Worcestershire Acute Hospitals NHS Trust

Monitoring home oxygen therapy for infants with Chronic Lung Disease

This is the most current document and should be used until a revised version is in place

Key Document code:	WAHT-KD-015	
Key Documents Owner:	Vivianna Weckemann	Consultant Paediatrician
Approved by:	Paediatric Quality Improvement meeting	
Date of Approval:	2nd August 2019	
Date of review:	2nd August 2022	

Key Amendments

Date	Amendments	Approved by

This pathway does not apply and should not be used for babies or children with other conditions, nor babies in hospital, unless authorised by Consultant.

Aim:
To try and keep oxygen saturation within a satisfactory range (as defined below). Babies often need a little more oxygen to achieve this when asleep than when awake hence the use of overnight monitoring. However, there is no need to set a lower flow rate during the day. Most babies discharged home on oxygen will need it for 6-12 months; a few will need it for much longer.

Overnight Saturation Monitoring:
Set low saturation alarm limit at 85%, high alarm limit at 100% or OFF. Set low pulse alarm limit at 80 bpm, high pulse alarm limit at 180 bpm.

Repeat every 2 – 4 weeks.

First night on usual oxygen flow rate.

If first night appears satisfactory to parents *as it is being recorded,* next night on one “level down” on low flow meter (or off oxygen completely if already down to lowest flow rate). The low flow meters are not yet standardised and can have different flow rates for each “click down”. Oxygen should be reduced through approximately the following flow rates (in l/min) 0.5/0.3/0.2/0.1/0.08/ 0.05/0.02/OFF.

Analysis:
Aim for:

1. Average saturation 94% or above
2. **And** less than 5 % of saturations below 90%

NB: When analysing saturation data using Score software set desaturation parameter as an oxygen saturation of less than 90%; do not set “drops of more than X% below baseline” as a desaturation parameter i.e. untick this box.

Action:
► If night one satisfactory but not night two leave on original flow rate.
► If night two satisfactory leave on new, lower flow rate and recheck in 2 – 4 weeks (do not keep winding the flow meter down until the baby has an unsatisfactory night).

Please note that the key documents are not designed to be printed, but to be used on-line. This is to ensure that the correct and most up-to-date version is being used. If, in exceptional circumstances, you need to print a copy, please note that the information will only be valid for 24 hours and should be read in conjunction with the key document supporting information and/or Key Document intranet page, which will provide approval and review information.

► If night one unsatisfactory consider increase in oxygen flow rate and then repeat study – discuss with Consultant.

Parental Monitoring:
Babies on home oxygen will be discharged with an apnoea monitor (although there is no evidence of benefit). Parents can be lent "handheld" saturation monitors for a few days to ensure oxygen saturations are satisfactory at other times e.g. during URTIs and chest infections, to check saturations during feeds etc. A baby's home oxygen flow rate should not be altered without medical assessment and only after discussion with a senior paediatrician (registrar or consultant) except as outlined above.

References

Clinical component for the domiciliary oxygen service for children in England and Wales 2005
Dr IM Balfour-Lynn, Dr RA Primhak, Dr BNJ Shaw.

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Monitoring Tool

This should include realistic goals, timeframes and measurable outcomes.

How will monitoring be carried out?

Who will monitor compliance with the guideline?

Page/ Section of Key Document	Key control:	Checks to be carried out to confirm compliance with the policy:	How often the check will be carried out:	Responsible for carrying out the check:	Results of check reported to: *(Responsible for also ensuring actions are developed to address any areas of non-compliance)*	Frequency of reporting:
	WHAT?	**HOW?**	**WHEN?**	**WHO?**	**WHERE?**	**WHEN?**
	All saturation studies reviewed by babies consultant before any changes to oxygen flow rate agreed	Consultant review of all studies	Each time a study is performed	Consultant	N/A	N/A

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