COPD Patient Care Pathway

Home Support

Personalised Care

Identification

Care Plan

Intervention

Diagnosis

Self-Management

Exacerbation Management

Treatment

Rehabilitation

NHS
Northumberland
Clinical Commissioning Group

NHS
North Tyneside
Clinical Commissioning Group

Contents

The Pathway

1. Identification and Diagnosis P3
2. Annual Care Planning Review P6
3. Exacerbation Management P8
4. Home Oxygen Therapy P10
5. Pulmonary Rehabilitation P11
6. End Of Life Care P11
7. Referral to Specialist Services P12

Treatment Guidelines

8. COPD Treatment Guide P14
9. Patient Exacerbation Management – Self-Management Plan P19
10. Exacerbation Management Guide for Health Care Professional P20
11. Exacerbation Management Decision Aid (Hospital or Home) P22
12. Inhaler Choices P24

The Pathway

1. Identification and Diagnosis

Early identification

Suspect COPD if:

- Aged over 35yrs
- Current or ex-smoker with a smoking history of ≥10 pack years

With symptoms of:

- Exertional breathlessness
- +/- wheeze
- Chronic cough
- Regular sputum production
- Frequent winter bronchitis/chest infections

Confirm diagnosis with quality assured spirometry:

- Record: eMRCD, BMI, smoking status, pack years, pulse oximetry
- Offer appropriate smoking cessation support
- Add to disease register when diagnosis confirmed
- If diagnosis of COPD is unclear or there is concern about alternative or co-existing conditions, consider specialist referral

Smoking Cessation:

All smokers should be provided with advice about approved and tested pharmacotherapy to help quit smoking and end nicotine addiction (i.e. Varenicline (Champix), nicotine patches, gum, inhalators, lozenges, and spray).

Ask, Advise, Act

- **Ask** and record smoking status Smoker/non-smoker/ex-smoker (include when they stopped smoking) and pack years: If carbon monoxide monitor available obtain reading.
- **Advise** patients of the health benefits of stopping smoking and that they are up to 4 x more likely to quit with NHS support.
- **Act** on patient's response: prescribe pharmacotherapy and refer/signpost to the stop smoking service.

Electronic (E) Cigarettes

E-cigarettes do not burn tobacco and create smoke and as such, their use is not covered by smokefree legislation.

- Whilst debate continues about their absolute level of safety there is growing consensus that they are safer for users than smoked tobacco.
- E-cigarettes have potential to help reduce tobacco use and the serious harm it causes to smokers, those around them and wider society.
- Public Health England report estimates that e-cigarettes are 95% less harmful to your health than normal cigarettes (PHE 2015).
- People with asthma and other respiratory conditions can be sensitive to a range of environmental irritants which could include E cigarette vapour this needs to be taken into account when discussing harm reduction approaches.

Differential diagnosis – refer to specialist services:

Asthma:

- Symptoms before the age of 35yrs
- Significant day to day variation
- Night time wakening with breathlessness, wheeze or cough
- Allergic triggers

Alpha-1 antitripsin deficiency:

- Emphysema with early onset or minimal smoking history (<10 pack years)
- Family history

Bronchiectasis:

- Frequent infections and/or high volume sputum (>30mls per day)
- Associated conditions (rheumatoid arthritis, previous severe pneumonia or TB)
- Bronchiectasis may occur secondary to COPD or asthma (consider possibility of dual diagnosis)

Advanced emphysema:

- Preserved spirometry – emphysema may occur without significant airflow obstruction
- Clinical suspicion of COPD does not match spirometry result

Recognise the link between COPD and lung cancer. Always consider possibility of lung cancer when the following symptoms occur:

- Haemoptysis
- Chest/shoulder pain
- Worsening cough
- Worsening dyspnoea, hoarseness of voice and finger clubbing
- Weight loss
- Persistent cough >three weeks

