

Emergencies in Palliative Care

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Faculty/Presenter Disclosure

- **Speaker:** Dr. Ingrid de Kock
 - Palliative Care Pain & Symptom**
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Mitigating Potential Bias

- None

Learning Objective

At the end of this session, you will be able to:

formulate a management plan for some common palliative care emergencies

What is an “Emergency” in Palliative Care?

- Death is expected in Palliative Care
- Focus on QoL
- Prolongation of life is often not possible

thus any condition that seriously threatens QoL

- Alternative term: palliative crises

Decision making in palliative emergencies

- Questions to consider in patients with advanced disease:
 - what is the problem?
 - can it be reversed?
 - should it always be reversed?
- Two tiered decision-making process:
 1. what is best technical solution to problem, and
 2. is it appropriate for this patient at this time, and does patient/decision maker agree?

Factors to consider in managing palliative emergencies

- Wishes of patient and carers
 - Nature of emergency situation
 - General physical condition of patient
 - Stage of disease and prognosis
 - Other co-morbidities and symptoms
 - Likely effectiveness and toxicity of available treatments
-
- Falk S, Fallon M. ABC of palliative care: Emergencies. *BMJ*, 1997;315:1525–2810

Which situations require immediate attention in palliative patients ?

- **Exsanguination/bleeding**
- **Spinal cord compression**
- **Uncontrolled seizures**
- **Asphyxiation / severe dyspnea**
- **Hypercalcemia**
- **Superior vena cava obstruction**
- Opioid toxicity
- Agitated delirium
- Fractures
- Severe uncontrolled pain
- Uncontrolled vomiting
- Suicidal ideation



Exsanguination/bleeding

- Clinically significant bleeding in 6-10% of patients with advanced cancer. 3% of lung cancer patients have terminal massive haemoptysis; incidence in all cancer pts not known

Prommer E. Management of bleeding in the terminally ill patient. *Hematology* 2005; 10: 167–75

- If massive bleed: short minutes until loss of consciousness
- Not painful, but terrifying to patient, family, staff
- Clear plan of action required

Causes of bleeding in cancer patients

Anatomical: local tumour invasion, e.g. H&N, lung, GI, bladder cancers

Systemic: bone marrow replaced by tumour
bone marrow suppression

DIC

liver failure

medications, e.g. anticoagulation

complications, chemo-induced

thrombocytopenia, NSAIDs/steroids

concomitant diseases, e.g. hemophilia

Management of exsanguination/bleeding

General measures:

- anticipate in pts at high risk and treat underlying problem if appropriate and possible (palliative RT, interventional radiology)
- prepare family □

Management of exsanguination / bleeding

Specific measures:

- Local eg. compression, packing
- Special techniques eg. RT, surgery, embolization
- Systemic eg. octreotide, tranexamic acid,
(transfusions)
- “ Exsanguination protocol ”

Exsanguination protocol

- “ Dark towels to cover sheets”
- “ Midazolam 5mg sc stat and repeat 15min. prn until patient sedated”

Communication with pt & family re bleeding

- warn FAMILY re risk and discuss possible outcomes
(preparing family outweighs possible distress/anxiety)
- discuss specific management
- advise family to apply pressure if surface bleeding to
prevent spraying
- reassure re painlessness & effectiveness of management

Patient at home

- assess pt & family's ability to cope
- prepare family
- instruct in use of midazolam
- prophylactic sc site
- refill syringes q monthly
- Home Care RN availability
- maintain airway with positioning

Malignant spinal cord compression (SCC)

- 5% of cancer patients in last 2 y of life; median survival at time of diagnosis: 6 mo
- Lung, breast, prostate cancer 15-20% of SCC, multiple myeloma, nonHodgkin lymphoma, renal cell cancer 5-10%
- 85% extra-dural compression due to vertebral mets

Cole JS, Patchell RA. Metastatic epidural spinal cord compression. *Lancet Neurol* 2008 May;7(5):459-466

Abrahm JL. Assessment and treatment of patients with malignant spinal cord compression. *J Support Oncol* 2004 Sep-Oct;2(5):377-88, 391; discussion 391-3, 398, 401

Malignant spinal cord compression (2)

- Incidence of level of compression:
 - 10-15% cervical
 - 60-70% thoracic
 - 20-25% lumbosacral
- More than one level involved in 1/3 of pts
- Prompt diagnosis and treatment ESSENTIAL to prevent paralysis and treat pain
- High level of suspicion needed

Cole JS, Patchell RA. Metastatic epidural spinal cord compression. *Lancet Neurol* 2008 May;7(5):459-466

Abrahm JL. Assessment and treatment of patients with malignant spinal cord compression. *J Support Oncol* 2004 Sep-Oct;2(5):377-88, 391; discussion 391-3, 398, 401

Clinical presentation of SCC

1. Back pain:

- first symptom in > 90% of cases
- localized or radicular pain (sometimes “band” around chest)
- may worsen with movement, cough, straining, lying down
- can predate sensory changes by weeks/months

2. Weakness: 76%

- ambulatory status at presentation is most important prognostic factor for neurological function

