Resident Name: _____
Date of Birth: _____ Room #: _____
Name of person completing the assessment:
_____
Date (dd/mm/yyyy):_____
Physician Name: _____

NURSING ADMISSION/ASSESSMENT
COPD SCREENING and EVALUATION TOOL

1. Resident Health History

Is there an existing COPD diagnosis ☐ Yes ☐ No ☐ N/A

Was it diagnosed by Spirometry ☐ Yes ☐ No ☐ N/A

Last X-Ray Date: _____ ☐ Normal ☐ Abnormal ☐ N/A

Number of Exacerbations over Past year: _____ ☐ N/A

Exacerbation: worsening of respiratory symptoms that required a change in treatment or a hospitalisation

Number of Emergency Room Visits Past Year _____ Number related to COPD: _____ ☐ N/A

Number of Hospital Admissions Over Past Year _____ Number related to COPD: _____ ☐ N/A

Of those, how many included an intubation: ____ ☐ N/A

Resident has at least one Respirology Assessment ☐ Yes, Date: _____ ☐ No ☐ N/A

Smoker ☐ N/A ☐ Yes ☐ Stopped ☐ Never smoked

Approximate Pack/Years: _____

(ex: 1pack/day for 10 years=10 pack/year)

Exposure to Second Hand Smoke ☐ Yes ☐ No ☐ N/A

ADL Long Form (ADL Score) _____ ☐ N/A

Index of Social engagement (ISE score) _____ ☐ N/A

Cognitive Performance Scale (CPS score) _____ ☐ N/A

Resident Initials: _____ _____

Validated Clinical Frailty Scale[1] (Circle the appropriate rating – this will be used only during the Pilot Project)

	**1**	**Very Fit**	People who are robust, active, energetic and motivated. These people commonly exercise regularly. They are among the fittest for their age.
	**2**	**Well**	People who have no active disease symptoms but are less fit than Category 1. Often, they exercise or are very active occasionally. E.g. seasonally
	**3**	**Managing Well**	People whose medical problems are well controlled, but are not regularly active beyond routine walking.
	**4**	**Vulnerable**	While not dependent on others for daily help, often symptoms limit activities.
	**5**	**Mildly Frail**	These people often have more evident slowing, and need help in high order IADLs (finances, transportation, heavy housework, medications)
	**6**	**Moderately Frail**	People need help with all outside activities and with keeping house. Inside, they often have problems with stairs and need help with bathing and might need minimal assistant with dressing
	**7**	**Severely Frail**	Completely dependent for personal care from whatever cause
	**8**	**Very Severely Frail**	Completely dependent, approaching the end of life
	**9**	**Terminally Ill**	Approaching end of life. This category applies to people with a life expectancy <6 months, who are not otherwise evidently frail.

[1] Dalhousie University, Geriatric Research, *Clinical Frailty Scale*, 2009

Scoring Frailty in People with Dementia

- The degree of frailty corresponds to the degree of dementia. Common symptoms in mild dementia include forgetting the details of a recent event, though still remembering the event itself, repeating the same question/story and social withdrawal.
- In moderate dementia recent memory is very impaired even though they seemingly can remember their past life events well. They can do personal care with prompting.
- In severe dementia they cannot do personal care without help.

Resident Initials: _____ _____

2. Immunization History

Pneumococcal Vaccine	☐ N/A	☐ No	☐ Yes	Date of last immunization: _____
Flu Shot	☐ N/A	☐ No	☐ Yes	Date of last immunization: _____

3. Other or Related Disorders (Check if applicable)

- ☐ Asthma
- ☐ Chronic Cough
- ☐ Congestive Heart Failure (CHF)
- ☐ Interstitial Lung Disease (Pulmonary Fibrosis)
- ☐ Treated Sleep Apnea (CPAP, BPAP, night ventilation)
- ☐ Allergies to ☐ Environmental ☐ Animals ☐ Foods ☐ Medications

4. Spirometry Results

Yes, there are results ☐ Did spirometry but no results are found ☐ Never did spirometry ☐

Date MM/D D/YYYY	Pre-Bronchodilator		Post-Bronchodilator	
	Actual value	% Predicted	Actual value	% Predicted
FEV_1				
FVC				
FEV_1/FVC (%)				