2. Annual Care Planning Review

- All patients correctly diagnosed with COPD should have an annual care planning review
- Interim reviews to be decided in partnership with the patient, family and health care professional/key worker
- Individuals should be offered the opportunity to have an agreed personalised care plan, which should include:
  - A self-management plan (SMP) explaining how to manage a flare up/exacerbation and use of rescue medications, designed to enable the patient to respond to the first signs of a flare up.
  - A personalised care plan where individual goals have been discussed and agreed
- Patients with complex needs, who have had a hospital admission within the last 12 months, should be allocated a key worker (GP, practice nurse, district nurse, community matron or specialist nurse) and be placed on the high risk register. Consider inviting a member of the specialist team to practice meetings for shared care
- Shared care between the specialist team and primary care is encouraged for those with severe/complex disease
- Patients with severe disease requiring interventions such as non-invasive ventilation should be regularly reviewed by specialists
- In North Tyneside and Northumberland the recommendation is to follow the COPD Treatment Guide for medication overall management (see section 8)

Annual review to include:

- Annual spirometry (diagnostic spirometry must be quality assured)
- Record oxygen saturations - any patient with oxygen saturations <92% on room air, when in a stable state, should be assessed for home oxygen. Refer to the home oxygen service 0191 293 4141
- Review exacerbation history and understanding of exacerbation recognition and self-management, use of SMP and rescue medications
- Record exercise tolerance and eMRCD score

- Consider referral to pulmonary rehabilitation programme, hospital or community (form available on the Ciix App under useful forms, COPD)
  Northumberland: *click here*
  North Tyneside: *click here*
- All patients to be offered an annual flu vaccine unless contra-indicated
- Pneumococcal vaccine is given once in a lifetime unless the patient has had a splenectomy, these patients should be revaccinated every five years. Antibody titres to pneumococcus should be measured four weeks after vaccination and annually thereafter. Pneumococcus serotype specific IgG level should ideally be >35 mg/l. Revaccination may be necessary if antibody levels are below these thresholds
- Any patient considered for home nebulised therapy – refer to respiratory nurse specialist 0191 293 4253/01670 529 932, except in palliative care – contact RNS team for fast track equipment
- Refer patients who would benefit from re-ablement to occupational therapy/social services. Consider six week care package to promote independence
- Ensure assessment of, and where appropriate, treatment of psychological needs. Complete appropriate questionnaire and consider referral to specialist clinical psychology (form available on the Ciix App under useful forms, COPD) *click here*
- Patients identified with type II respiratory failure (CO2 retention) should be issued with an oxygen alert card by the specialist respiratory team. NEAS will be informed
- Record CAT score – *click here*

Staff involved in the delivery of COPD care should receive appropriate training. This should include: inhaler technique training, exacerbation management, chronic disease management, treatment planning and use of pulse oximetry. Training can be provided on request, contact respiratory nurse specialist on 0191 293 4253

3. Exacerbation Management

- All patients, if appropriate, to have a self-management plan with a rescue pack (five day course of antibiotics and prednisolone – see Exacerbation Management Guide, section 10) to enable patients to self-manage a flare up in its early stages. The key worker should ensure patients or carers have sufficient knowledge and understanding to use correctly
- Individuals who have self-managed a flare up/exacerbation should inform a health care professional prior to starting a rescue pack to confirm appropriate use, issue a replacement and enable recording of the frequency of use. Patients should also contact a health care professional if there is no improvement after two days of starting the rescue pack
- If there is concern about where to care for a patient during an exacerbation, home or hospital, use of the Exacerbation Decision Aid (see section 11) will assist decision making. This is an evidence based tool to help decide between supported home care or hospital admission. To be used in context with patient and carer wishes

Hospital admission:

- Initial assessment and treatment will include: CXR, bloods, arterial blood gas analysis
- If acute respiratory failure identified via arterial blood gas analysis – non-invasive ventilation (NIV) to be commenced within 1 hour of clinical decision to treat and within three hours of presentation (door to mask time)
- Respiratory nurse specialists will review all patients admitted with COPD during the admission and where supported pulmonary discharge service (SPUDS) is available (NTGH only), assess patients' suitability for the service or refer to a community matron
- All patients admitted to hospital with an exacerbation of COPD should be reviewed within 2 weeks of discharge by any of the following:

