DYSPNEA MANAGEMENT

KEY RECOMMENDATIONS

The key recommendations provide a summary of the Dyspnea Management in Palliative Care Guideline, with the associated IDSA-ESMO Levels of Evidence and Strength of Recommendations. The IDSA-ESMO grading system has been used to evaluate the level of evidence and strength of the key recommendations. (Vosnuk, S et. Al, 2024)

Each recommendation will be followed by a Number [I-IV] indicating the IDSA-ESMO Level of Evidence and a Letter [A-D] indicating the IDSA-ESMO Strength of Recommendation.

All recommendations are Grade A Strength with greater than 80% agreement by expert panel review, showing substantial clinical benefit, that is, the benefits significantly outweigh the harms even where evidence is low level.

IDSA-ESMO Levels of Evidence

Level	Description of Evidence
I	Evidence from at least one large RCT of good methodological quality with low potential bias; meta-analyses of well-conducted RCTs without heterogeneity
II	Small RCTs; phase II RCTs; large RCTs with suspected bias; or meta-analyses of such trials or those with heterogeneity
III	Prospective cohort studies; post-hoc and ad-hoc analyses of RCTs
IV	Retrospective cohort studies; case-control studies; instrument validation studies
V	Studies without a control group; case reports; expert opinions; review articles or narrative reviews; Delphi studies; cross-sectional studies (interviews, focus groups, surveys)

IDSA-ESMO Strength of Recommendations

Grade	Description
A	Strongly recommended; strong evidence for efficacy with a substantial clinical benefit.
B	Generally recommended; strong or moderate evidence for efficacy but with a limited clinical benefit.
C	Optional; insufficient evidence for efficacy or benefit does not outweigh risks or disadvantages.
D	Generally not recommended; moderate evidence against efficacy or for adverse outcomes.

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Use the **Opioid Prescribing and Management in Palliative Care** Guideline as a companion document for dyspnea management in palliative care.

Consultation

1.1 Consult with an experienced palliative care physician/specialist when dyspnea is not managed after applying standard dyspnea guidelines and interventions.

Goals of care Discussions

2.1 Determine current goals of care in conversation with the person, family and inter-disciplinary team.

Assessment

3.1 Screen for symptom distress and presence of dyspnea on an ongoing basis using screening tools such as the Edmonton Symptom Assessment System (ESAS-r). [19] [V-A]

3.2 Perform a comprehensive dyspnea history using a framework such as the mnemonic O, P, Q, R, S, T, U and V [21] [V-A]

3.3 Assess and document dyspnea using a scale that works for the individual. [20]

3.4 Perform a physical exam and diagnostics as appropriate for dyspnea to complement the symptom history. [22][V-A]

Possible Causes

4.1 Determine possible causes and reverse where possible as aligned with goals of care.

- Address contributing factors such as anxiety, pain, and respiratory panic. [25] [V-A]
- Maximize disease modifying therapies. [4] [V-A]

Interventions

5.1 Optimize non-pharmacological, self-management and pharmacological strategies to address underlying causes and the distress of dyspnea. [26,27] [V-A]

5.2 Address the multidimensional factors contributing to 'total dyspnea' and suffering, using an inter-professional approach. [29-31] [V-A]

5.3 Tailor **non-pharmacological** interventions to the individual, in alignment with goals of care, considering the underlying cause and pattern of dyspnea. These measures have a foundational role in effective dyspnea management yet are underused. [37][V-A]

For example:

- Use airflow [39,41,42][I-A]
- Manage anxiety. Use problem solving to avoid panic. [44] [I-A]
- Use principles of energy conservation and activity management.[44] [I-A]

5.4 Provide **supplemental oxygen** to address hypoxemia.

- For non-hypoxemic people who find supplemental oxygen helpful, facial cooling with room air via fan, mask or nasal prongs is sometimes as effective as supplemental oxygen.[73,74] [V-A]

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5.5 Titrate oxygen to flow level that brings SpO2>90%. [3,54,71] [V-A]
- Use caution when providing supplemental oxygen to people with COPD for risk of oxygen-induced CO2 retention, with targeting lower SpO2 (i.e. 88-92%) [75] [V-A]

