

## COPD Exacerbation Care Protocol

### Site Applicability

All VCH & PHC Acute sites

### Practice Level

- Basic Skill: RN, LPN, RT, RPN, PT, OT, RD, SW
- MD

### Goal

- To optimize patient care and standardize in-hospital management of COPD exacerbations according to evidence based best practice guidelines and create better links and transition from acute to primary/community care.
- This Care Protocol is applicable to patients with known COPD and newly diagnosed COPD and can also be used for in-hospital (admitted) patients diagnosed with an acute exacerbation of COPD during their admission.

### Policy Statement

Not all patients will follow the Care Protocol without complications. This decision support tool must be used with clinical judgment.

**This Care Protocol is a guide to caring for the COPD patient during a hospital admission for an acute exacerbation. It is not a set of physician orders. Refer to your site specific COPD Exacerbation pre-printed orders or physician order section of the patient chart.**

### Need to Know

This Care Protocol is a tool to optimize treatment and proactively prevent delays in treatment and hospital discharge and is based on evidence based, best practice guidelines. It is NOT a set of physician orders. Please refer to your site specific COPD Exacerbation pre-printed order set, or physician orders section of the patient chart for specific medications and treatment plans.

The Care Protocol can be used by a multidisciplinary team as listed in the Practice Level section – any of the listed professions, within their scope of practice and skill level (see practice level section), can initial on the pathway to help move the patient through.

Patient is excluded if he/she requires mechanical ventilation/admission to ICU.

### Care Protocol Guidelines for use

Please refer to the COPD Exacerbation Care Protocol found in [Appendix A](#). (order from [Printing Services](#))

The COPD Exacerbation Care Protocol will be placed on the patient chart at the time of hospital admission and will be kept in the ward specific designate area of the patient chart.

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**NOTE:**

Physicians can make indicators and/or interventions client specific based on the patient's individual complexity. All changes should be initiated. All physician orders must be written in the COPD Exacerbation pre-printed order set or in the physician order section of the patient's chart as per site and ward policy.

This Care Protocol is divided into phases (acute, transition, and pre-discharge).  
Target number of days in each phase is written at the bottom of page 1.

**GENERAL OVERVIEW Page 1**

At the top of the page, document what date the Care Protocol is initiated.

The Patient Outcomes/Clinical Indicators (first row) determines what phase the patient is in. ALL boxes in the Patient Outcomes/Clinical Indicators section must be addressed in each phase with either a tick ✓ (to signify it has been achieved/completed) or by writing an "N/A" (to signify it is not applicable to the patient). The staff member who ticks ✓ or writes an "N/A" in the box then initials and dates the indicator beside the tick box. Once all indicators are addressed the patient progresses to the next phase.

When the patient moves to the next phase record in the date the phase was started (top of the chart on page 1).

If the patient is not moving through the pathway within the target number of days, refer to the Guidelines for Assessment and Care on page 2 to help guide treatment.

If the pathway is discontinued (for example, the patient is admitted to ICU or has a major unstable medical event) record the date and time at the bottom of page 2 and reason for discontinuation of the Care Protocol.

In the Teaching and Discharge Planning sections, any point that has a tick box should be done in the specified phase but if not completed, it will not hold the patient back from moving through to the next phase.

Below is a detailed guide on how to use the COPD Exacerbation Care Planning Pathway. Please refer to embedded COPD Care Protocol in [Appendix A](#) for reference.

**USING THE CARE PROTOCOL: (PAGE 1)**

SECTION	DESCRIPTION
<b>Acute Phase</b>  Patient Outcomes/Clinical Indicators	<ul style="list-style-type: none"> <li>▪ The indicators in this section ensure that the patient is not in acute respiratory distress requiring another level of intervention.</li> <li>▪ By day 2, the patient's symptoms (compared to admission) should be resolving.</li> <li>▪ The patient should be oxygenating and able to maintain and SpO2 greater than 88% on nasal prongs at rest. Desaturation still may occur with exertion.</li> <li>▪ Vital signs (respiratory rate and heart rate) should be stabilizing.</li> <li>▪ If patient was admitted with increased body temperature it should be decreasing by day 2.</li> <li>▪ The patient's shortness of breath should be improving compared to the time of admission.</li> <li>▪ There should be no evidence of delirium above the patient's baseline.</li> <li>▪ If these indicators are not met by day 2 because of COPD, consults listed in the Guidelines to Assessment and Care (page 2) should be considered.</li> </ul>

