 year period. The estimated additional number of treatment clinic visits for this group is 202 (assuming an extra 8.4 visits/patient initiated). This analysis does not include increased demand for liaison psychiatry and virology services. There would be 109 extra elastography appointments required for this cohort alone, amounting to a further 28 clinics a year. 3 district general hospitals currently refer patients to UHB for elastography, and this analysis does not account for the inevitable increase in such referrals.

Conclusion Implementation of 2013 NICE guidelines for management of chronic HBV represent a significant challenge to NHS resources. In addition to increased drug expenditure, markedly increased clinic capacity and specialist nurse provision will be required in our centre to facilitate increased use of PEG-IFN and to provide sufficient transient elastography for our region. Additional demands on virology and liaison psychiatry services are also likely. Practical suggestions for improving efficiency and capacity, such as 'one stop' fibroscan and follow up clinics, are discussed.

Disclosure of Interest None Declared.

PTH-079 TENOFOVIR AND ENTECAVIR IN THE TREATMENT OF CHRONIC HEPATITIS B: EFFECTIVENESS AND SAFETY IN A SINGLE CENTRE EXPERIENCE

DK Hanumantharaya*, R Khan, M Wilkinson, T Wong, G Tritto. *Gastroenterology, Guy's and St Thomas Hospital, London, UK*

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Introduction Tenofovir and Entecavir are direct acting antivirals used in the treatment of chronic hep B infection. We describe our hospital experience of the effectiveness of these antiviral drugs in terms of HBeAg seroconversion, development of drug resistance and incidence of hepatocellular carcinoma during treatment.

Methods All patients treated with Tenofovir or Entecavir between 2010 and 2013 at Guy's and St Thomas hospital trust were identified from hospital pharmacy database. Baseline HBV DNA levels, ALT and albumin levels were recorded on three monthly intervals for upto 48 months.

Results A total of 132 patients were identified. 84 patients were on Tenofovir (17 pregnant women). Among them, 38% (n = 32) were HBeAg positive, and 26% (n = 22) were cirrhotic. The remaining 48 patients were on Entecavir. Of these, 27% (n = 13) were HBeAg positive and 31% (n = 15) were cirrhotic when treatment was started. The mean baseline HBV DNA levels for HBeAg positive patients were 7.0 log 10 IU (P = 0.0170) and 5.4 log 10 IU (P = 0.0153) for Tenofovir and Entecavir respectively. The mean baseline HBV DNA levels in cirrhotic patients were 4.6 log 10 IU and 4.7 log 10 IU for Tenofovir and Entecavir patients respectively.

Sub group analysis showed that HBeAg negative patients achieved early undetectable viral loads (mean 2.1 months on tenofovir, mean 2.8 months on entecavir). HBeAg positive patients achieved undetectable viral loads relatively later (mean 11 months on Tenofovir, mean 9 months on Entecavir).

HBeAg seroconversion was achieved in 19% (n = 6) of patients on Tenofovir and 15% (n = 2) of patients on Entecavir. Treatment with both antivirals was associated with improvement in synthetic function in cirrhotic patients. Drug resistance occurred in one patient on Entecavir and none of the patients on Tenofovir. Four patients (2 patients on Tenofovir and 2 on Entecavir) developed hepatocellular carcinoma during treatment, all of whom were cirrhotic prior to treatment.

Among the 17 pregnant patients treated with Tenofovir, 10 patients were HBeAg positive. The mean pre-treatment baseline HBV DNA levels were 6.8 log 10 IU. HBeAg seroconversion was noted in 2 patients.

Conclusion Treatment of chronic hepatitis B infection with both Tenofovir and Entecavir were well tolerated. Undetectable viral loads were achieved in both groups within 12 months of starting treatment. HBeAg seroconversion was noted in 19% (n = 6) patients treated with Tenofovir and 15% (n = 2) patients treated with Entecavir. Overall there was no significant difference in the mean time to undetectable viral loads in patients treated with Tenofovir (7.5 months) and Entecavir (6.1 months).

REFERENCE

Marecellin P, Heathcote EJ, Buti M, *et al.* NICE-Entecavir for the treatment of chronic hepatitis B.

Disclosure of Interest None Declared.

PTH-080 RISK PROFILE FOR NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD) IN A PAEDIATRIC SPECIALIST CARE SETTING

¹FWD Tai*, ¹Y Derwa, ²S Naik, ¹W Alazawi. ¹Department of Gastroenterology, Blizard Institute, Queen Mary University of London, London, UK; ²Department of Paediatric Gastroenterology, Barts Health NHS Trust, London, UK

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Introduction Non-alcoholic fatty liver disease (NAFLD) is a major cause of liver dysfunction in adults. Much less is known about this disease in children, although obesity and metabolic dysfunction are believed to be risk factors. In England the prevalence rates of obesity in children in Reception classes (age 4) and Year 6 (age 11) are 10.8% and 22.4% ^[1] respectively in 2012/13. In inner city populations such as those served by The Royal