

NHS BLOOD AND TRANSPLANT

LIVER ADVISORY GROUP

Reduce “despatch time” for DCD and Splittable DBD donor livers.

Aim: Improve logistics and prevent delays contributing to prolongation of cold ischaemia time for DCD livers and DBD livers offered for splitting where the two split grafts are shared by two centres.

Problem: Delays of up to 3 hours (after in situ perfusion) in donor livers leaving donor hospitals.

The last few years has seen increasing delays in donor livers leaving the donor hospitals, which may be due to administrative reasons (paperwork) or logistic reasons (waiting for donor team to finish, transport for entire team, etc).

The safe use of DCD and split livers requires cold ischaemia time to be kept as short as possible. Additional delays at donor hospitals may add significantly to CIT for these two groups of livers, which could have a deleterious impact on graft outcomes. This applies particularly to livers retrieved outside the zone of the transplanting team, especially when the recipient surgeon needs to visualise the liver before sending for the recipient. The negative impact of despatching the liver early may be a prolongation of the time required to retrieve the pancreas and kidneys from the same donor. The examples below show the impact of delays on DCD and shared split liver cold ischaemia times.

- 1) DCD livers that need visualising by the recipient surgeon before starting the recipient – 3 hour leaving time, 2 hours journey time, 3 hours recipient anaesthesia + hepatectomy time, this adds up to 8 hours which many of us believe should be the upper limit for cold preserved DCD livers.
- 2) Splittable DBD livers that are retrieved by one centre, split by a second centre and one of the lobes is then exported to a third centre – 3 hour leaving time + 2 hour journey time + 2.5-3 hour splitting time + 2 hour additional 2nd journey time for exported lobe – straight away adds up to 10 hours leaving little time for the second recipient centre to achieve CIT under 12-14 hours, which again many of us believe is the upper limit of safe time for split grafts

This has been discussed at the National Retrieval Forum and Prof Ploeg has proposed a time frame of 60 minutes for the DCD or splittable DBD liver to leave the donor hospital after it has been removed from the donor (eg: liver on ice).

Proposal: Members are requested to consider this target (ie: donor liver to leave donor hospital 60 minutes after removal from the donor) to help improve cold ischaemia times for DCD livers and “shared splittable” DBD livers.

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