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Teaching: Acute Phase	<ul style="list-style-type: none"> <li>Teaching in the acute phase focuses on skills that will help improve the patient's breathlessness and discomfort during the acute phase.</li> <li>Since the patient will be experiencing shortness of breath, and many experience increased anxiety during the initial phase of admission, focus remains on decreasing breathlessness and promoting relaxation.</li> <li>If the patient has increased sputum production, effective coughing techniques should be reviewed.</li> <li>A review of what the patient and family can expect over the course of the admission stay should be reviewed (refer to page 4 of the Care Protocol for a list of patient education materials).</li> </ul>
Discharge Planning: Acute Phase	<ul style="list-style-type: none"> <li>Some discharge planning needs to be initiated early in the admission stay.</li> <li>A COPD/Asthma Educator should be contacted in the acute phase of the admission (contact numbers are on page 4).</li> <li>Start assessing what supports the patient and family has at home. If supports are needed this may take time to arrange (to be done by the usual responsible person, such as Social Worker or Discharge Planning Team)</li> </ul>
Patient Outcomes/Clinical Indicators : Transition Phase	<ul style="list-style-type: none"> <li>Outcomes in this phase focus on indicators that determine whether or not the patient's COPD is improving back to baseline which will affect LOS.</li> <li>Signs and symptoms should be improving back to baseline, and the patient should be progressing to a state where they can be considered for discharge (target: Day 5).</li> <li>The following Patient Outcomes/Clinical Indicators are listed in this phase: <ul style="list-style-type: none"> <li>Oxygenation should be improving, and the patient should be maintaining SpO2 greater than 88% on minimal O2 at rest and on exertion.</li> <li>Patient should have normal body temperature, and sputum production should be improving back to baseline (if patient had previous fever and change in sputum).</li> <li>Mobility should be improving – the patient should be encouraged to mobilize as much as tolerated.</li> <li>The patient should be eating more, and tolerating the recommended diet to meet caloric needs.</li> <li>The patient should be reporting an improvement in SOB level.</li> </ul> </li> <li>It's important to remember to compare the patients' status to their individual baseline.</li> <li>If the indicators are not met within the target number of days, refer to the suggested Guidelines for Assessment and Care on Page 2 of the Care Protocol.</li> </ul>
Teaching: Transition Phase	<ul style="list-style-type: none"> <li>In the Transition Phase, the Teaching section introduces more long term self-management tools.</li> <li>Teaching from the Acute Phase should be reviewed and re-enforced.</li> <li>Education material available is listed on page 4 of the Care Protocol. In this phase, the following is introduced: <ul style="list-style-type: none"> <li>The Transition Phase is when the patient typically should be switched from nebulizers back to maintenance inhaled medication, so inhaler technique needs to be reviewed and properly demonstrated by the patient.</li> </ul> </li> </ul>

