

NHS BLOOD AND TRANSPLANT
ORGAN DONATION AND TRANSPLANTATION DIRECTORATE
BOWEL ADVISORY GROUP
POSTCODE ANALYSIS OF INTESTINAL TRANSPLANT PATIENTS

SUMMARY

INTRODUCTION

- 1 This paper presents a visual comparison of rates of registration to the intestinal transplant list with rates of intestinal transplantation. The results should be regarded as guidance only due to the limited amount of data available.
- 2 This analysis does not attempt to study equity of access to the intestinal transplant list and does not include any statistical test to ascertain whether the rates of registration and transplantation across different regions in the country are statistically significantly different or not.

DATA ANALYSIS

- 3 All English residents who were registered onto the intestinal transplant list between 1 April 2011 and 31 March 2016 were extracted from the UK Transplant Registry (UKTR) on 12 September 2016 (numerator). Patients were assigned to Strategic Health Authorities (SHA) in England using their postcode of residence as reported at registration. The number of registrations per million population (pmp) by SHA was obtained using mid-2014 population estimates based on the Office for National Statistics (ONS) 2013 Census figures (denominator).
- 4 The intestinal transplant rates pmp were obtained as the number of intestinal transplants between 1 April 2011 and 31 March 2016 (numerator) divided by the mid-2014 population estimates from the ONS (denominator).
- 5 The registration rates pmp were categorized into four groups – low, low-medium, medium-high and high – based on the quartiles of their distribution and visualised in a map using increasing shades of colour for higher rates. Registration rates pmp were overlaid with transplantation rates pmp for a visual comparison.

ACTION

- 6 This visualisation is presented for information of BAG members, who are asked to note the results and agree any actions required.

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INTRODUCTION

- 1 Rates of registration to the intestinal transplant list pmp are visually compared in this paper with intestinal transplant rates pmp, by English SHA of patient residence.
- 2 Data on hospital admissions from intestinal disease or referral to intestinal transplant centres have not been analysed. It is therefore impossible to quantify from this analysis the number of patients who are eligible for intestinal transplantation but who do not make it into the transplant list because they are lost through the referral process.
- 3 This analysis does not attempt to study equity of access to the intestinal transplant list and does not include any statistical test to ascertain whether the rates of registration and transplantation across the country are significantly different or not. It presents a simple visualisation that compares registration and transplant rates and, due to the limited amount of data available, results should be regarded as guidance only.

DATA AND METHODS

- 4 All English NHS group 1 residents who were registered onto the intestinal transplant list between 1 April 2011 and 31 March 2016 were extracted from the UKTR on 12 September 2016 (numerator). Patients were assigned to SHA in England using their postcode of residence as reported at registration. The number of registrations pmp by SHA was obtained using mid-2014 population estimates based on the ONS 2013 Census figures (denominator).
- 5 The intestinal transplant rates pmp were obtained as the number of NHS group 1 intestinal transplants between 1 April 2011 and 31 March 2016 (numerator) divided by the mid-2014 population estimates from the ONS (denominator).
- 6 The registration rates pmp by SHA were categorized into four groups – low, low-medium, medium-high and high – based on the quartiles of their distribution and visualised in a map using increasing shades of colour for higher rates. Registration rates pmp were overlaid with transplantation rates pmp for a visual comparison.

RESULTS

- 7 In **Figure 1**, **rates of registration** to the intestinal transplant list pmp between 1 April 2011 and 31 March 2016 are compared with intestinal **transplant rates** pmp for the same time period, by English SHA of patient residence.
- 8 **Table 1** and **Table 2** report on the number of registrations and number of transplants that inform **Figure 1**. Note that registration and transplant rates are based on small numbers and, therefore, the results should be interpreted with caution.

