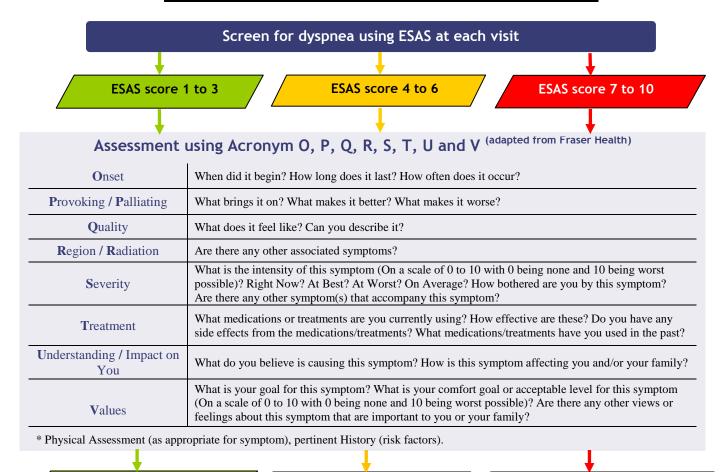
ALGORITHM A Dyspnea in Adults with Cancer: Screening and Assessment



Mild Dyspnea

Based on discussion with Patient:

- Usually can sit and lie quietly
- May be intermittent or persistent
- Worsens with exertion
- No anxiety or mild anxiety during shortness of breath
- Breathing not observed as laboured

Based on Physical Assessment:

• No cyanosis

Moderate Dyspnea

Based on discussion with Patient:

- Usually persistent
- May be new or chronic
- Shortness of breath worsens if walking or with exertion; settles partially with rest
- Pauses while talking every 30 seconds
- Breathing mildly laboured

Severe Dyspnea

Based on discussion with Patient:

- Often acute or chronic
- Worsens over days/weeks
- Anxiety present
- Wakes suddenly with shortness of breath
- Laboured breathing awake and asleep
- Pauses while talking q5-15s

Based on Physical Assessment:

- ± cyanosis
- ± onset of confusion
- Often orthopnea present

Interventions for all patients, as appropriate

Cognitive Behavioural Interventions

- Provide information and support for management of breathlessness, instructions for breathing control, relaxation, distraction techniques and breathing exercises
- Provide goal setting to enhance breathing and relaxation techniques, enable participation in social activities, and develop coping skills
- Identify early signs of problems that need medical or pharmacotherapy intervention

Positioning

• Suggest positions that maximize respiratory function while reducing physical effort.

Breathing

- Provide ambient air flow on face & cool facial temperatures (use window, fan, or nasal prongs)
- Increasing chest expansion can make the most of one's lung capacity and increase oxygen delivery.
- Consider referral to a respiratory therapist, physiotherapist or nurse with expertise in managing dyspnea
- Assess the need for oxygen
- Assess breathlessness what improves and what hinders

Supportive Counseling

• The meaning of symptoms cannot be separated from the symptom experience. In order to relieve suffering and provide good symptom support, the health care professional must explore the meaning of the symptom to the patient.

Dyspnea in Adults with Cancer: Care Map

Mild Dyspnea Care Pathway 1 Moderate Dyspnea Care Pathway 2

Severe Dyspnea Care Pathway 3

PHARMACOLOGICAL

- Supplemental oxygen is recommended for hypoxic patients experiencing dyspnea.
- Supplemental oxygen is <u>not</u> recommended for non-hypoxic, dyspneic patients.
- Systemic opioids, by the oral or parenteral routes, can be used to manage dyspnea in advanced cancer patients.

PHARMACOLOGICAL

For Patients with PPS 100% - 10%:

Non Opioids

- May use benzodiazepines for anxiety.
- There is no evidence for the use of systemic corticosteroids. **Systemic Opioids**

For opioid-naïve patients:

- Morphine (or equivalent dose of alternate immediate-release opioid) 5mg po q4h regularly and 2.5mg po q2h prn for breakthrough dyspnea.
- If the oral route is not available or reliable, morphine 3 mg subcut q4h regularly and 1.5 mg subcut q1h prn for breakthrough dyspnea.