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	<ul style="list-style-type: none"> <li>- If the patient is a smoker, smoking cessation strategies should be reviewed (refer to smoking cessation material listed on page 4).</li> <li>- Energy conservation techniques are reviewed to help the patient manage symptoms throughout the day.</li> <li>- Motivational counseling, chronic health teaching, and psycho/social support should be offered to both the patient and family, even if this is not a new diagnosis.</li> </ul>
Discharge Planning: Transition Phase	<ul style="list-style-type: none"> <li>▪ In the Transition Phase, patients should be transitioned from nebulized medication to maintenance inhaled medication (MDI &amp; spacer, Diskus, Turbuhaler, Handihaler).</li> <li>▪ If not already involved, the Discharge Planning Team (site/ward specific) should be consulted.</li> <li>▪ Some discharge planning takes longer to prepare for, so it is important the right consults are made during this phase to prevent unnecessary increase in LOS.</li> </ul>
Patient Outcomes/Clinical Indicators : Pre-Discharge Phase	<ul style="list-style-type: none"> <li>▪ Outcomes in this phase progress the indicators from the Transition Phase.</li> <li>▪ The patient should be at or near baseline COPD level of symptoms and functioning by Day 7 (target).</li> <li>▪ The following Patient Outcomes/Clinical Indicators are listed in this phase: <ul style="list-style-type: none"> <li>- SpO2 should be greater than 90% at rest and on exertion on room air or while on pre-admission O2 level (otherwise they may qualify for Home O2 or need their existing Home O2 prescription re-evaluated).</li> <li>- The patient should have normal body temperature, and sputum production should be minimal or equal to pre-admission amount and consistency (if patient had previous fever and change in sputum).</li> <li>- The patient should be able to mobilize adequately to function at home – baseline activities of daily living (ADLs) or at an acceptable for discharge.</li> <li>- The patient should be tolerating the recommended diet to meet caloric needs.</li> <li>- The patient should be reporting an improvement in SOB level, and SOB should be similar to baseline.</li> </ul> </li> <li>▪ Again, it's important to remember to compare the patient's status to their individual baseline.</li> <li>▪ If the indicators are not met within the target number of days, refer to the suggested Guidelines for Assessment and Care on Page 2 of the Care Protocol.</li> </ul>
Teaching: Pre-Discharge Phase	<ul style="list-style-type: none"> <li>▪ In the Pre-Discharge Phase, teaching from the Acute and Transition phases are reviewed and re-enforced, and more long term self-management tools are introduced.</li> <li>▪ Education material available is listed on page 4 of the Care Protocol. In this phase, the following is reviewed: <ul style="list-style-type: none"> <li>- Exercise &amp; strength building should be reviewed – it is important the patient maintains mobility.</li> <li>- Proper inhaler technique must be demonstrated by the patient.</li> <li>- The COPD Discharge Plan should be reviewed with the patient (what it means, how to follow it, etc.)</li> <li>- Smoking cessation strategies and a plan for support post discharge should be discussed.</li> </ul> </li> </ul>

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Discharge Planning: Pre-Discharge Phase	<ul style="list-style-type: none"> <li>▪ The Discharge Planning section of the Pre-Discharge Phase focuses on improving links and transition from acute back to community: <ul style="list-style-type: none"> <li>- The COPD Discharge Plan is completed, reviewed with the patient, and a copy is given to the patient (original stays in the chart).</li> <li>- Home O2 assessment (if patient SpO2 is less than 90% at rest and on room air or while on pre-admission O2) – see the Home O2 link on page 4. <b>NOTE:</b> most patients need an SpO2 of less than 88% to qualify for Home O2, but some patients will qualify with and SpO2 88 – 90% if they have one of the 4 qualifying co-morbidities outlined in the Home Oxygen Program eligibility criteria.</li> <li>- Vaccinations should be up to date (influenza and pneumococcal). Vaccinations have been shown to decrease morbidity &amp; mortality, and reduce the risk of hospitalization in patients with COPD.</li> <li>- Community resource information and ongoing support for the family should be arranged to ensure continuity of support.</li> <li>- Notify the patient's GP by faxing/sending the patient's discharge summary and the COPD Discharge Plan – this will help to ensure follow-up and that the GP is aware of the discharge circumstances, supporting continuity of care.</li> <li>- If the patient is a smoker and is interested in joining the QuitNow program, fax the QuitNow referral form on the day of discharge and the patient will get a follow-up phone call from the program after discharge.</li> </ul> </li> </ul>
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If the Care Protocol is discontinued (for example, the patient is admitted to ICU or has a major unstable medical event), or if the length of stay was longer than 7 days due to COPD, complete the section at the bottom of page 1.

If the patient's symptoms decline, continue charting in your usual place of documentation and do not move the patient forward in the Care Protocol. Start moving the patient through the Care Protocol when they are ready to move forward from the last point documented.

