

## CrossOver Healthcare Ministry COPD Diagnosis, Treatment, & Monitoring Best Practices

### Diagnosis

History	Risk Factors	Testing
Age>40 Dyspnea Chronic cough Chronic sputum production	Smoking Outdoor, occupational, or indoor air pollution	Spirometry* – Post-bronchodilator FEV1/FVC <0.70
*Required for diagnosis		

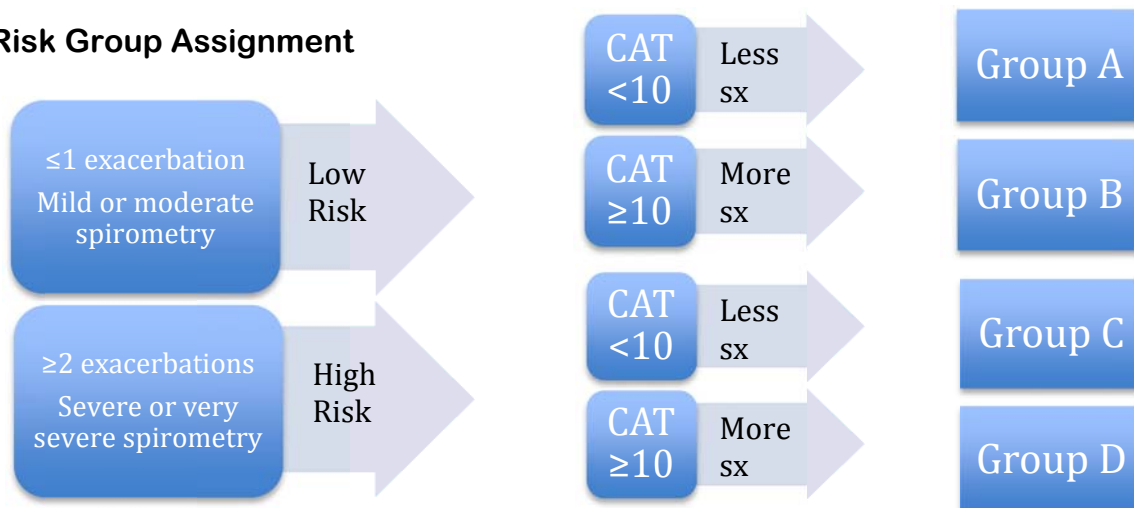
### Combined COPD Assessment

Symptoms	
CAT (or CCQ)	Score (0-5)
I never cough (0)...(1)...(2)...(3)...(4)...(5) I cough all the time	_____
I have no phlegm/mucus in my chest at all.....My chest is completely full of phlegm	_____
My chest does not feel tight at all.....My chest feels very tight	_____
When I walk up a hill or one flight of stairs I am not breathless.....When I walk up a hill or one flight of stairs I am very breathless	_____
I am not limited doing any activities at home.....I am very limited doing activities at home	_____
I am confident leaving my home despite my lung condition.....I am not at all confident leaving my home because of my lung condition	_____
I sleep soundly.....I don't sleep soundly because of my lung condition	_____
I have lots of energy.....I have no energy at all	_____
<b>Total (0 – 40)</b>	

Spirometry	
Severity of Airflow Limitation (Based on Post-Bronchodilator FEV1)	
Mild	FEV1 ≥80% predicted
Moderate	50%≤ FEV1 <80% predicted
Severe	30%≤ FEV1 <50% predicted
Very Severe	FEV1 <30% predicted

Exacerbation History in last 12 mos.
1 (not leading to hospitalization)
≥2 or ≥1 leading to hospital admission

### Risk Group Assignment



## Therapy

\*medicines in **BOLD** available at CrossOver, *italicized bold* denotes available by mailorder

<u>Smoking Cessation</u>	
Nicotine replacement products	Gum, patch, lozenges, sublingual tablet, nasal spray
	<b>Inhaler (Nicotrol)</b>
Pharmacotherapy	<b>Varenicline (Chantix)</b>
	<b>Bupropion SR</b>
	Nortriptyline

