NHS BLOOD AND TRANSPLANT

LIVER ADVISORY GROUP

A-ALDLT – FTWU Interim Report

Due to the greater availability of deceased donors (especially DCD grafts) and the use of split liver grafts, Living Donor Liver Transplantation (LDLT) continues to comprise a small percentage of transplants performed in the UK. Between April 2012 and March 2013 there were 705 adult and 79 paediatric deceased donor liver transplants (DDLT) performed, of which 112 were split liver grafts. Over the same period, 33 LDLT were performed; 11 were adult to adult right lobe grafts and 22 were adult to child left lateral grafts, accounting for 7% of the total number of LT performed over the year, the majority being performed by 3 centers.

Obvious advantages of LDLT over DDLT include the ability to provide transplantation before the recipient becomes too ill, a knowledge of donor history, avoidance of the physiologic derangement induced by brain death in the donor, and reduced cold ischemic time. These advantages are balanced by the obvious risk to the donor (mortality 0.2-0.5%; morbidity 42%), the additional technical complexity of receiving a partial graft with smaller vessels and bile ducts, and the need for careful medical and surgical judgment in choosing the appropriate donor and recipient. While the risk-benefit ratio may be in favor of LDLT in some parts of the world, the most appropriate role for LDLT in the UK is still to be defined.

In the US the A2ALL consortium has provided definitive evidence for the use and safety of LDLT. Within the A2ALL consortium, one of the first observations was the significant learning curve: improved graft survival was found after the first 20 cases at each center. Similar findings have been reported from other large centers: where patient and graft survival improves significantly with increased volume and greater center experience.

In 2013 NHS England posed 4 questions to LAG:

a. Estimate the annual volume – can we predict the need?
b. What would be the optimum number of A-ALDLT centers in England – should the number of centers be restricted?
c. Are there clinical reasons for restricting ALDLT to centers providing adult-to-child LDLT?
d. Should the standards be revised – should listing criteria for A-ALDLT be different to DDLT?

This was the task of a FTWU comprising Prof. D Manas (Chair), Prof. N Heaton, Mr E Hidalgo, Mr C Imber and Miss L Burnapp.

In order to answer the questions adequately it was felt that there needed to be ‘professional unity’ and ‘buy-in’ from all units. While ‘safety’ was a key element, it was suggested that centers should have the opportunity to re-affirm their interest in performing the procedure and give an update on their progress or lack of it. Although there has been a slow but steady increase year on year, the number of procedures would always be moderately low especially with the significant increase in the number of deceased donors currently available. ‘Expertise’ to perform the procedure was highlighted as an important issue and although volume as a surrogate marker of outcome was not that robust in DDLT, the A2ALL study did attach a figure of 20/year as an aspirational number to avoid life threatening donor complications – and all believed that this should be adhered to. Importantly over the last 5 years no center in

the UK had achieved this – even within the 3 centers performing the largest numbers. Having a robust DDLT program and a high volume HPB service was essential and featured strongly in the current standards document. Restricting A-ALDLT to pediatric centers was felt not to be essential but would help to develop expertise and more importantly, the group felt that adult patients would travel if 'safety' and 'expertise' were the priority. Overall it was felt by all that a much more strategic view needed to be taken, and if patients were to travel, a robust referral process needed to be put in place and a national strategy should be developed.

Following on from this, an on-line survey was carried out and 8 questions were posed:

1. All centers felt that any commissioned centre should be able to perform the procedure if expertizs, need and resource were demonstrated.
2. The majority believed that A-ALDLT should be restricted to fewer centers.
3. No centre felt that there was an issue with equity of access.
4. All felt that patients would travel.
5. No centre believed that paediatric centres had more expertise.
6. All agreed that having a robust HPB resectional program was paramount (>75 cases/year).
7. All centers believed that the recipient should be listed in the 'home' unit for a DDLT.
8. Training and recognised mentors were felt to be the most important aspects to ensure success.

In addition 4/6 centres thought that a national strategy was important.

The issues were discussed again at the **British Liver Transplant Group (BTLG) meeting in Newcastle in September 2014.**

Topics covered were:

Demand and Capacity
The number of centres for England and Wales to ensure quality and safety?
The service delivery model – how do we want it to look
Should LDLT activity increase, decrease or remain stable?
How can donor safety be ensured?
Medical buy in
Development of an appropriate infrastructure and funding (Tariff) to support the UK-wide LDLT programme
Maximise patient benefit for all suitable adult and paediatric LT recipients by improving equity of access from both living and deceased donor organs

Ensure donor safety and welfare is consistently sustained through best clinical practice.

No final decisions were agreed but on the 12th of January 2015 the final meeting will held in London at which time a definitive document will be produced detailing:

1. Number of centres
2. Demand and capacity
3. Robust strategy to maximize benefit and ensure equity across all centres

Prof D M Manas
November 2014