## GENERAL OVERVIEW: (PAGE 2)

Page 2 is a general **guideline for assessment and care** that suggests care for any COPD patient.

The Guidelines for Assessment and Care list the minimum that should be considered for a patient in each phase of their admission.

This guideline is divided into sections: Assessments, Consults, Diagnostics & Laboratory, Treatments, Medications, Activity/Safety, and GI/GU. This guideline does not replace clinical judgment, and is only a guide according to evidence based best practice guidelines.

**Not all points will be applicable to all patients. These are NOT physician orders – orders must be written in the physician orders section of the chart, as per site or ward policy.**

Please refer to embedded COPD Care Protocol in [Appendix A](#) for reference.

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### **USING THE CARE PROTOCOL: (PAGE 2)**

The General Guidelines for Assessment and Care are not a set of physician orders. Physician orders must be written in the physician order section of the patient chart, or as per site and ward policy.

Assessments	<ul style="list-style-type: none"> <li>Assessments correlate to options listed on the COPD Exacerbation Pre-printed order set (PPO) as well as the Care Protocol on Page 1.</li> <li>Charting of assessments is done in the usual places as per site or ward policy.</li> <li>History &amp; physical, assessments as per site/unit interdisciplinary notes, vital signs and monitoring as per admission orders are completed as per written orders and site/ward charting.</li> <li>A list of the patient's home medications should be made in the Acute Phase (or medication reconciliation completed).</li> <li>The patient's family physician should be contacted at the beginning of the admission to inform them of the patient's admission. It may also be beneficial to obtain the patient's last test results form when they were in a stable state (ex. Spirometry). The GP should also be informed when the patient is being discharged.</li> </ul>
Consults	<ul style="list-style-type: none"> <li>Consults correlate to options listed on the COPD Exacerbation PPO as well as the Care Protocol on page 1.</li> <li>If the Patient Outcomes/Clinical Indicators in a phase are not met in the target amount of time, the consults listed should be considered.</li> </ul>
Diagnostics and Laboratory	<ul style="list-style-type: none"> <li>Diagnostics &amp; Laboratory recommendations correlate to options listed on the COPD Exacerbation PPO as well as the Care Protocol on page 1.</li> </ul>
Treatments	<ul style="list-style-type: none"> <li>Treatments correlate to options listed on the COPD Exacerbation PPO as well as the Care Protocol on page 1.</li> </ul>
Medications	<ul style="list-style-type: none"> <li>Medications correlate to options listed on the COPD Exacerbation PPO.</li> <li>Patients should be transitioned back to their regular maintenance inhaled medications during the transition phase (day 3-5).</li> <li>Please refer to the Canadian Thoracic Society guidelines for optimal maintenance therapy medications.</li> </ul>
Activity/Safety	<ul style="list-style-type: none"> <li>Activities correlate to options listed on the COPD Exacerbation PPO as well as the Care Protocol on page 1.</li> <li>Activities should be progressed as tolerated by the patient.</li> <li>The patient's baseline functioning level (prior to admission) needs to be considered to establish a baseline. Mobility and activity tolerance of each patient will be different.</li> <li>The goal is to get the patient back to their baseline functioning as soon as possible.</li> <li>Breathing Control, Relaxation Positions &amp; Mobility Exercises for patients with COPD booklet (listed under Patient Education Materials section on page 4) can be used.</li> </ul>
GI/GU	<ul style="list-style-type: none"> <li>Diet orders refer to the options listed on the COPD Exacerbation PPO.</li> <li>The patient should be tolerating the recommended diet in the Transition and Pre-Discharge Phases.</li> <li>It's important to take into consideration the patient's diet tolerance prior to admission in order to properly compare to baseline functioning.</li> </ul>

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## **USING THE CARE PROTOCOL: (PAGE 3)**

Page 3 of the COPD Exacerbation Care Protocol lists contact information for the COPD/Asthma Educators at each site, and a list of Patient Education Materials and referral forms to use for the Care Protocol.

