Management of COPD

Emergency Department Guidance

Patricia Monteiro, Sarah Flynn, Annabel Fletcher, Anna Bibby & Andrew Stanton

22nd May 2012

Version 2

This is an emergency department guideline for the management of COPD in the acute presentation at Great Western Hospital Swindon. If you have any questions re the guideline; then please talk to a senior doctor in the ED.

COPD Guideline in A&E

Initial Assessment & Management

- ABCDE
  - Attach to monitoring,
  - Baseline set of observations
  - Basic history if possible
- Sit patient upright/45 degrees
- Apply oxygen
  - Controlled therapy
  - Can start high but wean quickly aiming for SpO2 88-92%
- ABG
  - Assess initial pH, PaO2, PaCO2, BE, HCO3
- IV access
  - Take bloods- send Med A and Blood culture if pyrexial
  - Consider starting IV fluids if dehydrated
- Order further investigations:
  - CXR
  - ECG

Medical therapy:

Nebulisers

- Salbutamol 2.5mg and Ipratropium bromide 500mcg
- Repeat Salbutamol as required until improvement
- Ipratropium bromide QDS

Steroids

- PO prednisolone 30mg PO. IV hydrocortisone 200mg should only be given if the patient cannot swallow.

Antibiotics

- Evidence suggests antibiotics benefit only patients with 2/3 of:
  - Increased dyspnoea
  - Increased sputum volume
  - Increased sputum purulence
- In addition other evidence of infection (pyrexia, or significantly raised inflammatory markers) can appropriately be used to guide decision about antibiotics
- Follow Trust guidelines, currently:
  - Oral 500mg TDS amoxicillin or if penicillin allergy: Doxycycline 200mg stat, 100mg OD (7 day course). Intravenous antibiotics should only be used if the patient is unable to swallow
  - If CXR shows consolidation, the diagnosis is pneumonia and appropriate trust guidelines should be followed. The CURB score is validated only in

the use of pneumonia and so should not be used in the context of COPD exacerbations

After initial assessment and management, further management is based on severity and need for admission.

Further history

- From patient if able to give
- Collateral history from relatives
- Contact Community matron at GWH if within daytime hours
    - Good collateral history
    - Advice re:admission or discharge

Consider the following indications for hospital admission:

Discuss with senior if unsure where your patient should go. Absolute admissions are: patient needing BIPAP, sats <88% on air (doesn't have home oxygen), on IV therapy. Others need thought about on a case to case basis. Some may be able to go to ambulatory care rather than admit to a medical ward.

- Patient lives alone/not coping
- General condition poor or deteriorating, bed bound
- Severe SOB/cyanosis/worsening peripheral oedema
- Acute confusion or reduced level of consciousness
- Significant co-morbidity (especially cardiac disease and insulin-dependent diabetes)
- Failure to improve with initial nebulised treatment
- Ongoing requirement for oxygen

Severe exacerbation, not improving on medical therapy:

- **Non-invasive Ventilation**
    - **See separate guidance on NIV**
    - Any patient being commenced on NIV must have decision made about ceiling of treatment BEFORE the NIV is started. Discussions should also involve family.
    - Monitor
        - Oxygen- aiming 88-92% saturations
        - BP- may become hypotensive
        - ABG- initially every 30 minutes
        - Patient comfort, secretions, response to treatment

- Further medical therapy to consider:
    - IV Theophyllines (refractory wheeze despite optimal nebulised bronchodilators)

- If admitting under medics, inform Medical Registrar (but nb. Patient remains your responsibility until seen by the medics, or taken off the unit – i.e. YOU must continue to review the ABGs and monitor the patients progress)

- Inform ITU if indication for admission:
    - Worsening ABGs on maximum tolerated NIV pressures
    - Patient fatigue – i.e. impending or actual respiratory failure
    - Haemodynamic instability
    - Patient not tolerating BIPAP, but persistent respiratory acidosis and good candidate for ITU/ ventilation.
    - Please make sure that these patient are APPROPRIATE for ICU. i.e. before you refer them check if they are on home oxygen, what their exercise tolerance is, any previous decisions made by family, patient, ICU, respiratory team.

Mild or moderate exacerbation:

- Liaise with COPD community matron regarding appropriate discharge options from GWH A&E:
    - Home
    - ACU- if short stay admission appropriate in daytime hours e,g, if need EDAT assessment
    - LAMU- if indication for admission as above

Useful links:

NICE Guideline June 2010 Quick reference: http://www.nice.org.uk/nicemedia/live/13029/49399/49399.pdf
http://pathways.nice.org.uk/pathways/chronic-obstructive-pulmonary-disease#
http://www.patient.co.uk/doctor/Acute-Exacerbations-of-COPD.htm