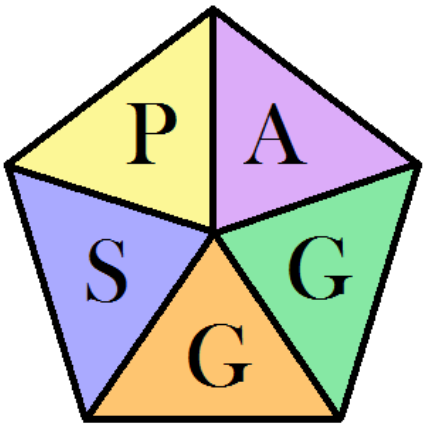

Specialist Palliative Care
Audit and Guidelines Group

Specialist Palliative Care Audit and Guidelines Group (SPAGG)

Clinical Guideline for the Management of a Major Catastrophic Bleed for People at the End of Life

Version 3.0

Document Title	Clinical Guideline for the Management of a Major Catastrophic Bleed for People at the End of Life
Document Date	February 2021
Document Purpose and Intended Audience	This guideline has been produced to provide a clear framework to ensure the safe and effective care of a patient at the end of life who suffers a catastrophic bleed in both an inpatient and community setting.
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References	Palliative Care Formulary https://www.celoxmedical.com/
Consultation Process	Endorsed and approved by SPAGG
Review Date (must be within three years)	February 2024
Approval Signatures: SPAGG chair SPAGG deputy chair SPAGG secretary	
Date Approved by SPAGG:	
Date submitted to Area Prescribing Committee:	

Version	Date	Summary of change/ process
1	September 2015	Endorsed and approved by SPAGG
2	September 2018	Reviewed

Contents

Objectives

To provide a clear framework to ensure the safe and effective care of a patient who suffers a bleeding wound due to advanced illnessin any setting.

Introduction

The following clinical guidelines are written for the situation when a major catastrophic bleed may be expected due to identified risk factors, signs and symptoms. These guidelines are to be used only when it is clear that the patient is not to be resuscitated due to advanced, untreatable, malignancy.

The goals of management of the event must be to minimise anxiety, ease suffering and ensure death with dignity by providing a calm, reassuring and caring atmosphere.

Process

Risk Assessment

There should be a multidisciplinary approach to assessing the likelihood of the occurrence of a bleeding wound.

A number of factors increase an individual's risk of uncontrolled bleeding at the end of life:

1. Site of cancer with fungating/malignant ulceration near major anatomical vasculature e.g. head and neck, breast, penile cancer or propensity for bleeding e.g. haematological
2. Presentation with bleeding e.g. haemoptysis in lung cancer, melaena
3. Co-existing disease e.g. gastrointestinal bleeding, oesophageal varices
4. Smaller warning (herald) bleeds
5. Local infection at the tumour site
6. Clotting abnormalities (including liver failure)
7. Drugs that inhibit coagulation
8. Signs or symptoms of infection e.g. any increase in pain, odour and exudate from a wound, as infected wounds are more likely to bleed.

Harm reduction

1. If these factors are identified this should trigger a multidisciplinary approach to reducing the risk of bleeding and of distress to both patient and families if it happens.
2. There should be consideration of the appropriateness of radiotherapy, chemotherapy, cauterisation or embolisation.
3. If wound infection felt to be present treatment should be considered.
4. Review and stop anticoagulants and antiplatelet drugs where possible.
5. The perceived risk should be shared with the patient and if the patient consents their family and or carers.
6. Minimise trauma during dressing changes by cleaning gently with irrigation and using non-adherent dressings
7. Some brands of alginate (Kaltostat, Sorbsan) claim to have haemostatic properties that can be used to control minor bleeding. Alginate dressings are manufactured from the calcium salt of an alginic acid polymer derived from brown seaweed. It is claimed that calcium ions that are released into the wound from the dressing activate platelets, which

results in haemostasis. However, these dressings are not licensed as haemostatic dressings.