### **COPD/Asthma Educator Contacts**

COPD/Asthma Educators are available only at the sites listed in this section.

The COPD/Asthma Educator should be contacted in the Acute Phase of the Care Protocol.

### **Patient Education Materials and Referral Forms**

Patient Education Materials referenced in this Care Protocol are listed here, which can be ordered using the catalogue numbers listed.

Also listed is how to access referral forms for the QuitNow smoking cessation program.

BC Lung Association has more patient information on COPD and can be found through the website listed ([www.bc.lung.ca](http://www.bc.lung.ca))

A link to the Home Oxygen Program information is provided for reference.

## **Expected Client/Family Outcomes**

Decreased length of hospital stay while improving the patient's understanding of their condition (COPD) and treatments throughout their hospital stay. Improved transition to the community post discharge with links to appropriate diagnostic testing (spirometry) and access to Pulmonary Rehab and/or Self Management Programs.

## **Patient/Client/Resident Education**

- CTS COPD Guidelines 2007
- Chronic Obstructive Pulmonary Disease (COPD) patient booklet ([FN.510.C57](#))
- Breathing Control, Relaxation Positions & Mobility Exercises for patients with COPD booklet ([FN.510.B74](#))
- COPD Discharge Plan ([VCH.0074](#))

## **Documentation**

COPD Exacerbation PPO:

- VA: PP0-760

## **Related Documents**

- COPD Exacerbation PPO (see site specific PPO)
- COPD Discharge Plan ([VCH.0074](#))
- Nicotine withdrawal protocol (refer to site specific policy)

## **References**

Adapted with permission from Credit Valley Hospital

1. Canadian Thoracic Society recommendations for management of chronic obstructive pulmonary disease 2007 update. Can Respir J Sept 2007; 14 (Suppl B)
2. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary diseases (GOLD) guidelines (updated 2009).

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3. Snow V, Lascher S, Mottur-Pilson C. The Evidence Base for Management of Acute Exacerbations of COPD. Chest 2001;119: 1185-1189
4. Stoller J. Acute Exacerbations of Chronic Obstructive Pulmonary Disease. New England Journal of Medicine 2002;346(13): 988-994
5. In-Hospital Mortality Following Acute Exacerbations of Chronic Obstructive Pulmonary Disease (arch intern med/vol 163, May 26, 2003)
6. Risk factors of readmission to hospital for a COPD exacerbation: a prospective study. J Garcia-Aymerich, E farrero, M A Felez, et al. Thorax 2003 58:100-105
7. Management of AECOPD: A Summary & Appraisal of Published evidence. Peter B Bach, Cynthia Brown, Sarah Gelfand, Douglas C. McCrory. Ann Intern Med 2001;134:600-620
8. Risk factors and outcomes associated with COPD exacerbations requiring hospitalizations. Katayoun Bahadori, Mark Fitzgerald, Robert Levy, Tharwat Fera, John Swiston. Can Respir J Vol 16 No 4 July/Aug 2009

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# Appendix A: COPD Exacerbation Care Protocol – form# VCH.0069

(order from Printing Services)



**SAMPLE  
ONLY**

## COPD Exacerbation Care Protocol

Exclusion Criteria: Requires mechanical ventilation/admission to ICU

DATE CARE PROTOCOL INITIATED (DAY 1 ON PATHWAY): \_\_\_\_\_

If you Initial this form you must complete the Interdisciplinary Signature Sheet at the front of the patient chart.

