

Clinical Guideline: Home Oxygen

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For use in: EoE Neonatal Units Guidance specific to the care of neonatal patients.

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Approved by:

Neonatal Clinical Oversight Group	
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Introduction and selection of appropriate babies

Currently about 70% of infants born at 25 weeks or below remain oxygen dependent at 36 weeks corrected (EPICure 2 study)¹. A minority of other infants may show a persistent oxygen requirement at this age due to factors such as pulmonary hypoplasia. As the infant nears term and is otherwise stable, options for ongoing care should be discussed with the family.

For stable but oxygen dependent term infants, it is generally accepted that care at home is the best option in most cases. Even parents who are initially unsure about the idea of home oxygen may be more enthusiastic about it with education and support, or if the duration of an alternative hospital stay increases².

It is now relatively rare for a baby with chronic lung disease (CLD) to remain as an inpatient past term unless there are coexisting medical or social concerns. However each family should be supported on an individual basis. It may be appropriate to revisit the idea of home oxygen over a period of time, depending on the baby's progress and family wishes/concerns.

Physiological benefits of long-term oxygen treatment^{3,4}

- 1. Hypoxaemia causes pulmonary hypertension but the severity and duration required to do this is unclear. Average saturation levels of > 94-95% reduce pulmonary hypertension in babies with CLD.
- 2. Risk of apparent life-threatening events in CLD babies increases if average saturation <90%, not if average saturation > 93%. The same thresholds apply to impaired sleep quality.
- 3. Growth of CLD babies is reduced with average saturation < 92%.
- 4. Significant hypoxia with saturation < 85% may have adverse effects on cognition and behaviour.

Once infants reach near term and have a fully vascularised retina, the risks of ROP become less significant in comparison to other factors above.

The median baseline saturation in healthy term infants during the first year of life is 97-98%, and in only 5% of healthy infants does the saturation fall below 90% for > 4% of the time.

Information to be given to families with initial discussions

BLISS 'Going Home on Oxygen' leaflet should be used in an appropriate form for the family (translations are available).⁵

Support for smoking cessation should be considered at an early stage, as this may be difficult for parents to achieve during stressful periods when the baby first goes home.

All parents need unit-based local information re CCN support and who to contact for emergency advice.



It is useful for parents to meet their allocated CCN or outreach nurse if possible while decisions about home oxygen are being made, and for this member of staff to help coordinate the discharge process.

Preparation of the infant for discharge (Appendix 1)

1. Choose stable oxygen flow rate that keeps saturations > 93% (see BTS guidelines³) including feeds and sleep periods.

This should be agreed with the nursing staff caring for the baby, so that adjustments of oxygen flow rate are avoided and the frequency of observations can be reduced as discharge approaches. The aim should be to get closer to the routine which the baby and family will be using at home.

The new target saturation may mean that the infant's oxygen requirement appears to have increased from previously – explain to parents that this is due to a planned change of clinical priorities and does not mean that the baby is deteriorating.

- 2. It is unusual for a baby still needing more than 0.5 l/min nasal cannula oxygen to be well enough to be discharged home (BTS guidelines³).
- A baseline oxygen saturation study can be considered if available. This should include at least 6-8 hrs of recording and capture episodes of feeding and sleeping, as well as periods when the baby is awake and settled.
- 4. Some units may undertake a car seat challenge, although this is not imperative. Monitor the baby's saturation for one hour in their own car seat with straps secured, and document whether it is necessary to increase oxygen concentrations during the test.
- 5. Cardiac ECHO at approaching term is useful to exclude pulmonary hypertension.
- Baseline CBG is useful for later comparison should the baby be readmitted with acute respiratory symptoms.
 Capillary or arterial pCO2 is an indirect index of the severity of the chronic lung disease, but it may not accurately predict the duration of the baby's oxygen requirement.
- 7. Most units will discharge the baby without a continuous saturation monitor in the home, but will measure saturations intermittently as part of the follow up process.
- 8. Discharge with an apnoea monitor is not routine, but may be considered in some units or individual cases. The family should be aware that apnoea alarms will not pick up all life threatening events eg obstructive apnoeas, and that careful observation of their baby (with access to advice if they are concerned) is more important than relying on monitoring equipment.