5.6 In the last hours of life, oxygen saturation is expected to drop; therefore, monitoring of oxygen saturation may cause more harm than benefit. When there are no signs of respiratory distress, oxygen, if in use, may be re-evaluated and withdrawn.[77] [I-A]

Opioids

5.7 Prescribe oral or parenteral opioids as first-line pharmacologic treatment for dyspnea in people with **advanced life-limiting disease**, in conjunction with optimizing disease management and non-pharmacological approaches.[93-99,102] [I-A]

5.8 When initiating an opioid for dyspnea, consider cumulative effects with other sedative medications, particularly reassessing benzodiazepine use.[2] [V-A]

5.9 Administering opioids by nebulizer has poor evidence and is not recommended.[112][I-A]

5.10 **For intermittent predictable/incident dyspnea** provoked by specific activities, such as bathing or morning care, prescribe oral or parenteral opioid PRN dose 30-60 minutes prior to triggering activity. [94][I-A]

5.11 **For persistent dyspnea**, begin a regular opioid dose with a concurrent PRN and titrate to effect. See guideline for dosing. [119-121] [I-II-A]

5.12 **Severe dyspnea/respiratory crisis** - For people at risk of severe crisis dyspnea, refer early to palliative care physician/specialist to develop an action plan for a crisis event. Considering the capacity of caregivers and location of care, include written instructions for symptom controlling medications, non-pharmacological interventions and who to contact and when.[102] [V-A]
- Use incremental opioid titration until a person's dyspnea begins to ease.
- Prescribe parenteral opioids and adjuvant anxiolytics/sedatives for administration to rapidly respond to acute onset, severe dyspnea. See guideline for dosing.[4] [V-A]

5.13 **Refractory Dyspnea** - Palliative care physician/specialist consultation is strongly recommended when dyspnea is difficult to treat, to determine if it is indeed refractory, and determine if palliative sedation therapy is an option.[3,125] [V-A]

Benzodiazepines

5.14 Typically, benzodiazepines should not be considered first line and should not be used as monotherapy for dyspnea management.[127] [I-A]
- Consider benzodiazepines in select people to treat anxiety or panic associated with the experience of dyspnea when opioids and non-pharmacological measures have failed to control breathlessness.[123,125] [V-A]

Corticosteroids

5.15 Consider corticosteroids to treat causes of dyspnea related to inflammation.

5.16 Prescribe a time-limited course of Dexamethasone or Prednisone for specific indications to reduce risk of adverse effects and monitor for effect. [128] [II- A]

Monitoring and Titration:

6.1 Use practice tools to monitor dyspnea ratings, adverse effects, and track a person's goal attainment. Consistently use the same numerical or descriptive dyspnea rating scale for comparison. [140] [V-A]

6.2 Reassess dyspnea at regular and frequent intervals: at expected peak action time of a breakthrough opioid, following the start of new treatment, with a new report of dyspnea, a change in the presentation, and if not relieved by previously effective strategies. [122,141] [V-A]

6.3 Individualize dose readjustments, balancing effectiveness and tolerability to find the lowest effective dose.

6.4 Monitor the person regularly for sedation and respiratory depression using a standardized monitoring assessment tool such as Pasero Opioid-Induced Sedation Scale (POSS).[142-145] [V-A]

6.5 Manage adverse effects by dose reduction, changing to a different medication or symptomatic management, e.g., anti-emetic, laxative use.[146] [V-A]

Educating the Individual and Family

7.1 Teach about the use of non-pharmacological management techniques and support the person and family to incorporate the selected strategies.

7.2 Teach about how to keep a record of dyspnea severity, medication use and effectiveness, for example, using a symptom diary.

7.3 Teach safe and appropriate use of medications including purpose, adverse effects and how to manage, including management of constipation with opioids and correct use of inhalers, if used.[30] [V-A]

7.4 Instruct about safe handling, storage, and pharmacy take-back disposal of opioids.[122] [V-A]

7.5 Promote air flow, including opening of windows, having a fan in the room, or directing air flow at the face with the room fan or using a hand-held fan.[39,41,42] [I-A]

7.6 Address any myths about oxygen, clarifying that dyspnea is not always caused by low oxygen levels and may not improve with oxygen.

7.7 Build a documented plan, both for ongoing dyspnea and for acute dyspnea episodes.[48] [I-A]

- If acute, severe episodes are anticipated, coach family in anticipation of this event.