Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg University Health Board

Bwrdd Iechyd Prifysgol Aneurin Bevan University Health Board

Bwrdd Iechyd Prifysgol Caerdydd a'r Fro Cardiff and Vale University Health Board

Managed Clinical Network – Special Care Dentistry South East Wales

Protocol for dental care of patients with Inherited Bleeding Disorders

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1. Introduction

Approximately 1 in 2,000 individuals in the UK have a diagnosed bleeding disorder[1], with the majority being inherited. The most common inherited bleeding disorders are von Willebrand disease, Haemophilia A (factor VIII deficiency), and Haemophilia B (factor IX deficiency), accounting for more than 95% of all inherited bleeding disorders (IBDs)[2]. Patients with inherited bleeding disorders are at an increased risk of peri- and post-operative bleeding during dental treatment.

However, with careful and collaborative management between the patient, dental teams, and haematologists, the risk of complications can be significantly reduced.

Evidence-based preventive care and advice are particularly crucial for patients with bleeding disorders. Implementing adequate preventive measures and scheduling regular dental examinations can help minimise the risk of bleeding episodes and reduce the need for remedial interventions or emergency procedures.

2. Aim

The purpose of this protocol is to outline the care pathways for the safe treatment of patients with Inherited Bleeding Disorders (IBDs) undergoing dental care within Aneurin Bevan University Health Board, Cardiff and Vale University Health Board and Cwm Taf Morgannwg University Health Board. Additionally, it provides guidance on how dental treatment should be carried out for this patient group.

The protocol aims to:

- Support the delivery of safe, high-quality, patient-centred care that ensures robust and transparent quality assurance while promoting the appropriate use of resources in a cost-effective and evidence-based manner.
- Encourage a service design that incorporates a variety of service providers.
- Provide guidance on a range of clinically justified management modalities available to assist patients requiring dental treatment.
- Follow '*Delivering Better Oral Health: An Evidence-Based Toolkit for Prevention*' (4th edition, 2021) for evidence-based oral health prevention.
- Adopt the principles of the World Health Organisation's '*Surgical Safety Checklist*'.
- Adhere to the Special Care Dentistry Communication Plan (Appendix D).

3. Scope

- All dentists and dental care professionals (DCPs) working within South East Wales.
- Haematology team members, including consultants, medical staff, and nursing staff.
- General medical practitioners (GMPs) working within South East Wales.

4. Dental care pathway for patients with Inherited Bleeding Disorders

4.1 Service objectives

Most routine dental care for adult patients with inherited bleeding disorders (IBDs) can be safely managed within the General Dental Service (GDS)[3] following consultation with the patient's haematologist and adherence to simple protocols.

The salaried Community Dental Service (CDS) and/or Hospital Dental Service (HDS) can provide care for patients who, due to the severity of their IBD or the bleeding risk associated with a proposed procedure, are not suitable for treatment within the GDS. Prior to dental treatment, close liaison with the haematology team is required to formulate a plan for the safe delivery of care with appropriate haemostatic cover. Adult patients within the CDS/HDS should be managed by the Special Care Dentistry team, while paediatric patients should be managed by the Paediatric Dental team.

When a patient is diagnosed with an IBD or becomes known to the Haemophilia Centre, the Haemophilia Multi-Disciplinary Team (MDT) Clinical Nurse Specialist team should ensure that the patient receives oral health promotion advice (Appendix B). For paediatric patients, this includes an appropriate referral to the CDS or HDS. For adults, they should be encouraged to seek routine dental care with a General Dental Practitioner (GDP), facilitated by a 'dental liaison' letter (Appendix C).

Establishing and promoting a shared-care approach between the GDS, CDS, HDS, and haemophilia centres ensures regular preventive advice and follow-ups, reducing the risk of dental disease and the need for invasive dental treatment requiring haemostatic management.

4.2 Referrals

Where referral to a CDS or HDS clinic is required, the referrer should provide as much information as possible to ensure the referral is appropriately triaged and the patient is seen in a timely and suitable manner.

4.2.1 – Routine Secondary Referrals

Routine secondary referrals are accepted for patients who meet the following criteria:

- Are registered with a General Medical Practitioner (GMP) in Wales.
- Reside in Wales.
- Are under the care of a haematologist in Wales for an inherited bleeding disorder.
- Are unsuitable for treatment in the GDS due to the severity of their disorder or the bleeding risk associated with a proposed procedure.
- Require a shared-care approach for safe management.

Secondary care referrals are **not** accepted for:

- Patients who can receive care from a General Dental Practitioner (GDP) with simple haemostatic protocols.
- Patients requiring non-operative treatment only (e.g., denture construction).

4.2.2 – Urgent Referrals

In cases where patients require urgent assessment (e.g., for pain and/or infection), referrals should be made directly to either the Paediatric Clinic at the University Dental Hospital Cardiff, by calling **02920 742458**, or the Same Day Emergency Clinic (SDEC) at the University Dental Hospital, Cardiff, by calling **02921 742424**. This service is for the management of acute issues only.

If routine follow-up care is required, a routine secondary referral (as per section 4.2.1) should be considered.

4.3 Inherited Bleeding Disorders

4.3.1 – Haemophilia A and B

Haemophilia A and B are X-linked disorders; therefore, they predominantly affect males. Haemophilia A is a deficiency of Factor VIII, and in 2023/2024, it was reported that 9,662 individuals in the UK were affected[4]. Haemophilia B is a deficiency of Factor IX, and in 2023/2024, it was reported that 2,155 individuals in the UK were affected[4].

Both conditions result in a prolonged activated Partial Thromboplastin Time (aPTT) on a coagulation screen blood test.