3. Sensory changes: 40-90%

- numbness, tingling, loss of vibratory and position sense, loss of light, sharp or cold touch

4. Bladder / bowel dysfunction: 51%

- Late symptoms
- Urinary retention, constipation, loss of anal tone

Management of SCC

- Dexamethasone asap : loading dose 10 mg (iv if possible), then 16 mg / 24h until after diagnosis excluded OR taper after RT (add PPI)
- Urgent MRI
- RT asap for radio sensitive tumours: lymphoma, myeloma, breast, prostate, SCL Ca
- Consider surgery for unstable vertebrae, clinical progression despite RT, known radio resistant tumour (melanoma, sarcoma, renal cell carcinoma), BUT only if pt's condition, prognosis, wishes warrant surgery. Surgery generally followed by RT

Outcomes of Treatment

- 70% of pts who were ambulatory at time of diagnosis will regain ability to walk
- 30% of pts with paraparesis will regain ability to walk
- 5% of patients with established paraplegia will regain ability to walk

THUS BE CLINICALLY VIGILANT FOR SCC

Uncontrolled seizures

Seizures lasting > 2 min

In 1% of pts with Ca

Causes:

- Brain tumour – primary (incidence of seizures 20-50 %) or mets (20 %)
- Meningeal involvement
- Metabolic
- Medications
- Previous epilepsy

Prevention of seizures

- Consider RT for brain mets, depending on pt wishes, life expectancy
- Newer modality is stereotactic surgery for solitary mets if appropriate
- Dexamethasone used for headaches and confusion in pts with brain tumours, might help prevent seizures
- If previous seizures, add anti-epileptic
- Treat reversible causes, e.g. hypercalcemia, severe opioid toxicity

Management of uncontrolled seizures

- Supportive - airway, etc.
- Medications:
 - midazolam 5 - 7 mg sc or im (faster onset), repeat q 10 – 15 min if seizures persist
 - lorazepam 2 – 4 mg sc, sl, repeat q 10 – 15 min if seizures persist
- Once under control, review current anti-epileptic meds or start on anti-epileptics
- If status epilepticus as terminal event, or pts unable to swallow, consider phenobarbitone 30-240 mg/day sc in 3-4 divided doses
- Occasionally palliative sedation required if terminal event

Airway obstruction / severe dyspnea

Causes:

- Primary tumours in mediastinum (i.e. lung Ca, thymoma) or tumour of H&N
- Mets (esophageal, renal, breast, or thyroid Ca)
- Lymphangitic carcinomatosis
- Pulmonary embolism
- Pulmonary vessel occlusion (encasement)
- Infections
- Effusions (pleural, pericardial)
- RT-damage
- Preexisting conditions

Severe dyspnea

- Subjective; tests do not correlate with sensation of breathlessness
- If severe can cause great anxiety and fear of suffocating
- Most often multifactorial; mechanism poorly understood
- Up to 80% of pts experience SOB in last 24 h of life
- Up to 70% of cancer pts will have SOB during course of disease
- Airway compromise or obstruction develops in approx. 20-30% of pts with lung cancer during course of disease

Wrede-Seaman L. Management of emergent conditions in palliative care. Primary care: clinics in office practice; 28(2):317-28

Management of airway obstruction/severe dyspnea

- Validate experience and reassure pt
- Treat underlying cause(s) if possible and appropriate (metal stents, RT)
- Simultaneously control symptom

1. Non pharmacological:

- sit at 45°
- open window or fan
- meditation/relaxation therapy
- humidified air
- keep staff, family, pt calm

2. Medications:

- oxygen for hypoxia only
- opioids – start lower than for pain
- bronchodilators for bronchospasm
- dexamethasone
- sedation (discuss early)

- Nauck F, Alt-Epping B. Crises in palliative care—a comprehensive approach. *Lancet Oncol* 2008; 9: 1086–91
- Jennings, AL et al. Opioids for the palliation of breathlessness in terminal illness (Cochrane Review). *Cochrane Database Syst Rev*. 2000; (4):CD002066

Hypercalcemia

- 10% of all Ca pts; poor progn. sign (50% of pts die within 1 month)
- Commonly associated : breast and multiple myeloma 40-50%, NSCL, H+N, esophagus, gynecological, renal cell Ca
- Etiology: (mechanism varies with each malignancy)
 - PTH-related protein – induced humoral hypercalcemia of malignancy (80%)
 - local osteolysis from bone metastasis (19%)
 - lymphoma-associated calcitriol production (<1%)
 - ectopic PTH secretion (<1%)
- May recur in up to 40% of cases

Clinical presentation of hypercalcemia

- General: fatigue, anorexia, bone pain, n+v, constipation, confusion, polydipsia, polyuria
- Neurological: seizures → coma → death
- Cardiac dysrhythmias

Stewart AF: Clinical practice. Hypercalcemia associated with cancer. *N Engl J Med* 2005; 352:373–379

Lee CT, Yang CC, Lam KK, et al: Hypercalcemia in the emergency department. *Am J Med Sci* 2006; 331:119–123