Advance Care Planning

This should include:

1. Treatment Escalation Plan (TEP or ReSPECT) to be agreed with patient and family and documented in clinical notes to include DNACPR and preferred place of care and death.
2. A clear written plan as to what to do in the case of a bleed documented.
3. Ensure equipment to manage bleed including dark towels, face shields (where available), gloves, aprons, plastic sheet or pads, clinical waste bag with patient.
4. Haemostatic gauze options include:

    a. Haemostatic gauze (such as Celox™) or haemostatic granules (Such as Celox™ granules) (See Appendix 1)

    b. If Haemostatic gauze/granules are unavailable, apply 5–10 mL of adrenaline 1 in 1000 (1 mg in 1 mL) to a gauze swab which can be applied with pressure for 10–20 minutes. This causes local vasoconstriction, but may also cause 'rebound' bleeding once these effects wear off. Care should be taken to avoid ischaemic necrosis.

    c. An alternative is tranexamic acid injection 500 mg in 5 mL, apply 5–10mL (500–1000 mg) which can be soaked into gauze and applied with pressure for 10–20 minutes – (if patient already on tranexamic acid – use Celox™ or adrenaline soaks).

5. Prescription of midazolam 10 mg for intramuscular administration use in event of catastrophic bleed with appropriately completed Medicines Administration Form (in home setting) or Electronic prescription chart if they are an inpatient.

6. Consider buccal midazolam 5–10 mg if family or carers able and willing to administer.

Emergency Drug Box checklist:

a. 5 amp midazolam 10 mg/mL
b. 3 syringes
c. 3 needles green
d. 3 needles blue
e. 10 mL tranexamic acid injection (500 mg/5 mL)
f. 10 mL adrenaline 1:1000 (1 mg/mL) injection
g. 5 x gauze swabs (10x10 cm)
h. 1 x haemostatic dressing
i. 1 x haemostatic Granules

In event of a bleed

It is important to remember, that in the event of a massive, terminal bleed the patient may be unconscious within minutes and may die very quickly, even before the sedation has had a chance to work. Thus it is important to remember that whilst sedation is important, never leave the patient alone, and stay with them at all times.

1. Stay calm and if possible summon assistance
2. Ensure that someone is with the patient
3. If possible nurse in recovery position to keep airway clear
4. Stem / disguise bleeding with dark towels
5. Apply pressure to the area if bleeding from external wound with haemostatic dressings/gauze or adrenaline soaks if available,
6. Administer crisis medication if prescribed which can be repeated after 10 minutes if needed

Drug	Route & Onset of effect	Dose *	Frequency
MIDAZOLAM	Intramuscular preferably deltoid) 5–15 minutes	10 mg	Repeat after 10 minutes if needed

The subcutaneous route is inappropriate due to peripheral shut down and unpredictable absorption.

* If the patient is already on large background doses of midazolam or other benzodiazepines, but still not adequately sedated during catastrophic bleeding they may need larger doses of midazolam in proportion with the background dose.

Appendix 1: Haemostatic Gauze

Haemostatic gauze can be used on any open wound when haemorrhage cannot be controlled by application of direct pressure alone, or wounds with soft tissue loss. It is of particular value in controlling haemorrhage at junctional areas where a tourniquet cannot be applied such as the groin, axilla and neck.

It is suitable for arterial and venous bleeding. It is effective at clotting blood containing anti-coagulants.

There are no special storage instructions.

Celox™ gauze does not require cutting, it can easily be torn to the required size. When used on facial wounds, care must be taken to avoid contact with eyes.

Haemostatic gauze dressings or haemostatic granules should be used to pack the wound at the point of haemorrhaging. Cavities should be packed with gauze down to the wound bed. It should not be blindly inserted into thorax or abdomen if the terminal point of bleeding cannot be visualised.

Once in place, compression should be maintained, if possible with a pressure dressing, which should be applied circumferentially to the outer part of the gauze to assist in the application of pressure to hold the gauze *in situ*.

