Approach to managing Breathlessness in a cancer patient

Patient with cancer is breathless

Cancer-related lung infiltration, lymphangitis carcinomatosis, pleural effusion, airway/SVC obstruction, phrenic N palsy, ascitis, severe pain.	Treatment related lobectomy, pneumonectomy, RT pneumonitis, fibrosis, blocked tracheostomy, Pulmonary embolism	C-morbidities Late stage COPD, Anemia	Debility related severe weakness /fatigue, uncommon infections	Psychological Fear, extreme anxiety, distress

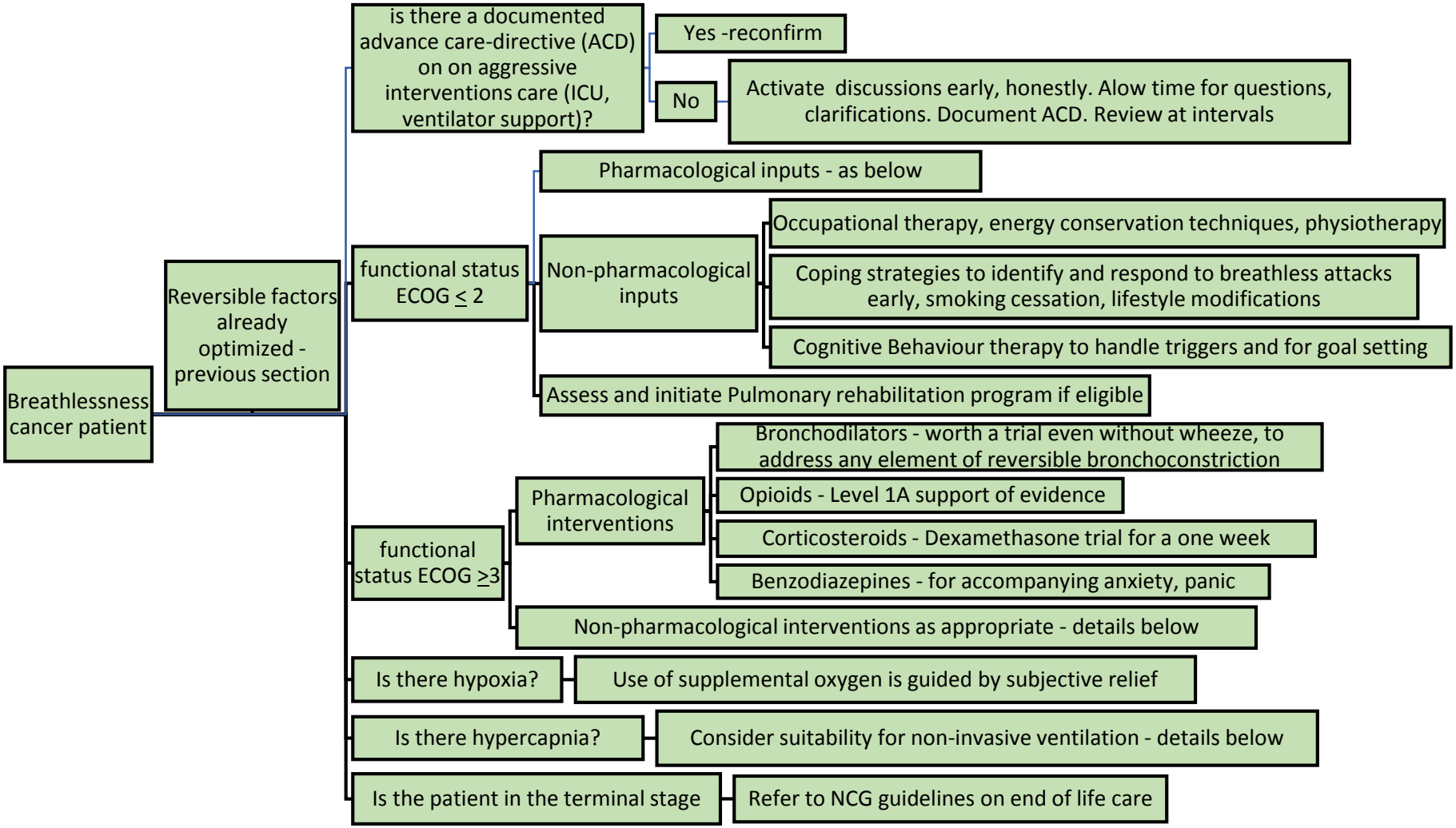
Before planning further, determine;

1. Reversibile contributors
2. mMRC Grade
3. Position on the disease trajectory
4. Prognosis (below)

- Correct the correctable - analgesia, tap effusions, antibiotics, broncho-dilators, inhaled / nebulised cortico-steroids, anti-depressants, anxiolytics – **activate appropriate general medicine / surgical packages**
- In selected patients - anticoagulation, blood transfusion, brachytherapy, stenting, laser, rehabilitation - **activate appropriate general medicine / surgical / oncology packages**
- In all patients – **Included in this palliative care package**
  - Non-abandonment, empathetic communications, reassurance and emotional support
  - Tripod sitting position, loosen clothes, Pursed lip breathing, use fan/ open windows, direct airflow across the face, wet the face, mindful belly breathing
  - Anxiety reduction, relaxation, distraction, visualisation, facilitate development of individualised relaxation tool-kit (accessible contents for sensory/intellectual distraction - soothing audio/ music, soft toy, cookies/ chocolates, visuals, poems / quotes, etc.)
  - Introduce the concept of Advance care (living will), maintain dialogue, clarify & document decisions, update patient record

Released Date: May 2021
National Cancer Grid

Palliative Care Approach to managing Breathlessness in a cancer patient continued.



