

## SPAGG

### Coversheet for Specialist Palliative Audit and Guideline Group Agreed Documentation

This sheet is to accompany all documentation agreed by SPAGG. This will assist maintenance of the guidelines as well as demonstrating the governance process undertaken prior to members seeking local approval in their areas of work.

<b>Document title</b>	Tranexamic acid for bleeding in palliative care
<b>Document date</b>	20.06.2024
<b>Document Purpose and Intended Audience</b>	To support any healthcare professional working with palliative patients with bleeding.
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<b>Consultation process</b>	
<b>Monitoring</b>	
<b>Review Date (must be within three years)</b>	July 2027
<b>Approval signatures: SPAGG chair: SPAGG secretary:</b>	Dr Jon Tomas Dr Alice Martin
<b>Date approved by SPAGG:</b>	July 2024

<b>Date submitted to area prescribing committee:</b>	Chair: Dr J Tomas Secretary: Dr A Martin
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## Introduction

1. These guidelines are intended to guide and support professionals caring for patients with a palliative diagnosis who are bleeding and may benefit from the use of tranexamic acid.
2. This guidance should be used in conjunction with other SPAGG guidelines and any other relevant policies/procedures relating to the care of the patient.

To provide clear guidelines for the safe and effective use of tranexamic acid in palliative care for the prevention and treatment of bleeding. These guidelines aim to reduce anxiety, relieve suffering and optimise symptom management as well as providing support for healthcare professionals.

## Background

Bleeding can cause distress for patients, families and professional, often resulting in unwanted, unplanned hospital admissions, particularly in patients with a palliative diagnosis <sup>(1)</sup> Significant bleeding causes a multitude of complexities and is said to occur in around 6-10% of palliative patients <sup>(2)</sup>.

An increased risk of bleeding in palliative care can be attributed to both cancer and non-cancer causes.

### Common primary cancer sites at risk of bleeding:

- Lung
- Head and neck
- Upper GI

### Non cancer causes include:

- Alcoholic liver disease
- Haematological conditions
- Iatrogenic
- Trauma

Tranexamic acid is a synthetic antifibrinolytic that prevents or reduces bleeding by impairing fibrin dissolution <sup>(3)</sup> Tranexamic acid stops blood clots being broken down

by preventing the body making an enzyme that dissolves blood clots and is often used to reduce blood loss and control bleeding.

## **Management**

### **Risk assessment**

Multidisciplinary team working is needed, to balance risk vs harm. This assessment should include a discussion with the patient and family where possible.

Contra-indications:

- 1) History of thrombo-embolism
- 2) Known previous reaction to antifibrinolytic drugs
- 3) History of convulsions (mainly with IV use)
- 4) Disseminated intravascular coagulation (DIC)

### Cautions

1. History of thrombo-embolism
2. Severe renal impairment – see further information below

### **Harm reduction**

- 1) If risks are present, multidisciplinary discussions should take place to weigh up the risk vs benefit.
- 2) Consideration of alternative treatments such as cauterisation, embolization, radiotherapy
- 3) Review and stop any anticoagulants and antiplatelet medication and other drugs which may increase bleeding risk (including nonsteroidal anti-inflammatory drugs (NSAIDs) and SSRIs.
- 4) Risk vs benefit to be discussed where appropriate with patient and family

### **Advance care planning**

- 1) Should include conversation and planning if patient is at risk of major bleed. Consult with the SPAGG guidelines for management of major bleed.
- 2) If the patient is taking oral tranexamic acid and is at risk of deterioration with reduced swallow, planning is required for conversion to alternative route or stopping medication.