For patients already taking systemic opioids:

- Increase the patient's regular dose by 25%, guided by the total breakthrough doses used in the previous 24 hours.
- The breakthrough dose is 10% of the total 24-hour regular opioid dose, using the same opioid by the same route.
 - o oral breakthrough doses q2 hrs as needed.
- subcutaneous breakthrough doses q1hr as needed, due to more rapid peak effect.
- Do not use nebulized opioids, nebulized furosemide, nebulized lidocaine or benzodiazepines.

For Patients with PPS 100% - 20%

- If patient has or may have COPD, consider a 5-day trial of a corticosteroid.
 - o Dexamethasone 8 mg/day po or subcut or IV
 - o Prednisone 50 mg/day po
 - o Discontinue corticosteroid if there is no obvious benefit after 5 days.
- If the patient does not have COPD, but has known or suspected lung involvement by the cancer, weigh the risks before commencing a 5-day trial.
- Other potential benefits, such as for appetite stimulation or pain management, may justify a 5-day trial of a corticosteroid.
- Do not start prophylactic gastric mucosal protection therapy during a 5day trial of a corticosteroid, but consider such therapy if the corticosteroid is continued past the trial.
- Prochlorperazine is not recommended as a therapy for managing dyspnea.
- No comparative trials are available to support or refute the use of other
 phenothiazines, such as chlorpromazine and methotrimeprazine,
 however oral promethazine may be used as a second-line agent if
 systemic opioids cannot be used or in addition to systemic opioids.

For Patients with PPS 30% - 10%:

- Consider a trial of chlorpromazine or methotrimeprazine, if dyspnea persists despite other therapies.
 - \circ Methotrime prazine 2.5-10 mg po or subcut q6-8h regularly or as needed.
 - $\circ\,$ Chlorpromazine 7.5-25 mg po q6-8h regularly or as needed
- Anxiety, nausea or agitation, may justify a trial of chlorpromazine or methotrimeprazine.

NON-PHARMACOLOGICAL

- Attend to the meaning of the symptom (or attend to fear/anxiety).
- If dyspnea is acute or there is an unexpected change further assessment may be required to identify potentially treatable causes.

PHARMACOLOGICAL

For Patients with PPS 100% - 10%:

Systemic Opioids

For opioid-naïve patients:

- Give a subcut bolus of morphine 2.5 mg (or an equivalent dose of an alternate opioid).
 - o If tolerated, repeat dose every 30 minutes if needed.
 - o Consider doubling dose if 2 doses fail to produce an adequate reduction in dyspnea and are tolerated
 - Monitor the patient's respiratory rate closely, since the time to peak effect of a subcut dose of morphine may be longer than 30 minutes.
- If intravenous access is available, consider giving an IV bolus of morphine 2.5 mg (or an equivalent dose of an alternate opioid) to achieve a more rapid effect.
 - o If tolerated, repeat dose every 30 minutes if needed.
- Consider doubling dose if 2 doses fail to produce an adequate reduction in dyspnea and are tolerated
- Monitor the patient's respiratory rate closely, since IV boluses of morphine result in faster and higher peak effects.
- Start a regular dose of an immediate-release opioid, guided by the bolus doses used.
 - For the breakthrough opioid dose, consider using the subcut route initially for severe dyspnea until the symptom comes under control.

For patients already taking systemic opioids:

- Follow the same suggestions as above for opioid naïve patients, with the following changes.
 - Give a subcut bolus of the patient's current opioid using a dose equal to 10% of the regular, 24-hour, parenteral-dose-equivalent of the patient's current opioid (a parenteral dose is equivalent to half the oral dose).
- Consider giving an IV bolus of the patient's current opioid, using a dose equal to 10% of the regular, 24hour, parenteral-dose-equivalent of the patient's current opioid.
- Increase the regular opioid dose by 25%, guided by the bolus doses used.

Psychoactive medications

- Consider a trial of chlorpromazine or methotrimeprazine, if severe dyspnea persists despite other therapies.
- Methotrimeprazine 2.5-10 mg po or subcut q6-8h regularly or as needed.
- Chlorpromazine 7.5-25 mg po or IV q6-8h regularly or as needed.
- Consider benzodiazepine for co-existing anxiety.

Follow-Up and Ongoing Monitoring

If dyspnea remains unrelieved despite the approaches outlined above, request the assistance of a palliative care consultation team.