Dental Care of People with Congenital Bleeding Disorders - Full Clinical Guideline

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1. Introduction

There are a number of myths concerning the management of patients with congenital bleeding disorders. Although patients with congenital bleeding disorders have an increased risk of significant bleeding from invasive dental and oral surgery procedures, the majority of routine non-surgical dental treatment can be provided in a general dental practice or within the community and salaried dental service. Successful management involves close collaboration between haemophilia treaters and dentists. For instance dental treatment in patients on prophylaxis regimens should be timed to minimise the necessity for additional factor replacement therapy other than routine prophylaxis. Historically, provision of dental treatment for patients with bleeding disorders was often neglected with resulting poor outcomes for patients' dental health.

A major anxiety of patients with congenital bleeding disorders is the risk of bleeding either during or after treatment, as well as concerns about dentists' understanding of their bleeding condition and its management. Many patients also worry when their gingivae bleed on brushing and so avoid brushing, which exacerbates the problem, especially if preventive dentistry is difficult to access in a primary care setting. A significant number of patients have also experienced the refusal of treatment by general dental practices.

As a result, individuals may avoid the dentist until extensive treatment needs arise. This group of patients requires the same level of routine dental care as any other patient and good preventive practice is essential.

Modern dental treatments including attention to meticulous operative technique, use of local haemostatic agents, and an increasing interest in the prevention of dental problems along with the development of minimally invasive techniques mean that a full range of dental care should be provided for patients with bleeding disorders.

2. Aim and Purpose

To enable the safe and effective dental care of people with hereditary bleeding disorders.

3. Definitions, Keywords

Haemophilia A - Congenital deficiency of clotting factor VIII; Haemophilia B - Congenital deficiency of clotting factor IX. Severe haemophilia is associated with spontaneous bleeding into joints, muscles and organs e.g. the brain. Even minor interventions can cause bleeding if the bleeding disorder is not treated beforehand.

Clotting Factor Concentrate – this is given therapeutically to replace the clotting factor that is missing or low. CFC's come as vials of lyophiliyzed powder with diluent and a transfer mechanism to transfer the diluent into the vial of CFC. All CFC's are on the Medusa database used by the Trust.

Desmopressin. This is a medication which stimulates the release of Factor VIII and von Willebrands factor from their stores in the endothelial cells of blood vessels. Desmopressin can be used to treat mild haemophilia A and von Willebrands disease.

4. General recommendations for all patients with bleeding disorders

- All adults and children with bleeding disorders should be registered with a community dentist for routine dental care.
- At each haemophilia routine appointment, clinicians should check with the patient/carer that they are accessing routine dental care and advice should be provided if the patient is experiencing difficulties.
- All patients should have a documented bleeding history including prior history of bleeding associated with dental procedures.
- Every patient needs to be aware how their bleeding disorder may affect their dental care. Patients /carers should be informed about which procedures can be performed in primary care and when referral to hospital may be required.
- Many patients with mild clotting factor deficiencies who do not have a bleeding phenotype can have the majority of dental treatment entirely in primary care. Minimal haemostatic support (eg tranexamic acid) may be necessary.
- Patients in whom the risk of bleeding is uncertain should be referred to hospital if if they require a dental procedure that confers a risk.

Dental procedures with low risk of bleeding

It is sensible to advise patients on routine factor prophylaxis to arrange their dental treatment to coincide with routine administration of planned prophylaxis.
The following treatments do not require additional haemostatic treatment for most adult patients. Tranexamic tablets or mouthwash may be recommended for patients with a previous history of bleeding with similar procedures. Current guideline suggest that local anaesthetic injections in children may need additional haemostatic support. This should be discussed with a paediatric haematologist.[1]

- Local anaesthetic
    - Buccal infiltration
    - Intra-papillary injection
    - Intra-ligamentory injection
- Routine periodontal probing, supragingival scaling, and polish (including ultrasonic scaling) in patients with good gingival health.
- Fillings, crown and bridges may be carried out in the community unless inferior alveolar block or lingual infiltratin with local anaesthetic are required (see below).
- Root canal treatment (most cases)

Dental procedures with significant risk of bleeding

The following procedures should not be performed in bleeding disorders patients without discussion with a haematologist.