5. Current Inhaler Therapy (you can staple MAR to this form)

Inhaled Medication ☐ N/A ☐ None	Dosage	Frequency
1-		
2-		
3-		
4-		

6. Current Oral Respiratory Medication

Oral Respiratory Medication ☐ N/A ☐ None	Dosage	Frequency
1-		
2-		
3-		
4-		

7. Oxygen Therapy

Oxygen Prescription (lpm) ☐ N/A	_____ lpm / day _____lpm at exertion _____lpm at night
ABG Result Date ☐ N/A	Test done at Room air (Y/N)_____or with Oxygen _____ lpm pH _____ $PaCO_2$ _____ mmHg PaO_2 _____ mmHg
Pulse Oximetry (% O_2 saturation) ☐ N/A	Room Air _____% rest _____ % exertion Oxygen _____ lpm _____% rest _____% exertion

8. Physiotherapy/ Nurse Rehabilitation

Is the resident receiving COPD-related physiotherapy	☐ Yes	☐ No	☐ N/A
Has the resident been involved in a Respiratory Rehabilitation Program	☐ Yes	☐ No	☐ N/A
Is physiotherapy for COPD recommended	☐ Yes	☐ No	☐ N/A

9. Nursing Intervention

Case Scenario		Follow-Up Action after initial evaluation
Does resident understand his/her respiratory medication	☐ Yes ☐ No ☐ N/A	☐ Education on respiratory medication for COPD ☐ Education not possible
Does resident take his/her respiratory medication correctly	☐ Yes ☐ No ☐ N/A	☐ Education on device technique or staff will assist resident ☐ Education not possible
Resident uses one or more breathlessness recovery techniques	☐ Yes ☐ No ☐ N/A	☐ Education on pursed lips breathing, best posture for dyspnea control, relaxation, coughing-huffing, exercise ☐ Education not possible
Does resident recognise changes in symptoms leading to an exacerbation	☐ Yes ☐ No ☐ N/A	☐ Follow up with education on action plan and exacerbation prevention. ☐ Education not possible

Resident Initials: _____ _____

10. CAT Questionnaire of Resident Quality of Life

Please complete this questionnaire upon initiation of the program and 6 months after initiation of the program with the same resident.

This questionnaire will help you and the resident measure the impact COPD (chronic obstructive Pulmonary Disease) is having on their wellbeing and daily life. Their answers, and score, can be used to help improve the management of your COPD and get a greatest benefit from treatment Where possible, have the resident answer the questionnaire, otherwise, please objectively answer based on your perception of the resident.

Resident able to complete the CAT questionnaire: ☐

Nursing administered the CAT questionnaire: ☐

For each item below please mark (X) in the box that best describes you currently. Be sure to only select one response for each question. Where an answer seems out of place, please use your best judgement on how to answer it on behalf of the resident.

	0	1	2	3	4	5	
I never cough	☐	☐	☐	☐	☐	☐	I cough all the time
I have no phlegm (mucus)	☐	☐	☐	☐	☐	☐	My chest is completely full of phlegm (mucus)
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

Please total up all answers according to their value (1 – 5 as above the checkboxes) _____

Resident Initials: _____ _____

11. Summary (to further Consultation with Physician – check as many boxes as required)

- ☐ Resident does not appear to have COPD
- ☐ Resident has diagnosed COPD
- ☐ Resident has symptoms of COPD →
  - ☐ Spirometry testing is recommended
  - ☐ Spirometry testing is not available
  - ☐ Resident cannot perform spirometry testing
  - ☐ I don't know if resident can perform spirometry

Resident Initials: _____ _____

APPENDIX I: CAT Score Information

CAT score information

The CAT has a scoring range from 0 to 40. This simple questionnaire can be routinely repeated every two to three months to detect change and trend in the resident score. A change of score of 2 or more reasonably indicate a health status change. It is normal to see an increase of 5 units during and exacerbation and a reduction of 2 units 14 days after responding to treatment. The CAT score is not expected to decrease by more than 1 unit per year due to the natural progression of the COPD.