  - GP or practice nurse
  - Community matron or community nurse
  - Respiratory nurse specialist
  - Consultant chest physician

- Telephone follow up may be appropriate
- Patients accepted for SPUDS will be followed up at home within 24/48 hours
- Where follow up in specialist care is required, this will be within four to six weeks post discharge
- Ensure smoking status is assessed and where appropriate, refer to smoking cessation service. Consider prescribing nicotine replacement therapy (NRT)
- Review patient personalised care plan

4. Home Oxygen Therapy

- Any patient requiring home oxygen must be referred for assessment to the home oxygen team 0191 293 4141 (form available on the CiiX App under useful forms, COPD) *click here*
- For palliative care patients, GPs can prescribe home oxygen

Referral for home oxygen:

- Any patient with oxygen saturations <92% on room air who has been in a stable condition for six weeks
- Any patient who desaturates on exercise to <90% on room air, on exertion
- Consider oxygen assessment in: patients with very severe airflow obstruction (FEV1<30% predicted), patients with cyanosis, polycythaemia, peripheral oedema, raised JVP
- Any patient found to have hypoxia MUST be referred for a specialist assessment, particularly if the underlying diagnosis is unclear

Patients with home oxygen therapy should have a personalised care plan stating prescribed oxygen rates and equipment within the home. This will be put in place and linked with personalised care plan by the home oxygen team.

Patients will have regular reviews at home, undertaken by the home oxygen team in accordance to service specifications.

Patients who require new introduction of oxygen during exacerbations should have arterial blood gases monitored and only be given controlled oxygen. They should be supervised by the respiratory specialist team via either hospital admission or hospital at home. Pulse oximetry does not give an indication of pH or pCO2, which would identify type II acute respiratory failure.

5. Pulmonary Rehabilitation

Pulmonary rehabilitation should be offered to COPD patients with a view to:

- Improving exercise capacity by a clinically important amount
- Improving psychological wellbeing
- Improving dyspnoea and health status by a clinically important amount

Referrals can be accepted from any healthcare professional. The referral form explains the tiered approach to pulmonary rehabilitation, in North Tyneside and Northumberland, using the eMRCD score (form available on the CiiX App under useful forms, COPD)
Northumberland: *click here*
North Tyneside: *click here*

6. End Of Life Care

Ensure people identified with end of life care needs are referred to all appropriate services by the key worker. Ensure support is offered to carers who are supporting the individual. The patient should be on the palliative care register.

Consider symptom management for dyspnoea and anxiety:

- Opioids
- Benzodiazepines
- Antidepressants
- Short burst oxygen
- Psychological support

Ensure individuals who are approaching the terminal phase of their care are given the opportunity to participate in an advanced care plan which would include preferred place of death.

Ensure the out of hours services are aware:

- Special patient registration
- Palliative care teams
- Community matron
- Hospice

7. Referral to Specialist Services

It is recommended that referrals for specialist advice are made when clinically indicated. Referrals may be appropriate at all stages of the disease and not solely in the most severely disabled patients. Secondary care will aim to achieve outcomes laid out in bold below:

- Diagnostic uncertainty or concern about possible co-existent disease/ secondary bronchiectasis suspected:
  Confirm diagnosis and optimise therapy
- Suspected severe COPD:
  Confirm diagnosis and optimise therapy
- Frequent exacerbations or hospital admissions
  Confirm diagnosis and optimise treatment – assess for long term antibiotic treatment
- The patient requests a second opinion:
  Confirm diagnosis and optimise therapy
- Onset of cor-pulmonale:
  Confirm diagnosis and optimise therapy
- Assessment for oxygen therapy:
  Optimise therapy and measure blood gases
- Assessment for long-term nebulised therapy:
  Optimise therapy and exclude inappropriate prescriptions
- Assessment for pulmonary rehabilitation:
  Identify candidates for pulmonary rehabilitation
- Assessment for long-term oral corticosteroid therapy:
  Justify need for long-term treatment or supervise withdrawal
- Assessment for lung volume reduction surgery/bullectomy/endobronchial valves or coils
  Identify candidates for surgery
  - FEV1 >20% predicted
  - Upper lobe predominant emphysema
  - TLC0 >20%
  - Marked hyperinflation (RV >180%)