Date Phase started:	ACUTE PHASE	TRANSITION PHASE	PRE-DISCHARGE PHASE
<b>PATIENT OUTCOMES/ CLINICAL INDICATORS</b> Initial & date when indicator is met. Patient MUST meet all applicable indicators prior to moving to next phase. <input type="checkbox"/> = achieved/ completed <input type="checkbox"/> N/A = not applicable to patient	<b>INITIAL &amp; DATE</b> <input type="checkbox"/> SpO <sub>2</sub> greater than 98% on nasal prongs or room air, at rest <input type="checkbox"/> Respiratory Rate less than 30 at rest <input type="checkbox"/> Heart Rate less than 100 BPM at rest or as per physician order <input type="checkbox"/> Temperature decreasing (if patient is febrile) <input type="checkbox"/> Patient reports less shortness of breath compared to time of admission <input type="checkbox"/> No evidence of delirium (above baseline) If indicators not met consider consults listed on page 2 (Consult Section)	<b>INITIAL &amp; DATE</b> <input type="checkbox"/> SpO <sub>2</sub> greater than 98% on nasal prongs or room air at rest and on exertion <input type="checkbox"/> Normal temperature <input type="checkbox"/> Patient reports improvement in sputum production back to baseline level <input type="checkbox"/> Mobility improved from acute phase <input type="checkbox"/> Tolerating recommended diet <input type="checkbox"/> Patient subjectively reports shortness of breath improving back to baseline level If indicators not met consider consults listed on page 2 (Consult Section)	<b>INITIAL &amp; DATE</b> <input type="checkbox"/> SpO <sub>2</sub> greater than 90% at rest and on exertion on room air or while on pre-admission O <sub>2</sub> <input type="checkbox"/> Normal temperature <input type="checkbox"/> Minimal sputum production (or equal to pre-admission) <input type="checkbox"/> Mobility: patient able to do baseline ADL or acceptable for discharge <input type="checkbox"/> Tolerating recommended diet <input type="checkbox"/> Patient subjectively reports shortness of breath similar to baseline If indicators not met consider consults listed on page 2 (Consult Section)
<b>TEACHING</b> SHOULD be completed, but will not prevent the patient from moving through the protocol if not completed. <input type="checkbox"/> = achieved/ completed <input type="checkbox"/> N/A = not applicable to patient	Refer to education material listed on back. Check when patient demonstrates understanding: <b>INITIAL &amp; DATE</b> <input type="checkbox"/> Pursed lip breathing <input type="checkbox"/> Relaxation Positioning <input type="checkbox"/> Effective coughing techniques (if pt has sputum production) <input type="checkbox"/> Pt/Family Information re: Care	Refer to education material listed on back. Check when patient demonstrates understanding: <b>INITIAL &amp; DATE</b> <input type="checkbox"/> Review teaching from Acute Phase <input type="checkbox"/> Inhaler technique reviewed and demonstrated by patient <input type="checkbox"/> Smoking cessation strategies (if appropriate) <input type="checkbox"/> Energy conservation techniques <input type="checkbox"/> Motivational counseling chronic health teaching, psycho/social support to family/patient	Refer to education material listed on back. Check when patient demonstrates understanding: <b>INITIAL &amp; DATE</b> <input type="checkbox"/> Review teaching from acute and transition phases <input type="checkbox"/> Inhaler technique checked <input type="checkbox"/> Exercise & strength building <input type="checkbox"/> Review COPD Discharge Plan with patient <input type="checkbox"/> Provide smoking cessation material (if patient is current smoker)
<b>DISCHARGE PLANNING</b> SHOULD be completed, but will not prevent the patient from moving through the protocol if not completed. <input type="checkbox"/> = achieved/ completed <input type="checkbox"/> N/A = not applicable to patient	<b>INITIAL &amp; DATE</b> <input type="checkbox"/> Refer to COPD/Asthma Educator where available (see page 3 for contact info) <input type="checkbox"/> Assess for supports if patient/family has no access to financial or community support post discharge (Social Worker)	<b>INITIAL &amp; DATE</b> <input type="checkbox"/> Patient transitioned to maintenance inhaled medication <input type="checkbox"/> Refer to discharge team/ coordinator (as per site or ward practice)	<b>INITIAL &amp; DATE</b> <input type="checkbox"/> COPD Discharge Plan completed and given to patient <input type="checkbox"/> Home O <sub>2</sub> assessment if warranted (to be done 48-96 hours prior to discharge) <input type="checkbox"/> Pneumococcal vaccine up to date <input type="checkbox"/> Influenza vaccine up to date <input type="checkbox"/> Community resource information and on-going support for family arranged <input type="checkbox"/> Notify GP of discharge: fax/send discharge summary & COPD discharge plan <input type="checkbox"/> If patient agrees to QuitNow program fax QuitNow referral form on day of discharge
	(Target Day 1-2)	(Target Day 3-5)	(Target Day 6-7)