CAT Score	Impact level	Broad clinical picture of the impact of COPD by CAT score	Possible management considerations
>30	Very high	Their conditions stops them doing everything they want to do and they never have any good days if they can manage to take a bath or shower, it takes them a long rime. They cannot go out of the house for shopping or recreation, or do their housework often, they feel as if they have become an invalid	Patient has significant room for improvement in addition to the guidance for patients with low and medium impact CAT scores consider • Referral to specialist care (if you are a primary care physician) Also consider. • Additional pharmacological treatments • Referral for pulmonary rehabilitation • Ensuring best approaches to minimizing and managing exacerbation
>20	High	COPD stops them doing most things that they want to do. They are breathless walking around the home and when getting washed or dressed. They may be breathless when they talk. Their cough makes them tired and their chest symptoms disturb their sleep on most nights. They feel that exercise is not safe for them and everything they do seems too much effort they are afraid and panic and do not feel in control of their chest problems	
10-20	Medium	COPD is one of the most important problems that they have. They have a few goo days a week buy cough up sputum on most days and have one or two exacerbations a year. They are breathless on most days and usually wake up with chest tightness or wheeze. They get breathless on bending over and can only walk up a flight of stairs slowly. They either do their housework slowly or have to stop for rest	Patient has room for improvement-optimize management in addition to the guidance provided for patients with low impact CAT scores consider • Reviewing maintenance therapy – is it optimal? • Referral for pulmonary rehabilitation • Ensuring best approaches to minimizing and managing exacerbation • Reviewing aggravating factors – is the patient still smoking?
<10	Low	Most days are good, but COPD causes a few problems and stops people doing one or two things they would like to do. They usually cough several days a week and get breathless when playing sports and games and when carrying heavy loads. They have to slow down or stop when walking up hills or if they hurry when walking on level ground. They get exhausted easily	• Smoking cessation • Annual influenza vaccination • Reduce exposure to exacerbation risk factors • Therapy as warranted by further clinical assessment.
5-		Upper limit of normal in healthy non-smokers	

Appendix 2: COPD: INHALATION DEVICES CHART-Adapted from

There is no evidence to suggest one device works better than another. Poor inhaler technique: ↓efficacy. Pt device dissatisfaction: ↓adherence.