Haemophilia A and B are classified by severity based on coagulation factor levels in the blood:

Classification	Level of Factor VIII or Factor IX in the blood	Typical bleeding tendency
Mild	5-50% of normal level	Bleeding after trauma, dental, or surgical procedures.
Moderate	1-5% of normal level	Easy bruising. Bleeding following minor injury. Occasional spontaneous bleeding.
Severe	Less than 1% of normal level	Frequent spontaneous bleeding. Bleeding into joints and muscles, sometimes without obvious cause.

Table 1: Classification of Haemophilia[5, 6]

The treatment of haemophilia involves the replacement of the deficient clotting factor via intravenous infusion to either control or prevent bleeding. Current practice has shifted away from plasma-derived therapies in favour of recombinant factor concentrates[7]. In mild or moderate Haemophilia A, Desmopressin (DDAVP) may also be used.

Patients with haemophilia who received blood products in the 1970s and 1980s may have been exposed to HIV, Hepatitis B, and Hepatitis C due to the use of non-inactivated replacement factor concentrates derived from pooled human blood. The presence of Hepatitis C in patients with haemophilia has been reported to be at least 70%[3]. A similar situation exists with HIV, as well as the potential risk of contamination of blood products with variant Creutzfeldt-Jakob Disease (vCJD)[6].

4.3.1.1 – Inhibitors to Factor VIII or Factor IX

Inhibitors are autoantibodies that develop against specific coagulation factors, such as Factor VIII or Factor IX, inhibiting their action and making factor replacement therapy ineffective. These inhibitors are most likely to develop in individuals with severe Haemophilia A, affecting approximately 30% of patients. In contrast, only 9% of those with mild to moderate Haemophilia A and 3% of those with Haemophilia B develop inhibitors[8].

Other known risk factors for inhibitor development include ethnicity, a family history of inhibitors, and the number of days a patient has been treated with clotting factor concentrate[9]. The increasing use of factor replacement therapy has contributed to a rise in inhibitor development, presenting additional challenges in haemostasis management.

Alternative haematological management methods are required to bypass the need for the relevant factor, such as recombinant Factor VIIa or FEIBA. Despite the availability of alternative agents, patients with inhibitors still have an increased risk of bleeding, as bypassing agents are not as effective as recombinant clotting factor replacements.

It is crucial to optimise dental disease prevention in all patients with inherited bleeding disorders to minimise the need for active dental treatment and reduce the impact of oral health on their medical condition. However, this is particularly essential for patients with inhibitors to clotting factors.

As invasive dental procedures pose a higher risk of bleeding in patients with inhibitors, they should be treated in a secondary care setting near a specialised haemophilia treatment centre[27].

4.3.2 – von Willebrand's Disease

Von Willebrand's Disease (VWD) is the most common inherited bleeding disorder, although in rare cases, it can be acquired and associated with hypothyroidism. There are various types of VWD, with the most common being Type 1 (partial quantitative decrease of von Willebrand Factor), Type 2A (qualitative defect of von Willebrand Factor), and Type 3 (complete absence of von Willebrand Factor)[10]. Individuals with VWD typically present with a prolonged bleeding time and prolonged aPTT on a coagulation screen blood test.

Common signs and symptoms of VWD include easy bruising, prolonged bleeding from lacerations, epistaxis, gingival bleeding, heavy menstrual bleeding, and post-surgical bleeding complications[10]. In cases of Type 3 VWD, muscle haematomas and bleeding into joint spaces may also be observed[10].

Desmopressin (DDAVP) is typically the management of choice, as it increases the plasma levels of von Willebrand factor. Tranexamic acid (for local and systemic effects) and von Willebrand factor concentrates +/- Factor VIII concentrates may also be used.

4.4 Providing dental care to patients with known bleeding disorders

4.4.1 – Prevention planning

All patients with inherited bleeding disorders should have a comprehensive oral health improvement plan. All interventions and recommendations should be based on evidence-based prevention advice as detailed in '*Delivering Better Oral Health: An Evidence-Based Toolkit for Prevention*'[11]. Prevention advice and interventions should be provided and periodically reinforced by dentists and Dental Care Professionals (DCPs).

4.4.2 – Treatment provided

The aim of treatment is to ensure it is provided safely and in the best interests of the patient. Individuals with inherited bleeding disorders can receive the full range of dental treatments necessary to make the patient dentally fit, including fillings, periodontal treatment, fixed and removable prostheses, root canal treatment, orthodontics, and extractions.

The initial dental assessment should generate a dental treatment plan, which is communicated with the patient's haemophilia centre. This enables the Haematology Team to formulate a haemostasis treatment plan for the various dental procedures proposed.

4.5 Treatment planning in adult patients with known bleeding disorders

Due to advances in research and new dental techniques, many dental interventions can now be safely carried out for adults without the requirement for factor replacement or other haematological cover. Table 2 illustrates the treatments that do and do not routinely require cover, based on available literature[2, 12, 13, 14, 28].

Procedures that do not require Factor Cover/Blood Products +/- Tranexamic Acid	**Procedures that require Factor Cover/Blood Products**	**Procedures that require Factor Cover/Blood Products +/- prolonged post-operative monitoring**
Examination Radiographs Local anaesthesia – buccal infiltrations, intra-papillary, and intraligamentary injections Professional Mechanical Plaque Removal (PMPR) - supragingival Restorative treatment Endodontic treatment Orthodontic treatment Prosthodontic treatment	Simple extractions (1-3 teeth) Professional Mechanical Plaque Removal (PMPR) and Root Surface Debridement (RSD) - subgingival	Planned surgical or multiple dental extractions (4+ teeth) Implant placement Periodontal surgery and crown augmentation Biopsies Local Anaesthesia – Inferior Dental Block and Lingual Infiltrations Any patient with Factor Inhibitors requiring dental extractions – unless otherwise informed by the patient's Consultant Haematologist.