- For both lung volume reduction surgery and transplantation, a marked restriction in activity, despite maximal treatment including pulmonary rehabilitation, should be evident

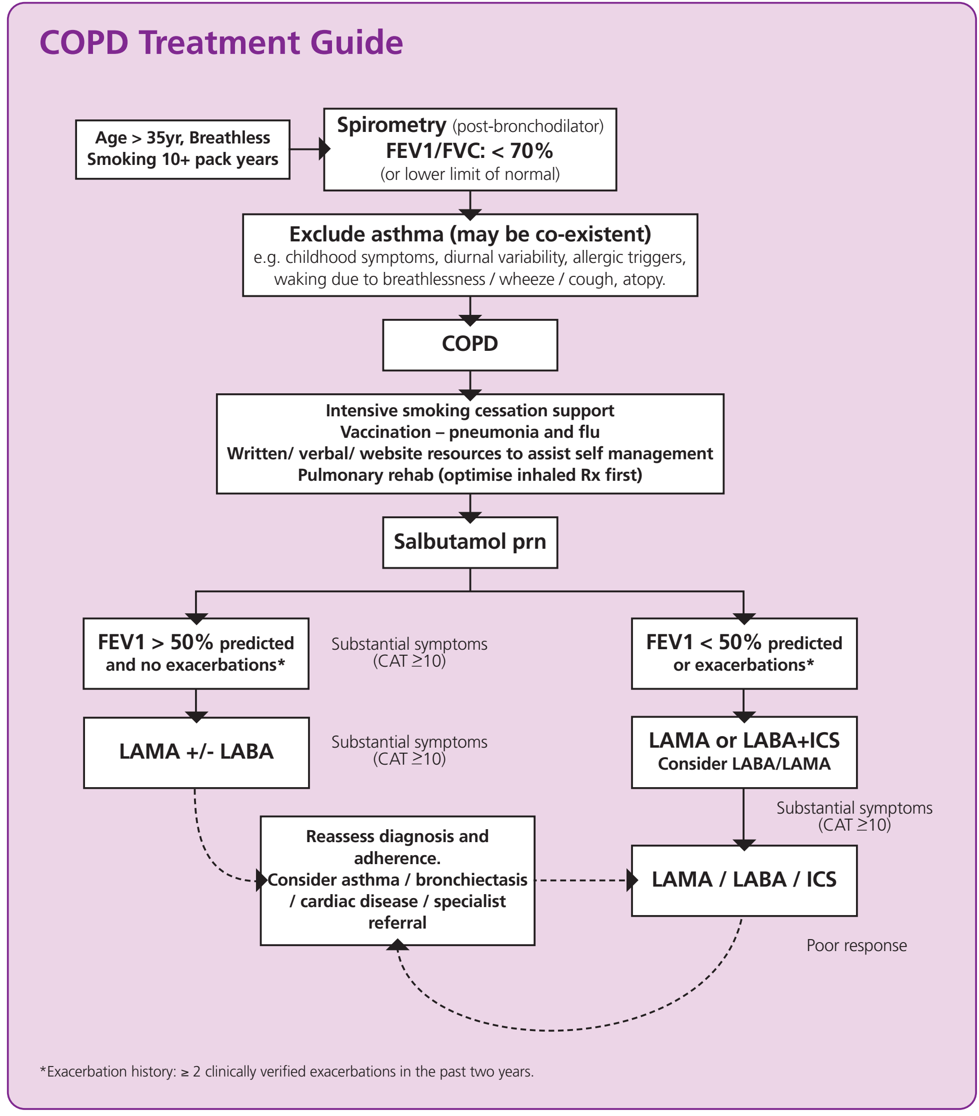
- Assessment for lung transplantation:
  Identify candidates for surgery
  - Age <65
  - FEV1 <20% in patients without other major organ dysfunction would favour transplantation over LVRS
  - Homogeneously distributed emphysema on CT scan
  - Elevated pulmonary artery pressures with progressive deterioration
- A rapid decline in FEV1:
  Encourage early intervention
- Dysfunctional breathing:
  Confirm diagnosis, optimise pharmacology and access other therapists
- Patients with a low BMI or continuing weight loss are referred to a dietician
- Patients with significant panic and/or anxiety are referred to a clinical psychologist