Direct pressure should be applied for at least 3 minutes to allow a stable clot to form. Continued direct significant pressure may be required to control bleeding after application of haemostatic gauze dressings. The dressing should be re-checked after moving the patient.

Celox™ products are Class III CE Marked Medical Devices and approved by BSI. It cannot be prescribed on an FP10. It is licensed for "pre-hospital" care i.e. emergency, military scenarios. The active constituent is chitosan – a natural polymer derived from shrimp shells. Chitosan works by reacting with blood to swell, and on forming a gel merges together to form a clot. It works if patient also has background treatment with heparin and/or warfarin products.

All nursing staff likely to be involved in using Celox™ should view the online training video film in advance of a product being ordered and subsequently used for a patient. Use in palliative care would be 'off-licence' at present.

Table 1 Published evidence outside of licence

Efeoglu, C et al. Turk J Gastroenterol 2091;30(2):171-6	CeloxTM CeloxTM vs Surgicel in 80 patients with cirrhosis having tooth extractions. No significant difference between products
Carles, G etal. J Gynaecol Obst Huma Reprod 2017	4 case reports of post-partum haemorrhage resolved by using Celox.
Muzzi, L et al. Interactive Cardiovascular & Thoracic Surgery 2012;14:695-698	2 case reports of patients post-cardiotomy needing ECMO where CeloxTM CeloxTM was used on sternal edges and pericardial cavity alongside other measure such as VAC.

Table 2Product information

Product	Preparation	How to use	Price (approximate)
Celox™ Rapid	Z-fold gauze	60 seconds compression or till bleeding stops	£39.00
Celox™ -A	Granules in pre-filled applicator 6 g	For small entry wounds 5 minutes compression	£19.95
Celox™ granules	15 g pack	Wipe away blood to find exit point, pour granules over 5 minutes compression	£14.95
Celox™ Gauze	5 Foot Z-fold gauze10 Foot Z-foot gauze roll	3 minutes compression	£36.95 each size

Ordering **Celox™**

SP Services (UK) Ltd
Bastion House
Hortonwood
Telford
ShropshireTF1 7XT

Order Codes:
DR/651 CeloxTM CeloxTM Haemostatic Agent 1 SINGLE 15g Sachet
DR/653 CeloxTM CeloxTM Haemostatic Applicator 1 SINGLE Pre-Filled 6g Plunger
DR/655 CeloxTM CeloxTM Haemostatic Gauze (56g) 1 x 10-foot Rolled Version-SINGLE
DR/656 CeloxTM CeloxTM Haemostatic Gauze 1 x 5-foot Z-Fold Version - SINGLE
DR/658 CeloxTM CeloxTM Rapid Haemostatic Gauze 1

Shelf life of Celox™

Each product pack is marked with an expiration date.
CeloxTM CeloxTM Granules and Celox-A Applicator: has shelf of 4 years from the point at manufacture.
CeloxTM CeloxTM Gauze and CeloxTM CeloxTM Rapid Gauze have a 5 year shelf life.

Appendix 2: Plan for the event of major bleeding in a palliative care patient

PATIENT NAME:

ADDRESS:

DOB:

NHS NUMBER:

This person is at risk of bleeding from.....

No further medical intervention is possible to stop the bleeding.

The aim of treatment in the event of a bleed is to keep the patient calm and comfortable.

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The following plan describes the actions to take if the person experiences a major (very heavy) bleed. The goal of this plan is to ensure the person is comfortable and their carer well supported.