Length of stay longer than target (7 days) due to COPD? ☐ YES ☐ NO Care Protocol Discontinued: ☐ YES ☐ NO

Date Discontinued: \_\_\_\_\_ Reason for extended length of stay or discontinuation of Protocol: \_\_\_\_\_

Initial: \_\_\_\_\_

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**General Guidelines for Assessment and Care:**  
These are **NOT** physician orders: Obtain physician orders as needed

**SAMPLE  
ONLY**

POTENTIAL INTERVENTIONS	ACUTE PHASE (Target Day 1-2)	TRANSITION PHASE (Target Day 3-5)	PRE-DISCHARGE PHASE (Target Day 6-7)
<b>Assessments</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>History &amp; Physical (including full chest assessment &amp; auscultation)</li> <li>Assessments as per site/unit interdisciplinary notes &amp; charting</li> <li>Vital signs &amp; monitoring as per admission orders</li> <li>List of home medications</li> <li>Family physician &amp; family aware of admission</li> <li>Assess patient/family need for financial or community support post discharge</li> </ul>	<ul style="list-style-type: none"> <li>Assessments as per site/unit interdisciplinary notes &amp; charting</li> <li>Vital signs &amp; monitoring minimum twice daily, unless otherwise indicated by physician</li> <li>Improving breath sounds on auscultation</li> <li>Bilateral chest expansion</li> </ul>	<ul style="list-style-type: none"> <li>Assessments as per site/unit interdisciplinary notes &amp; charting</li> <li>Vital signs daily and PRN, or as per physician order</li> <li>Home O<sub>2</sub> prescription assessed if needed (to be done 48-96 hours prior to discharge)</li> <li>Assess ADL (OT)</li> <li>Patient/Family emotional needs assessed</li> <li>Breath sounds improved compared to admission</li> </ul>
<b>Consults</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>Respirology/Internist</li> <li>Respiratory Therapist</li> <li>Physiotherapist</li> <li>Pharmacy</li> <li>Social Worker</li> <li>Dietician</li> <li>COPD/Respiratory Educator (if available)</li> <li>Palliative Care Team</li> </ul>	<ul style="list-style-type: none"> <li>Consider consults listed in Acute Phase</li> <li>Occupational Therapy as necessary</li> <li>Smoking cessation counseling if necessary and available</li> </ul>	<ul style="list-style-type: none"> <li>Consider consults listed in Acute Phase and Transition Phase</li> <li>Home care if necessary</li> <li>RT to do Home O<sub>2</sub> assessment if needed (to be done 48-96 hours prior to discharge)</li> <li>Social work/Discharge planning team for ongoing support for patient/family care planning and referrals</li> </ul>
<b>Diagnostics and Laboratory</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>Blood work &amp; ABG</li> <li>Blood cultures if patient febrile</li> <li>Sputum Culture</li> </ul>	<ul style="list-style-type: none"> <li>Consider alpha -1 antitrypsin deficiency testing</li> </ul>	<ul style="list-style-type: none"> <li>Spirometry pre and post bronchodilator if no previous testing done (patient must be stable and able to perform test)</li> </ul>
<b>Treatments</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>O<sub>2</sub> to maintain appropriate SpO<sub>2</sub></li> <li>Saline lock or IV</li> <li>Initiation of Nicotine replacement Therapy (if needed)</li> </ul>	<ul style="list-style-type: none"> <li>O<sub>2</sub> to achieve SpO<sub>2</sub> greater than 88%, or as per physician order</li> </ul>	<ul style="list-style-type: none"> <li>Patient maintaining SpO<sub>2</sub> greater than 90% at rest and during activity on room air or pre hospital O<sub>2</sub> level (if not, Home O<sub>2</sub> assessment may be needed)</li> </ul>
<b>Medications</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>Bronchodilators</li> <li>Corticosteroids</li> <li>Antibiotics (if sputum purulent)</li> <li>DVT Prophylaxis (follow site policy)</li> </ul>	<ul style="list-style-type: none"> <li>Transition to maintenance inhaled medications (progress to MDI and -Spacer or Dry Powder Inhaler meds if on nebulizers)</li> <li>IV meds to progress to oral meds</li> <li>Reassess need for DVT prophylaxis</li> </ul>	<ul style="list-style-type: none"> <li>Ensure patient on oral meds</li> <li>Ensure patient has discharge prescriptions</li> <li>Pneumococcal and influenza vaccine if needed (refer to site specific PPO)</li> </ul>
<b>Activity/Safety</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>Activity based on patient ability (as per physician order)</li> <li>Deep Breath &amp; Cough hourly if productive cough present</li> </ul>	<ul style="list-style-type: none"> <li>Oximetry with Activities of Daily Living</li> <li>Assess mobility (Physiotherapy)</li> <li>Encourage bed exercises, independent transfer &amp; ambulation</li> </ul>	<ul style="list-style-type: none"> <li>Oximetry with Activities of Daily Living</li> <li>Reassess mobility and determine needs for discharge</li> <li>Ambulate without exacerbation of symptoms</li> </ul>
<b>GI/GU</b>  <i>*These are NOT physician orders</i>	<ul style="list-style-type: none"> <li>Urine output greater than 0.5 mL - 1 mL/kg body weight</li> <li>Diet as tolerated or as per Admission orders</li> </ul>	<ul style="list-style-type: none"> <li>Tolerating recommended diet</li> <li>Urine output greater than 0.5 mL - 1 mL/kg body weight</li> </ul>	<ul style="list-style-type: none"> <li>Tolerating recommended diet</li> <li>Urine output acceptable for discharge</li> </ul>