The current specialist team comprises of:

Physiotherapists	0344 811 8111 ext 4064 (North Tyneside) 0344 811 8111 ext 36010 (Wansbeck)
Clinical psychologist	0191 293 4193
Dietician	0344 811 8111 ext 2707
Respiratory specialist nurses	0191 293 4253 (North Tyneside) 01670 529 932 (Wansbeck)
Respiratory physicians	0344 811 8111 ask for individual secretary
Respiratory physiologists	0344 811 8111 ext 2657
Home oxygen team	0191 293 4141
Lung cancer specialist nurses	0191 293 4148 (North Tyneside) 01670 529 303 (Wansbeck)

Treatment Guidelines

8. COPD Treatment Guide



- Diagnosis depends on clinical history and quality assured spirometry.
- New persistent or red flag symptoms – consider chest x-ray (lung cancer?).
- Check inhaler technique and concordance at each visit and before intensifying treatment. The least cost-effective inhaler is the one the patient cannot, or does not, use.
- Monitor oxygen saturations: oxygen assessment if SpO2 <92% at rest or de-saturation on exercise.
- Screen for anxiety and depression (risk adverse outcome – consider health psychology).
- ICS/LABA combination inhalers containing high dose ICS (notably Seretide 500 increase the risk of pneumonia. Consider lower dose ICS/LABA or LABA/LAMA, especially if recurrent pneumonia/infective exacerbations.
- Refer to the inhaler choices on pages 24-25

COPD Treatment Guide Continued

To diagnose COPD

Clinical history and post bronchodilator spirometry showing FEV1/(F)VC <70% (or lower limit of normal). Perform a CXR at diagnosis (if none within 12 months) looking for evidence of other pathology, including malignancy.

Spirometry must be performed by a trained individual who maintains competency. Spirometers need to be maintained and calibrated regularly to ensure accuracy.

Severity and monitoring of COPD

Use FEV1 %predicted (actual FEV1/expected FEV1), exacerbation history and symptoms to assess severity, then follow treatment guide.

Intensive smoking cessation support

Stopping smoking is the most important intervention in COPD.

Pulmonary rehabilitation

Improves exercise tolerance and reduces hospital bed days by 50%. Offer to patients with eMRCD 3-5. Consider early after an exacerbation. Other COPD patients (with eMRCD <3) should be offered referral to exercise schemes.

Weight

Consider referral to community dietitians if BMI<18.5 or unintentional weight loss. Consider weight reduction in the obese (BMI >30).

Inhalers

Check inhaler technique and concordance at each appointment and before treatment intensification.

- SABA – 1st line – salbutamol, 2nd line – terbutaline. Nebulisers do not offer convincing advantages over metered dose inhalers given via a spacer device and are not routinely recommended.
- LAMA – Seebri Breezhaler® (Glycopyrronium) or – Incruse Ellipta® (Umecledinium) or – Eklira Genuair® (Aclidinium). (Eklira Genuair®: side effects such as dry mouth less common, better night time control).

- LAMA/LABA – Ultibro Breezhaler® (Glycopyrronium/Indacaterol)
  Or
- Anoro Ellipta® (Umeclidinium/Vilanterol)
  Or
- Duaklir Genuair® (Aclidinium/Formoterol)

Choice of device

Choice of LAMA: maintain same device as preferred LABA/LAMA

Breezhaler: Ultibro offers best evidence, inc. superior to Seretide, but need to load capsule daily.

