DERBYSHIRE JOINT AREA PRESCRIBING COMMITTEE (JAPC)

OXYGEN GUIDELINE

- Record oxygen saturation on all patients with moderate to severe COPD.
- Oxygen saturation should be recorded at rest and not during or after exertion unless assessing for ambulatory oxygen.
- If FEV1 < 50% of predicted record oxygen saturation annually
  If FEV1 < 30% of predicted, record oxygen saturation every 6 months
- If Oxygen saturation 93-94% on Pulse Oximetry check every 3 months
  If oxygen saturation < 92% on Pulse Oximetry check again within 4 weeks
- If oxygen saturation <92% on Pulse Oximetry on 2 occasions (2-3 weeks apart), refer to Home Oxygen Assessment Service for LTOT assessment
- Blood gasses is the preferred method to measure oxygen saturation, pulse oximetry is a primary care guide to assess for referral.

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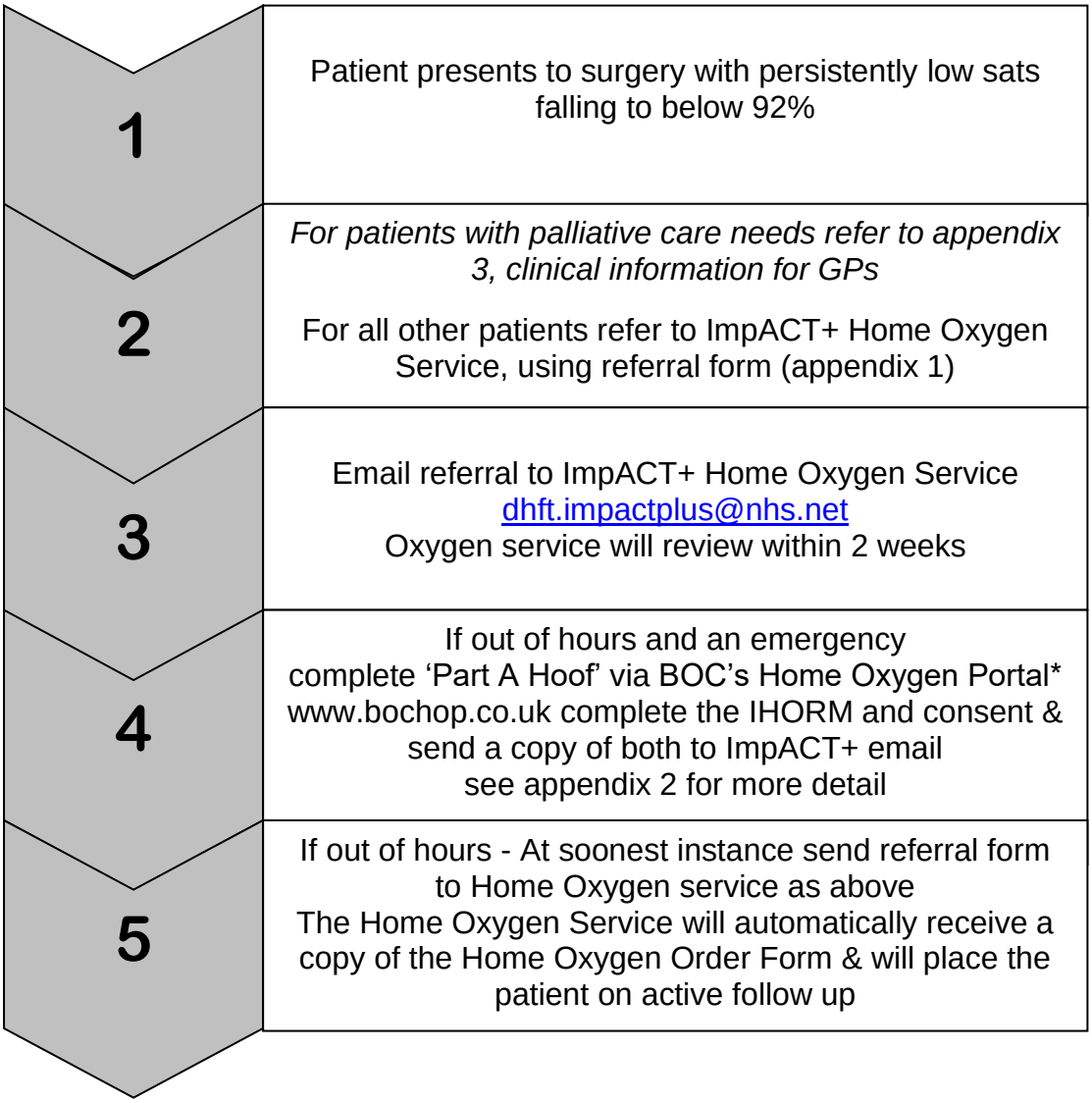
Document updates	Date updated

Pathway for patients requiring Home Oxygen Prescription from GP Practices in Southern Derbyshire and Erewash



* Only registered healthcare professionals can submit a HOOF on the Portal. When registering for the Portal, users must provide their professional registration number. No non-person email addresses can be accepted.