A 'rough' baseline guide to the individual baby's usual heart rate, respiratory rate and work of breathing should be agreed with the family for use in deciding when to seek medical review.

- 9. Families taking a baby home in oxygen should be offered basic life support training, and given the standard advice on safe sleeping and temperature control for their baby.
- 10. There should be a local arrangement in place for the prescription of palivizumab to babies who fulfil the current national criteria for RSV prophylaxis.

Usually first doses for the winter season are given in October. Babies discharged in the summer months may still require palivizumab for their first winter but this depends on their gestation and their postnatal age at the start of the RSV season – please consult current guidelines and agree eligibility at the time of discharge from the neonatal unit. Give the first dose of palivizumab prior to discharge for eligible babies who go home between October and March.

- 11. Babies still in home oxygen will be eligible for the influenza vaccine for their first and subsequent winters if they are over 6 months postnatal age. Initially this will need to be intramuscular rather than nasal. Also encourage parents and siblings to have influenza vaccine if possible.
- Babies discharged in oxygen should be considered as extremely clinically vulnerable to covid 19, please see up to date public health information and ensure that the family are aware of standard advice re handwashing and social distancing.
- 13. Consult local dietician or CCN for arrangements re any NGT supplies or feed deliveries required.
- 14. Check follow up plans, and whether the baby needs separate respiratory and neonatal/developmental clinic visits? Does the baby need official referral to the general paediatric and/or respiratory team?

Preparation of parents for discharge (Appendix 2,3,4)

- Competencies –supporting parents to prepare for discharge and ensure parents feel confident with the skills they have learnt during their stay-i.e; check that parents can assess signs of respiratory distress or general signs of illness in their baby, can feed baby safely by whichever is their chosen method (including NGT if needed – see network guideline), and are happy with safe fixation of cylinders, checking level of remaining oxygen, safe attachment of cannulae to baby's face.
- Discuss fire safety even though this will also be covered by the oxygen delivery company and give a list of suitable emollient creams that can be used in combination with oxygen (see appendix 2)



- 3. Ensure parents have made contact with their GP and that the baby is registered as a patient. GP details need to be included on the oxygen prescription. Clarify which if any long-term prescriptions or follow up needs will be the GP's (rather than the hospital's) responsibility.
- 4. Arrange options for 24 hr emergency contact advice and check parents have all numbers and know who to ring first weekdays/ out of hours/at weekends.
- 5. Gain consent for information sharing with the home oxygen company (Home Oxygen Consent Form and Initial Home Oxygen Risk Mitigation Form need to be signed by parent – see appendix 3 and 4)
- 6. Parents need to update home insurance and car insurance accordingly.
- 7. Once oxygen is ordered, oxygen supply company will arrange a home visit and fitting directly with the parents, and will also cover safe use of oxygen and delivery arrangements.

Ordering home oxygen – completion of HOOF forms

Usually a named professional in each unit will be responsible for ordering home oxygen, and a HOOF form B ('after specialist assessment') can be completed. This gives more options re type of cylinder than the general part A form. If unsure, please discuss the form with the oxygen company as they will reject the order if they cannot process the request.

Many units in the East of England are currently covered by BOC Healthcare. They now request on line applications via their Home Oxygen Portal (www.bochop.co.uk).

Choose a suitable number of hours per day to be available from an ambulatory cylinder and allocate the remainder of 24 hours to be given from a static cylinder. All families should have an ambulatory cylinder prescribed, unless their baby only uses oxygen at night. Lightweight or standard ambulatory cylinders may be possible but this depends on the flow rate required. The flow needs to be prescribed as a stable rate rather than a range of values. Very low flow rates may need a special flow meter to be prescribed.

Occasionally the oxygen company may prefer to supply a concentrator rather than cylinders for an individual baby on higher flow rates, but this does not affect the baby's medical management and is rare. If a baby has a home oxygen concentrator then the electricity used for this can be reimbursed.

Ensure that a copy of the HOOF is in the baby's record.