- Local anaesthetic
    - Inferior dental block
    - Lingual infiltration
- Dental extractions
- Dental implants
- Other oral surgery procedures

Patients with haemophilia and von Willebrands disease will require haemostatic therapy (clotting factor concentrate or desmopressin) prior to treatment. Tranexamic acid tablets or mouthwash should also be given.
Treatment for other disorders will depend on the severity of the disorder and the bleeding phenotype.

Examples of management of patients with haemophilia:

Simple dental extraction:
Tranexamic acid mouthwash QDS starting the day before the procedure, continue for 5 days post procedure.
Give one dose of clotting factor concentrate to elevate factor level to 50% 30 mins pre procedure.

Dental clearance or other more major oral surgery procedures:
Tranexamic acid as above.
Give 1 dose of clotting factor concentrate to elevate factor level to 100%, then 1 - 2 further doses to 50% at 12 hourly intervals (i.e. morning of procedure give 100% dose, evening and following morning give 50% dose).

Type 1 Von Willebrands:
Tranexamic acid as above.
Give 1 dose desmopressin 0.3 microgramsper kg subcutaneously 60 – 90 minutes pre procedure. Further doses not necessary.

Type 2 von Willebrands: May need clotting factor concentrate. Discuss with haematologist.

Other bleeding disorders: Discuss with haematologist.

Where should treatment take place?

Low risk procedures can be performed in adults in the community in the vast majority of cases. Peri-procedural tranexamic acid is often advised.
It may be necessary for children to have low risk procedures performed in hospital (see above).

All *high risk procedures* should be discussed with the haemophilia centre.
Patients who are on home treatment for their bleeding disorder (eg haemophilia patients on prophylaxis) can often have simple extractions performed in the community providing advice has been obtained in advance on the dosing and administration of factor concentrates to support the procedure.
Patients with severe disorders who require more complex procedures must be referred to hospital for their treatment. Patients with severe disorders who are not on home treatment should also be referred for more simple procedures unless safe arrangements can be made between the haemophilia centre and the community dentist to administer the required haemostatic treatment .
Patients with mild disorders and a favourable bleeding phenotype may also have simple extractions in the community after liaison between the community dentist and the haemophilia centre.
Complex procedures should performed in hospital.
All patients in whom the bleeding phenotype is uncertain, or who have a significant past history of bleeding in association with similar previous dental procedures should be referred to hospital for high risk procedures.

Sometimes patients who are unable to administer their own treatment may attend the haemophilia centre for haemostatic therapy prior to attending their community dentist for a

procedure. This is acceptable providing there will not be a significant delay between factor administration and the procedure being performed.

Route of referral

All patients should first be assessed by their community dentist in order to decide what treatment may be required.
All patients should be advised that, if they require in-hospital dental treatment, their community dentist should refer them to the RDH maxillo-facial surgeons. Patients may be treated in Nottingham or Sheffield, but liaison with the local haemophilia centres will be required in these cases.
Referrals to the RDH maxillo-facial surgeons will be made by the community dentist. The RDH maxillo-facial surgeons then inform the haemophilia team of the planned treatment.
A surgical plan will be made by the Derby haemophilia Consultants which will be emailed to the MF consultant, uploaded to the patient's electronic notes and filed in the patient notes.
The haemophilia CNS will liase between the RDH maxillo-facial surgeons and the patient to ensure required haemostatic treatment is delivered as appropriate.

5. References (including any links to NICE Guidance etc.)

Guidance on the dental management of patients with haemophilia and congenital bleeding disorders J. A. M. Anderson, A. Brewer, D. Creagh, S. Hook, J. Mainwaring, A. McKernan, T. T. Yee and C. A. Yeung.

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6. Documentation Controls

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