

EXSANGUINATION

Rationale

This guideline is adapted for inter-professional primary care providers working in various settings in VIHA and any other clinical practice setting in which a user may see the guidelines as applicable.

Scope

This guideline provides recommendations for the assessment and symptom management of adult patients (age 19 years and older) living with advanced life threatening illness and experiencing the symptom of exsanguination. This guideline does not address disease specific approaches in the management of bleeding.

Although rare, exsanguination does occur in advanced stage palliative care patients.⁽¹⁾ Clinically significant bleeding occurs in 6% to 10% of patients with advanced cancer.⁽²⁾ 3% of lung cancer patients have terminal massive hemoptysis.⁽²⁾

Definition of Terms

Exsanguination – extensive loss of blood due to internal or external hemorrhage.⁽³⁾

Standard of Care

1. Assessment
2. Education
3. Treatment: Non-pharmacological
4. Treatment: Pharmacological

Recommendation 1

Assessment for the Potential for Exsanguination

Identifying the underlying cause of exsanguination is essential in determining the interventions required (*see Table 1*).

Table 1: Causes of Exsanguination in Palliative Care Patients⁽¹⁾

ENT tumour	Carotid artery erosion from neck metastases Oropharyngeal tumour erosion in mouth
Gastrointestinal hemorrhage	Gastroduodenal ulceration with melena or hematemesis Small or large bowel bleeding with melena (often associated with

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Bladder	severe colic) or hematochezia Hematuria due to tumour, DIC or leukemia
Leukemia or blood dyscrasia	Possible multiple sites, but external mouth or nasal bleeding is obviously distressing. Extensive bruising is also visually difficult for many family members
Disseminated Intravascular Coagulation (DIC)	Due to various causes such as sepsis
Other	Ruptured aortic aneurysm (4) Tumour erosion into adjacent vessels

- Massive hemoptysis is rare. It is most apt to occur in primary squamous cell tumours of the lung (not lung metastases) and is usually heralded by one or more episodes of milder hemoptysis.⁽⁵⁾

Recommendation 2

Education

- As much as possible prepare family ahead of time or provide explanation when unexpected event occurs.
- Advanced planning is necessary for all patients with the potential to bleed, as this symptom is a source of considerable distress for patients, family and staff.^(1, 2)

Recommendation 3

Treatment Non-pharmacological

Rapid Blood Loss

The patient may be conscious for a short period of time, 20 seconds to several minutes before lapsing into a hypoxic coma followed by a cardiac arrest. It is not painful but often a terrifying experience for the patient and especially for the family and staff.⁽¹⁾

If this scenario is a reasonable possibility, non-pharmacologic preparations are made as follows:⁽¹⁾

- Have 3 to 4 large towels close to the bedside and cover blood as it occurs to reduce the visual impact (black or dark coloured towels can be used to minimize the sight of blood).^(1, 4, 6)
- Have several face cloths close to bedside to wipe the patient's mouth and face.⁽¹⁾
- Hold the patient's hand or hug them while providing quieting and comforting words until they drift into a coma and die.^(1, 6)
- If family are not in the room ensure the blood is covered and the patient's face is clean prior to their arrival.⁽¹⁾
- The patient will feel cold because of hypotension and will need warm blankets.⁽⁶⁾

This is a traumatic experience for health care providers. Time should be taken to support one another and provide reassurance for actions and feelings.⁽¹⁾

Prolonged Bleeding

The bleeding may be visible or invisible, as in a gastrointestinal or other hemorrhage. Bleeding could be rapid (in the case of carotid artery erosion) or over several hours (when smaller vessels are affected).⁽¹⁾

In the latter case, the patient may be conscious for a longer period, although confusion and drowsiness will arise from progressive hypoxia and hypotension. The approach taken is:⁽¹⁾

- Towels as above at bedside in case of massive bleeding.^(1, 4, 6)
- Use suction directly at the site of bleeding to remove all or most of the blood. This can be very effective visually and also help prevent coughing or choking in oral hemorrhage.⁽¹⁾
- Direct pressure – this will not stop the bleeding. Towels and suction are more practical at this point.⁽¹⁾
- Have family or another staff provide physical touch and comfort.⁽⁶⁾ Family will need frequent support and reassurance during this phase of dying. They may need to leave the room.⁽¹⁾
- The patient will feel cold because of hypotension and will need warm blankets.^(1, 6)
- For patients with hemoptysis maintenance of an adequate airway should occur.⁽⁴⁾ This can be accomplished with the Trendelenburg position or positioning patient with the bleeding side (if known) down.⁽⁵⁾

Recommendation 4

Treatment: Pharmacological

Rapid Blood Loss

- If able give an I.V. bolus of 5 to 10 mg midazolam (or lorazepam or diazepam) and/or morphine 5 to 20 mg I.V. (dose depends on opioid tolerance). If unable to do IV may give medications subcutaneously. However, there is usually insufficient time for this and it is better spent holding the patient.^(1, 5) If the patient is at home and this is anticipated, have the medications pre-drawn at the bedside.

Prolonged Bleeding

- Use I.V. boluses of diazepam or lorazepam OR I.V. or S.C. boluses of morphine OR midazolam S.C. infusion as needed for sedation depending on the patient's reaction to bleeding and imminent death.⁽¹⁾

References

Information was compiled using the CINAHL, Medline (1996 to April 2006) and Cochrane DSR, ACP Journal Club, DARE and CCTR databases, limiting to reviews/systematic reviews, clinical trials, case studies and guidelines/protocols using exsanguination/bleeding terms in conjunction with palliative/hospice/end of life/dying. Palliative care textbooks mentioned in generated articles were hand searched. Articles not written in English were excluded.

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