### **Renal impairment**

Tranexamic acid is mainly excreted unchanged by the kidneys, therefore dose reduction is necessary in renal impairment. The following guidance can be used (Palliative Care Formulary 7<sup>th</sup> edition page 112)

Plasma creatinine (micromol/lit)	eGFR (ml/min)	PO dose	IV dose
120-249	50-80	15 mg/kg bd	10mg/kg bd
250-500	10-50	15mg/kg once daily	10mg/kg once daily
>500	<10	7.5 mg/kg once daily OR 15mg/kg every 2 days	5mg/kg once daily OR 10mg/kg every 2 days

CSCI doses need to be similarly adjusted in renal impairment

**Side effects** (see BNF/ PCF for further information)

**Common or very common**

- Diarrhoea (reduce dose); nausea; vomiting

**Uncommon**

- Allergic dermatitis

**Rare or very rare**

- Colour vision change (discontinue); embolism and thrombosis

**Frequency not known**

- Seizure (more common at high IV doses); visual impairment (discontinue)

**Medication** (see BNF PCF for exhaustive list)

Note that not all the items listed below are routinely stocked by community pharmacies so planning ahead is advised, so that you have time to source supplies

**Administration guidance** <sup>(4)</sup>

Drug	Dose	Frequency	Comments
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<p><b>Oral route</b></p>	<p>1.5g stat and then 1g TDS</p> <p>Supply: 500mg tablets (these can be dissolved in warm water for 5 mins to aid administration)</p> <p>or</p> <p>500mg/5mls oral suspension (special order)</p> <p>Acute bleeding syndromes due to elevated fibrinolytic activity refer to BNF or SPC</p>	<p>TDS</p>	<p>If bleeding not subsided after 3 days, increase to 1.5-2g TDS.</p> <p>Discontinue one week after bleeding stops, or reduce to 500mg TDS.</p> <p>If bleeding restarts, consider restarting with a view to continue.</p>
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<b>Topical (note these are all off-license use)</b>			
<b>Fungating cancer</b>	500mg/5ml (100mg/1ml 5ml ampoule)	TDS	Soak undiluted 100mg/1ml 5ml ampoule (10% solution) into gauze and apply with pressure for 10 minutes before covering with a dressing.
<b>Epistaxis</b>	500mg/5ml (100mg/1ml 5ml ampoule)	QDS	Soak undiluted 100mg/1ml 5ml ampoule (10% solution) into cotton pledget/gauze and insert into affected nostril for 10 minutes.
<b>Mouth</b>	500mg/10ml  (10ml of 500mg/10 ml mouthwash)  or  (100mg/1ml 5ml ampoule diluted with 5ml water)	QDS PRN	Use 500mg/10ml (5% solution) mouthwash. 10mls at a time.  If no mouthwash preparation available, dilute 1 x 100mg/1ml, 5ml ampoule with 5mls of water and use as a mouthwash. Ensure safe opening of the glass ampoule.  Swallow after use if swallow is safe.  Can also dissolve tablets in water if no other preparation available.
<b>Rectal bleed</b>	5000mg/100ml (dilute 10 x 100mg/1ml 5ml ampoules with 50ml water)	OD or BD	Use 5000mg/100ml (5% solution) and instil as an enema.

<b>Subcutaneous</b>	1500-2000mg/ 24 hours  (100mg/1ml 5ml ampoules)  Conversion from oral to sc: 2:1 conversion (5)	Over 24 hours via CSCI	CSCI Tranexamic Acid often given alone, using water for injection as diluent when necessary.  For PRN SC doses less than 500mg can be used SC undiluted (usually loading dose or PRN dose). Larger volumes may need dividing between sites (2ml or more) to avoid site pain and reactions.  <b>Diluent:</b> Tranexamic acid is compatible with sodium chloride 0.9% or water for injection or Glucose 5% (4)  Alternatively, can infuse 500mg-1000mg loading dose S/C in 50mls sodium chloride 0.9% over 20-30 minutes.  Caution in EGFR less than 50.
<b>Lungs (off-license use)</b>  <b>Haemoptysis</b>	500mg/5ml (100mg/1ml 5ml ampoule undiluted)	TDS-QDS	Use undiluted nebulised.
<b>Pleural haemorrhage</b>  <b>(Liaise with respiratory consultant)</b>	5000mg/50ml (10 x 100mg/ 1ml 5ml ampoules undiluted)	OD	Instil intrapleurally via thoracic drain once daily, clamping for 1hour. Benefit seen after 1-2 instillations. (Undertaken by, or in discussion with the respiratory team)

