

NCPAP Transfer

The concept of managed clinical networks encourages early transfer to designated centres for intensive care or specialist services and return transfers for continuing care once intensive care is no longer needed. Due to these changes in care provision there is now an increasing demand for transferring infants who are receiving nasal CPAP

Nasal continuous positive airway pressure (CPAP) is a widely accepted means of respiratory support for both preterm and term infants within neonatal intensive care units. The limited literature available from the neonatal population suggests that using nasal CPAP during transport is safe for a carefully selected group of infants but should be used with caution.

Following a recent audit by the transport team there has been a review in the team composition for NCPAP/nasal cannula transfers.

Nasal CPAP transfers should only be carried out by the neonatal transport team. The composition of the team may vary depending on the specific needs of the baby, however all team members should have received specific and ongoing training in neonatal transport and hold current NLS certification.

For acute transfers it is recommended that intubation remains the first choice for airway management.

Prior to transfer the referring hospital needs to discuss the infant's clinical details with the accepting hospital to ensure careful case selection and confirmation that the transfer is appropriate. Following review of a recent audit which specifically looked at NCPAP transfers within the network, the guidelines below have been amended. A further review of the guidelines will be necessary when an infant flow driver is used in conjunction with the baby pod.

Nasal CPAP transfers will be considered if the following criteria are met

Nurse only led NCPAP/Nasal cannula oxygen

The aim is to transfer these babies on nasal cannula O₂

1. The infant is greater than 72 hours old
2. Infant has not been intubated in the last 24 hours
3. Oxygen requirement is less than 40%
4. CPAP pressure \leq 5cm
5. Blood gases stable, ph >7.25 and/or no significant change over the last 24 hours

6. Infant clinically stable - no significant bradycardias or desaturations when on or off NCPAP
7. Infant not receiving Morphine, Inotropes or Prostin
8. The infant can tolerate 2-4 hour periods off nasal CPAP (dependant on length of journey) without a significant deterioration in blood gases, significant rise in oxygen requirements or increasing number of bradycardias or desaturations. This is to ensure that the infant can tolerate at least twice the estimated journey time off Cpap.
9. If on arrival at the referral hospital the transport nurse has concerns about the suitability of the infant for nurse led transfer assistance should be requested from either a transport ANNP or Consultant.

If the infant fails to meet these criteria, the referring hospital needs to delay the transfer until the infant is more stable or make a referral for an ANNP led transfer.

ANNP Led / REG and Transport Nurse

For infants who require transfer on continuous CPAP

10. The infant is greater than 72 hours old
11. Infant has not been intubated in the last 24 hours
12. Oxygen requirement is less than 40%
13. CPAP pressure \leq 5cm
14. Blood gases stable, ph >7.25 and/or no significant change over the last 24 hours
15. Infant clinically stable - no significant bradycardias or desaturations when on or off NCPAP
16. Infant not receiving Morphine, Inotropes or Prostin
17. The infant can tolerate short periods off CPAP of 30 – 60 minutes with the transfer estimated to take less than 60 minutes.

If the infant fails to meet any of the above criteria further discussion needs to take place with the ANNP or Transport Consultant.

Equipment for CPAP Transfers

The system currently in use by the transport team is the INCA (infant nasal cannulae assembly) circuit. The circuit comes pre packed in 5 sizes and includes the hat and the nasal prongs. In order to achieve the required CPAP pressure it is important that the correct sized nasal prongs are used. The following chart suggests appropriate sizes.

PATIENT WEIGHT	CANNULAE SIZE
< 700gms	7.5F or 9F

701 - 1000gms	10F
1001 – 1300gms	12F
1301 – 2000gms	15F

The INCA circuit connects directly to the transport ventilator circuit.

See the laminated instructions and/or the product information for directions on to how to correctly connect the circuit.

References

British Association of Perinatal Medicine. (2001) *Standards for hospitals providing neonatal intensive and high dependency care.* 2nd ed. London: BAPM

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Simpson J.H., Ahmed I., McLaren J, et al.(2004) Use of nasal continuous positive airway pressure during neonatal transfers. *Arch Dis Child Fetal Neonatal Ed*,**89**: F374 -5.

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