Ellipta: easy to use and no need to load a capsule.

Genuair: careful instruction to ensure correct technique. Preferred if systemic S/E with other LAMAs (e.g. dry mouth) or pronounced night time symptoms.

Poor control despite LABA/LAMA?

Consider adding ICS dry powder inhaler (e.g. Budesonide 400 mcg bd), particularly if Eosinophils ≥ 0.3, ensure LABA/LAMA is continued.

LABA/ICS

Consider before LABA/LAMA if any doubt about primary or co-existent asthma.

Substantial symptoms & FEV1 <50%/ or exacerbations.

Seretide: New patients - DO NOT use. Existing patients - review

(esp. infective exacerbations/ pneumonia): consider switch to

LABA/LAMA or alternative lower dose ICS/LABA.

Note doses: Duoresp®320/9 (Budesonide/Formoterol) one puff bd.

Relvar Ellipta® 92/22 mcg (Fluticasone/Vilanterol) one puff daily.

Fostair ®100/6 (Beclometasone/Formoterol) 2 puffs bd.

COPD Treatment Guide Continued

Exacerbations

Antibiotic choice: check available sputum cultures and history of antibiotic allergy/intolerance.

Choose the simplest/narrowest spectrum antibiotic. Duration: five days will usually suffice; if co-existent bronchiectasis - high dose for 14 days.

1st line: Amoxicillin if sensitive, otherwise Doxycycline.

2nd line: Co-amoxiclav.

Penicillin allergic: 1st line: Doxycycline, 2nd line: Co-trimoxazole.

If failure to respond to initial therapy: 1) reassess the diagnosis; 2) check recent sputum culture results/send a fresh sample for culture.

Pseudomonas colonisation in COPD: If failure to respond to standard therapy and recurrent growth of pseudomonas species from sputum samples, consider investigation for bronchiectasis (HRCT) and treatment with two weeks of Ciprofloxacin 750mg PO BD.

Comorbidities

Approximately 40% will have comorbidities such as CVD. Ensure they are assessed and treated.

At review

Reconsider differential diagnosis (asthma, LVF, bronchiectasis). Reinforce education and appropriate self-management. Screen for lung cancer, inform out of hours services and initiate end of life discussions as part of personalised care planning, as needed.

9. Patient Exacerbation Management – Self-Management Plan

Be aware of what is normal for you:

- Note thickness/stickiness, colour and amount of sputum you produce
- How breathless are you at rest and when walking?
- What is your normal daily activity - how much can you normally do?

Prevention - act early:

Recognise any increase in your symptoms:

- Increased breathlessness
- Change in sputum colour – darker is worse
- Increased quantity of sputum – more is worse
- New or increased cough
- New or increased wheeze or chest tightness
- Runny nose, sore throat or watering eyes
- Reduced walking distance
- Swollen ankles and legs
- If you have two or more of the symptoms in red on two consecutive days, take the medications in your rescue pack as below
- You may need to take both antibiotics and Prednisolone depending on your symptoms
- Take Prednisolone if you're more breathless, wheezy or having trouble moving around.
- Take antibiotics if your phlegm is yellow or green, and/or the amount has increased
- If you don't have Prednisone or antibiotics at home contact your GP
- If you don't see an improvement within two days, of starting treatment, inform your GP or key worker
- Contact your key worker or GP or hospital respiratory nurse and inform him/her of any changes in your condition
- You may need increased support or treatment and assessment of your condition; this may be done over the telephone
- If you use rescue medication you still need to ring to get a replacement. Management of your condition may continue at home once an assessment has been made

10. Exacerbation Management Guide for Health Care Professional

Monitor oxygen saturations:

- Saturations above 90% on air – no oxygen required
- If below 90% on air – patients who require new introduction of oxygen during exacerbations should have arterial blood gases monitored and only be given controlled oxygen. They should be supervised by the respiratory specialist team via either hospital admission or hospital at home. Pulse oximetry does not give an indication of pH or pCO2, which would identify type II acute respiratory failure
- If saturations remain below 92% on room air (six weeks post exacerbation) when stable, refer to home Oxygen Team 0191 293 4141 for long term oxygen assessment

Steroids – criteria to start:

- Significant increase in breathlessness and/or wheeze
- Unable to perform usual daily activities
- Prednisolone 30mgs once daily – five days

Antibiotics – criteria to start:

If two or more of the following present:

- Increased breathlessness
- Purulent sputum and/or increased volume of sputum

1st line: Amoxicillin if sensitive, otherwise Doxycycline.