Table 2: Managing dental procedures in adult patients with inherited bleeding disorders[2, 12, 13, 14, 28]

4.5.1 – General principles

Patients with inherited bleeding disorders require careful assessment prior to any invasive dental treatment. The comprehensive treatment plan should document the number of invasive procedures where bleeding is expected, as well as the urgency of carrying them out[15]. This proposed dental treatment should be discussed in an MDT meeting involving the patient, Haematology, and the dental team, based on recommendations from The World Federation of Haemophilia. This ensures the organisation of treatment to minimise the number of factor replacement sessions required, thus reducing the likelihood of inhibitor development.

For all procedures, whether the patient requires prophylactic coagulation cover or not, care should be taken to minimise accidental trauma to the soft tissues during treatment.

Preventative care and advice are particularly crucial for patients with bleeding disorders to minimise the risk of bleeding episodes and the need for dental treatments that are more likely to cause bleeding[13]. Local haemostatic measures should be used to address any localised bleeding, examples including suturing, oxidised cellulose packing (e.g., Surgicel), and topical Tranexamic Acid[7]. Local measures are very effective in preventing and controlling post-operative bleeding by establishing a stable clot.

4.5.2 – Periodontal treatment

Periodontal probing and Professional Mechanical Plaque Removal (supragingival scaling) are thought to be unlikely to cause prolonged bleeding and, as a result, do not require factor replacement haemostatic cover[16]. However, in practice, some patients will experience unacceptable bleeding, especially if oral hygiene is poor. To manage this, a 5% Tranexamic Acid Mouthwash can be utilised if required[13].

In patients with generalised, severe periodontal disease requiring extensive subgingival scaling and root surface debridement, bleeding risk is increased, so factor cover is required[16]. The treatment may need to be completed over several visits to prevent excessive bleeding[13]. For subgingival scaling, ultrasonic instrumentation may be preferable in this patient cohort due to it causing less tissue trauma than hand scalers[13].

Periodontal surgery is considered a high bleeding risk procedure and therefore would require provision of systemic haemostatic cover and prolonged post-operative monitoring due to the increased risk of post-operative bleeding[2, 3, 13].

4.5.3 – Local anaesthesia

Most routine dental treatments are carried out under local anaesthesia. The presence of an inherited bleeding disorder is not an indication to deviate from this practice.

4.5.3.1 – Buccal infiltrations

Buccal infiltrations can be used safely and effectively in adult patients with inherited bleeding disorders without the requirement for haemostatic factor cover[3], based on recommendations from The World Federation of Haemophilia. This is primarily due to the availability of finer, single-use needles, which reduce bleeding risk[15].

Local anaesthetic solutions containing a vasoconstrictor are preferable due to their additional local haemostatic effects. Standard infiltrations using Lidocaine 2% with Adrenaline 1:80,000 can be used to anaesthetise all upper teeth, as well as lower anterior and premolar teeth. Articaine 4% with Adrenaline 1:100,000 or 1:200,000 has been reported to successfully anaesthetise mandibular molars[3], which previously required an ID block for sufficient anaesthesia. This is advantageous and should be utilised in the management of patients with inherited bleeding disorders.

Slow injection allows for local anaesthetic solution to diffuse through the tissues with minimal pressure, reducing the risk of haematoma formation[13]. Computer-controlled local anaesthetic delivery (i.e., Wand STA System) can aid in the safer delivery of local anaesthesia[17].

4.5.3.2 – Intra-papillary, intraligamentary and pulpal injections

Intra-papillary, intraligamentary, and pulpal injections can be used to supplement buccal infiltrations to achieve palatal, lingual, or more profound anaesthesia[18]. Due to their low bleeding risk, they do not require haemostatic factor cover. These should be preferred over an ID block due to increased safety concerning bleeding risk.

4.5.3.3 – Inferior dental blocks and lingual infiltrations

Although Inferior Dental Blocks are considered the routine mode of anaesthesia for lower molar teeth, these are contraindicated in patients with inherited bleeding disorders[3]. This is due to concerns about potential haematoma formation in the Pterygoid Muscles or Retromolar spaces, which could lead to airway obstruction[14]. Similarly, Lingual Infiltrations can result in significant airway compromise due to bleeds associated with the lingual vessels[14].

If use of regional nerve blocks (i.e., Inferior Dental Block) and Lingual Infiltrations cannot be avoided or are deemed necessary (e.g., multiple molar extractions), haemostatic factor cover would be required due to their high bleeding risk[16]. In these cases, regardless of haemostatic factor cover administration, an aspirating syringe should always be used to avoid intra-vascular injection, thus reducing bleeding risk.

4.5.4 – Restorative treatment

Restorations, including crown and bridgework, that can be completed with infiltration anaesthesia are considered low bleeding risk[13, 16] and, therefore, can be managed in primary care using local measures.

If matrix bands, wooden wedges, or rubber dam clamps are required, care should be taken to protect the oral mucosa from trauma[18]. Any bleeding resulting from the use of this equipment should be controlled with local measures. Additionally, any sharp-edged restorations should be smoothed to reduce the risk of soft tissue trauma[18].

4.5.5 – Endodontic treatment

Endodontic treatment is considered a low bleeding risk procedure, not requiring haemostatic factor replacement, and is favoured over extraction in patients with inherited bleeding disorders[13]. During routine orthograde endodontic treatment, it is important to

ascertain the working length of the canal using apex locators and working length radiographs[3]. This ensures instrumentation remains within the canal space and does not pass the apex, thus minimising the risk of bleeding in the periapical tissues.

