



****Infection Prevention and Control Considerations**

- Appropriate PPE must be worn while caring for all suspected ILI patients
- N95 respirator is mandatory with any Aerosol Generating Medical Procedure (AGMP)
- The patient should wear a procedure mask, if tolerated. Oxygen can be administered while the patient is wearing the procedure mask via nasal cannula. If the patient requires additional oxygen, a NRB can be used with the accompanying procedure mask

***Influenza-Like-Illness (ILI) Signs / Symptoms:**

- Acute onset of NEW cough or change in existing cough
- Fever (greater than or equal to 38°C on arrival or by history)
- Sore throat
- Joint pain
- Muscle aches
- Severe exhaustion
- In patients 65 and older, fever may not be prominent

Etiology

Dyspnea is an abnormal and uncomfortable awareness of breathing. Dyspnea implies shortness of breath or breathlessness, but also a sense of discomfort; breathing is no longer unconsciously or effortlessly performed. Patients with chronic diseases usually delay calling EMS as they attempt to gain relief by usual measures. In an attempt to avoid hospitalization, they often wait too long and as a result may present as decompensating or “in extremis”.

Consider differential diagnoses for dyspnea such as:

1. COPD (Chronic Obstructive Pulmonary Disease)
2. Asthma
3. Inhalation injury
4. Pneumonia
5. Infection
6. ILI (Influenza like illness)
7. Pulmonary edema
8. Pulmonary embolism
9. Pulmonary effusion
10. Pneumothorax
11. Myocardial infarction
12. Angina
13. Anaphylaxis
14. Diaphragm injury
15. Hyperglycemia
16. Anxiety (diagnosis of exclusion only)

Patients with respiratory conditions are challenging to assess and treat. Underlying medical problems or concurrent illnesses may make determining the actual cause for the patient’s distress difficult. There are no clear-cut rules regarding the treatment of respiratory disorders; in determining the appropriate treatment, consideration should be given to the following:

1. Not all asthmatics wheeze
2. All that wheezes is not asthma
3. All that crackles is not pulmonary edema
4. Hyperventilation due to anxiety is a diagnosis of exclusion
5. Dyspnea can be an anginal equivalent and may be the only symptom or sign of an myocardial infarction; therefore, a 12-lead ECG should be performed
6. Pneumonia can lead to Congestive Heart Failure (CHF)

Signs of Increased Respiratory Effort

	Mild	Moderate	Severe	Near Death
Wheeze	Expiratory Low pitched	Expiratory & inspiratory High pitched	Distant Near absent	Absent Work of breathing compromised Silent chest
Speech	Full sentences	Partial sentences	Single words Difficulty speaking	Not responding
Respiratory Rate & Effort	Normal to slight tachypnea	Greater than 25/min SOB at rest Congested Chest tightness	Greater than 40/min Labored	Slowing Apnea
Mentation	Normal	Normal Distracted	Distracted Becoming disorientated	Exhausted Confused

Interventions

1. Medical information that is important in diagnosing and treating dyspnea includes:
 - a. **MEDICATIONS:** dosage, compliance with home regime as well as post-hospital care, (e.g. steroids, theophylline, beta agonists, inhalers)
 - b. **HISTORY:** past respiratory or cardiac diagnosis, smoking, family history, travel, trauma, do not resuscitate (DNR) orders or goals of care designation (GCD) – attempts must be made to determine what level of airway management is applicable
 - c. **PATTERN OF DISEASE:** triggers, previous hospital admissions (ICU), previous intubation
 - d. **ALLERGIES TO MEDICATIONS**
 - e. **CONCURRENT ILLNESS:** colds, infections, cardiac disease, etc
 - f. **ASSOCIATED PRIORITY SYMPTOMS:** syncope, chest pain, remember SOB may be the only complaint in elderly or diabetic patients having an AMI
2. Apply oxygen and contact OLMC early if uncertain about the most appropriate medical control protocol
3. PCPs are to perform a 12-lead ECG and transmit to the receiving hospital for interpretation (if able)

Patients with breathing difficulties can present as one of the most challenging emergency calls that responders attend to. Dyspnea can be from several causes including medical or traumatic origin including:

- Blunt force injury to the chest
- Shock
- Asthma
- Anaphylaxis
- Cardiac emergencies

Symptom Recognition

- Rapid or extremely slow breathing
- Abnormally deep or shallow breaths
- Noisy breathing (wheezes, snoring, gurgling, rattles)
- Irregular breathing
- Blue lips, pale or gray coloured skin
- Frequent need to pause speech to catch their breath

Treatment

- Patients should be allowed to remain in the position of greatest comfort and ease of breathing.
- Provide reassurance
- Offer coaching on rate of breathing if it is too fast or too slow
- Do not offer a paper bag if hyperventilating (no longer an acceptable treatment)
- Encourage patient to inhale through their nose and hold each breath for several seconds, then exhale slowly (This may be unsuccessful at first so continue to offer encouragement).
- If breathing is too slow, offer a rhythm that will help them (1, 2, 3, breathe / 1, 2, 3, breathe)

Oxygen Instructions

Oxygen should be administered as early as possible in patients with SpO₂ with less than 94% on room air. Supplemental oxygen helps reduce the patients stress level. Use a non-rebreather mask with oxygen at 12 – 15 litres/min for patients who require high-flow oxygen. Use a nasal cannula with oxygen at 4 – 6 litres/min for patients who do not require high-flow oxygen or are unable to tolerate a face mask. (I.e. mild shortness of breath, nauseated) Obtain SpO₂ on room air prior to administering O₂, if possible. Do not delay administering oxygen for patients in respiratory distress. Report the oxygen saturations to responding EMS crews.