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Medications (A) – (Prescribe medications for baseline, incident and crisis dyspnoea management)

1. Bronchodilators
    - Salbutamol 2.5-5mg.QDS via nebuliser, or 2 puffs four times per day using spacer
    - Ipratropium 250-500 micrograms up to QDS via nebuliser, or 2 puffs. via spacer device
2. Opioids[1] (American college of Chest Physicians & American Thoracic Society & NCCN – Grade 1 A recommendation)
    - Morphine 2.5mg PO 4-hourly initially, immediate release
    - Sustained release and continuous infusion are also beneficial.
    - Impact on pO_2, pCO_2, sPO_2 not clinically significant
    - Titrate to effect. 30 mg/D in opioid-naïve patients. 25% escalation of Dose for those already on Morphine for Pain Relief
    - Manage side-effects prophylactically e.g. stimulant laxative
    - Caution should be used in the elderly or in the presence of renal impairment
2. Corticosteroids – when multiple lung metastases and in lymphangitis carcinomatosa to reduce peri-tumour oedema.
    - Dexamethasone - 4-8mg OM, for a one week trial and if there is no improvement, stop.
    - Gastric mucosal protection not indicated for 5 day's steroid trial
3. Benzodiazepines - for accompanying anxiety, panic
    - Lorazepam 0.5-1mg SL. PRN 6-8hrly
    - Diazepam 2-5 mg
    - Midazolam 5-15mg CSCI/24 hour (terminal phase)
    - Use with caution in the elderly
4. Consider low-dose diuretics if there's fluid overload

Nursing and Supportive Care (B)

1. Manage environment
    - General calm in voice & actions
    - Open windows, facilitate air movement, avoid crowding, loosen clothes

[1] Verberkt CA, JMGA, et al. Respiratory adverse effects of opioids for breathlessness: a systematic review and meta-analysis. Eur Respir J 2017;50. doi:10.1183/13993003.01153-2017

- Oxygen: Limit SpO2 monitoring to intermittent use if at all - Use guided by patient comfort & not by sPO_2. A trial with a fan advisable, before starting oxygen. Disadvantages – sense of suffocation & discomfort to patient, constant source for anxiety to family, alarms
- Ambulatory O_2 – a very selective decision considering bed-bound /limiting status vs. significant logistical disadvantages and safety (fire) risks. May be used as short bursts around exercise.

2. Communication
   - Prognosis – ensure consistency within the Team
     i. Poor prognosis - : mMRC Gr. 4-5[2]; FEV1 < 30%predicted, right heart failure, poor nutrition, previous ICU/NIV/, resistant to Antibiotics, steroids trials in the past year
     ii. Uncontrolled comorbidities, multi-system failure
   - Goals of interventions - in terms of beneficence (not effects on parameters- sPO_2) and irreversibility of vcertain contributors
   - Revisit Advance Care-Directive ACD (withhold/ withdraw mechanical ventilation). Include patient and family preferences
   - Preferred place for terminal phase, religious/ cultural needs
   - Discuss the option for of sedation for symptom relief - explain loss to communication
3. Non-invasive Ventilation (NIV - CPAP & BiPAP)
   - Most benefit seen after the first hour of treatment and in hypercapnic patients
   - May be used while awaiting decisions on benefits / futility of invasive aggressive interventions
   - At the terminal phase – the use is guided entirely by patient comfort
4. Non-Pharmacological Interventions - Engage & activate care-inputs from Paramedical MDT in suitable patients
   - Occupational therapy with Energy conservation techniques -activity pacing, prioritisation, aids to help functionality
   - Physiotherapy – walking aids, breath re-training, reduce work of breathing, encourage relaxation, expectorating secretions, re-conditioning,
   - Coping strategies to identify breathlessness early, improve breathing control.
   - Cognitive Behaviour therapy to identify triggers, respond mindfully, sets goals & use anxiety tool-kit
   - Pulmonary rehabilitation. Discontinue intravenous fluids.
5. Specific to terminal stages
   - Accept intractability of breathlessness; Respect dignity, preferences & comfort of the patient and withhold, futile interventions that add to the distress and prolong the dying.
   - Reduce excessive secretions – Oral hygiene, position, Atropine, Glycopyrrolate;
   - Avoid Suction – restrict to oral suction

[2] https://www.researchgate.net/figure/The-modified-Medical-Research-Council-dyspnea-scale-MMRC-35_tbl1_23938183

- Institute and adjust sedation aimed at symptom relief- take informed consent from family and follow institutional guidelines (on-going analgesia with Morphine IS NOT sedation)