Check with nursing staff that supplies such as Duoderm, fixation tape for oxygen cannulae, oxygen tubing etc are either provided by the oxygen company or requested as part of TTO. The oxygen cannulae supplied by the company may differ slightly from those typically used in hospital, so it may be helpful to check which suits the infant best.



Planning date of discharge

- 1. Consider discharge planning meeting, especially if baby has other complex medical needs or if the family are known to other services or may have difficulty accessing help
- 2. Consider encouraging family to room in with their baby using the same oxygen equipment that they will have at home, and off saturation monitoring if appropriate
- 3. Check that family know how to order new cylinders and equipment, and have oxygen company contact numbers. Parents should know approximately how long each cylinder lasts at their baby's individual flow rate, and how much notice the oxygen company usually needs to replenish supplies. Do not assume that all parents can access written information.
- 4. Discharge baby early in day if possible, not just before a weekend unless there is 24 hr CCN or nursing outreach support available
- 5. Inform the general paediatric ward/ team that baby would be readmitted to if necessary, and introduce the parents to staff there.
- 6. Plan an early home visit.

Monitoring of home oxygen

- 1. Each CCN visit document saturation, HR, RR, weight and any parental concerns
- 2. Check and document oxygen safety knowledge and practice at the first post discharge visit, and then at least annually (most babies will have weaned off their oxygen by this stage).
- **3.** Overnight saturation study (sleep study) to be done at agreed intervals, for example monthly, and reviewed by allocated medical team.
- **4.** Usual criteria for satisfactory sleep study:
 - 1. At least 8 hours of good quality saturation recording
 - **2.** No more than 5% of the time with saturation < 93%
 - **3.** Mean oxygen saturation should be > 93%
 - 4. Dip rate/ stability of the average saturation may also be taken into consideration more than 4 dips/hr of > 4% would in older children suggest upper airway obstruction, but may be less applicable to neonates

Benefits

1.On current rules the baby will become eligible for Disability Living Allowance once the postnatal age of 3 months is reached. This should be explained to parents and is not means tested, but it is only applicable after the baby has been discharged from hospital. DLA helpline: 0800 121 4600 www.gov.uk/disability-living-allowance-children

2. Families can also apply for a Blue Badge for their vehicle in view of the need for the baby to be 'always accompanied by bulky medical equipment, or kept near a vehicle in case of needing emergency medical treatment' – medical letters of support may be needed, but on-line application is possible (www.gov.uk/apply-blue-badge).



3. Check that parents are aware of the potential arrangements for oxygen delivery to a second address eg for holidays or visits to family. A new HOOF is not usually required, and arrangements can be made directly with the oxygen company.

Home Oxygen Safety

This advice will be reinforced by the oxygen company, but please see appendix for general guidelines on oxygen storage, fire risks, and care of cylinders.

Weaning of home oxygen

- 1. Do not start to wean oxygen until at least 2 weeks post discharge home
- 2. Pause/ do not start further weaning during periods of upper respiratory tract infection.
- **3.** Weaning criteria: feeding well
 - gaining weight
 - saturations stable
 - some units use a sleep study prior to a reduction, but an alternative is to wean on clinical grounds and with brief period of saturation monitoring, then check with sleep study on the new lower flow rate

Most infants reach their lowest saturations by 40 minutes and a level of 92% or above best predicts readiness for weaning^{7,8}.

- 4. Reduce flow rate initially by steps of 0.1 l/minute at a time until 0.1 l/min is reached.
- **5.** Do not adjust daytime and night-time rates separately at this stage unless for individual clinical reasons⁴.
- It is usual to check that the new flow rate is tolerated with either a CCN visit and saturation check (should still be > 93%), or a repeat sleep study or both – this may vary between units.
- 7. Review re further potential weaning in 2-4 weeks if stable.
- 8. Once stable on 0.1 l/min, and especially if the child is becoming more mobile and less tolerant of the oxygen cannulae, start to introduce brief daytime periods in air. One example of a weaning schedule is suggested in appendix 5.
- 9. Repeat sleep study when the baby is out of oxygen for most of their daytime hours.
- **10.** As a final step, stop night time oxygen and repeat sleep study assessment.
- **11.** Arrange for oxygen to be removed from the home address once stable out of oxygen for 1-2 months (depends on season, previous clinical progress and local service arrangements)

Follow up

By virtue of their gestation and the likely severity of their initial illness/RDS, babies with chronic lung disease are at high risk of neurodevelopmental complications. Developmental follow up should be undertaken in line with network and national guidance⁶. Respiratory follow up may be undertaken separately in some units.



