3. Chronic Disease Patient Care Flowsheet

COPD Patient Care Flowsheet

Comorbid Conditions

Year of diagnosis

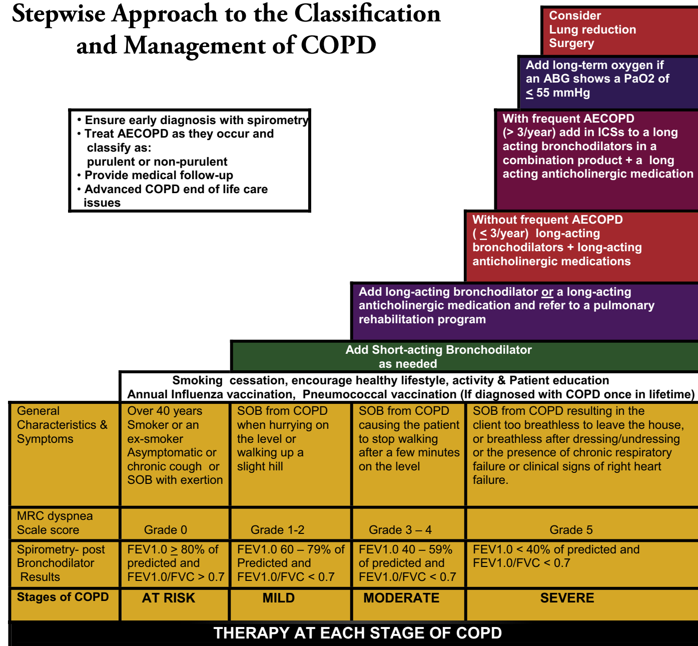
Patient Name:
DOB:
PHN:

Ensure diagnosis of COPD was made with Pre & Post Spirometry testing and meets both the following Canadian Thoracic Societies criteria to establish a diagnosis of COPD: ***Post bronchodilator FEV1.0/FVC ratio < 0.7, and a post bronchodilator FEV1.0 < 80% predicted***

		REVIEW ITEMS	DATE:			
REGULAR OFFICE VISITS FOR COPD	COPD SEVERITY	Too SOB to leave the house, or SOB when dressing (If yes, MRC score of grade 5= severe stage of COPD)				
		Stops for breath after walking about 100 yards (If yes, MRC score of grade 4= moderate stage of COPD)				
		Walks slower than people of same age on the level, or stops for breath while walking at own pace on the level (If yes, MRC score of grade 3 = moderate stage of COPD)				
		SOB when hurrying on a level surface or walking up slight hill (If yes, MRC score of grade 2 = mild stage of COPD)				
		SOB with strenuous exercise (If yes, MRC score of grade 1 = very mild stage of COPD)				
		MRC = medical research council dyspnea scale, which is recommended by the CTS for assessment of disability from COPD				
	PHYSICAL EXAM	• Temperature, pulse, respirations, blood pressure (PRN)				
		• Auscultation q visit				
		• O_2 sat (if in clinic) if < 90%, order blood gas				
		• Signs of right heart failure (If yes, COPD is severe)				
		• Signs of lung hyperinflation				
		• Generalized muscle wasting				
		• Poor nutritional status (BMI, low <18.5 or high > 24.9) (Note: if over 65 years BMI, low < 24.0 or high > 29.0)				
		• Clinical signs of depression/anxiety				
		• Atypical features of COPD: Early onset of COPD (< 40 years); Family Hx of COPD; Disabled in 40s or 50s from COPD. If present, arrange screening for AAT deficiency				
	MANAGEMENT	**Smoking Cessation, if still smoking** 4 A model (Ask, Advise, Assist, Arrange)				
		Short-acting bronchodilators: Long-acting bronchodilators: Long-acting anticholinergic: Inhaled corticosteroids:				
		Review proper inhaler technique with client				
		Devise or review a written CHR COPD action plan for client				
ANNUALLY OR AS NEEDED	TESTS	Pre & Post Spirometry testing – FEV1.0				
		Blood work				
		Atypical features of COPD present, write the following on a CHR lab req: "Alpha-1 antitrypsin Pi phenotype test"				
		If using oral steroids, frequent Fasting Blood Sugar (FBS)				
		Sputum gram stain & culture when purulent AECOPD if: very poor lung function, AECOPD > 3/year or has been on antibiotics in last 3 months				
		Bone Mineral Density (BMD) for osteoporosis (If on ICS/oral steroids and has risk factors)				
	OTHER	Referrals: ***COPD educator/program*** for education & pulmonary Rehab *Pulmonary* ***Medical Specialist-*** as needed				
		Vaccinations: ☐ Annual influenza vaccine ☐ Pneumococcal vaccine (once in lifetime, repeat in 5-10 years in high risk patients)				