Bleeding from pulp tissue can be controlled through removal of residual pulp tissue and use of Sodium Hypochlorite as an irrigant. Non-setting Calcium Hydroxide paste may also be used as an intra-canal medicament to control bleeding. Obturation should not be completed if continuous bleeding at the apical foramen is noted. This should be managed using the methods described, and final filling placement should be delayed to avoid post-operative complications[19].

4.5.6 – Prosthodontic treatment

There are no contraindications for prosthodontic treatment in patients with inherited bleeding disorders due to its low bleeding risk[16]. However, care should be taken to avoid tissue trauma during denture fabrication, and prostheses should be adjusted to avoid overextension on fitting[13]. Regular review of removable prostheses is advised to ensure maintenance of fit.

4.5.7 – Orthodontic treatment

Fixed and removable orthodontic appliances may be used in patients with inherited bleeding disorders. Although fitting and adjustment of orthodontic appliances are unlikely to cause bleeding, care should be taken to avoid gingival and soft tissue trauma caused by sharp wires, brackets, or cribs[13]. The use of soft red wax is recommended to reduce soft tissue damage[3].

Orthognathic surgery has an unfavourable risk-to-benefit ratio and is therefore contraindicated in most cases[13].

4.5.8 – Implants

Routine placement of dental implants poses no more risk than the surgical extraction of a third molar tooth[13]. Adjunctive surgeries, such as bone grafting and sinus lift surgery, are contraindicated. The use of 3D imaging (Cone Beam CT) is useful in determining the suitability of a proposed implant site[13].

4.5.9 – Extractions and surgical procedures

Extractions and other oral surgery procedures may require systemic haemostatic cover, based on the patients bleeding disorder[3]. Therefore, prior to proceeding with these procedures, liaison with the patient's haematology team is required to determine an appropriate haemostasis plan.

Techniques to reduce bleeding risk should include:

- Extractions should be conducted as atraumatically as possible with minimal impact on the gingival tissues, which may include elective raising of small flaps and sectioning of teeth[7, 13].
- Staging dental extractions, although this should be agreed alongside the haematology team to weigh up the risk of repeated haemostatic factor cover versus managing bleeding risk[18].

- Use of local haemostatic agents to achieve a stable clot within the extraction socket, typically through packing oxidised cellulose (e.g., Surgicel) into the surgical area, plus suturing with resorbable sutures (to avoid potential bleeding with suture removal)[7].
- Use of oral Tranexamic Acid and/or 5% Tranexamic Acid mouthwash before and after dental extraction, for up to 7 days[17]. For further information on Tranexamic Acid, please refer to section 4.6.6.
- Surgical splints may help protect the surgical site during healing. The 'UK Haemophilia Centre Doctor's Organisation' recommends that these are used for 48 hours after tooth extraction in patients with inhibitors[20].
- Standard post-operative advice should be tailored for patients with inherited bleeding disorders, especially regarding post-operative pain management. Anti-platelet medications such as Aspirin and Ibuprofen are contraindicated[3, 13, 18]. Paracetamol is the usual analgesic of choice, or combination analgesia such as Co-Codamol[3, 13, 18].

Post-operative bleeding complications requiring hospital admission are uncommon but more likely in patients with severe disease or inhibitors. Appropriate post-operative advice, monitoring, and management should be arranged in collaboration with the patient's haematology team.

4.5.9.1 – Post-extraction complications

With careful planning, post-procedure haemorrhage should be unlikely. Should any uncontrollable post-operative bleeding occur, the following should be undertaken:

If the bleeding is significant and/or prolonged and there is concern for the patient's health, they should be referred directly to:

- Paediatric patients (<16 years old) – should attend Paediatric Emergency Unit at the University Hospital of Wales, Cardiff.
- Adult patients (aged 16 years and above) – should attend an Emergency Oral and Maxillofacial Clinic, or Accident and Emergency (A+E).

In these cases, the Haematology Unit (**02921 843403**) and the Haemostasis and Thrombosis Registrar (Bleep: **5886**; or via Switchboard during Out of Hours), must be contacted immediately.

In all other cases, if able:

- Inspect the wound site to identify any active bleeding points.
- Place buccal infiltration local anaesthesia to provide pain relief and local vasoconstriction.
- Any mucosal tears should be managed through primary closure with resorbable sutures.
- Bleeding from within the socket should be managed by saline irrigation, replenishment of local haemostatic agents, and placement of resorbable mattress sutures if indicated.
- Compression of the surgical site with Tranexamic Acid-soaked gauze is advised.

Once all local measures have been carried out, the patient should be referred directly to the haematology team for review.

4.6 Procedure for arranging dental care in patients with known bleeding disorders

An overview of the care pathway for patients living with inherited bleeding disorders can be found in Appendix A. This applies for patients covered by Aneurin Bevan University Health Board, Cardiff and Vale University Health Board, and Cwm Taf Morgannwg University Health Board.

Information leaflets for patients regarding the link between dental health and their haematological condition, as well as information leaflets for dentists on the management of these patients, can be found in Appendices B and C.

4.6.1 – Assessment appointment

Routine Cases – A thorough medical, dental, and social assessment should be conducted at the initial assessment appointment. It is important to explore the patient's social circumstances, as these can impact the ability to make suitable arrangements for post-operative monitoring, if required.

