| Haemostasis - Peri Procedural Management for People with Bleeding Disorders UHL Haematology Guideline | University Hospitals of Leicester NHS NHS Trust<br>**Trust Reference Number: C13/2020** |
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## 1. Introduction and Who Guideline applies to

This guideline is for medical teams caring for patients with bleeding disorders who are due for an intervention or surgical procedure.

## 2. Guideline Standards and Procedures

The management of surgical and dental procedures for people with bleeding disorders must be approached with care and should involve multi-disciplinary team (MDT) discussion and excellent communication between those involved. Typically the MDT would include: operator, operator nursing team lead, anaesthetist, haemostasis team, laboratory and patient. The patient's GP should be kept informed at all times.

In order to successfully manage haemostasis in people with bleeding disorders, the following should be identified and assessed:

- Date/time/location of procedure
- Bleed risks associated with the procedure; ideally as assessed by the operator but see also Appendix 1 for bleed risk assessment for surgical procedures and Appendix 2 for dental procedures.
- Patient's bleed risk (i.e. severity of diagnosis of bleeding disorder)
- Details of the recovery period- time required for healing and/ or rehabilitation. This includes length of in-patient stay, patient support at home, patient ability to self-treat with IV injections if necessary

Once planned, the MDT should follow the procedure below:

1. Surgical/dental team to inform haemostasis team of the procedure. Required details include: name of procedure, planned time and date, location, mode of anaesthesia, bleeding risk of the procedure and recovery time.
2. Haemostasis team to arrange for a written plan for peri-operative haemostasis.
3. Haemostasis team to discuss and sign off written plan at haemostasis MDT meeting (or sooner depending on urgency); then send plan to surgical team, haemostasis MDT, patient, +/- laboratory (if specialist tests required)

The haemostasis team will be responsible for ensuring action points from the peri-operative plan. This might include: supply of factor to ward nursing teams, education regarding factor administration, coordinating post-procedural blood samples and their delivery to the special haematology laboratory, consideration of venous access and post procedural home treatments.
The written plan devised by Haemophilia team should contain information with specific instructions about timing, dose of factor concentrate and laboratory tests required.

Important considerations for the haemostasis team:

- Have inhibitors or anti-platelet antibodies been considered and excluded pre-operatively?

- Day/time of procedure: earlier in the day and earlier in the week are preferable when considering staff and laboratory availability in the post-procedure setting.
- Is there sufficient availability of haemostatic agent required for this patient?
- How and where will haemostatic agents be given in the early post-operative period? Can these be given at home with the help of an indwelling venous catheter for example?

Specific therapies, dosing and timing are beyond the scope of this guideline and management plans are to be highly individualised in order to mitigate risks.

DDAVP may be useful haemostatic treatment for minor bleeding and invasive procedures in responsive patients with mild Haemophilia A, some types of Von Willebrand disease and some platelet function disorders ( without medical contraindication)- see Desmopressin guideline for more details.

Tranexamic acid, an antifibrinolytic can be used alone or in conjunction with other perioperative haemostatic treatments depending on bleeding risk.

**Anaesthesia:** For patients undergoing surgery avoid neuraxial anaesthesia. If required, it should be performed under adequate clotting factor coverage as safety of neuraxial procedures has not been established in patients with haemophilia.

**Thromboprophylaxis:** For patients with bleeding disorder undergoing surgery, routine thromboprophylaxis is avoided unless advised by haemophilia team.

## 3. Education and Training

Nil

## 4. Monitoring Compliance

| What will be measured to monitor compliance | How will compliance be monitored | Monitoring Lead | Frequency | Reporting arrangements |
|---|---|---|---|---|
| Review of procedural success | Adherence to plan; bleed rates | Haemophilia MDT | 3m | MDT minutes |
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## 5. Supporting References (maximum of 3)


1. **WFH Guidelines for the Management of Hemophilia, 3rd edition**: Alok Srivastava, Elena Santagostino, Alison Dougall, Steve Kitchen, Megan Sutherland, Steven W. Pipe, Manuel Carcao, Johnny Mahlangu, Margaret V. Ragni, Jerzy Windyga, Adolfo Llinás, Nicholas J. Goddard, Richa Mohan, Pradeep M. Poonnoose, Brian M. Feldman, Sandra Zelman Lewis, H. Marijke van den Berg, Glenn F. Pierce, on behalf of the WFH Guidelines for the Management of Hemophilia panelists and co-author