2nd line: Co-amoxiclav.

Penicillin allergic: 1st line: Doxycycline, 2nd line: Co-trimoxazole.

If failure to respond to initial therapy: 1) reassess the diagnosis; 2) check recent sputum culture results/send a fresh sample for culture.

Review inhaled medication:

- Refer to inhaler guide (section 12)
- Consider LAMA/LABA with single agent ICS for long term exacerbation management if FEV1 <50% or frequent (>2) clinically verified exacerbations in past two years Pulmicort Turbohaler® (Budesonide) or Clenil Modulite® (beclometasone) or Qvar® (beclometasone)
- Ensure inhaler therapy is optimised – encourage use of spacer device if appropriate
- Check inhaler technique
- Nebulised medication is not usually required at home

Manage panic and anxiety:

- Consider referral to clinical psychologist if significant problems
- Assess need for physiotherapy: Does the patient need assistance with: Chest clearance/breathing training or rehabilitation

Post exacerbation follow up in primary care (telephone review):

- Check symptoms – breathlessness, wheeze and sputum production
- Monitor recovery rate – retreat if necessary
- Check functional abilities, social support
- Review medication and technique as above
- Monitor oxygen saturations
- Update eMRCD score

11. Exacerbation Management Decision Aid (Hospital or Home)

Key worker decision aid/assessment guideline criteria:

Option 1 - Supported home care

- Oxygen sats >90% on room air (no oxygen needed)

OR

- Sats >88% on usual oxygen flow rate **if on LTOT**
- Haemodynamically stable
- Pulse rate <120
- Respiratory rate <24
- Can speak full sentences
- No pedal oedema or no change from usual
- No acute confusion
- Adequate home support
- Monitor type, amount and colour of sputum

If yes to all of above:

Supported home care may be appropriate by key worker or respiratory nurse specialist (RNS) team according to patient's individualised self management plan

NB: RNS team can be contacted for support/advice -
9am-5pm Mon-Fri - at North Tyneside, Wansbeck and Hexham hospitals (there is a limited service at Hexham)

A rapid response/joint visit service is available for patients with a confirmed diagnosis of COPD at North Tyneside only.

Direct Line 0191 293 4253

Option 2 - Hospital admission

New hypoxia:

- Oxygen sats <90% on room air or <88% on oxygen
- Diastolic BP<60
- Systolic BP<100
- Pulse rate>120
- Respiratory rate >24
- Unable to speak sentences
- New pedal oedema/worsening oedema
- Acute confusion

If yes to any one of above:

Arrange direct hospital admission through emergency care.

12. Inhaler Choices

COPD: see COPD treatment Guide[1] (section 8)

Note: inhalers must be prescribed using the Trade name (not generically) – you are prescribing a device as well as a drug.

Smoking cessation, pulmonary rehab, flu jab, anxiety management, on line resources such as "my lungs my life", Patient.co.uk and GP Teamnet® for instructions on how to use inhalers.-

SABA	Salbutamol 200 mcg prn	Terbutaline 500 mcg prn	
LAMA (substantial symptoms, CAT≥10) Tiotropium: existing patients only (review): new LAMAs at least as good & lower cost (versus Tio Handihaler). Eklira: For those with S/E (e.g. dry mouth) on alternative LAMAs / pronounced night time symptoms.	**Seebri Breezhaler®** (Glycopyrronium) **one puff daily**	**Incruse Ellipta®** (Umecledinium) **one puff daily**	**Eklira Genuair®** (Aclidinium) **one puff bd**
Note – If there is any suspicion of co-existing asthma use ICS/LABA instead of LAMA/LABA – see dosing below			
LAMA/LABA (substantial symptoms/ exacerbations despite LAMA) Better than LABA/ICS, including exacerbators[2]. **Must carefully exclude asthma-clinical history!**	**Ultibro Breezhaler®** (Glycopyrronium/indacaterol) **one puff daily** 	**Anoro Ellipta®** (Umeclidinium /vilanterol) **one puff daily** 	**Duaklir Genuair®** (Aclidinium/formoterol) **one puff bd**