Treatment needs should be discussed with the patient, including options for treatment before a treatment plan is finalised. Following the initial assessment, a report and treatment plan should be sent to the patient's Haematology Team via email (**service.co-ordinators.haemophilia.cav@wales.nhs.uk**). This will detail the treatment needed and the suggested sequence of dental treatment to be carried out. Any treatment items that may require factor cover and/or Tranexamic Acid should be indicated by the dentist, guided by 'Table 2'.

The Haematology Team will forward a surgical management plan for the individual patient prior to any intervention appointments. The plan will detail the haematological cover arrangements for each individual appointment, treatment item, or general management strategy. The plan will also include details of who to contact in the event of a post-operative complication.

Urgent Cases – Urgent cases will require close liaison between the dental and Haematology teams. These patients are likely to present through a dental emergency clinic, the haematology clinic, or Accident and Emergency.

If the patient presents to a community-based clinic outside of the University Dental Hospital, a thorough dental assessment should be undertaken, including radiological examination where required, to ascertain if there is an immediate dental need. If same-day treatment is felt to be required, liaison should be carried out as follows to arrange dental management in an appropriate setting:

- Paediatric patients (<16 years old) – Paediatric Dental Clinic at University Dental Hospital, Cardiff (on **02920 742458**)
- Adult patients (aged 16 years and above) - Same Day Emergency Clinic (SDEC) at University Dental Hospital, Cardiff (on **02921 742424**)

Teams within the Paediatric Dental Clinic and Same Day Emergency Clinic (SDEC) at University Dental Hospital, Cardiff, or Local Oral and Maxillofacial Surgery Units will liaise with the Cardiff Haemophilia Centre on **02921 843403**, or bleep Haemostasis and Thrombosis Registrar on call on **5886**, to arrange any appropriate haematological cover required to safely complete the dental procedure. Out of hours contact with the Haematology Registrar should be done via the hospital switchboard.

4.6.2 – Subsequent appointments

The treatment plan should be scheduled to address treatment needs in a systematic manner. In the absence of pain, the treatment plan should begin with intensive preventative advice and intervention, as adequate preventative measures can reduce the need for future dental inventions and emergency procedures. This should be followed by restoration of carious teeth. It is imperative that teeth should be restored before embarking on dental extractions to minimise the number of visits and exposures to factor cover. In some cases, it may be unavoidable to undertake extractions before completing all other treatment, but this should be avoided where possible.

4.6.3 – Appointments where no factor cover is required

Guidelines advise that factor replacement is not required for dental examinations, fissure sealants, restorative dentistry (without the need for ID block or lingual infiltrations), supragingival scaling, endodontics and prosthetic work. Due to the minimal bleeding risk, these treatments can be carried out in settings close to the patient's home, including general dental practices.

Patients should be offered standard post-operative care advice and instructed on who to contact should they experience any problems.

4.6.4 – Appointments where factor cover is required

Appointments should be scheduled in liaison with the Haematology Team and are ideally planned for mid-morning to allow patients sufficient time to attend a haemophilia centre for factor cover and get to their dental appointment. Mid-morning appointments also allow adequate time to monitor patients post-operatively during working hours.

Ideally, appointments should be undertaken at a clinic close to a haemophilia centre.

Patients will be instructed on who to contact in the event of any problems; this would normally be their Haematology Team.

4.6.5 – Post-operative monitoring

The arrangements for post-operative monitoring will be directed by the patient's Haematology Team. In some cases, it may be appropriate for patients to be discharged

home to be monitored by an appropriate adult, or they may remain at the dental clinic for a set period, or be monitored in the hospital setting.

4.6.6 – Tranexamic acid

Tranexamic acid can be administered topically as a mouthwash (rinse and swallowed or gently expel), orally, or parenterally, and is a useful therapy for the management of minor bleeding or surgery (beginning prior to the procedure), either on its own or as an adjunctive therapy[21]. The beneficial effect of systemically administered tranexamic acid includes reducing the number of bleeding episodes, reducing blood loss, and reducing the need for therapeutic factor concentrates and blood products[22].

Tranexamic acid should be prescribed by the patient's Haematology consultant or within the hospital service, as it is not included in the List of Dental Preparations in the British National Formulary (BNF)[23]. Dental professionals managing inherited bleeding disorder patients within General Dental Services or Community Dental Services can request a prescription for Tranexamic Acid for specific patients via correspondence with the Haemophilia Team.

Tranexamic acid is not available as a mouthwash, so it must be prepared and prescribed 'off-label'[23]. The solution has a short shelf life (1-3 months) and should therefore be obtained and supplied to the patient close to the appointment time[24].

Published studies and guidelines recommend the use of oral tranexamic acid and/or 5% tranexamic acid mouthwash before and after dental extraction or invasive dental procedures. This should be prescribed for up to 7 days[17, 25].

The United Kingdom Haemophilia Centre Doctors' Organisation (UKHCDO) guidance suggests that tranexamic acid mouthrinse should be used by gently swishing the solution inside the mouth for 2-3 minutes and then swallowing or gently expelling the solution[25]. Alternatively, the patient can be instructed to apply gauze soaked in tranexamic acid to the wound site for at least 10 minutes[3].

4.6.7 – Completion of episode of care

At the end of the treatment course, patients will be advised on their recommended recall interval in line with the National Institute for Health and Clinical Excellence (NICE) guidance on 'Dental checks: Intervals Between Oral Health Reviews'[26]. Patients should be informed about who to contact in case of dental problems or urgent dental needs between recall visits; this will normally be their usual routine provider.

4.6.8 – Discharging patients to the General Dental Service (GDS)

Ideally, patients with stable oral health should be referred from the Community Dental Service (CDS) or Hospital Dental Service (HDS) back to the GDS upon completion of a course of treatment. Many patients with inherited bleeding disorders can be safely managed in general dental services (following consultation with the patient's haematologist) or in a shared care model.