Revised as of June 16, 2005 developed by the BHL/ chronic respiratory/ Chinook Health Region

Stepwise Approach to the Classification and Management of COPD



Adapted from the Global Initiative for Chronic Obstructive Lung Disease Executive Summary, and the Canadian Thoracic Society's Recommendations for Management of COPD 2003 Executive Summary

Short-acting Bronchodilators

For symptomatic or rescue treatment

- *Salbutamol (Ventolin) MDI/spacer 100 mcg per dose* 1 or 2 inhalations QID and prn
- *Salbutamol (Ventolin) Diskus 200 mcg per dose* 1 inhalation QID and prn
- *Combivent (salbutamol 120 mcg/ipratropium 20 mcg per dose) MDI/spacer* 2 inhalations QID and prn
- *Ipratropium (Atrovent) MDI/spacer 20 mcg per dose* 2 inhalations QID and prn
- *Terbutaline (Bricanyl) turbuhaler 0.5 mg per dose* 1 inhalation QID and prn
- *Salbutamol (Airomir) MDI/spacer 100 mcg per dose* 1 or 2 inhalations QID and prn

Long-acting Beta agonist Bronchodilators (LABA)

Can be used alone or in a combination product

- *Salmeterol (Serevent) MDI/spacer 25 mcg per dose* 1 or 2 inhalations BID
- *Salmeterol (Serevent) Diskus 50 mcg per dose* 1 inhalation BID
- *Formoterol (Oxeze) Turbuhaler 6 or 12 mcg per dose* 1 to 2 inhalations BID of 6 mcg dose 1 inhalation BID of 12 mcg dose

Long-acting Anti-cholinergic Bronchodilators

- *Tiotropium (Spiriva) Handihaler 18 mcg per dose* 1 inhalation QD***

Combination products with Inhaled Corticosteroids (ICS)

Recommended for **severe COPD with > than 3 exacerbations per year,** use LABA and ICS in combination form:

- *Symbicort (Oxeze 6 mcg/pulmicort 100 or 200 mcg per dose) Turbuhaler* 1 or 2 inhalations BID
- *Advair (Serevent 25 mcg/flovent 125 or 250 mcg per dose) MDI/spacer* 1 or 2 inhalations BID
- *Advair (Serevent 50 mcg/flovent 100, 200 or 500 mcg per dose) Diskus* 1 inhalation BID

*** **Spiriva is not to be used in conjunction with Atrovent or Combivent inhalers.**

- Treatment options from the 2003 Canadian Thoracic Society Recommendations for Management of COPD
- Medication information updated as of May 9, 2005

Acute Exacerbations of COPD (AECOPD)

- Inhaled bronchodilators to treat dyspnea in AECOPD consider combination therapy (Combivent MDI/spacer)
- No role for the initiation of methylxanthines during AECOPD, possible drug interactions with antibiotics.
- Oral/parenteral steroids for 14 days in most **moderate to severe** clients with COPD, limited data on benefits of clients with mild COPD (FEV1.0 > 60% of predicted).
  Dosages of 25 to 50 mg per day are recommended.
- Antibiotic therapy is recommended **only for those clients with purulent exacerbations**, refer to chart below:

Antibiotic Treatment Recommendations for Purulent AECOPD

Group State	Basic Clinical Symptoms and Risk Factors	Probable Pathogens	First Choice	Alternative for treatment
Simple	COPD without risk factors	Increased cough & sputum Sputum purulence & increased dyspnea	Haemophilus influenzae Haemophilus species Moraxella catarrhalis Streptococcus pneumoniae	Amoxicillin, doxycycline, trimethoprim/sulfamethoxazole, 2nd or 3rd generation cephalsporins, extended spectrum macrolides Beta-lactam/beta-lactamase inhibitor; fluoroquinolone
Complicated	COPD with risk factors	As in simple, plus (at least one of): • FEV1.0 < 50% predicted • > 4 exacerbations/year • Ischemic heart disease • Use of home oxygen • Chronic oral Steroid use • Antibiotic use in past 3 months	As in simple, plus: • Klebsiella species & other gram negatives • Increased probability of beta – lactam reistance	Beta-lactum/beta-lactamase inhibitor, fluoroquinolone (Antibiotics for uncomplicated patients when combined with oral steroids may suffice) May require parenteral therapy Consider referral to a specialist or hospital

FEV1.0 = forced expiratory volume in 1 second