NE NC London Critical Care Network

NORTH EAST NORTH CENTRAL LONDON ADULT CRITICAL CARE OPERATIONL DELIVERY NETWORK (NENC LONDON ODN) GUIDING PRINCIPLES FOR ADULT INTER HOSPITAL CRITICAL CARE TRANSFERS

Authors

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General Principles

1. Consideration needs to be given as to the composition of the transferring team with regard to the skills of the personnel, the acuity of the patient to be transferred and any impact on service provision at the transfer site. If possible, critically ill patients should be transferred by a specialist retrieval team.

2. Disruption to critical care services should be minimised by transportation of the patient. Consideration needs to be given to the timing of transfers, depending on staff work patterns and fluctuations in staff numbers, both medical and nursing.

3. Personnel involved in critical care transfers should receive transfer training as part of induction and ideally a specific network training package should be developed.

4. The transferring unit takes overall responsibility about which treatment is given during the transport; this should involve detailed discussion with the receiving unit prior to transfer, especially for specialist and tertiary referrals.

5. In general terms, experience and training are more important than speed. For time-critical transfers the decision making needs to be clearly documented.

6. There should be dedicated transfer documentation which is comprehensive and forms part of the patient's clinical record. Incident reporting should be standardised and mandatory.

7. Equipment used should conform to both ICU and transfer standards.

8. Where possible transfer equipment and documentation should be standardised across the network.

9. Paediatric patients should be transferred by the established paediatric retrieval teams.

10. In the case of non-clinical transfers lower acuity patients should be transferred before higher acuity patients. This may involve transferring a patient already in intensive care to accommodate a patient in the emergency department. This is a clinical triage decision, best made by the critical care consultant on duty.

11. Non clinical transfer decisions need to be agreed at critical care consultant level both by the referring and receiving hospitals. Patients need to be accepted by an appropriate specialist team within the receiving hospital. The same principles apply to clinical transfers although some time critical clinical transfers should be executed without delay where local / national arrangements are in place eg neurosurgery, trauma.

12. In units with patients awaiting discharge to ward areas, level 3 transfers are only to be performed when all other options have been explored and exhausted.

13. The receiving unit has the right to expect complete documentation, links or copies of all relevant imaging and a formal medical handover when the transferring team arrive with the patient.

14. Transfers should be performed to the standard as detailed in published national and international guidance.

15. Relatives must be informed regarding the patient's condition and destination but may not be able to travel in the ambulance.

Organisation

1. All hospitals within the NENC LONDON ODN should nominate a lead consultant for critical care transfers with responsibility for guidelines training and equipment provision. This individual should report to the critical care board or equivalent.
2. All NENC LONDON ODN hospitals must have systems and resources in place to resuscitate, stabilise and transport critically ill patients when required. Plans should encompass all critical care areas including intensive care and high dependency care areas, acute wards and emergency departments.
3. Each Trust should have arrangements in place to ensure that transfers for capacity reasons alone occur only as a last resort.
4. Where necessary transfer should be to the most appropriate hospital for the clinical needs of the patient, while taking account of bed availability, transfer distance and designated transfer group.

Equipment:

1. All equipment should be checked and functional prior to use. Monitoring should be of an equivalent standard to that provided at the referring site. Capnography for ventilated patients is mandatory. A calculation needs to be performed regarding oxygen requirements and appropriate cylinders identified. The transferring team must check with the ambulance escorts that enough oxygen is available on the vehicle and what power sources are available. Continuous monitoring of the patients ECG, invasive arterial BP, oxygen saturation, EtCO2, and temperature must be followed for all critically ill patients. Please note: A NIBP cable and cuff monitoring should also be taken on the transfer. Ideally all equipment within the NECCN should be standardised to enable the seamless transfer of patients without, for example, interruption of drug therapy or monitoring due to incompatibility of leads and transducers.

2. During transfer:
    - In mechanically ventilated patients, the oxygen supply, inspired oxygen concentration (FiO2), ventilator settings and airway pressures should be monitored.
    - If patients are on IABP, maintain optimal operation throughout the transfer.
    - If a pulmonary artery catheter is in situ, the pulmonary artery trace should be continuously displayed on the transport monitor.
    - All monitors, including ventilator displays and syringe drivers should be visible to accompanying staff.
    - A written record of observations and events should be maintained throughout the transfer.
    - Ensure transfer staff have appropriate contacts for trouble shooting and getting support if any deterioration during the transfer.

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Personnel:

1. All staff involved in the transport of critically ill patients should receive appropriate training in transfer medicine, and have the opportunity to gain experience in a supernumerary capacity. This may mean a smaller core of well trained staff rather than a larger number of poorly trained staff.

2. All staff involved in transfers must be able to demonstrate the range of competencies appropriate to their role.

Governance

1. NENC LONDON ODN lead clinicians must ensure that adequate governance arrangements are in place locally and across the network and that all patient transfers are subject to audit, critical incident reporting and review.

2. Trust lead clinicians for transfer should ensure that the movement of critically ill patients within hospitals (intra-hospital transfer) are subject to similar governance arrangements.

3. A mechanism for capturing the numbers of critical care transfers occurring nationally, indications, incidents and outcomes should be developed.

4. Completing the NENC LONDON ODN transfer form is mandatory and is the joint responsibility of the doctor and nurse on transfer. This form contains a pre transfer checklist, as well as the transfer record. As such it provides a vital part of the patient's medical record. A copy should be in the patient's notes at both the receiving and referring units and one copy lodged with NENC LONDON ODN Office, 4th floor at the Royal Free Hospital.

5. Relevant other documentation which will assist the receiving hospital in delivering safe, effective care to the patient i.e. x-rays, results of diagnostic tests/assessments, patient transfer form etc. X-rays may not have been reported on by the referring hospital; the receiving hospital will need to ensure that relevant findings are taken account of and they have the ability to access images. (Either via a PACS link or on a portable media device)

6. A comprehensive handover needs to be done at the receiving unit and the NENC LONDON ODN transfer form should be signed by the receiving clinician to document their acceptance of the patient.

REFERENCES

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5. Droogh JM, Smit M, Absolom AR et al. Transferring the critically ill patient: are we there yet? Critical Care 2015;**19**:62-69.