Pathway for patients requiring Home Oxygen Prescription from GP Practices in North Derbyshire

HOME OXYGEN PATHWAY GP PRACTICES (NORTH)
HOME OXYGEN SERVICE (HOS)
Admin – 01246 516128
Email – CRHFT.HOS@nhs.net

PATIENT PRESENTS AT SURGERY WITH CONFIRMED CARDIO-RESPIRATORY DISEASE WITH SERIAL SATURATIONS LESS THAN 92%

If oxygen required out of hours / urgently, prescribe concentrator on Part A HOOF via BOC's Home Oxygen Portal* www.bochop.co.uk

↓

COMPLETE HOME OXYGEN REFERRAL FORM, ENSURING DRUG HISTORY & RELEVANT PAST MEDICAL HISTORY COMPLETE.
EMAIL TO HOME OXYGEN SERVICE CRHFT.HOS@nhs.net

↓

HOME / CLINIC ASSESSMENT WITHIN 4 WEEKS ONCE ALL DETAILS CONFIRMED. ASSESSMENT WILL INCLUDE CAPILLARY BLOOD GAS IF REQUIRED

↓

ARRANGEMENTS MADE FOR HOME OXYGEN PROVISION IF THE PATIENT FITS CRITERIA. OXYGEN DELIVERED WITHIN 3 DAYS

↓

APPROXIMATELY 4 WEEKS LATER - EQUIPMENT CHECK AT HOME BY HOME OXYGEN SERVICE CNS

↓

4 MONTHLY / ANNUAL CHECK WITH REPEAT CAPILLARY BLOOD GAS AS PER HOME OXYGEN GUIDELINES. RESULTS / LETTER TO GP & RELEVANT HEALTH CARE PROFESSIONALS

* Only registered healthcare professionals can submit a HOOF on the Portal. When registering for the Portal, users must provide their professional registration number. No non-person email addresses can be accepted.

Appendix 1 – Home oxygen referral form ROUTINE PATIENTS

Southern Derbyshire and Erewash

IMPACT+ REFERRAL FORM

Please return all forms to dhft.impact-plus@nhs.net

PATIENT DETAILS			
NHS Number:		Patient consents to TPP record sharing?	Yes ☐ No ☐
Patient Name:		Potential safety risks:	
DOB:		Can patient attend clinic?	Yes ☐ No ☐
Telephone No:		GP name:	
Address:		GP details:	

MEDICAL HISTORY	
Diagnosis:	
Clinical Problem:	
Relevant Past Medical History:	

REASON FOR REFERRAL (tick all that apply)	
To Confirm Diagnosis **(please attached latest Spirometry results)**	☐
New Diagnosis (education, support and care planning)	☐
Management of On-going Symptoms /Treatment Plan (including physio referral)	☐
Home Oxygen Assessment **(needs 3 serial Sp02 on air % % %)**	☐
Respiratory Palliative Clinic / End of Life Support / FAB group	☐
Frequent Exacerbations	☐
Post Hospital Discharge Support	☐
Other Reason:	

For referrals to pulmonary rehab (please complete the referral form and refer through e-Referral)
For referrals to secondary care referral (please refer through e-Referral)
For acute exacerbation management please ring the lung line on 01332 788225

REFERRER DETAILS		FOR IMPACT+ OFFICE USE ONLY	
Referrer Name:		Date Received:	
Designation:		Received By:	
Contact Details:		Reviewed By:	
Date of Referral:		Outcome:	

University Hospitals of Derby and Burton NHS Foundation Trust
ImpACT+ (Improving Adult Respiratory Care Together)
London Road Community Hospital, London Road, Derby, DE1 2QY
Telephone: 01332 788225 dhft.impact-plus@nhs.net

North Derbyshire

Home Oxygen Referral Form

The team only accepts patients who have confirmed cardio-respiratory disease and have serial pulse oximetry 92% or below on air (or a secondary diagnosis of polycythaemia/cor pulmonale).