Shared care involves accessing a general dental practitioner (GDP) for routine examinations and being treated on referral by the CDS or HDS for invasive or surgical dental treatment,

particularly where factor replacement therapy or post-treatment monitoring is required. Each haematological disorder and individual patient require an individualised approach.

4.6.9 – Feedback to Haematology Consultants after treatment episodes

If any patient experiences bleeding complications during treatment or post-intervention, this should be reported to the Consultant Haematologist responsible for the patient by the most appropriate means (i.e., telephone call, e-mail, and/or letter) and documented clearly in the patient's dental clinical records.

Any adverse incident should also be reported via the normal reporting and management of incidents procedures within your place of work.

4.7 Special considerations

4.7.1 – Paediatric patients

In 2013, the United Kingdom Haemophilia Centres Doctors' Organisation Dental Working Party published guidance on the dental management of patients with inherited bleeding disorders. Within this document, they stated that all local anaesthetic techniques, including ID blocks, buccal and lingual infiltration, intra-papillary, and intra-ligamentary injections, require factor cover in children[12]. In contrast, in adults, only ID blocks and lingual infiltrations require clotting factor cover. Those transitioning from paediatric to adult health services can be safely treated as adults.

As a result, although the normal modality for treatment for patients would be local anaesthesia, and there is no justification for general anaesthesia in adult patients solely due to their inherited bleeding disorder, it is accepted that general anaesthesia may be justified in paediatric patients. This is especially true when a large number of treatment items need to be completed, or when the patient is unable to sufficiently cooperate with the treatment to achieve optimal oral health.

Most paediatric patients with inherited bleeding disorders will remain under the care of the Hospital or Community Dental Service unless it is agreed with the parents, general dental practitioner, and Haematology Team that they can be primarily cared for in the general dental service.

4.7.2 – Patients requiring prolonged post-operative monitoring

Some patients, particularly those with factor inhibitors or severe disease, may benefit from a period of prolonged monitoring following a dental procedure with an increased bleeding risk. These patients require even more careful preparation, and invasive treatment should be undertaken by a Multidisciplinary Team experienced in this area, on a hospital site in close proximity to a specialised Haemophilia Treatment Centre. Patients can be treated under local anaesthesia in a theatre setting, utilising the Oral and Maxillofacial/Special Care Dentistry theatre lists before ward-based monitoring. Paediatric patients may be treated on a Paediatric Comprehensive Care list.

4.7.3 – Domiciliary care

Some patients with inherited bleeding disorders may not be able to easily access dental care within a clinical setting, and therefore domiciliary care may be indicated. If simple treatment with an increased bleeding risk (e.g., removal of a mobile single-rooted tooth) is indicated in a domiciliary setting, close liaison with the patient's Haemophilia Team is essential to arrange appropriate factor cover and monitoring within the home setting.

4.7.4 – Referrals to other services

It may be necessary to refer patients to other services to complete their episode of care. The patient's Haematology Team should be informed of any onward referrals.

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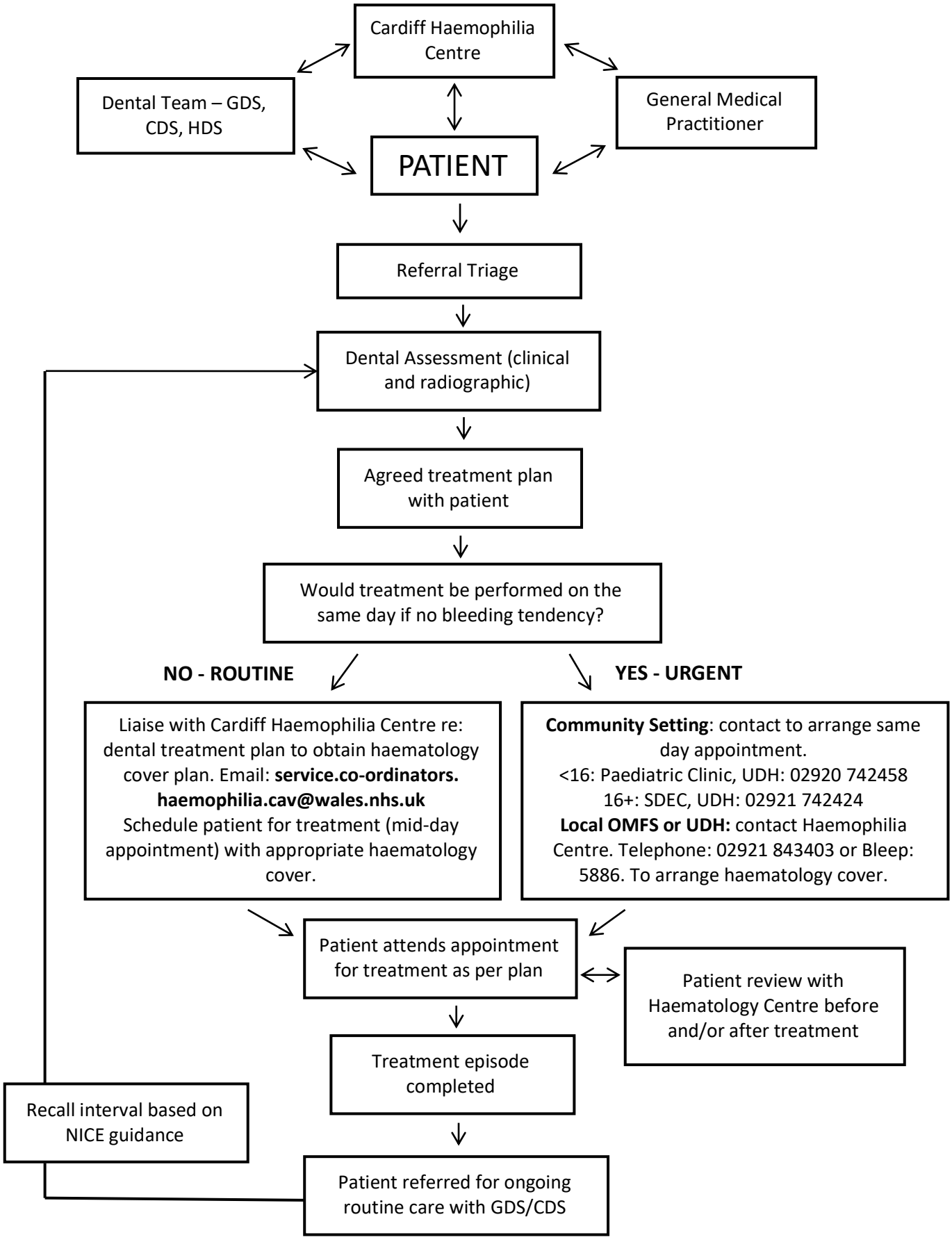
Appendix A – CAVUHB, ABUHB, CTMUHB Care Pathway



