

This document covers all Principles for Abdominal Normothermic Regional Perfusion

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Principles for Retrieving for Abdominal Normothermic Regional Perfusion outside NORS normal donor hospital coverage.

ANRP is not currently part of the commissioned National Organ Retrieval Service (NORS) and requests to attend made by a centre in order to use ANRP fall outside standard mobilisation principles.

Requests made to ODT Hub Operations by a NORS team to retrieve a liver accepted by their centre using ANRP, when they would not normally be the allocated NORS team to attend, will depend on the following principles:

1. **The commissioned service will always take priority and decisions made must not impact this.**
2. There is **no detrimental** impact on the donor process.
 - a. Any potential delays must be discussed with the Specialist Nurse in Organ Donation (SNOD)
 - b. SNOD should consider.
 - i. Length of the process
 - ii. Donor family
 - iii. Donor hospital
3. There is **no detrimental** impact on the other retrieval processes.
 - a. Considerations
 - i. Any delays
 - ii. Back-to-back retrievals
 - iii. NORS teams crossing over geographically.
 - iv. If any NORS teams have been pre allocated
 - b. ODT Hub Operations to check Donor Path/NtxD for potential donors in requesting NORS team's usual retrieval area.
 - c. ODT Hub Operations to discuss with on call clinical manager (RM) if any concerns identified.
4. Transport requirements and availability.
 - a. Flight availability to be considered if any impact to others – Donors/NORS/organs.
 - b. Any additional travel costs to be picked up by the NRP centre (including flights) although journey of organ from donor centre to transplant centre is funded by NHSBT.

If principles 1-4 are met ODT Hub Operations will allocate the requesting NORS team to retrieve at the point of organ acceptance.

5. An off-duty team can request to retrieve using NRP.
 - a. Additional considerations to principles 1-4
 - i. Transport may not be readily available.
 - ii. The team will not receive the workforce tariff as they have not been requested to mobilise by the Hub.
6. These requests must be documented by ODT Hub Operations

7. Requests are not guaranteed to be supported and the decision of the ODT Hub Operations manager is final.
8. Hub to inform the requesting team if flights would be cancelled due to their request as their centre would be required to pick up additional travel costs.
9. Hub to inform ODT Commissioning when these requests are made, whether they were able to support them and if there were any other issues with this process
ODTcommissioning@nhsbt.nhs.uk

Principles for an NRP Surgeon and Advanced Perfusion Practitioner joining a standard NORS team to use Abdominal Normothermic Regional Perfusion.

ANRP is not currently part of the commissioned National Organ Retrieval Service (NORS) and requests to attend made by a centre to join another abdominal NORS team in order to use ANRP fall outside standard mobilisation principles.

The mentoring framework for centres starting A-NRP programmes (<https://www.odt.nhs.uk/retrieval/policies-and-nors-reports/>) considers Step 3- Independent ANRP practice to be the recommended level of experience required by a centre for an NRP surgeon to consider joining another NORS team to perform A-NRP.

Current centres with Step 4- Recognised as an established A-NRP centre are:

- Cambridge
- Edinburgh

Established A-NRP centres can request to join any other abdominal NORS team.

Centres with step 3 – Independent A-NRP practice are:

- Cardiff
- Royal Free

These centres can request to join established A-NRP centres only.

Requests made to ODT Hub Operations by an NRP surgeon to join another NORS team to retrieve a liver accepted by their centre using ANRP, will depend on the following principles:

- 10. The commissioned service will always take priority and decisions made must not impact this.**
11. There is **no detrimental** impact on the donor process.
 - a. Any potential delays must be discussed with the Specialist Nurse in Organ Donation (SNOD)
 - b. SNOD should consider.
 - i. Length of the process
 - ii. Donor family
 - iii. Donor hospital
12. There is **no detrimental** impact on the other retrieval processes.
 - a. ODT Hub Operations to discuss with on call clinical manager (RM) if any concerns identified.
13. Transport requirements and availability.

- a. Flight availability to be considered if any impact to others – Donors/NORS/organs.
- b. Any additional travel costs to be picked up by the NRP centre (including flights) although journey of organ from donor centre to transplant centre is funded by NHSBT.

If principles 10-13 are met ODT Hub Operations will confirm with the requesting NRP surgeon at the point of organ acceptance and inform the allocated NORS team.

14. These requests must be documented by ODT Hub Operations
15. Requests are not guaranteed to be supported and the decision of the ODT Hub Operations manager is final.
16. **Hub to inform ODT Commissioning when these requests are made, whether they were able to support them and if there were any other issues with this process**
ODTcommissioning@nhsbt.nhs.uk

Additional considerations

17. Transport may not be readily available at the NRP surgeon and APOP's base.
18. The NRP surgeon and APOP will not receive the workforce tariff as they have not been requested to mobilise by the Hub.
19. NRP surgeon and APOP will provide all equipment needed to perform A-NRP.

Governance

20. The Lead NORS Surgeon will be responsible for all parts of the retrieval as per NORS Standards, except for when the A-NRP surgeon is scrubbed at the table.
21. Any incidents involving the A-NRP will be the responsibility of the A-NRP surgeon.

Principles for when a centre is asked to perform NRP at the request of another centre.

Centres with approved agreements to perform NRP at the request of another centre:

- Birmingham & Cardiff

There may be a situation where an organ accepted by one centre is requested to receive NRP performed by another. The consequences of such a request are highly complex, and possibly against the interests of the teams providing the unfunded NRP service. An unregulated situation, where any transplant centre can request NRP, would be damaging to the fragile provision of NRP, to the reputation of the centre which is able to muster an NRP team for one retrieval but not another, and to the general NRP retrieval community as requests for retrievals escalate.