## COPD Exacerbation Care Protocol Quick Guide:

### COPD/Asthma Educator contacts (only available at sites below):

VGH: Phone 55052 or page 604-871-1769 (Tues - Fri)

SPH & MSJ: SCM Order Entry Respiratory - Pulmonary Function - Respiratory Disease Education Referral

LGH: Phone 604-988-3131 ext. 4497 and complete the North Shore Chronic Disease Services Referral form (Form EF.850.N67)

### Patient Education Materials and Referral Forms

- Chronic Obstructive Pulmonary Disease (COPD) Patient Information Booklet (catalogue #: FN.510.C57)
- Breathing Control, Relaxation Positions & Mobility Exercises for patients with COPD Booklet (catalogue #: FN.510.B74)
- VCH Quit Kits: The Complete Guide to Help you Quit (catalogue #: DB.420.Q6)
- Medicines and COPD - *available at PHC only* (PHC.TCNF262)
- COPD Discharge Plan (VCH.0074)
- QuitNow referral forms and smoking cessation material can be ordered through [www.quitnow.ca](http://www.quitnow.ca)
- Additional materials can be ordered through the BC Lung Association website: [www.bc.lung.ca](http://www.bc.lung.ca)
- Home Oxygen Program (HOP) eligibility criteria, application form, and other information available at: [www.vcha.ca/programs\\_services/home\\_oxygen\\_program/page\\_20404.htm](http://www.vcha.ca/programs_services/home_oxygen_program/page_20404.htm)

VCH: Please refer to Clinical Practice Document VCH-C-1000 (CGI)  
for full COPD Care Protocol Guideline

**Note:** This is a **controlled** document. A printed copy may not reflect the current, electronic version on the VCH Intranet. Any documents appearing in paper form should always be checked against the electronic version prior to use. The electronic version is always the current version.

This CPD has been prepared as a guide to assist and support practice for staff working at VCHA. It is not a substitute for proper training, experience and the exercise of professional judgment. Please do not distribute this document outside of VCHA without the approval of the VCH Office of Professional Practice.