Patient Name:
Patient DOB:
Patient NHS Number:
Patient Address:
Patient Contact Number:
GP Practice:
Other HCP's:

Main Diagnosis:

(please include evidence of diagnosis eg spiro/echo/CXR with dates)

Past Medical History:

Is patient's condition optimally controlled (if COPD see NICE/Derbyshire Guidelines):

Confirm patients most recent chest infection requiring antibiotics/steroids:

Does the patient smoke?
Referral to smoking cessation? Date Referred:
Referred to Pulmonary Rehab?: Date Referred:

Current Medication:

Reason for Referral: Please can you include all recent ABGS/CBGS/Sp02 results:

Name: Date:
Signature: Contact Details:
Role:

Please email to CRHFT.HOS@nhs.net. Or call 01246 516128 to discuss referral. In hospital please Bleep 917 or call ext 6128 to discuss.

Appendix 2 – Home oxygen referral form EMERGENCY & OUT OF HOURS

The oxygen forms relating to Emergency and out of hours have changed.
Please refer to the following information ONLY in the event of an Emergency situation, out of hours or end of life, where you cannot contact the Home Oxygen Service:

The HOOF Part A prescribers (those outside of HOS-AR services; out of hour GP's, Acute Trusts etc)

- Log onto BOC's Home Oxygen Portal www.bochop.co.uk to order the oxygen.
- Only registered healthcare professionals can submit a HOOF on the Portal. When registering for the Portal, users must provide their professional registration number. No non-person email addresses can be accepted. The Portal is easy to use but there are training videos in the Portal's Video Library which guide prescribers through the steps to create a HOOF on the Portal.
- Complete the basic Integrated Home Oxygen Risk Mitigation (IHORM) – **Mandatory requirement** as part of the Oxygen order form
- Complete the patient Home Oxygen Consent Form (HOCF)- **Mandatory requirement** as part of the Oxygen order form
- Copies of the IHORM and HOCF are to be sent to the Home Oxygen Service

Please note that if the IHORM and the HOCF are not completed the order will be rejected which could lead to delays in patient care.

Appendix 3 – Oxygen in palliative and end of life care

Always make an assessment of a person's breathlessness before considering prescribing oxygen. Breathlessness is a subjective sensation and, in people with palliative care needs, frequently there are multiple causes e.g. anaemia, pleural effusion, PE, respiratory muscle weakness. Treat reversible causes as appropriate; this will depend on the person's preferences and prognosis.

Consider non-pharmacological approaches, e.g. breathing techniques, explanation, airflow/fan and adaptation. Consider medication, e.g. opioids and benzodiazepines, to reduce the sensation of breathlessness (steroids may be indicated for acute breathlessness due to airway obstruction or SVCO).

People who are breathless on exertion will benefit more from non-pharmacological approaches. People who are breathless at rest will benefit more from medication. Do not withhold medication from a dying person experiencing severe terminal breathlessness; respiratory depression is not clinically relevant, symptom control is the priority. For information about symptom management in the last days of life, refer to http://derbyshire.eolcare.uk.

Only offer oxygen therapy to people known or clinically suspected to have symptomatic hypoxeamia (SpO2 <92%). Pulse oximetry is usually adequate for assessment in people with palliative care needs, though formal assessment may be indicated. It is reasonable to prescribe short burst oxygen therapy, 2L/min, via nasal cannulae. The aim is to reduce the sensation of breathlessness by increasing oxygen saturations; symptom relief should guide use (rather than oximetry readings) and if breathlessness does not improve oxygen therapy can be stopped.

If a person is found to be hypoxaemic but is not symptomatic, oxygen therapy is not required.
Oxygen should still be used cautiously in people with hypercapnic respiratory failure; if a patient becomes more drowsy after starting or increasing oxygen therapy, remove/reduce it immediately.

Appendix 4 – Clinical Guidelines for GPs

Indications for oxygen therapy

Oxygen is prescribed for hypoxaemic patients *(PaO2 below 7.3 kPa / below 92% on pulse oximetry)*. The concentration prescribed depends on the condition being treated. Low concentrations (24-28%) are used in patients with COPD or conditions causing under ventilation and CO2 retention. These patients when assessed will be issued an Oxygen Alert Card / Wristband. Higher concentrations of oxygen, up to100%, are safe in conditions such as pneumonia and lung fibrosis. Repeated blood gas measurements are required to assess the correct oxygen concentration.

