

# PCRS-UK Protocols



## Management of acute exacerbations of COPD

This protocol has been developed specifically to be utilised by primary care nurses delivering respiratory care. It has also been produced in Microsoft Word™ format as a general guide only, to allow for local adaptation. It must be stressed that the use of all, or part, of this protocol must be sanctioned and approved by the appropriate authorised individual from the practice or primary care organisation in which it is to be used. The PCRS-UK is neither responsible or liable, directly or indirectly for any form of damage or injury caused as a result of information provided in this document.

An acute exacerbation of chronic obstructive pulmonary disease (COPD) is described as a sustained worsening of symptoms that is beyond normal day-to-day variation, and is acute in onset. This is a significant event that may result in worsening prognosis. Acute exacerbations of COPD may be due to bacterial or viral infection, or poor air quality.

### Symptoms

1. Worsening dyspnoea
2. Cough
3. Increase in sputum volume
4. Increase in sputum purulence
5. Increased fatigue
6. An acute change in day to day symptoms

### Assessment of diagnosis and severity

Consider whether other diagnoses need to be excluded, such as pulmonary embolus, pneumonia, pneumothorax and acute cardiac events. Once the diagnosis is established a clinical assessment of severity is required to determine management.

### Consider treatment at hospital or at home?

Factors to consider:

- Marked breathlessness
- SaO<sub>2</sub> 92% or below (unless this is normal for the person)
- ↓ level of consciousness, confusion
- ↑ respiratory rate
- Pursed lip breathing
- New onset cyanosis
- High fever
- Chest pain
- General condition
- Co-morbidities especially cardiac conditions, diabetes mellitus, anxiety and depression
- Receiving home oxygen (If saturations are the same as baseline and patient is well established on oxygen it is safe to treat at home)
- Social circumstance i.e. lives alone

### Treatment

1. Give maximal dose of inhaled bronchodilators through an effective delivery system.
2. Give oral Prednisolone 30mgs stat and then daily for 7-14 days (unless contraindicated).
3. Give antibiotics if sputum has recently become purulent.

**1st line\*** Amoxicillin 500 mgs TDS for 7-10 days  
**OR**  
 Oxytetracycline 250 mgs QDS for 7-10 days  
**OR**  
 Doxycycline 200mgs stat then 100 mgs daily for 7-10 days

**2nd line\*** Co- Amoxiclav 625 mgs TDS for 7-10 days

Check local antibiotic prescribing guidance

*\* if the patient has co-existing bronchiectasis a 14 day course is recommended*

Exacerbations may precipitate Cor Pulmonale and Respiratory Failure, leading to:

- Fluid retention
- Cyanosis and SaO<sub>2</sub> < 90%
- Acute confusion

### Follow-up and review

Review as soon as possible following the exacerbation.

Use the consultation for:

- Review of event and providing patient education as needed
- Revision of the action plan for subsequent exacerbations including who, when and how to contact
- Providing optimal maintenance therapy including drugs, oxygen and pulmonary rehabilitation as appropriate

Within licensed indications, oseltamivir is recommended for at risk patients who present with influenza-like illness within 48 hours of the onset of symptoms. (Zanamivir should be avoided because of the risk of bronchospasm.) (Comment is this on all guidelines?)

### Further reading

1. PCRS-UK COPD Guidelines booklet. Based on the COPD guideline by the National Institute for Health and Clinical Excellence (NICE), this booklet provides concise and easy to follow guidance on the management of COPD. To download follow this link: [http://www.pcrs-uk.org/pubs/copd\\_guideline\\_2007\\_final.pdf](http://www.pcrs-uk.org/pubs/copd_guideline_2007_final.pdf)
2. National Institute for Health and Clinical Excellence (NICE) - Guideline for the Management of COPD. February 2004. Revised June 2010 Last accessed 28 June 2010: <http://guidance.nice.org.uk/CG101/NICEGuidance/doc/English>
3. PCRS-UK Opinion Sheet – Management of exacerbations of COPD in Primary Care by Dr Noel O’Kelly available at [http://www.pcrs-uk.org/resources/os16\\_copd\\_exac.pdf](http://www.pcrs-uk.org/resources/os16_copd_exac.pdf)
4. National Institute for Health and Clinical Excellence (NICE) – QS25 Quality Standard for Asthma. February 2013 <http://publications.nice.org.uk/quality-standard-for-asthma-qs25>

The PCRS-UK is not able to review or endorse any changes to this protocol.

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