References: 1. Northumberland and North Tyneside Guidelines for COPD 2015 (note: LABA/LAMA is an option for patients both with and without FEV1<50%).

2. Wedzicha JA. New England Journal of Medicine 2016;374:2222-34. 3. Vogelmeier CF. Lancet Respiratory Medicine 2013;1:51-60. 4. Watz H. Lancet Respiratory Medicine 2016;4:390-98. Version 1.1 12 July 2016

LABA/ICS

Consider before LABA/LAMA if any doubt about primary or co-existent asthma.

Substantial symptoms & FEV1< 50%/ or exacerbations.

Seretide: New patients - DO NOT use. Existing patients - review (esp. infective exacerbations/ pneumonia): consider switch to LABA/LAMA or alternative lower dose ICS/LABA.

Note doses: Duoresp®320/9 (Budesonide/Formoterol) one puff bd.

Relvar Ellipta® 92/22 mcg (Fluticasone/Vilanterol) one puff daily.

Fostair®100/6 (Beclometasone/Formoterol) two puffs bd.

Choice of device

Choice of LAMA: maintain same device as preferred LABA/LAMA.

- Breezhaler: Ultibro offers best evidence, inc. superior to Seretide, but need to load capsule daily.
- Ellipta: easy to use and no need to load a capsule.
- Genuair: careful instruction to ensure correct technique. Preferred if systemic S/E with other LAMAs (e.g. dry mouth) or pronounced night time symptoms.

How is your COPD? Take the COPD Assessment Test TM

			SCORE
I never cough	1 2 3 4 5	I cough all of the time	
I have no phlegm (mucus) in my chest	1 2 3 4 5	My chest is completely full of phlegm (mucus)	
My chest does not feel tight at all	1 2 3 4 5	My chest feels very tight	
When I walk up a hill or one flight of stairs I am not breathless	1 2 3 4 5	When I walk up a hill or one flight of stairs I am very breathless	
I am not limited doing any activities at home	1 2 3 4 5	I am very limited doing any activities at home	
I am confident leaving my home despite my lung condition	1 2 3 4 5	I am not at all confident leaving my home because of my lung condition	
I sleep soundly	1 2 3 4 5	I don't sleep soundly because of my lung condition	
I have lots of energy	1 2 3 4 5	I have no energy at all	
		TOTAL SCORE	

Grade	Degree of breathlessness related to activities – eMRCD
1	Only breathless on strenuous exertion
2	Breathless hurrying on the level or walking up a slight hill
3	Walks slower than contemporaries, or stops after walking on the level for 15 minutes
4	Stops for breath after walking about 100 meters, or for a few minutes, on the level
5a	Too breathless to leave the house unassisted but independent in washing and / or dressing
5b	Too breathless to leave the house unassisted and requires help with washing and dressing

COPD specialist team contact details:

Physiotherapists	0344 811 8111 ext 4064 (North Tyneside) 0344 811 8111 ext 36010 (Wansbeck)
Clinical psychologist	0191 293 4193
Dietician	0344 811 8111 ext 2707
Respiratory specialist nurses	0191 293 4253 (North Tyneside) 01670 529 932 (Wansbeck)
Respiratory physicians	0344 811 8111 ask for individual secretary
Respiratory physiologists	0344 811 8111 ext 2657
Home oxygen team	0191 293 4141
Lung cancer specialist nurses	0191 293 4148 (North Tyneside) 01670 529 303 (Wansbeck)

December 2016