Types of Oxygen Therapy

There are currently three modalities for oxygen provision:

1. Long Term Oxygen Therapy (LTOT)

- LTOT refers to the provision of oxygen therapy at home for patients with chronic hypoxemia.
- There is good evidence for the prescribing of LTOT in patients with COPD who are hypoxic. In COPD it prolongs survival, if given for at least 15 hours daily, including the night time, to raise the oxygen tension above 8 kPa. Use for less than 15 hours daily is of unproven benefit.
- LTOT should not be started at the time of hospital discharge, when patients are still recovering from an exacerbation, as many recover their lung function and become normoxic.
- Before LTOT is ordered arterial blood gases (ABG), resting arterial or ear lobe capillary, should be measured when the patient is clinically stable on at least 2 occasions three weeks apart
- LTOT is best provided with a concentrator, via nasal prongs at 2 – 15 l/min (depending on ABGs).
- Smokers should stop smoking. NICE NG115 recommends Do NOT offer long-term oxygen therapy to people who continue to smoke. However, clinician/ specialist who offer home oxygen service will risk assess on individual basis continuously throughout treatment – these patients need thorough risk assessments from multi agencies and will need to sign risk assessment forms and disclaimers prior to Oxygen commencing.

NICE states that the following are indications for considering LTOT:

- Patients with a PaO2 of less than 7.3 kPa when stable or;
- PaO2 of 7.3 to 8 kPa when stable but an additional risk feature, such as secondary polycythaemia, nocturnal hypoxaemia, peripheral oedema or pulmonary hypertension.

NICE suggests assessment of the need for LTOT in patients with the following:

- Severe airflow obstruction with FEV1 of less than 30% of predicted
- Cyanosis
- Polycythaemia
- Peripheral oedema
- Elevated jugular venous pressure
- Oxygen saturation under 92% when breathing air

2. Ambulatory Oxygen

Ambulatory oxygen provides oxygen outside of the home for those patients on LTOT who are active and for some patients who desaturate on exercise. The aim is to enable patients to leave the house to improve quality of life. Ambulatory oxygen may also be suitable for patients not on LTOT but who show evidence of desaturation (a fall of SaO2 of 4% to below 90%) on exercise and an improvement in exercise capacity. This group needs formal assessment including a walk test on both oxygen and air via a cylinder and an exercise diary. Liquid oxygen (LOX) is available for those patients with a high usage of ambulatory oxygen. All patients who require Ambulatory Oxygen should be referred into the Oxygen Assessment Service, who will assess suitability for all different modalities for Ambulatory Oxygen

3. Short Burst Oxygen Therapy (SBOT) - Now static cylinder on the Home Oxygen Order Form (HOOF)

There is no evidence that short burst oxygen improves quality of life in COPD patients or that it reduces use of health care resources. Oxygen has no impact on a breathless patient, if anything recent evidence shows it has the ability to make breathlessness worse in non hypoxaemic patients. SBOT may be considered for people with palliative care needs that have symptomatic hypoxaemia.

Guidelines for Oxygen Prescription

- LTOT should not be prescribed for patients with chronic hypoxaemia with a PaO2 value ABOVE 8 KPa or who are 92% saturated or above when at rest.
- Oxygen, including Ambulatory oxygen should not be prescribed for breathlessness - only for those with hypoxia or hypoxia on exercise.
- Think about the amount prescribed per day – few patients are ambulatory for very long periods. (1 hour a day adds up to 7 hours worth of Oxygen in total per week – often adequate to cover the odd trip out).

IF IN DOUBT ASK YOUR LOCAL HOME OXYGEN SERVICE

Ordering of Oxygen

With the new Home Oxygen Contract, there are now vast changes in the way Oxygen can be ordered. There are 2 parts to the HOOF –

- **Part A** - any Registered Health Care Professional can order Oxygen (only allowed STATIC CONCENTRATORS OR STATIC CYLINDERS, NOT ambulatory cylinders)
- **Part B** - for the Home Oxygen Service Assessment & Review (HOSAAR) services to use.

It places great emphasis on Home Oxygen Assessment Services being the most clinically effective way of ordering Oxygen & any HOOF outside of the HOSAAR will be rejected if referral is not made.

Complete the referral to Home Oxygen Specialist Practitioner and any other concerns, i.e. Ambulatory requirements will be addressed.

Referral to Home Oxygen Specialist Practitioner

It is mandatory to complete a Home Oxygen Assessment Service Referral Form (appendix 1).
The Home Oxygen Assessment Service will make a follow-up in the community and arrange an assessment (within 4 weeks). Also send a copy of Part A HOOF if prescribed in an emergency.

