COPD Exacerbation Guideline

Initial Assessment Process: MMC Emergency Medicine CXR and ECG if clinically indicated **COPD** Guidelines Authors: Sam Wood, MD; PJ Bourke, MD Laboratory Studies (consider CBC, CMP, VBG, ABG, or capnography to assess degree of hypercarbia; BNP, Date: February 2017 Troponin in appropriate clinical circumstances)
Sputum Assessment (if mechanically ventilated; sputum microscopy & culture – preferably prior to ABX) **Initial Treatment** Saline lock: If HR > 120 beats/minute or RR > 24/minute Consider NIPPV or Mechanical Ventilation (based on work of breathing, hypoxia, or acidosis) Supplemental Oxygen: To achieve oxygen saturation of 88-92% Bronchodilator Therapy: STAT Albuterol/Ipratropium (Duoneb) delivered via breath activated nebulizer (BAN) 1, 2, 3 Can repeat Albuterol via BAN alone as clinically indicated Consider 10-15mg/hour continuous albuterol nebulizer for severe exacerbation Systemic Corticosteroid Therapy: Prednisone 30-60mg PO OR methylprednisolone 60-125mg IV within 60 mins of arrival $\textbf{Antibiotic Therapy:} \ \textbf{Azithromycin 500mg IV or PO for increased dyspnea with increased sputum production or purulence}$ (alternative agenda include doxycycline, amoxicillin-clavulanate, levofloxacin). Levofloxacin 750mg IV for intubated Treat associated conditions as appropriate Patient response? Good Response/Stable for Discharge^{2,5} Incomplete Response 3,5 Poor Response/Deterioration⁴ Continue inhaled bronchodilator: Albuterol MDI with Repeat bronchodilator/anticholinergic therapy x 1-3 Consider continuous bronchodilator/anticholinergic Spacer two puffs up to Q4 hours hrs therapy Review inhaler & spacer technique by RT or RN Reassess Consider NIPPV Continue oral corticosteroid: Prednisone 40mg PO QD x Consider admission to Inpatient unit for: Consider intubation/mechanical ventilation New or increased O2 requirement, ongoing Inpatients unable to tolerate NIV, or failure of NIV If started, continue azithromycin 250mg QD for 4 dyspnea, failure of outpatient management, to improve symptoms, work of breathing, or additional days1 (or alternative antibiotic for 5-7 days) significant co-morbidities (IDDM, CHF, PNA), acidosis Review medications inadequate home circumstance, or unclear Admission to Special Care Unit

Key

For persistent respiratory acidosis, mechanical ventilation, confusion, lethargy

1. Within 1-2 hours reassess: patient's subjective response, vital signs, work of breathing, acidosis/hypercabia (if indicated)

diagnosis

- 2. Good response/stable for discharge: subjective improvement, baseline oxygen requirement, not requiring nebs more than Q4 hours
- 3. Incomplete response: improving but not stable for discharge

Review MMC COPD action plan

Recommend smoking cessation as indicated

- 4. Poor response/deterioration: subjective worsening of symptoms, increasing work of breathing, increasing acidosis or pCO2 despite treatment 5. If patient as 2 ED visits for COPD exacerbation, consider inpatient admission OR intensified outpatient plan (care management involvement,
- home health, bedisde discussion with RT, discussion with/referral to pulmonology, direct discussion with PCP)

Resources for ED provider discharging pt with COPD from the ED

Consider involving/contacting:

Care Management

Respiratory Therapy – can do bedside teaching and medication review

Pharmacy – can do bedside teaching and medication review

Primary Care- consider calling/messaging patient's PCP, especially if multiple ED visits

Pulmonology –consider discussing with pt's pulmonologist if possible; if the patient is not seen by pulmonary medicine and you think they may benefit, contact the on-call pulmonologist to discuss.

Direct placement to NERH in conjunction with care management—see document with criteria

Home resources in conjunction with care management

Resources for patients: use dotphrase .COPDDC

Resources for patients with Chronic Obstructive Pulmonary Disease (COPD)

Online Education Resources:

www.copdfoundation.org

www.copd.com

www.copd-international.com

www.lung.org (American Lung Association)

www.thoracic.org

Outpatient Pulmonary Rehabilitation Programs

Pulmonary rehabilitation programs include education and exercise training to reduce symptoms and improve quality of life. You can ask your primary doctor or pulmonologist about pulmonary rehabilitation or call the programs listed for more information.

CMMC (Lewiston)	795-8225
EMMC (Bangor)	973-4600
ME General (Augusta)	626-1311
Me General (Waterville)	872-1353
NERH (Portland)	662-8377
Redington Fairview Hospital (Skowhegan)	858-2273
SMMC (Biddeford, Sanford)	283-7789

COPD Support Groups

Groups meet regularly to share educational information and support among people with chronic lung diseases. Call for more information.

CMMC Better Breather's Club (Lewiston)	786-2211
EMMC (Bangor)	973-4600
NERH (Portland)	662-8589
Redington Fairview Hospital (Skowhegan)	858-2318

Disease Self-management

The Southern Maine Area Agency on Aging (SMAAA) offers a 6-session workshop on "Living Well for Better Health" for people with chronic diseases including COPD at a number of sites throughout southern Maine. For more information visit www.smaaa.org or call 1-800-427-7411.