<p><b>Intravenous</b></p>	<p>15mg/kg  (100mg/1ml 5ml ampoules)</p>	<p>TDS-QDS</p>	<p>Over 5-10 minutes IV</p> <p>IV use in severe haemorrhage if cannot take orally.</p> <p><b>IV injection:</b> Give undiluted <b>IV injection:</b> Give at a rate not exceeding 1mL (of a 500mg/5ml solution) per minute.</p> <p><b>IV infusion or Continuous IV infusion (unlicensed route):</b> Dilute in a suitable volume of sodium chloride 0.9% or glucose 5%, as below:<sup>(4)</sup></p> <ul style="list-style-type: none"> <li>• 1000mg in 100ml (10mg in 1ml)</li> <li>• 2000mg in 100ml (20mg in 1ml)</li> </ul> <p><b>Prevention and treatment of significant haemorrhage following trauma (unlicensed indication):</b> <b>IV injection:</b> Give over 10 minutes, dose can be given in 10 aliquots one minute apart.</p> <p><b>IV infusion:</b> Following initial treatment by IV injection, give via an infusion pump over at least 8 hours.</p> <p><b>Rapid administration may cause hypotension and loss of consciousness <sup>(6)</sup></b></p> <p><b>Acute reactions to IV administration</b></p> <ul style="list-style-type: none"> <li>• hypersensitivity reactions including anaphylaxis</li> <li>• malaise and</li> </ul>
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**In the event of or patient at risk of major haemorrhage**

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

**Audit Form****Monitoring of the guideline**

**The use of this guideline will be monitored via regional data collection/audit by SPAGG.**

**Please use the following audit form to collect data:**

Setting of use (Please circle)	IPU Hospital Community setting Other (Please state) .....
Patient age	
Patient sex	
Patient diagnosis	
Reason for Tranexamic acid use?	
Switch from oral? if so, why?	
Preparation and route used? Reason for choice?	
Dose used Length of treatment eg: hours / days?	
Diluent used?	
Renal function if known	
Evidence of benefit from use?	
Any adverse events?	

Comments	
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## References

### SPC for Tranexamic acid is available on line

- 1) Howard P, Curtin J (2020) Bleeding management in palliative medicine: subcutaneous tranexamic acid - retrospective chart review. Available at: [Bleeding management in palliative medicine: subcutaneous tranexamic acid - retrospective chart review | BMJ Supportive & Palliative Care](#)
- 2) Sood, R., Mancinetti, M., Betticher, D., Cantin, B., Ebnetter, A. (2020) 'Management of bleeding in palliative care patients in the general internal medicine ward: a systematic review'. *Ann Med Surg (Lond)*. doi: 10.1016/j.amsu.2019.12.002. PMID: 31908774; PMCID: PMC6940657.
- 3) British National Formulary (2023) [Tranexamic acid | Drugs | BNF | NICE](#)
- 4) Wilcock, A., Howard, P., Charlesworth, S (2022) Palliative care Formulary. Pharmaceutical press: London
- 5) Hogg, R., Hedges, V., Bond, C (2022) 'Case report: subcutaneous tranexamic acid administration via a continuous infusion successfully controlled bleeding at end of life' *BMJ Supportive & Palliative Care* 2022;**12**:A36. [P-73 Case report: subcutaneous tranexamic acid administration via a continuous infusion successfully controlled bleeding at end of life | BMJ Supportive & Palliative Care](#)
- 6) Medusa (2023) NHS injectable medicines guide. Available at: [Injectable Medicines Guide - Display - Tranexamic acid - New version - Intravenous - Version 9 - IVGuideDisplayMain.asp \(medusaimg.nhs.uk\)](#) [Accessed on: 21.01.24]

SPAGG clinical guidelines for the management if a major catastrophic bleed for people at the end of life [Major-bleed-guidelines-SPAGG-2021-v3.pdf \(westmidspallcare.co.uk\)](#)