McCurdy T, Shanholtz C. Oncologic emergencies *Crit Care Med* 2012; 40:2212–22

Laboratory indices

- Corrected $\text{Ca}^{2+} = \text{measured Ca}^{2+} + [(40 - \text{alb.}) \times 0.02]$
- Ionized Ca^{2+}
- Consider treating if $\text{Ca}^{2+} > 2.65 \text{ mmol/l}$ (general condition, prognosis, wishes); treatment varies with severity

Hypercalcemia

1. $40 - \text{albumin} = Y$

2.
$$\begin{array}{r} \text{measured Ca}^{2+} \quad X.XX \text{ mmol/L} \\ + \quad 0.(2Y) \\ \hline \text{corrected Ca}^{2+} \end{array}$$

Management of hypercalcemia

- Hydration (for mild hypercalcemia might be adequate treatment)
- Calcitonin (only if severely symptomatic)
- Bisphosphonates – effective in up to 90% first time treated pts; risk of osteonecrosis of jaw (very rare)
- Other (uncommonly used) medications:
denosumab, glucocorticoids, gallium nitrate, mithramycin

Hypercalcaemia

Bisphosphonates:

- Clodronate (900) -1500 mg in 200 – 500 ml N/S given sc over 4 h.
- Pamidronate (60) - 90 mg in 500 ml N/S given IV over 2-3 h.
- Zoledronate – 4 mg in 50 ml N/S given iv over 15-30 min.



Superior vena cava obstruction

Causes:

- Pressure from tumour or lymphadenopathy
- Invasion of vessel wall
- Thrombosis, including implantable intravenous devices

If no tracheal stenosis, SVCOC generally not life threatening

Superior vena cava obstruction

Clinical:

- ↑ SOB, headache, anxiety, confusion, cough, hoarseness (uncommon), dysphagia, chest/shoulder pain
- progressive facial edema
- distended neck/thoracic veins
- cyanotic face

Investigations:

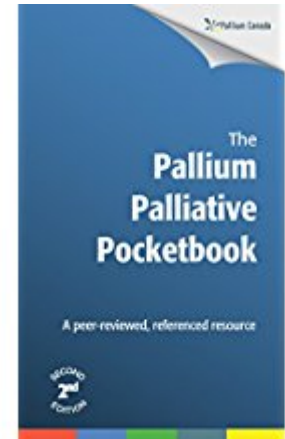
- CXR
- CT most useful

Management of superior vena cava obstruction

- Supportive - oxygen, elevate head
 - Treat SOB and anxiety
 - Steroids
 - LMWH if thrombus
 - RT / chemo
 - ± Stenting

Further references/resources

- Emergencies in Palliative Care, 2010
www.dhhs.tas.gov.au/palliativecare
- AHS Clinical Practice Guideline Supp-007: Oncologic Emergencies: A Guide For Family Physicians, 2014
www.albertahealthservices.ca
- Noble S, Noble M. Emergencies in palliative care. *MEDICINE* 43:12, 722-25
- Wiese CH, et al. Quality of out-of-hospital palliative emergency care depends on the expertise of the emergency medical team--a prospective multi-centre analysis. *Support Care Cancer*. 2009;17:1499– 1506
- Wiese CH, et al. Expertengruppe Palliativ- und Notfallmedizin Akademie für Palliativmedizin und Hospizarbeit Dresden. Palliativpatienten und Patienten am Lebensende in Notfallsituationen - Empfehlungen zur ambulanten Versorgungsoptimierung. *Anästhesist*. 2011;60: 161-716



Palliative Care Early and Systematic (PaCES) – Colorectal Cancer

Dr. Jessica Simon and Camille Bond

**On behalf of the PaCES collaborative
Drs. Ayn Sinnarajah, Patricia Tang, Marc Kerba, Sharon
Watanabe, Amy Tan, Xiaofu Zhu et al.**

Synopsis

1. *What issue are we working on?*

More, better, earlier palliative care (PC) supports for patients with advanced colorectal cancer

2. *What help do we need from provincial palliative care tumour team to succeed?*

- “Sponsoring” approval of pathway content and resources through CCA
- Connecting with local oncology and family med change agents and palliative champions

Objective

Increase the number of patients receiving earlier Pall Care by 20%

To Improve patient outcomes and health system efficiencies



Stakeholders

- Patient & Family Advisors
- Cancer Control Alberta (GURU, GI Tumor Lead)
- Palliative Zonal Leaders
- AHS Community Leaders
- Senior Vice President
- Covenant Health
- AHS Analytics / C-MORE
- EQ-5D unit
- Primary Care
- Universities of Alberta & Calgary
- Health Technology Assessment
- Alberta Health
- Health Quality Council of Alberta
- SCN (Seniors, Primary Care, Cancer)

Summary

Where we are now

Some palliative care
Late in illness for some patients



Where we want to be

Better palliative care *early* in
illness for all patients

The PaCES project seeks to improve the lives of people living with advanced cancer through implementing a pathway for early palliative care approaches and services

The provincial palliative care tumour team is integral to achieving this goal



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