	salbutamol/ipratropium COMBIVENT tiotropium SPIRIVA tiotropium/olodaterol INSPIOLTO 	ipratropium ATROVENT salbutamol VENTOLIN 	**HandiHaler:** tiotropium SPIRIVA  **Breezhaler:** glycopyrronium SEEBRI glycopyrronium/indacaterol ULTIBRO indacaterol ONBREZ 	formoterol OXEZE formoterol/budesonide SYMBICORT 	salbutamol VENTOLIN 	aclidinium TUDORZA aclidinium/formoterol DUAKLIR 	umeclidinium INCRUSE vilanterol/fluticasone BREO vilanterol/umeclidinium ANORO 
DEVICE	**Respimat**	**MDI**	**HandiHaler, Breezhaler**	**Turbuhaler**	**Diskus**	**Genuair**	**Ellipta**
Description	Uses a mechanical energy to deliver a "soft mist" of medication over ~1.5 seconds.	Delivers aerosolized stream of medication over ~0.2 seconds.	Capsules containing medication are pierced, then powder inside is inhaled	Dry powder inhaler containing a reservoir of medication.	Dry powder inhaler containing single dose blisters of medication.		
PROS	Low inspiratory flow ≈ 20L/min required		Breath-actuated: reduces need for hand-breath coordination				
	• Slower actuation may improve technique vs MDI • **DOSE COUNTER:** numbered by interval (frequency of interval varies by medication); loading base **locks** to signal empty • **COMBIVENT** Respimat has cost advantage over **COMBIVENT** nebules. • **Note:** Pharmacies should pre-load the Respimat canister before dispensing • **RESPIMAT** inhaler may facilitate medication delivery for residents with cognitive impairment or difficulty synchronizing breathing to actuation.	• Suitable for **all ages.** Note: spacer strongly recommended regardless of age (see comments below). • Spacer with a mask available for cognitive impairment, frail, < 5 years old, etc. • Can be used with mechanical ventilation (e.g. in critical care units)	• Rattling or whirring heard if capsule's contents inhaled correctly. Can look to view empty capsules (and Breezhaler has clear capsules). • Low inspiratory effort needed • **DOSE COUNTER:** each capsule equals 1 dose; thus no dose	• Few steps, easy to use (compared to HandiHaler or Breezhaler). • Dose is not lost even if base is twisted multiple times; however dose counter will no longer be accurate • **DOSE COUNTER:** every 20th dose numbered to give approximation of doses remaining	• **DOSE COUNTER:** displays exact number of remaining doses	• Simple to use & less errors during dose preparation vs HandiHaler • Provides visual (window changes **green** → **red**) & audible ("**click**") feedback when dose taken correctly • In one study, majority of patients (80%) preferred Genuair over HandiHaler. • **DOSE COUNTER:** every 10th dose numbered; loading button **locks** to signal empty	• Simple to use; one step to open & load dose. Sub-analysis of RCT data: 95% of asthmatics able to use correctly after only one demonstration • In one study, majority of patients (>60%) preferred Ellipta over MDI, Diskus, or HandiHaler. • **DOSE COUNTER:** displays exact number of remaining doses with **large** numbers
CONS	• Requires reasonable strength to spring-load dose • Incorrect rate of inhalation results in cough • Not approved for patients under 18 years of age or for use with a spacer • New device to the market - limited real-world experience (available and in use outside of Canada for several years) • Requires priming (until mist is visible, then 3 more sprays) if **first time use** OR if not used for ≥ **21 days**. • Requires priming (x 1 spray) if not used for ≥**3** (**COMBIVENT**) or ≥ **7 days** (**SPIRIVA**/**INSPIOLTO**).	• **DOSE COUNTER** most devices lack dose counter • Spacer may be cumbersome; however, if using only at home in the morning/evening, additional burden is low. • Susceptible to freezing • Requires priming (x 4 sprays) if not used for ≥ **5 days** • Inhaler actuation should be synchronised with inspiration to ensure optimum delivery of drug to the lungs. In patients who find coordination of a pressurised metered dose inhaler difficult, a spacer may be used with VENTOLIN® HFA	• **Multi-step process:** may be difficult to use for patients with poor manual dexterity (eg: arthritic hands, Parkinson's disease) or cognitive impairment • Capsules are packaged in foil blisters; may be difficult to remove (for some) and are light and moisture sensitive • Patients have been known to swallow capsules instead of inhaling them. • Pieces of capsule may be inhaled if pierced more than once.	• Tipping device before inhalation (e.g. upside down) **can expel the dose** • When empty, remaining desiccant can still be heard - patients may think there are doses left • **DOSE COUNTER:** displays a "zero", but it can be difficult to tell when the indicator reaches this mark • Humidity/moisture (e.g. exhaling into device, storing in bathroom) can clump drug in reservoir	• Medications for Diskus inhalers tend to be among the most expensive in their class	• Some patients may experience a bitter taste with aclidinium • New device to the market - limited real-world experience.	• No way to identify if proper inspiratory effort is being achieved • Short expiry date (6 weeks) after removal from protective packaging
				Requires sharp, forceful inhalation of breath to get full dose - some patients (e.g. < 5 years old, some COPD patients with severe symptoms) will be unable to achieve adequate flow rate.			

Source: Adapted from RxFiles 2016

COPD=chronic obstructive pulmonary disease **MDI**=metered dose inhaler **RCT**=randomized controlled trial More inhalation devices listed & compared at www.rxfiles.ca

 Use a spacer with an MDI: drug delivery to lungs; need for hand-breath coordination; systemic absorption; local adverse effects e.g. hoarseness & thrush with corticosteroids, dry mouth with anticholinergics.

 If on more than one inhaler: (1) consider using the same device for all medications; (2) use the bronchodilator first & the anti-inflammatory last; (3) wait ~5 minutes between puffs of different medications.

 Nebulizer/compressor solution: (available for budesonide, ipratropium, salbutamol, and salbutamol/ipratropium) expensive without added benefit versus spacer except possibly in very young & very old,
drug entering room air may infection transmission, time consuming, & can affect eyes. Useful during exacerbations for patients in too much distress to use proper inhaler technique, but spacer preferred.

 General inhaler technique: (1) prepare dose, (2) breathe out, (3) inhale medication, (4) hold 10 seconds, (5) breathe out. (See **RxFiles Inhaler Technique**.) May take a **second breath** from dry powder devices to ensure the entire dose is inhaled. Rinsing mouth (and spitting) after anticholinergics and corticosteroids decreases side effects. Best to wait ~1 minute between puffs of the same medication.

Online Extras:

Most DPIs contain lactose. This lactose is often derived from milk; trace amounts of residual milk protein has caused allergies in a few case reports.

Lactose-free: **BRICANYL** Turbuhaler; **PULMICORT** Turbuhaler; all MDIs; all Respimats. Note: lactose-intolerant patients can still use a lactose-containing inhaler.

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For a comparative review of inhaler type please refer too appendix II