

# Dyspnoea

## KEY POINTS

- ➔ Dyspnoea has a prevalence of 50% in people with any type of cancer (not just lung cancer)
- ➔ Dyspnoea is moderate to severe in about one-third of terminally ill cancer patients
- ➔ Opioids (e.g. morphine) are first-line medications for the symptomatic management of dyspnoea, which are started at 50% of the starting dose for analgesia
- ➔ Dyspnoea is a subjective symptom and therefore it is important to ask the patient about their feelings of dyspnoea rather than rely on clinical examination findings

- ➔ Breathlessness is common in children in the end of life phase (last days and hours)



## ASSESSMENT

See comment on page 10



- ➔ A good clinical assessment is important to try and identify the underlying cause of the dyspnoea (e.g. pneumonia, CHF, pleural effusion, etc)
- ➔ Investigations to consider may include:
  - ➔ Chest x-ray to assess possible chest condition
  - ➔ Blood tests to rule out anaemia or infection
  - ➔ Oxygen saturation

- ➔ Asking a child “is your breathing troubling you?” can be very helpful in assessment. Remember that tests such as oxygen saturation do NOT correlate well with the



patient's experience of dyspnoea

- ➔ A validated assessment tool for children with dyspnoea is available (the Dalhousie Dyspnoea Scale)



## MANAGEMENT

- ➔ Consider treatment of the underlying cause (e.g. oncological treatment of tumour, draining of pleural effusion, treatment of infection, COPD, CHF, etc.)

*Consider if the patient is well enough to benefit*



- ➔ Reassurance and explanations about what is happening are important for children



## Non-Pharmacological Treatments

- ➔ Simple measures such as repositioning (semi-sitting or leaning forward are often preferred), opening a window, providing a handheld fan, and teaching the patient simple relaxation techniques can be very helpful
- ➔ Ensure patients do not feel trapped by being crowded by people and equipment
- ➔ Oxygen may or may not be helpful for dyspnoea and is not necessary for all patients. For some patients it may make their feeling of dyspnoea worse to have their face covered by an oxygen mask or nasal prongs
- ➔ Treat the patient's symptoms, not based on physical or laboratory findings (i.e. the oxygen saturation)
- ➔ Relaxation and self-hypnosis activities, occupational and music therapy, acupuncture and acupressure, and physical therapy should be considered if available

## Morphine and Other Opioids

These are the gold standard first-line treatment for dyspnoea

- ➔ The initial starting dose will depend on the patient's previous exposure to opioids
- ➔ Opioid-naïve patients: **morphine 2.5 mg regularly q4h PO** (or 1-2 mg Subcutaneous/IV) and a breakthrough or rescue dose as required (see Appendix 1) is suitable for an opioid-naïve patient
- ➔ If patients are already on strong opioids for pain, increase their regular dose of morphine in the same way as you would titrate for pain management – see guideline on pain (some patients may require high doses for dyspnoea)

## Benzodiazepines

- ➔ Adding a benzodiazepine to decrease the anxiety or panic which often accompanies dyspnoea
- ➔ **Midazolam** 5 mg PO or 2.5 mg Buccal/Subcutaneous/IN q1h/PRN
- ➔ **Lorazepam** 0.5 mg PO/SL BID PRN
- ➔ **Clonazepam** 0.25-0.5 mg PO BID

**Corticosteroids** and **bronchodilators** may also be helpful

- ➔ Correctable causes of dyspnoea in children such as anaemia, infection, and effusion can be treated
  - ➔ Consider if the patient is well enough to benefit
  - ➔ As with adults, opioids such as morphine are accepted as an important and effective treatment for dyspnoea in advanced cancer and other diseases
- ➔ **Morphine**
- ➔ **Starting doses for dyspnoea treatment with opioids are generally 50% of the starting dose for pain in opioid-naïve children**



- 0.05 mg/kg/dose Subcutaneous/IV q4h PRN, or 0.1 mg/kg/dose PO q4h PRN
- Higher starting and maintenance doses will be required in opioid-tolerant children; increase the child's current opioid dose by 25-50%



#### ➔ Midazolam

- ➔ 0.1 mg/kg/dose PO every 2-4 hours (Maximum: 10 mg/dose) or
- ➔ 0.05-0.1 mg/kg/dose SL/Buccal every 2-4 hours (Maximum: 5 mg/dose)

#### PITFALLS/CONCERNS

*For patients in the last few hours to days of life, antibiotics will make little difference to the course of events, even if infection is suspected*

*Intubation is not appropriate for most palliative care patients as it will not reverse their underlying condition and causes unnecessary suffering*



- ➔ Fear of using opioids in children can result in unnecessary suffering at the end of life



#### PALLIATIVE TIPS

- ➔ Remember to ask the patient about their feelings of dyspnoea – physical examination findings and medical staff's observations of tachypnoea or perceived difficulty in breathing do not always correlate with the level of distress
- ➔ Provide the patient with a handheld fan, as air movement across the face relieves dyspnoea

- ➔ Educating the patient about relaxation techniques (including deep breathing and guided imagery) can reduce the anxiety that patients feel when short of breath
- ➔ Higher doses of benzodiazepines to provide sedation may be needed in severe cases

- ➔ Supportive treatment such as reassurance by caregivers and calm surroundings are helpful
- ➔ Older children can be taught specific relaxation techniques, such as deep breathing/belly breathing, guided imagery, and progressive muscle relaxation
- ➔ As with adults, a trial of supplemental oxygen titrated to comfort can be considered



## REFERENCES

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