

Oral Presentation

TITLE	Mortality and Morbidity of Hepatitis E in Scotland: Preliminary Results from NHS Grampian and Greater Glasgow and Clyde
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ABSTRACT DETAILS:	
Background:	Within Scotland the IgG seroprevalence and reported cases of acute hepatitis e virus (HEV) have significantly increased in the past decade. ¹ Roughly 70% of HEV infections are asymptomatic ² , the remainder usually developing a self-limiting hepatitis. However HEV can cause decompensation and carry a high mortality in chronic liver disease. Immunocompromised patients are also susceptible to more severe forms of the disease and can develop a chronic hepatitis. Furthermore extra-hepatic manifestations of HEV infection include Guillain-Barré syndrome, neuralgic amyotrophy, encephalitis and acute kidney injury. ³ This study aims to record the burden of morbidity and mortality (MM) for all cases of HEV within each NHS health board in Scotland.
Method:	Demographic, clinical and laboratory data were collected retrospectively from all cases of HEV reported to virology departments at health boards across Scotland. Hospital records were reviewed by clinicians working within each hospital. Data was anonymised at hospital level. These are the preliminary results from NHS Greater Glasgow and Clyde (NHSGGC) and NHS Grampian (NHSG).
Results:	Between January 2008 and January 2018, 350 cases of acute and chronic HEV were reported (NHSGGC 227, NHSG 123). The most recent 142 cases from 2017 and 2016 (Grampian 54, GGC 88) had a mean age of 59yrs with 87 male and 55 female. 18 (12.7%) cases had pre-existing cirrhosis and 34 (23.9%) had diabetes. HEV infection affected 7 transplant patients and 17 other immunosuppressed patients. Of these, 2 patients received ribavirin therapy and 5 had their immunosuppressive medication withheld or reduced. Two (1.4%) HEV related deaths were recorded, both with pre-existing cirrhosis. 11 (7.7%) patients required admission to a critical care unit (5 ICU, 6 HDU). 103 patients required hospital admission. (72.5%) A total of 1029 patient days in hospital were required with a median hospital stay of 3.5 days. 10 (7%) patients developed acute-on-chronic liver failure (ACLF) with 1 requiring transplant. 18 (12.7%) Patients reported neurological complications with 4 patients developing neuralgic amyotrophy, 3 Guillain-Barré, 2 encephalitis and 9 reporting other symptoms such as neuralgia or paraesthesia. 16 (11.3%) patients had a documented acute kidney injury.
Conclusions:	These data show that locally acquired HEV causes a significant burden of disease, with a high number of in-patient bed days and 7.7% requiring at least level 2 care. HEV infection is associated with cirrhosis, diabetes and immunocompromised patients. Neurological and renal complications occur in a minority of cases. An ongoing, comprehensive study of the morbidity and mortality associated with HEV infection in all Scottish Health Boards will provide data to help improve diagnosis and management of this condition.
References:	<ol style="list-style-type: none"> 1. Thom, K, Gilhooly, P, McGowan, K, Malloy, K, Jarvis, LM, Crossan, C, Scobie, L. 'Hepatitis E virus (HEV) in Scotland: evidence of recent increase in viral circulation in humans' <i>Eurosurveillance</i>, vol 23, no. 12., 10.2807/1560-7917 2. Guillois Y, Abravanel F, Miura T, Pavio N, Vaillant V, Lhomme S, et al. High proportion of asymptomatic infections in an outbreak of hepatitis E associated with a spit-roasted piglet, France, 2013. <i>Clin Infect Dis</i>. 2016;62(3):351-7. 3. Wallace S, Webb G, Madden R Dalton HC et al 2017. Investigation of liver dysfunction: who should we test for hepatitis E? <i>Eur J Gastroenterol Hepatol</i>. 2017 Feb;29(2):215-220. Doi: 10.1097/MEG