Change of Address

There is no need to issue a new HOOF for a change of address.
Contact BOC Healthcare on 0800 111 333 (General Enquires) to update records

Other Considerations when Ordering Oxygen

Emergency Oxygen

An emergency order is over *three* times the usual tariff. The evidence is that many patients given oxygen post hospitalisation recover their lung function after three months and no longer require oxygen. Around 18% of all patients no longer require oxygen at one year, and many are given oxygen with no proven need or benefit. Emergency oxygen can be supplied within 4 hours.

Travel

For holidays in the UK the usual contractor will make reciprocal arrangements with another contractor to supply oxygen at the holiday destination. If the patient is travelling in this country they can contact the company direct to arrange holiday Oxygen. Patients with a resting oxygen saturation of under 94% although not needing LTOT may be hypoxic if they travel by air and should be referred for in-flight testing through oxygen assessment services. Oxygen saturation of over 92% would not meet the criteria for LTOT. All patients considered for ambulatory oxygen require assessment by the HOS & may be screened during pulmonary rehabilitation programmes.

How soon do I want the order?

Standard Deliveries – next working day (Phone 0800 111 333)

Monday to Friday 8am – 6pm (For next day delivery, orders must be placed before 5:00pm)

This means that if you contact BOC Healthcare on a Tuesday before 5:00pm delivery will be the following working day (Wednesday). If you contact BOC Healthcare on a Friday before 5:00pm delivery will be the following working day which will be Monday the following week.

Urgent Deliveries – within 4 hours (Phone 0800 111 333**)**
Please note there is still an extra charge for this service & should only be used for those patients who need a prescription confirmed by gases on the day of discharge – please use discharge planning to ensure oxygen is delivered day before.
This is for end of life (palliative) oxygen prescriptions or situations where time is a priority, i.e. urgent hospital discharges**.**

What to prescribe? (Only two options available)

1. STATIC CONCENTATOR: If a patient is requiring oxygen for more than 1.5 hours a day irrespective of litres, then you choose a STATIC CONCENTRATOR. The concentrator will deliver between 1 to 5 litres per minute. (or 2 – 8 litres on a high flow concentrator) Two or more concentrators will be needed if the user flow rate is more than 8 litres per minute. You can also request for TWO or more concentrators if the patient's home circumstances merits it, i.e. one for the ground floor and one for a bedroom upstairs. However, concentrators may be fitted with a long-oxygen pipe to allow the user to move from one room to another.
2. STATIC CYLINDER: not routinely prescribed – given as emergency back up for concentrator.
3. You may prescribe 0.5 litres to 15 litres per minute.
4. You may also prescribe 24% concentration up to 100% concentration
5. You may NOT PRESCRIBE BOTH IN LITRES (flow rate) OR PERCENTAGE OF CONCENTRATION as this will confuse the oxygen supply engineer. It is best to prescribe using flow rate.
6. Please remember that STATIC CONCENTRATORS ONLY DELIVER a flow rate of 1 to 8 litres per minute.
7. You may prescribe a NASAL CANNULAE or a MASK with corresponding PERCENTAGE OF CONCENTRATION.
8. If oxygen is required for NIV or CPAP, it will be supplied but the patient will need to attach this to the ventilator.

Patient Education
Patient Education should cover diagnosis, indications / benefits & risks of Oxygen therapy. Use of ambulatory oxygen therapy, principles of treatment, maintenance of portable equipment, servicing arrangements and electricity reimbursement, use of nasal cannula or masks, requirement for humidifier, contact telephone number and advice on travel. Advice should be provided on the combined danger of smoking / open fires and oxygen. Further education is provided by the engineer at the time of delivery.

Contact Details:
Southern Derbyshire and Erewash
ImpACT+ Home Oxygen
Tel no - 01332 788225 option 2

North Derbyshire Home Oxygen
Chesterfield Royal Hospital
Admin: 01246 516128

Consultees
Sue Smith/ Kerie Hall, Specialist Practitioner ImpACT+ University Hospitals of Derby and Burton
Claire Barnett, Home Oxygen nurse, Chesterfield Royal Hospital
Jacky Frisby, Consultant in Palliative Medicine, University Hospitals of Derby and Burton

References:
Care of dying adults in the last days of life, NICE clinical guideline, NG31, Dec 2015
NICE Clinical Knowledge Summaries, Palliative Care – Dyspnoea, Dec 2016