If a request for NRP by one centre to be performed by another is to take place, the following arrangements will need to be in place.

Conditions.

1. Some NRP retrieval centres are on call less than 100% of the time. When not on call for retrieval, an NRP centre may request another NRP centre to perform NRP. Otherwise, NRP centres will continue to perform NRP whilst on call as they currently do.

Therefore, a request from Centre A for Centre B to perform NRP, when Centre A is currently on call, will not be supported.

2. **The centre requesting the NRP must be performing NRP in its own practice on a regular basis (published rota available and agreed by the NRP implementation group (a subset of the NRP Steering Group)).** Such an arrangement recognises the highly significant commitments made by centres in establishing NRP in the current adverse climate. This arrangement ensures there continues to be an incentive to provide NRP by retrieval centres. Centres which do not provide NRP will not be able to request NRP from another centre.
3. The two centres will have a pre-existing written agreement, so that a request by the Hub to perform NRP at a donor centre for the recipient centre triggers a straightforward mustering process for an NRP retrieval. This written agreement will need to be approved by the NRP Implementation Group.

If there are limitations to the travel distances, or the NRP rota cover, such limitations should be agreed in advance between the two centres so that there are no challenging requests on the night which lead to lengthy negotiations and delays.

The NRP Implementation Group suggests a maximum travel duration of 4 hours, in keeping with current NORS arrangements. However, it is for the NRP centre providing the service to decide what their maximum travel time will be and to include this in the agreement.

4. The **centre requesting the NRP** will pay all costs over and above the conventional NORS retrieval. These costs are those normally incurred by the NRP centre and may include

additional vehicle/flight and costs for consumables etc. which lie outside the agreement for funded consumables with NHSBT.

Additional costs incurred (e.g. extra taxis for additional staff) will be recovered by the NRP centre from the requesting centre retrospectively. Such arrangements will need to be in place prospectively as part of the written agreement.

5. The consequences of the NRP team being out of position will be considered by the Hub at the time when the request for NRP retrieval is made. The various conditions mentioned on page 1 will be considered, and the decision of the Hub as to whether this request for NRP is granted will be final.

Logistics

6. Organ acceptance by the recipient centre, and the intention to request NRP, will not be known to the NRP centre at the time of organ acceptance. To avoid uncertainty and delay, a rota which shows NRP availability should be provided to the recipient centre, as part of the written agreement.
7. If the NRP centre is unexpectedly unable to provide NRP, the NRP centre must inform the recipient centre as soon as possible.
8. When the recipient centre accepts the organ, they should inform the hub that they are requesting the named NRP team to attend, with which they have an agreement. The standing agreement between recipient and NRP centres will ensure that such a request is either granted or declined by the Hub, without complex negotiations between centres.

In accepting a DCD organ and requesting NRP, the recipient centre must consider whether **cardiothoracic organs are still under offer/have been accepted in this donor**. Only two NRP centres in the UK are currently approved to attend a cardiothoracic donor without direct mentorship (Cambridge and Edinburgh). In the interests of assuring the success of this pilot scheme, only donors in which CT organs have been definitively declined should be considered for NRP.

9. When the NRP centre is booked by the Hub to attend the donor, according to the pre-existing agreement with the recipient centre, inability to provide an NRP team or lengthy delay in organising a team should provoke re-assessment of the agreement between the two centres, such that these events are minimised. Such service disruptions may be the subject of a governance submission by the Hub, as appropriate.

Monitoring

1. Irrespective of the NRP mentoring status of either the recipient or NRP centres, each case will be subject to a de-brief involving the recipient centre, the NRP centre, and the NRP implementation group, and possibly representatives from the Hub.

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2. Should evidence emerge of undue advantage or disadvantage to recipient or NRP centres, or any other negative consequences, a re-assessment of this pilot scheme will take place, the outcome of which may include cancellation of this pilot scheme.

Flowchart for principles when a centre is asked to perform NRP at the request of another centre.

Recipient centre requests use of NRP for retrieval (this centre is not currently oncall for retrieval)

Is the requesting centre performing NRP in its own practice on a regular basis?

Confirmed by NRP Implementation Group, centres: Edinburgh, Cambridge, Cardiff, Birmingham, Royal Free, Newcastle

Yes

No

Requesting centre informs Hub Ops which NRP NORS team they have an agreement with for NRP.

No

NRP request cannot be supported.

Yes

The Requesting centre and NRP NORS team must have a pre-existing written agreement,

Centres with agreements:

- Birmingham & Cardiff

Is it a Cardiothoracic donor?
Organs either being offered or accepted.

Yes

No

Hub Ops contacts NRP NORS team to confirm if NRP is available.

No

NRP team not available, Hub to inform recipient centre.

Yes

Hub Ops to consider the principles below before confirming to mobilise the requested NRP team.

Hub Ops to consider the following principles:

- **The commissioned service will always take priority and decisions made must not impact this.**
- There is **no detrimental** impact on the donor process.
 - Any potential delays must be discussed with the Specialist Nurse in Organ Donation (SNOD)
 - SNOD should consider.
 - Length of the process/Donor family/Donor hospital
- There is **no detrimental** impact on the other retrieval processes.
 - Considerations
 - Any delays/Back-to-back retrievals/NORS teams crossing over geographically/If any NORS teams have been pre allocated.
 - ODT Hub Operations to check Donor Path/NtXD for potential donors in requesting NORS team's usual retrieval area.
 - ODT Hub Operations to discuss with on call clinical manager (RM) if any concerns identified.
- Transport requirements and availability.
 - Flight availability to be considered if any impact to others – Donors/NORS/organs.
 - Any additional travel costs to be picked up by the NRP centre (including flights) although journey of organ from donor centre to transplant centre is funded by NHSBT.