

Abstract Submission Form

TITLE	Liver Transplantation in Scotland: is deprivation a barrier to referral and listing?
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ABSTRACT DETAILS:	
Background:	Mortality related to chronic liver disease has decreased in last 15 years in Scotland. Those in the most deprived areas are more likely to die ¹ . Transplantation is the only effective long term treatment for advanced liver disease. We investigated the links between deprivation, access to transplant assessment and outcomes in Scotland.
Method:	Records for patients assessed between January 2009 and December 2013 at the Scottish Liver Transplant Unit (SLTU) were accessed. Patients assessed for the first time, with chronic liver disease (with or without hepatocellular carcinoma (HCC)) and a Scottish postcode were included (n=652). Data were collected on patient demographics, aetiology of liver disease, MELD, UKELD, presence of HCC and months waited from decompensation/detection of HCC to assessment. Deprivation scores were collected from the Scottish Index of Multiple Deprivation ² (SIMD), and based on postcode at assessment. Listing decision and outcomes if listed were recorded. Data from the Scottish Public Health Observatory website on the number of chronic liver disease deaths were used to estimate the total number of people in Scotland with advanced liver disease. SIMD scores were paired or placed in two groups (1-5 vs. 6-10).
Results:	<p>Patients were split into quintiles to assess the relative risk of referral according to SIMD:</p> <p>Group 1 (SIMD 1 and 2; n=175; median MELD=15 (6-45); deaths on the list=5; liver disease mortality in Scotland n=1848)</p> <p>Group 2 (SIMD 3 and 4; n=139; median MELD=16 (6-49); deaths on the list=9; liver disease mortality in Scotland n=1104)</p> <p>Group 3 (SIMD 5 and 6; n=131; median MELD=16 (7-33); deaths on the list=7; liver disease mortality in Scotland n=712)</p> <p>Group 4 (SIMD 7 and 8; n=108; median MELD=17 (7-40); deaths on the list=8; liver disease mortality in Scotland n=525)</p> <p>Group 5 (SIMD 9 and 10; n=99; median MELD=15 (6-36); deaths on the list=6; liver disease mortality in Scotland n=378)</p> <p>We calculated the relative rate of referral for each group with the following calculation: (number of referrals/ ((number of referrals-deaths on the list) + liver disease mortality in Scotland)). This was plotted against the total number of referrals in each group. This showed a negative correlation indicating that the most deprived were less likely to be referred than more affluent. $R^2=0.904$.</p> <p>No significant difference was detected in median UKELD (54 vs. 55; (p=0.063)) or MELD scores (15 vs. 16; (p=0.425)) when comparing the least to the most deprived. No difference in the number listed was found (210 vs. 172; (p=0.119)). No difference was seen in the presence of HCC (122 vs. 77; (p=0.195)), death</p>

	rates on the list (19 vs. 18; (p=1.000)) or the median wait on the list (3 months vs. 2; (p=0.752)).
Conclusions:	Those from the most deprived areas are less likely to be referred for transplant than those from more affluent areas of Scotland. Severity of liver disease is similar; once referred they have a similar chance of being listed. Once listed, more deprived patients are no more likely to die on the list and don't wait longer for transplant than more affluent patients.
References:	1. https://www.scotpho.org.uk/health-wellbeing-and-disease/chronic-liver-disease/key-points/ - accessed 14/10/2019 2. https://www2.gov.scot/Topics/Statistics/SIMD - accessed 07/08/2019

A graph comparing the number of patients assessed in each paired SIMD group to the chance of being assessed

