Survey of the Use Of Heated, Humidified, High-flow Nasal Cannula in Neonatal Intensive Care Units in the U.K

Please answer all the questions that are applicable to the practice in your Neonatal Unit. Tick boxes are provided for all questions and there are options for free text information in most. Please provide us with all possible information that you feel is relevant to the question. Thank you very much for your contribution.

HHHFNC is a fairly new form of respiratory support in which heated, humidified gases are supplied to a patient via nasal cannulae allowing higher flows to be tolerated.

1. Do you use Heated, Humidified, High-flow Nasal cannula (HHHFNC) in your unit?
   Yes ☐
   No ☐

2. Which machine do you use to deliver HHHFNC to your babies? (Please choose more than one, if applicable)
   Vapotherm 2000i (Vapotherm Inc., Stevensville, MD, USA) ☐
   Fisher Paykel RT329, Salter Labs ☐
   Other (please specify)
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3. Do you have a written policy/guideline for the use of HHHFNC? (Please choose more than one, if applicable)
   Yes, a nursing policy/care pathway ☐
   Yes, a multidisciplinary guideline for all professionals ☐
   No ☐
   If you have a written policy, we would be very grateful if you could please send us a copy with the completed questionnaire.
4. Which gestation age group would you use HHHFNC in? (Please choose more than one if applicable)

- Any gestation
- < 28 weeks gestation
- ≥ 28 weeks gestation
- ≥ 30 weeks gestation
- ≥ 32 weeks gestation
- Other gestation range (please specify)

5. Which weight range would you use HHHFNC in? (Please choose more than one if applicable)

- All weights
- < 1000g
- 1000-2000g
- ≥ 2000g
- Other weight range (please specify)

6. What range of flow rates would you generally use on babies? (Please choose more than one if applicable)

- < 2 l/min
- 2-5 l/min
- > 8 l/min
- Depending on the size of the baby
- Other ranges (please specify)
7. What indications do you use HHHFNC for? (Please choose more than one if applicable)

<table>
<thead>
<tr>
<th>Indication</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post extubation respiratory support</td>
<td></td>
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<tr>
<td>As an alternative to nasal CPAP</td>
<td></td>
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<tr>
<td>Weaning of nasal CPAP</td>
<td></td>
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<tr>
<td>Treatment for apnoea of prematurity</td>
<td></td>
</tr>
<tr>
<td>Infection (suspected/proven)</td>
<td></td>
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<tr>
<td>Other reasons (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

8. What kind of nasal cannulae do you use with HHHFNC? (Please choose more than one if applicable)

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.2 cm outer diameter</td>
<td></td>
</tr>
<tr>
<td>0.3 cm outer diameter</td>
<td></td>
</tr>
<tr>
<td>Depending on baby’s size – that which provides best fit</td>
<td></td>
</tr>
<tr>
<td>Depending on baby’s size – that which fits but allows for some leak</td>
<td></td>
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<tr>
<td>Other specifications (please specify)</td>
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</tbody>
</table>

9. Do you take active measures to keep the baby’s mouth closed? (Please choose more than one if applicable)

<table>
<thead>
<tr>
<th>Measure</th>
<th>Yes</th>
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<tbody>
<tr>
<td>No</td>
<td></td>
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<tr>
<td>Yes, with dummy/pacifiers</td>
<td></td>
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<tr>
<td>Yes, with chin straps</td>
<td></td>
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<tr>
<td>Yes, by other means (please specify)</td>
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</tbody>
</table>

The University of Nottingham
10. How do you wean babies off HHHFNC? (please choose more than one if applicable)

- Stop completely
- Reduce flow rate
- Giving time-off HHHFNC
- Other means, please specify

11. What, if any, do you think are the advantages of using HHHFNC over nasal CPAP? (Please choose more than one if applicable)

- It is not better than CPAP
- Easier to set up
- Provides better access to the baby
- Easier to feed the baby by bottle/cup
- Easier to facilitate kangaroo care/breast feeding
- Other reasons (please specify)
Thank you for completing the survey.

Please fill in the following to provide us with some additional information. This information is only for follow-up or any further enquires we may need to make.

Which neonatal unit do you work in?

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What is your position?

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Please give us your name and contact details, if possible and agreeable.

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