## 6. Key Words

Haemophilia, von willebrand disease, platelet function disorders, bleeding disorder, perioperative management, clotting factor, coagulation factor, factor deficiency

| CONTACT AND REVIEW DETAILS | |
|---|---|
| **Guideline Lead (Name and Title) and reviewed by**<br>Dr Sandhya Munireddy and Dr Styliani Salta<br>Consultant in Haemostasis and Thrombosis | **Executive Lead** |
| **Details of Changes made during review:**<br>1. Section on DDAVP, tranexamic acid, anaesthesia and thromboprophylaxis included.<br>**2.** Generic template removed | |

## Appendix 1. Procedural bleed risks when considering management of bleeding disorders

**High bleed risks:** requiring maintenance of higher factor levels for a longer duration.
Major surgery: penetration/exposure of a body cavity, extensive tissue resection.

**All major surgeries**

**All vascular surgeries**

**All cardiac/ cardiothoracic surgeries**

**Cardiovascular interventions**

Pacemaker or defibrillator placement
Coronary intervention and angiography
Electrophysiological testing/ablation

**Opthalmologic surgeries**

Peri-orbital surgery
Vitreoretinal surgery

**ENT surgeries**

Sinus surgeries
Biopsy or removal of nasal polyps
Thyroidectomy
Parotidectomy
Septoplasty
Turbinate cautery

**Dental( see also Appendix 2)**

Reconstructive procedures

**Orthopaedic surgeries**

Arthroplasty
Arthroscopy
Joint replacement surgery- Shoulder/ foot/hand surgeries
Spinal surgery

**Gynaecologic surgery**

Hysterectomy
Bilateral tubal ligation
Laparoscopic surgery
Cancer surgery

**General surgery**

Surgery on spleen/liver/kidney
Bowel resection
Laparoscopy
Abdominal hernia surgery
Laparoscopic Cholecystectomy
Lymph node biopsy
Haemorrhoidectomy

**Gastroeneterology**
Polypectomy
Percutaneous endoscopic gastrostomy
Percutaneous liver biopsy
Endoscopic Ultrasound with fine needle biopsy
Endoscopic biliary or pancreatic sphincterotomy
Variceal banding

**Urology and renal**
TURP
Bladder tumour resection
Renal biopsy
Extracorporeal shock wave lithotripsy

**Neurosurgery/neuraxial procedures**
All procedures including lumbar puncture and myelography

**Interventional radiology**
Percutaneous trans hepatic cholangiography or nephrostomy
Percutaneous drainage of liver abscess or gall bladder
Organ biopsy
Hickman and tunnelled dialysis catheter placement

**Respiratory**
Chest tube placement

**Low bleed risk;** may require haemostatic intervention but at a lower intensity and for a shorter period of time

Minor surgery eg skin
Endoscopies without biopsy
**Minor dermatological procedures :** Excision of Basal and Squamous cell skin cancers /actinic keratosis and premalignant / malignant lesions

**Dental ****
Dental fillings/ cleaning
Simple dental extraction
Restoration prosthetics
Endodontics

**Opthalmology**
Cataract extraction

**Gastroenterology**
Diagnostic endoscopy with or without biopsy
ERCP without sphincterotomy

**Urology**
Cystoscopy without biopsy

**ENT**
Diagnostic fibreoptic laryngoscopy or nasopharyngoscopy
Fine needle aspirate
Vocal cord injection

**Gynaecological procedures**
Diagnostic hysteroscopy
Colposcopy
Insertion of intrauterine devices

## Appendix 2. Bleed risks and management suggestions for dental procedures in the context of haemophilia and bleeding disorders

| Procedures typically **requiring** factor replacement/haemostatic support. Consider additional tranexamic acid. | Procedures typically **not requiring** specific haemostatic support. Consider tranexamic acid. |
|---|---|
| Inferior dental block | Buccal infiltration |
| Lingual infiltration | Intra-papillary injection |
| | Intra-ligamentary injection |
| Dental extraction(s) | |
| Implants/complex procedures | Scaling and polishing |
| | Orthodontic assessment/fitting |
| | Root canal |