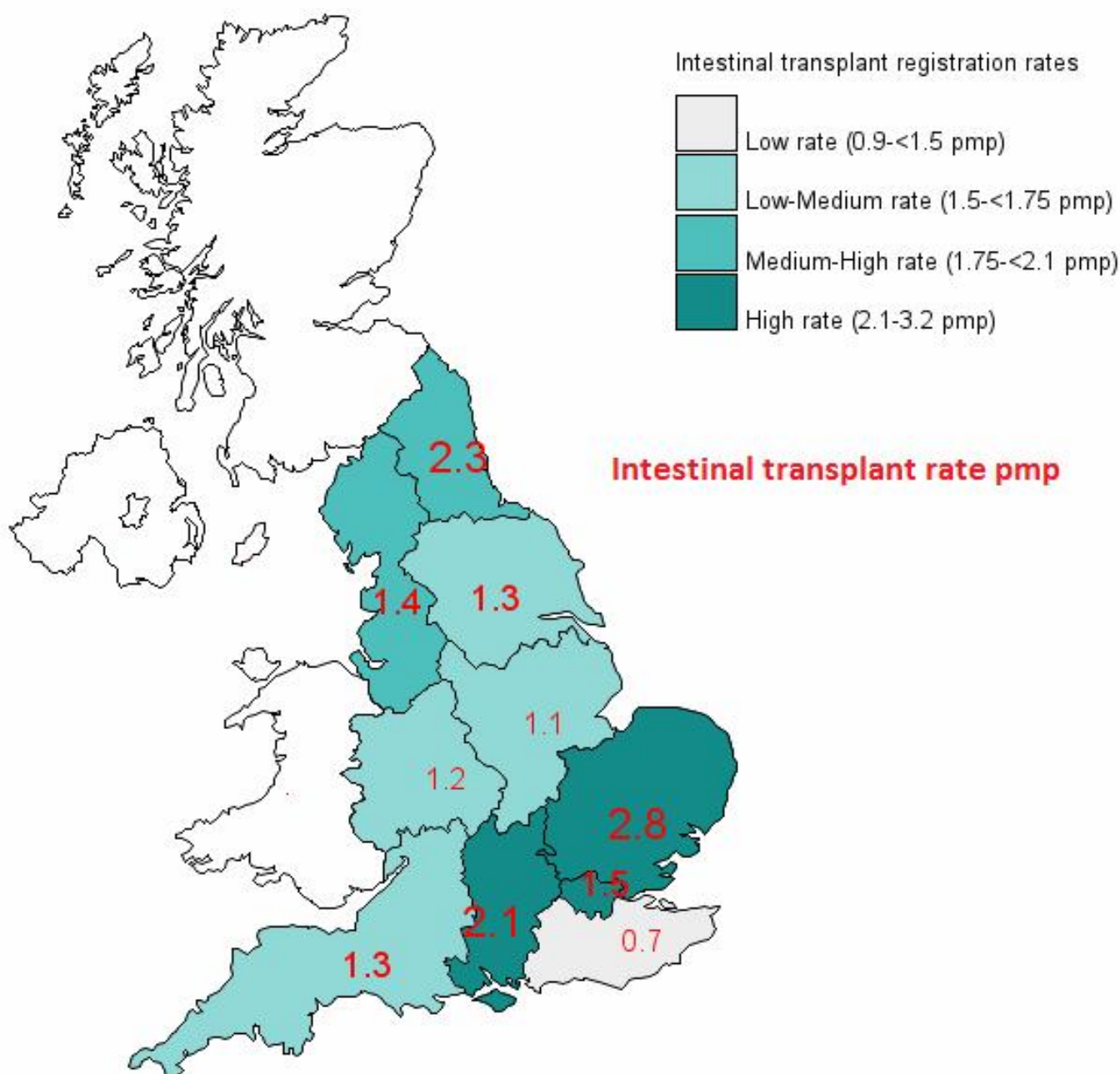


Figure 1 Comparison of intestinal **registration rates** to the transplant list pmp with intestinal **transplant rates** pmp by English SHA.

- 9 In **Figure 1**, London shows one of the highest registration rates pmp (2.1) but a relatively low transplant rate pmp, at 1.5. In contrast, the North East shows the second highest transplant rate pmp, at 2.3, and a moderate registration rate pmp, at 1.9.

Table 1 Number of intestinal registrations to the transplant list for NHS group 1 recipients between 1 April 2011 and 31 March 2016, by English SHA of patient residence.

SHA	Number of registrations	Registrations per million population
East Midlands	7	1.5
East of England	19	3.2
London	18	2.1
North East	5	1.9
North West	13	1.8
South Central	9	2.1
South East Coast	4	0.9
South West	9	1.7
West Midlands	9	1.6
Yorkshire and the Humber	8	1.5

Table 2 Number of transplants involving the small bowel onto NHS group 1 recipients between 1 April 2011 and 31 March 2016, by English SHA of patient residence.

SHA	Number of transplants	Transplants per million population
East Midlands	5	1.1
East of England	17	2.8
London	13	1.5
North East	6	2.3
North West	10	1.4
South Central	9	2.1
South East Coast	3	0.7
South West	7	1.3
West Midlands	7	1.2
Yorkshire and the Humber	7	1.3