

**NHS BLOOD AND TRANSPLANT**

**ORGAN DONATION AND TRANSPLANTATION DIRECTORATE**

**LIVER ADVISORY GROUP**

**SUMMARY FROM STATISTICS AND CLINICAL STUDIES**

## **INTRODUCTION**

- 1 This paper provides an update from Statistics and Clinical Studies and summarises recent presentations, publications, current and future work.

## **UPDATE FROM STATISTICS AND CLINICAL STUDIES**

### **Centre specific reporting**

- 2 Transplant centre specific reporting in the public domain is long established and historically has been in a number of formats. There is an increasing need for transparency and all Advisory Groups have been keen for openness and the public availability of data and information.
- 3 There are currently a number of drivers prompting a review of the information that is provided by NHSBT:
  - a. Need for a more coordinated, easy to access set of centre reports
  - b. Revised contractual arrangements with NHS England for audit reports (historically only covering cardiothoracic and liver transplantation)
  - c. Requests for information to support Clinical Reference Groups
  - d. Use of [www.odt.nhs.uk](http://www.odt.nhs.uk) as a suitable platform to publish data
- 4 Transplant centre information is currently available from NHSBT through a series of different reports and media. These include:
  - a. Annual Activity Report (basic activity data only)
  - b. Centre Specific Reports on [www.odt.nhs.uk](http://www.odt.nhs.uk) – including waiting times, cold ischaemia times and post-transplant survival rates, with funnel plot analyses in some cases
  - c. NHSBT Audit Reports – focussing on patient outcomes of liver and cardiothoracic organ transplant patients
  - d. Advisory Group papers (now available at [www.odt.nhs.uk](http://www.odt.nhs.uk))
    - i. These include CUSUM reports of short term outcome centre monitoring for some groups
- 5 Over the coming year reporting will be streamlined such that other than the Annual Activity Report which provides basic activity data, where possible, centre reports to be published will be produced once a year with shorter, interim reports produced six months after each full report.
- 6 These reports will:
  - a. Cover all transplant centres
  - b. Include named centre data
  - c. Be validated by centres before publication

- d. Be available publically (at [www.odt.nhs.uk](http://www.odt.nhs.uk))
  - e. Include all information requested routinely by third parties so that centres are aware of and have chance to validate all data that are to be published.
- 7 It is anticipated that the reports cover a five to ten year period for trends but focus on the latest financial year in more detail, and include the following as a minimum (where appropriate for each organ):
- a. Basic waiting list and transplant activity data
  - b. Basic demographic data for waiting list and transplants
  - c. Median waiting times and outcomes from listing
  - d. Offer decline rates
  - e. Cold ischaemia times
  - f. Centre specific mortality and survival outcomes
    - i. Unadjusted and risk-adjusted graft and/or patient survival rates
    - ii. funnel plots for between centre comparisons
    - iii. CUSUM charts for continuous monitoring of centre performance
- 8 The Statistics and Clinical Studies team are currently drafting reports. Stakeholder engagement will involve NHS England and the Solid Organ Advisory Groups. Working with the Advisory Groups, the reports will evolve over time to ensure comprehensive reporting and also that analyses remain relevant and timely. It is expected that the needs of regular users of such data, eg NHS England and the Clinical Reference Groups, will be met through the coverage of this annual review, offering transplant centres assurances about the data that NHSBT share about them and streamlining the provision of information from NHSBT.

## CONFERENCE PRESENTATIONS

- 9 An oral presentation on 'Liver Transplantation – a centre specific view' was given at the UK & Republic of Ireland liver group meeting on 10<sup>th</sup> January 2014.

## CURRENT AND FUTURE WORK

- 10 A report was prepared for the Hepatobiliary Clinical Reference Group of NHS England which analysed the geography of liver transplant. Refer to item 'Liver transplant demand and capacity review' in Agenda.
- 11 The 2012 - 13 NHSBT audit report for liver transplantation was prepared and submitted to NHS England. The interim 2013 – 14 audit report, including transplants between 1 October 2012 and 30 September 2013, is being prepared. The annual audit report is due to be published in September 2014 in line with the plan outlined above. We are planning to make some changes to the content of the audit report for 2013 – 14, with the inclusion of some additional material. The exact content will be discussed with the LAG or the appropriate sub group in due course.
- 12 A paper describing and validating the linkage of the Liver Transplant Audit data to Hospital Episode Statistics (HES) was recently published in *Transplantation* (*Transplantation*, 26 March 2014, PMID: 24675479).
- 13 Work on the development of a universal Liver Transplant Allocation Scheme (LTAS) was resumed in February 2014 together with the Allocation Fixed-term Working Unit (FTWU) of LAG, comprising:

- a. *Variation of UKELD scores across transplant centres.* Data held by the UK National External Quality Assessment Service (UK NEQAS) on INR, creatinine, bilirubin and sodium quality assessment measurements from the seven UK liver transplant centres was released to NHSBT in February and March 2014. Work is being undertaken to investigate the extent of variation of UKELD components across transplant centres and its potential effect on the universal LTAS.
  - b. *Risk-adjusted survival analysis* from the time of registration and post liver transplant to model allocation based on transplant need, utility and benefit.
  - c. *Simulation of different allocation models;* actual, needs based, utility based and transplant benefit allocation.
  - d. *Sequential data collection and analysis.* Clinical status monthly data for adult patients registered on the national elective liver transplant list has been submitted to NHS BT by all transplant centres for the period December 2012 to December 2013. A statistical analysis has been undertaken to investigate the change of UKELD components in time for individual patients, and the importance of taking account of such a rate of change in the universal LTAS.
  - e. *Death on the liver list data collection.* Transplant centres were asked to submit, before the end of January 2014, information on all adult elective patients who have died on the liver transplant list. Only Newcastle and Edinburgh have provided these data to date.
- 14 Work on the development of a score card to capture the key metrics of centre specific transplant activity. Refer to item 'Activity and organ utilisation score card' in Agenda.
  - 15 There are currently seven applications for national liver transplant data being processed.
  - 16 Work on an analysis looking at whether a patient should accept a liver from a donor after circulatory death or remain on the transplant list with the chance of receiving a liver from a donor after brain death in the future has been put on hold due to changing priorities. To resume this work, a clinical lead will be required.
  - 17 Comparison of the outcome of DCD livers accepted within a region with those offered and accepted outside a region has been put on hold due to changing priorities. To resume this work, a clinical lead will be required.

**Rachel Johnson**  
**Head of Organ Donation and Transplantation Studies**  
**Statistics and Clinical Studies**

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