Appendices

- 1. Check list prior to discharge
- 2. Oxygen safety advice for parents
- 3. Home Oxygen Consent Form
- 4. IHORM form (Initial Home Oxygen Risk Mitigation)
- 5. Suggested schedule for weaning into air



DISCHARGE PLAN FOR HOME OXYGEN THERAPY

ID label

Date of planned discharge	
Consultant	
CCN name and phone number	
Name of parents/ carers	
Parents landline number	
Parents mobile number	
GP	
Health Visitor	
Other professionals	

Action	Sign and Date	Comments
Consultant discussion with parents		
BLISS Home Oxygen Guide given		
Referral made to CCN team		
HV and GP informed of plan for home oxygen		
Discharge MDT meeting planned		



Home visit by CCN or HV prior to ordering	
oxygen	
Parent to sign consent to information	
sharing by home oxygen service (HOCF)	
Parent to complete Home Oxygen fire	
safety questionnaire (IHORM form)	
HOOF form completed on BOC Home	
Oxygen Portal, copy filed in notes	
Copy of HOOF form sent to local Home	
Oxygen Service Lead	
Copy of HOOF sent to GP	
Parents to inform car and home	
insurance, and electrical supplier	
Hazard sign given to parents for car +/-	
front door	
Parents to request Disability Living	
Allowance form from DWP	
Offer parents evernight stav on unit	
Oner parents overnight stay on unit	
Oxvgen competency demonstrated by	
parents and documented – include use of	
cylinders, nasal cannulae and skin care	
Supply of nasal cannulae, dressings,	
adhesive removing wipes – if discharged	
with saturation monitor, also supply	
probes and posev wraps	
Immunisations up to date (Advise flu	
vaccine at start of winter once over 6	
months old)	
· /	
Eligible for palivizumab? (Refer to latest	
NHS England Commissioning document)	
5 5 7	
Follow up appointment with consultant	
booked (within 4-6 weeks)	



CCN visit arranged (within 24 hrs post discharge)	
Open access arranged to paediatric ward	
Escalation plan and hand held summary given, with 24 hr contact numbers	
Parents have been taught basic life support	

Home Oxygen Safety

Parent teaching will be given by the oxygen company when installing the equipment, but should be emphasised by staff whenever possible. The Paediatric Pan London Oxygen Group suggest there should be an annual documented review of safety advice if the baby remains in oxygen for longer than this. Initial home visits should ensure that access to the property is clear and that this does not present a fire risk. The practicality of managing baby and buggy with an oxygen cylinder should also be checked, eg stairs and lifts.

Advice for parents:

- 1. Store cylinders away from direct heat or cold, in shade when in use
- 2. Store cylinders secured in an upright position, or laid flat (and safe from young children and pets). In the car ideally secure the cylinder in the boot, never in the front passenger seat. On a buggy/ pushchair the cylinder is steadier in the basket beneath than on the handle.
- 3. Do not store oxygen equipment near flammable liquids or near soft furnishings/ clothes/ bedding/ paper. Oxygen will pool on clothes or bedding so ensure good ventilation, do not leave cannulae on a bed or chair when oxygen switched on. Do not hang clothes on oxygen cylinders.
- 4. Wash hands before changing cylinder heads.
- 5. Make sure cylinder valves are closed when not in use if there is a leak, take the cylinder outside then contact suppliers immediately
- 6. Open cylinder valves gently to avoid a rush of pressure
- 7. When the cylinder is empty, close the valve and re-fit the plastic cap to prevent moisture entering the cylinder



