

3.2.1 Clinical Governance report – CTAG(16)L2

In a six month period, September 2015 to March 2016, there were 21 reported Incidents where Lung was mentioned as one of the Key words. This is a reduction compared with other recent 6 monthly periods

On analysis, 7 Incidents were unrelated to the Lung

Incidents of Note

The £10k X-ray

A DCD lung had been turned down on history by the local centre, but then accepted by the final centre on the offering sequence. The retrieval team was despatched, by air because of the distance involved. On arrival, the retrieval surgeon gave the history and importantly, sent a photo (by mobile phone) of the X-ray to the recipient surgeon. On viewing the X-ray, he immediately declined the lungs

In the 21st Century, it required a surgeon to travel 300 miles to take a picture, at a transport and team cost of in excess of £10,000.

This Incident was widely discussed. All SNOD's are equipped with an iPad which can take photos, and many have mobile phones similarly equipped. NHSBT have a document setting out the data protection requirements for transmission of images, and have taken a realistic approach, putting patient safety first. There is no bar to sending such images, as long as donor anonymity is respected, a secure (eg Trust email or NHS.net address) email address is used and the recipient undertakes to delete the images at the earliest stage.

This principle is important for X-rays, but extends to images of other useful information, such as ECG's, Echo's etc

SNOD's and Scouts should be encouraged to send images if they are likely to affect acceptance or recipient selection

Early Inflation of the DCD Lung

There were several incidents reflecting confusion over timing of re-intubation and lung inflation in DCD Lung retrieval. On one occasion, the SNOD complained that the surgeon had not waited for 10 minutes to re-intubate.

All involved were reminded that re-intubation, and protection of the airway is allowed at 5 minutes, but first inflation should wait 10 minutes (because of concerns of heart-restart. Cyclical ventilation should be performed only when perfusion of the lungs begins, or the aorta has been clamped.

Wrong Allocation of Scottish Lungs – Paired Zone Issues

On possibly up to three occasions, lungs in Scotland, turned down by Glasgow because they do not perform lung transplants, were not offered to the Zonal team, Newcastle, but went elsewhere in the UK. One pair of lungs were

transplanted by GOS – the recipient had already been admitted by the time the error was noticed. The other lungs were eventually offered to Newcastle on the sequence, when the error was again highlighted.

This problem has been resolved by education of those involved. But with the new NORS arrangements, and increased frequency of non-local teams doing retrieval, there is scope for this error to occur. It will of course be eliminated by central offering when the Hub is in place.

Lessons from Heart Incidents

As noted in the Heart Section, there have been a large number of pulmonary valve homografts lost. Although counting in “heart” Incidents, it is actually a lung retrieval issue

Pulmonary Valve Damage

The most notable trend is the high rate of reported damage to the pulmonary valve when the heart was not being used and valves were being despatched to Tissue Banks. In this 6 month period there were no less than 10 reported instances of pulmonary valve damage

- 2 were damaged by abdominal teams, when there was no CT team present
- Some appear to relate only to a “suture” in the pulmonary artery
- In two the explanation was that a longer length of PA was required for static EVLP, and in a third, the use of the OCS lung Machine

Steps taken

- 1) Discussions were had with a representative of the tissue banks, to explain that there might well be a tied suture in the pulmonary artery, at the cannulation site, if the lungs had been flushed. This should not exclude use of the homograft
- 2) Abdominal teams, who often retrieve the heart for valves when no CT team is present, were reminded, through the Clinical Retrieval Forum, of the importance of cutting the PA at or even beyond, the bifurcation
- 3) A standard approach for any form of EVLP should be to use a length of aorta to facilitate donor lung connection
- 4) Retrieval teams are reminded of the agreed approach of cutting the pulmonary artery at it's bifurcation, as in the Appendix. This approach was agreed some time ago, and yet is circulated at each CTAG