

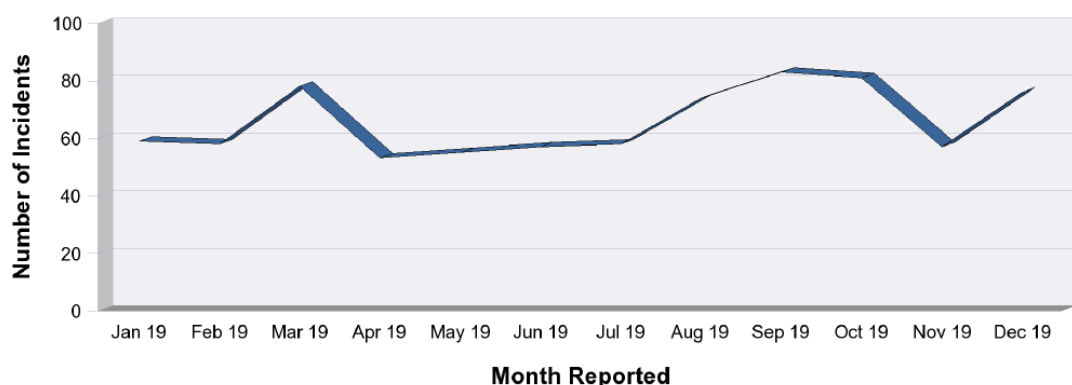
CTAG (L) Advisory Group ODT Clinical Governance Report April 2020

1. Status – Confidential

2. Action Requested

There were no lung specific reports to note during the period since the previous CTAG (L). The below cases relate to heart reports and are therefore highlighted to CTAG (L) for information only.

3. Data



4. Learning from reports

Below is a summary of the findings and learning from key clinical governance reports submitted to ODT:

Date reported: 22nd February 2019

Reference: INC 3840

| What was reported |
|---|
| There was a delay in the heart being handed over to transport which resulted in the heart being declined by the transplant centre due to the increased CIT (timings were already on the border of acceptable). |
| Investigation findings |
| Due to the impact on the recipient and the loss of a transplantable heart, this was raised as a Serious Incident within NHSBT and a full root cause analysis (RCA) completed. |
| Whilst there were a number of contributing factors to this case, the RCA highlighted that there was no clear delineation of responsibility as to who was responsible for taking the organ out to the awaiting driver (SNOD or OPP) and both the SNOD and OPP was of the belief the other was responsible. |

Learning

There were a number of recommendations following the RCA which have been taken forwarded (fed back in Autumn 2019 AG report).

This case also raised the question as to whether it would be beneficial to 'back up' hearts where there is likely to be significant geographical distances between donor and accepting hospitals. Whilst on this occasion the delay was avoidable, it is known that other unavoidable factors can impact such as changing weather conditions preventing planes landing; this can then subsequently lead to the late decline of a transplantable heart due to logistics.

Date reported: 30th August 2019

Reference: INC 4225

What was reported

Proceeding DBD. Due to logistical and surgical complexities (heart-liver patient) a decision was made to transport the heart on the OCS. The NORS team attended the retrieval as standard, and the accepting team also attended theatres with the OCS machine.

During the final stages of the retrieval, a request was made to commence cardioplegia (as standard). Once the cardioplegia delivery was started there was good aortic root pressure and at this point it would be expected that the heart would arrest. After 4-5 minutes it was identified the heart was fibrillating and not arresting. At this point it was highlighted that the concentrated cardioplegia solution had not been added to the bag of ringer lactate that had just been delivered into the aortic root; 40 mmols of Potassium chloride was requested and directly injected into the aortic root.

The retrieval proceeded and the heart was handed over to the accepting team who placed on the OCS. The total time from cross clamp to handing over the heart was 12 minutes. After assessing the heart on the OCS for an hour it was reported that the LV contractions were severely reduced, the heart was oedematous and the lactate levels showed an upward trend a decision was made to not transplant the heart.

Investigation findings

As is standard, an agreement was made that the NORS team would retrieve the heart and pass over to the accepting team to place on the OCS. The NORS team arrived and to ensure no delay in retrieval, commenced the retrieval whilst awaiting the accepting team to arrive.

The NORS team had a brief discussion regarding cardioplegia preparation prior to commencing and it was decided to await the accepting centres team's arrival to clarify the solution to be used as it is known that different centres request different cardioplegia.

Following the accepting teams arrival discussions were had regarding cardioplegia close to cross clamp (due to the arrival timings); initially the

request was for the NORS team to use what they would normally, however there was then discussions around the size of the bags used. Due to a lack of availability of the size bags the accepting team requested, the NORS team prepared the usual cardioplegia solution 5 minutes prior to cross clamp.

When the heart did not arrest it was identified that the cardioplegia had not been added to the solution and immediate steps to rectify were taken.

Learning

There were a number of points to highlight for either learning or further discussions:

1. The differences in cardioplegia solution led to a deviation to the 'standard' practice of the NORS team. Consideration should be made to having a national agreement of cardioplegia to prevent last minute request of what is utilised.
2. The NORS team have now implemented clear drug addition labels for fluids. This will be fed into the Retrieval Advisory Group for wider learning.
3. That the error was highlighted to enable immediate corrective steps and that the review has focused on ways to strengthen the process highlights excellent practice.

Date reported: 17th December 2019

Reference: INC 4505

What was reported

Proceeding DCD donor. Heart placed on the OCS (transmedic) machine following retrieval. Following placement, it was noted that the machine was leaking and air was entering the circuit – decision made that heart no longer suitable for transplantation.

Investigation findings

Following a full internal investigation, no rationale could be identified to the cause of the leakage. Transmedics were involved almost immediately and a field engineer visited the transplant centre to assess the consumables; further information pending from the US who are analysing the consumables sent.

Learning

This case is being shared for information as currently it is believed that this is an isolated incident. Until further findings are known from transmedics no wider communication has been circulated as there are no actions or alerts to be aware of. If any national learning is identified following transmedic review this will be disseminated.

5. Summary specific trends

It has recently been noted that there may be an emerging trend relating to concerns over vessel length when both the lungs and heart are being placed on machine perfusion (EVLV and OCS). This has only recently been raised and may be due to the increase in utilisation of DCD CT organs, however it felt appropriate to note at CTAG (L). This is currently being explored and will be discussed with the Chair of CTAG as appropriate depending on findings.

6. Requirement from CTAG (L)

To note that CTAG (H) have been asked to:

INC 3840 – Consider if it would be beneficial to ‘back up’ hearts where there is likely to be significant geographical distances.

INC 4225 – Consider if there should be a national agreement of cardioplegia used when OCS machine is being used in DBD donation to prevent last minute request and standardise process.

Author

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