Risk group	1 <sup>st</sup> line	Alternatives
A	Short-acting bronchodilator as needed	Short-acting bronchodilator combo OR long-acting bronchodilator
B	Long-acting bronchodilator	Long-acting bronchodilator combo
C	Long-acting bronchodilator + inhaled corticosteroid	Long-acting bronchodilator combo OR (if chronic bronchitis) PPD4 inhibitor & long-acting bronchodilator
D	Long-acting bronchodilator (+/- combo) + inhaled corticosteroid	

\*Counsel on proper device technique & provide spacer for all inhaled medicines

<u>Short-acting (SA) bronchodilator</u>		<u>Long-acting (LA) bronchodilator</u>		<u>Inhaled corticosteroids</u>	<u>Other</u>
Anti-cholinergic	β2-agonist	Anti-cholinergic	β2-agonist		
<b>Ipratropium</b> (Atrovent)	Albuterol (salbutamol, AccuNeb, ProAir, <b>Proventil, Ventolin</b> )	Tiotropium ( <i><b>Spiriva HandiHaler</b></i> , Respimat)	Formoterol (Perforomist, Foradil)	<b>Fluticasone (Flovent HFA, Flovent Diskus)</b>	Theophylline (Elixophyllin)
Oxitropium	Levalbuterol (Xopenex)	<b>Aclidinium (Tudorza Pressair)</b>	Arformoterol (Brovana)	Budesonide (Pulmicort)	PPD4 inhibitor (Roflumilast)
	Terbutaline	Glycopyrronium	Indacaterol (Arcapta)	<b>Beclomethasone (Qvar)</b>	
	Metaproterenol (Alupent)	Umeclidinium (Incruse Ellipta)	Salmeterol (Serevent Diskus)	Mometasone ( <b>Asmanex Twisthaler</b> , Asmanex HFA)	
	Fenoterol		Tulobuterol		
<u>Combination bronchodilators</u>					
Short-acting			Long-acting		
Fenoterol/ipratropium			Formoterol/acclidinium		
Albuterol/ipratropium ( <b>Combivent</b> , DuoNeb)			Indacaterol/glycopyrronium		
			Vilanterol/umeclidinium (Anoro Ellipta)		
<u>Combination LA bronchodilator + inhaled corticosteroid</u>					
Formoterol/beclomethasone					
<b>Formoterol/budesonide (Symbicort)</b>					
<b>Formoterol/mometasone (Dulera)</b>					

<b>Salmeterol &amp; fluticasone (Advair HFA, Advair Diskus)</b>
Vilanterol/fluticasone (Breo Ellipta)

Exercise important as part of overall rehabilitation program or in isolation	Pulmonary rehabilitation	
	Helps with:	Exercise training
		Social isolation
		Altered mood states
		Muscle wasting
Weight loss		

<b>O2 Therapy</b>		
Indication	SaO2 ≤88% (PaO2 ≤55mmHg)	Resting PaO2 or saturation repeated twice over 3 weeks in a stable patient
	SaO2 ≤90% (PaO2 ≤60mmHg) if evidence of pHTN, CHF, or polycythemia	
Administration	>15hrs/day	

**Vaccination**

Vaccine	Details
Influenza	Yearly during flu season
Pneumococcal	<p><b>PPSV23 (available @ crossover)</b>            Once before age 65. Once at age ≥65            The 2 shots must be separated by 5 years            PCV13 (not available @ crossover)            If already vaccinated with PPSV23, the vaccination series should be started at least 12 months after PPSV23</p>

**Monitoring**

Smoking status	Ask, Advise, Assess, Assist, Arrange	
Symptom assessment	Changes since last visit (cough, sputum, breathlessness, fatigue, activity limitation, sleep disturbances)	
Exacerbation history	Frequency – Unscheduled visits to providers, ED, hospitals	
	Severity – Need for increased bronchodilator medication, corticosteroids, antibiotic treatment	
	Likely causes	
Current therapeutic regimen	Dosages, adherence, technique	
	Side effects	
	Effectiveness	Have you noticed a difference since starting this treatment? Are you less breathless? Can you do more? Can you sleep better? Described what difference it has made to you. Is that change worthwhile to you?
Spirometry	Yearly screen for rapid decline in lung function	