Appendix B – Patient Information Leaflet

Cardiff Haemophilia Centre,
University Hospital of Wales,
Heath Park,
Cardiff,
CF14 4XW

Inherited Bleeding Disorders (IBDs)

Looking after your teeth and gums

Who is this leaflet for?
This leaflet is for **adults** with a bleeding disorder such as haemophilia, von Willebrand's disease, or a platelet disorder, as well as for their relatives or carers.

Why are your teeth and gums important?
It is important for people with bleeding or clotting disorders to take good care of their teeth and gums. This can help reduce problems like toothache, mouth infections, or the need for extractions. It can also reduce the need for medical treatments, such as transfusions of clotting factors or blood products.

How do I prevent dental problems?
You can prevent dental problems by:
- Brushing your teeth at least twice daily.
- Reducing the frequency and amount of sugar in your diet.
- Avoiding smoking.
- Having regular check-ups with a dentist, at least twice a year.

Attending the dentist
You must tell your dentist about your medical condition. If you are unsure, check with your Haemophilia Centre. Remember to update your dentist if your medical condition changes.

It is completely safe to attend your general dental practice for regular check-ups and most types of dental treatment. However, your dentist **must** contact your Haemophilia Centre for advice before some types of dental treatment due to the higher risk of bleeding complications, such as:
- Tooth extractions
- Nerve blocks
- Gum surgery
- Dental implants

Frequently asked questions

Can I use my local dentist?
Yes, you can use your local dentist for most of your dental care. Many people prefer to get a full range of dental care in a convenient location. Your local dentist may be able to carry out many aspects of treatment, depending on the severity of your condition and the type of dental treatment required. For some procedures, you may need to visit a specialist centre, such as the University Dental Hospital in Cardiff.

If you or your dentist need more advice, please contact the Haemophilia Centre on 02921 843403.

Should I brush my teeth if my gums bleed?
Bleeding gums are a sign of gum disease, which is often noticed while brushing. Some people avoid brushing due to the bleeding, but this can make the problem worse. Teeth can become loose and eventually be lost.

We recommend using a soft or medium toothbrush with a small head and a pea-sized amount of fluoride toothpaste at least twice a day. Electric toothbrushes are also very effective.

What if my gums continue to bleed, despite brushing regularly?
If your gums continue to bleed, seek advice from your dentist, who will recommend other methods of cleaning your teeth.

Your bleeding disorder may cause your gums to bleed a little more easily and for a longer period, until the gums heal. Your dentist or dental hygienist may recommend professional cleaning. Patients are often advised to take tranexamic acid tablets or mouthwash before and after professional teeth cleaning.

What is Tranexamic acid?
Tranexamic acid prevents blood clots from breaking down and helps stop bleeding.

What happens if I need a tooth extracted?
This must always be coordinated by your Haemophilia Centre. They will arrange this with your dentist or a specialist dental centre. The Haemophilia Centre will advise you about the need for factor replacement therapy based on the severity of your bleeding disorder.

Tranexamic acid tablets or mouthwash are typically prescribed before and after the extraction. The dentist will stitch the wound and use a special surgical pack to stop any bleeding.

I cannot find a dentist locally. What should I do?
Call your Haemophilia Centre on 02921 843403. You will be given a contact number, depending on where you live, and assigned to a dental team in the Hospital Dental Service or the Community Dental Service.

My dentist seems to be unsure of treating me because of my condition. What should I do?
Please show your dentist this leaflet, as well as the 'Information for Dentists' letter.

What should I do if I have a dental emergency?
Call your own dentist for advice first. If you are not registered or cannot contact an emergency dentist, call the Haemophilia Centre on 02921 843403.

For more information, please visit the website www.wfh.org for oral care for people with haemophilia or a hereditary bleeding disorder.

Appendix C – Dentist Information Leaflet

Cardiff Haemophilia Centre,
University Hospital of Wales,
Heath Park,
Cardiff,
CF14 4XW

Inherited Bleeding Disorders (IBDs)

Dear Dentist,

All patients with inherited bleeding disorders should be seen for regular dental check-ups in general dental practice. Most patients can safely receive most of their dental care, including invasive procedures, in general dental practice. This includes patients with moderate (1-5% clotting factor) or severe (< 1% clotting factor) haemophilia, as they are usually able to self-administer treatment to correct their blood clotting system.