Experiencing a sudden large bleed may be frightening for the person and their family. It may also be distressing for professionals involved. Ensure someone remains with the patient to provide reassurance

Actions

- Call for help. Support from the paramedic service may be very helpful. *Calling for ambulance assistance does not mean the person has to be taken to hospital*
- Ensure 'Do Not Attempt Cardiopulmonary Resuscitation' (DNACPR) and Treatment Escalation form is located in the house
- Keep calm, reassure the patient, and avoid leaving patient alone.
- Use dark towels and sheets to help absorb the blood
- Have gloves, aprons and clinical waste bags at hand
- Support family who may also be distressed

Medications (see Medicine Administration Form for doses)

Symptoms of:

- Anxiety/distress/ breathlessness: Give midazolam intra-muscularly
- Pain/ breathlessness: Give strong opioid subcutaneously as per Trust anticipatory medicine guidance

Other symptoms may sometimes occur such as:

- Troublesome oral/lung secretions: Give hyoscine butylbromide subcutaneously as per prescription
- Nausea/vomiting: Give prescribed antiemetic subcutaneously

Actions after the bleed

- If the patient survives the bleed, aim to relieve any symptoms. The need for medication via a subcutaneous syringe driver should be considered
- A hospice admission may be appropriate if person/carer is in agreement and a bed available
- Should the person be transported to the Emergency Department, staff there may contact their palliative care team
- Continue to offer reassurance to the patient if conscious
- Support family
- Consider debrief for professionals involved in care of the event

Plan Written by:

Professional ……..……..
Signature…….

Title…….. Date…….

For plan review: Yes / No

Date for review if applicable …….

Telephone for further advice if needed
Specialist Palliative Care Team …….
Telephone Number ……

Appendix 3: Example Audit tool

Section	Question	Options
Patient identifier	Anonymised	E.g. CPC1, JTH1
Location of patient	Where were they?	Home/Hospice/Hospital/Care Home/ other – free text
Risk assessment		
Why is patient at risk of bleeding	What is the cause of bleeding risk	Site of cancer with fungating/malignant ulceration e.g. head and neck, haematological, breast, penile cancer, other
		Presentation with bleeding e.g. haemoptysis in lung cancer, melaena
		Co-existing disease e.g. gastrointestinal bleeding, oesophageal varices
		Smaller warning (herald) bleeds
		Local infection at the tumour site
		Clotting abnormalities (including liver failure)
	Drugs that inhibit coagulation	Y/N Which ones: a. Warfarin b. NOAC c. Low molecular weight heparin d. Aspirin e. Clopidogrel f. Other
Advance Care Planning	Documented advance care plan available in place patient was.	Y/N If yes was there: a. DNACPR b. TEP/ReSPECT form completed c. Place of death documented If yes was it : Home/Hospice/Hospital/Care home / other – free text
	Documented review of medicines and consideration of stopping	Y/N If yes which drugs

Section	Question	Options
		a. Warfarin b. NOAC c. Low molecular weight heparin d. Aspirin e. Clopidogrel f. Other
	Communication with other health care professionals	Y/N Documentation in house
	Prepare equipment: Haemostatic Gauze/ Granules for bleeding wounds	What was put in house: 1. Haemostatic gauze 2. Adrenaline soaks/ 3. Tranexamic acid soaks 4. Celox™ dressings (or similar)
	Dark towels, surgical face shields (where available), gloves, aprons, plastic sheet or pads, clinical waste bags	Y/N
	Was there a prescription and preparation of crisis medication and emergency drug box?	Y/N If yes free text document which drugs
Outcome	Where did they die?	1. Home/Hospice/Hospital/Care Home/ other – free text 2. Was this where they wanted to die?
	Did they bleed?	No Yes – multiple options possible: a. Large bleed requiring intervention b. Small bleed no interventions required Time between bleed and death c. 1 hour d. Less than 4 hours e. Less than 12 hours f. Less than 24hours g. 24hours–7 days h. More than 7 days Free text for more details
	If yes	What equipment was used: 1. Haemostatic gauze

Section	Question	Options
		2. Adrenaline soaks/ 3. Tranexamic acid soaks 4. Celox™ dressings (or similar) 5. Dark towels 6. Midazolam – buccal a. Free text dose 7. Midazolam - IM b. Free text dose used
	How did the family experience the bleeding?	Feedback from family
	How did the staff involved experience the bleeding?	Feedback from staff