- 8. After closing the valve, any residual gas needs to be discharged from the cylinder head
- 9. All empty cylinders need to be removed by the oxygen company and swapped for new ones. Allow at least 48 hrs for delivery of new supplies (monitor level of oxygen via cylinder dial).
- 10. All oxygen tubing will be supplied with a 'firebreak' valve which is very important to protect the baby, and should never be removed or turned around.
- 11. DO NOT USE OXYGEN NEAR FIRE OR CANDLES. DO NOT SMOKE IN THE HOUSE.
- 12. Do not use aerosol sprays near oxygen cylinders.
- 13. DO NOT USE PARAFFIN-BASED CREAMS OR LIPSALVES (baby or parent). Vaseline or E45 should be avoided.
- 14. Beware of oxygen tubing as a trip hazard, and ensure it cannot be kinked or trapped on furniture.



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Patient		Ť		
Name		Address		
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Possible schedule for weaning home oxygen

This assumes that the baby is well, thriving and saturations remain > 93% when briefly disconnected from oxygen for 10-15 minutes, and that baseline oxygen flow rate is 0.1 l/minute.

Exact timing and frequency of CCN visits will vary between units, and this may influence the details of monitoring. Saturation may be either checked by parents with a home monitor, or solely by CCN visits with checks during the time the baby is off oxygen. Evidence is lacking at present as to a single best practice method.

Week 1	Twice daily periods off oxygen	Build up from 30 mins bd to 3 hrs bd	If sat 93% or above continue weaning – if not replace oxygen and try this stage again in 1 week
Week 2	Sleep study, whilst continuing to build up twice daily periods in air	Review by named consultant	Do not increase above 6 hrs in air bd – only progress if sleep study satisfactory
Week 3	Continuous single period off oxygen	12 hrs once daily, increase to 18 hrs in air once daily (oxygen only at night)	If sat 93% or above continue weaning – if not replace oxygen and try again in 1 week
Week 4	Sleep study	Review by named consultant	Stop oxygen if sleep study satisfactory
1 st week continually in air	Consider sleep study		
After 1 month in air	Sleep study		Arrange for oxygen removal from home if satisfactory



References

- Costeloe KL, Hennessy EM, Haider S *et al.* (2012) Short term outcomes after extreme preterm birth in England: comparison of two birth cohorts in 1995 and 2006 (the EPICure studies). BMJ 345:e7976.
- 2. Lau R, Crump RT, Brousseau DC et al (2019) J Pediatr Jun 27
- 3. Balfour-Lynn IM, Field DJ, Gringras P, Hicks B, Jardine E, Jones RC, et al. (2009) BTS guidelines for home oxygen in children. Thorax 1:**64** (Suppl 2):ii1–ii26
- 4. ATS Clinical Practice Guideline: Home Oxygen Therapy for Children Dec 2018
- 5. NHS PrescQIPP Bulletin 49, May 2013, v2.0 Cost effective emollients with no, or low paraffin content
- 6. BLISS 'Going home on oxygen' leaflet 4th edition, 2013
- 7. Nottingham Neonatal Service : Guidelines for Infants from the Neonatal Service Going Home in Oxygen. Dr Jayesh Bhatt, Ms Heather Nelson.
- 8. Balfour-Lynn I, Primhak R and Shaw B (2005) Clinical Component for the Domiciliary Oxygen Service in England and Wales
- 9. Gracey K, Talbot D, Lankford R and Dodge P (2003) The changing face of BPD: part 2. Discharging an infant home on oxygen. Advances in Neonatal Care *3* (2) 88-98
- 10. Paediatric Pan London Oxygen Guidelines April 2018
- 11. Paediatric Pan London Oxygen Group Patient Information Leaflet
- 12. BOC Paediatric Home Oxygen Handbook
- 13. Developmental follow up of children and young people born preterm (2017) NICE guideline NG72

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Exceptional Circumstances Form

Form to be completed in the **exceptional** circumstances that the Trust is not able to follow ODN approved guidelines.



Details of person completing the form:				
Title:	Organisation:			
First name:	Email contact address:			
Surname:	Telephone contact number:			
Title of document to be excepted from:				
Rationale why Trust is unable to adhere to the document:				
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Date:	Date:			
Hard Copy Received by ODN (d and sign):	late Date acknowledgement receipt sent out:			
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