The Haemophilia Centre can provide advice on how to correct haemostasis for any invasive procedure or whether the patient needs to be referred to the University Dental Hospital, Cardiff, for a specific treatment on a case-by-case basis. Treatment might include the use of tranexamic acid, or self-administering coagulation factor concentrate, or desmopressin.

General tips:
The following procedures are safe for patients with mild bleeding disorder:
● Fillings - Avoiding nerve blocks and lingual infiltrations; use suction and aspirators carefully.
● Supragingival scaling – Can be done, but it should be staged and covered with tranexamic acid if oral hygiene is poor.
● Root canal treatment – Ensure careful rubber dam placement and work within the anatomical apex.
● Dental impressions - Careful tray placement and gentle handling of soft tissues are essential.
● Radiographs - Positioning should be done carefully in the floor of the mouth and retromolar regions.

Areas of concern:
Please consult the Haemophilia Centre prior to the following procedures for advice on haemostatic treatment. These procedures pose a significant risk of bleeding complications for all patients with bleeding disorder, but they can often be safely performed with appropriate haemostatic cover:
● Nerve blocks
● Dental extractions
● Subgingival scaling and root debridement
● Dental implant placement
● Minor oral surgical procedures

Local Anaesthesia:
Buccal infiltrations, using aspirating syringes, are safe for patients with bleeding disorders. Lingual infiltrations and inferior dental (ID) blocks can potentially cause deep bleeding, which may compromise the airway unless the patient has had appropriate haemostatic cover.

Alternative techniques to anaesthetise lower molar teeth include buccal infiltration injections with 4% articaine and intra-ligamentary anaesthesia. If an ID block is necessary, consultation with the Haematology Team is required before administering the injection.

Pain relief:
NSAIDs and aspirin can aggravate bleeding, but they may be used on a case-by-case basis if haemostasis has been corrected. **Do not** prescribe without receiving advice from the Haemophilia Centre. Paracetamol or codeine-based products are more appropriate for use.

Concurrent illness:
Patients with other conditions, such as liver dysfunction, must be referred to a specialist dental centre, as there is an increased risk of bleeding complications.

If you have any queries or concerns, please contact:

Cardiff Haemophilia Centre on 02921 843403 (Monday-Friday 9am-5pm)

Specialist Dental Centre:
Special Care and Sedation Unit, Cardiff University Dental Hospital on 02921 846356 (Monday-Friday 9am-5pm).
Same Day Emergency Clinic and Oral Surgery Unit, Cardiff University Dental Hospital on 02921 742424 (Monday-Friday 9am-5pm).

Community Dental Service:
Cardiff and Vale UHB – Barry (01446 704126), Riverside (02920 190175), St David's Hospital (02920 536819)
Cwm Taf Morgannwg UHB: Pontypridd (01443 443816), Keir Hardie (01685 351000)
Aneurin Bevan UHB: Ystrad Fawr (01443 802471), Cwmbran (01633 488376),
19 Hills (01633 832313)

For more information, please visit the website www.wfh.org for oral care for people with haemophilia or a hereditary bleeding disorder.

Appendix D – Special Care Dentistry Communication Plan

SPECIAL CARE DENTISTRY
Communication Plan

January 2015

The Special Care Dentistry in Wales Implementation Plan (November 2011) confirms a requirement to provide 'regional and relevant local information for patients and clinicians' together with 'interim and substantial guidance regarding network and speciality development'. It is good practice for the SCD Advisory Group to have a Communication Plan

Communication Standards

Working with all relevant local stakeholders, Managed Clinical Networks (MCNs) in consultation with Health Boards will comply with Standard 18 of the Standards for Health Services in Wales and ensure effective, accessible, appropriate and timely communication and information sharing:

- Internally and externally;
- With patients, service users, carers and staff using a range of media and formats;
- About patients, service users and their carers;
- On the full range and locations of services they provide; and
- Address language and communication needs

MCNs will need to identify their key stakeholders and service users to ensure communications are clear and appropriate for their target audience

Key stakeholders:
Key stakeholders include internal and external colleagues, as well as the public. They will include:

- SCD patients and carers
- Welsh Government
- Local Health Boards
- Public Health Wales
- Consultants and Specialists in Special Care Dentistry
- Community Dental Services
- Consultants and Specialists from other Dental specialities
- Dental Practitioners and their teams
- Local Authorities
- Third Sector

Communication Mechanisms:
HBs and MCNs to establish develop and agree effective methods of communication with key stakeholders. A variety of communication methods should be considered and may include

websites, newsletters, e-bulletins, network meetings, social media and other mechanisms to share key messages, stimulate discussion and allow effective 2-way communication

There must be individual responsibility and accountability for maintaining the local NHS Website.

Key messages to communicate:
The SCD Advisory Group will want to see a level of consistency across the MCNs while allowing for appropriate local flexibility. The key components will include:

The range and location of services, opening hours, access, facilities and contact details
Dental helplines and what to do in the event of urgent dental need

In line with principles of prudent healthcare, information will be included for patients, service users and carers on their role in maintaining their oral health and preventing oral disease and helping them to make healthy choices

Patient experience and feedback should be sought in line with principles of the National Service User Experience Group. This should be taken into account when developing and delivering services and should be used appropriately to improve services. Use of patient experience and feedback should be communicated.

A reference to the CDS Annual Quality Statement in line with health board process for AQS publication

Role of the SCD Advisory Group:

The SCD Advisory Group will take a lead role in ensuring that the Communication Plan:
- Addresses the issues outlined in the SCD Implementation Plan November 2011;
- Focuses on the needs of SCD patients and carers;
- Ensures access to relevant and up to date information is available to all stakeholders.