

**Proximity to transplant centre and outcome among UK liver transplant patients**

**Background**

Liver transplantation is a life-saving procedure that benefits almost 1,000 people per year in the UK, where it is performed in seven transplant centres distributed across the country. Unfortunately, a proportion of patients die before they receive a new organ.

In the USA, there are reports that those living more distant from transplant centres are more likely to die before receiving liver transplants and less likely to receive transplants overall than those living closer to transplant centres. We sought to assess whether proximity to transplant centre was associated with outcome in the UK.

We used the BlueBEAR high performance computer cluster and StataMP to perform a multivariable competing risks analysis (between receiving a transplant and death) on a cohort of 17,186 listings for liver transplantation. We also analysed outcomes after transplantation and modelled where in the UK a new transplant centre might be placed to most reduce future travel.

**Results**

We demonstrated:

- A wide variation in UK patients' proximity to the current network of liver transplant centres.
- Worse outcome for those listed for transplantation who lived further (in both distance and travel time) from transplant centres: these patients were more likely to die before transplantation and less likely to receive a transplant.
- No differences in outcome for those who received liver transplants following transplantation.
- That the optimum location in terms of reducing travel for a new liver transplant centre would be Bristol.

The paper is freely available at <https://doi.org/10.1111/ajt.15004>

Case study



**Client Profile**

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**Product Used**

StataMP

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