Delay in the restoration of hemostasis to the patient with hemophilia or von Willebrand disease may be life or limb-threatening.

- **PROMPT TRIAGE AND ASSESSMENT.**
- Determine the severity of the bleed.
- Recognize that bleeding in the head, spine, abdomen or pelvis may initially be occult and potentially life-threatening.
- **TREAT FIRST AND INVESTIGATE LATER – “FACTOR FIRST”**.
- Avoid invasive procedures such as arterial punctures unless the patient has factor replacement.
- **NO** IM injections and **NO** ASA.
- The patient or guardian may be your most important resource, so do ask about specific treatment protocols.
- Contact the patient’s Hemophilia Treatment Centre where a hematologist is always on call.
- Provide clear discharge instructions and arrange a follow-up plan or admit to hospital if necessary.

### LIFE OR LIMB-THREATENING BLEEDS

- Head (intracranial) and neck
- Chest, abdomen, pelvis, spine
- Iliopsoas muscle and hip
- Massive vaginal hemorrhage
- Extremity muscle compartments
- Fractures or dislocations
- Any deep laceration
- Any uncontrolled bleeding

### MODERATE/MINOR BLEEDS

- Nose (epistaxis)
- Mouth (including gums)
- Joints (hemarthroses)
- Menorrhagia
- Abrasions and superficial lacerations

### TREATMENT FOR LIFE OR LIMB-THREATENING BLEEDS

**PATIENT MUST RECEIVE PRODUCT URGENTLY**

#### Hemophilia A: (all severities)
Recombinant factor VIII concentrate 40-50 units/kg

#### Hemophilia B: (all severities)
Recombinant factor IX concentrate 100-120 units/kg \(>15 \text{ yrs} \)
Recombinant factor IX concentrate 135-160 units/kg \(<15 \text{ yrs} \)

The dosage for recombinant factor IX is substantially higher because of its lower recovery, particularly in children.

#### Von Willebrand Disease:
A VW factor concentrate containing factor VIII such as Humate-P 60-80 Ristocetin cofactor units/kg

It is critical to raise the factor level to 80-100% urgently for all life or limb-threatening bleeds.

### TREATMENT FOR MODERATE/MINOR BLEEDS

**PATIENT MUST RECEIVE PRODUCT WITHIN 30 MINUTES WHenever POSSIBLE**

#### Hemophilia A: (severe/moderate)
Recombinant factor VIII concentrate 20-30 units/kg

#### Hemophilia A: (mild)
Desmopressin (Octostim/DDAVP) 0.3 mcg/kg (max. 20 mcg) – SC/IV

#### Hemophilia B: (severe/moderate/mild)
Recombinant factor IX concentrate 35-50 units/kg \(>15 \text{ yrs} \)
Recombinant factor IX concentrate 50-70 units/kg \(<15 \text{ yrs} \)

The dosage for recombinant factor IX is substantially higher because of its lower recovery, particularly in children.

#### Von Willebrand Disease:
Type 1 and Type 2A or 2B known to have used desmopressin safely and effectively – (Octostim/DDAVP) 0.3 mcg/kg (max. 20 mcg) – SC/IV

For patients not responding to desmopressin (such as Type 3 or Type 2B) use a VW factor concentrate containing factor VIII such as Humate-P 60-80 Ristocetin cofactor units/kg

**For mucosal bleeds in all above add:**
Tranexamic Acid (Cyklokapron) 25 mg/kg po tid 1-7 days (contraindicated if hematuria)

Dosages are patient specific – these are general guidelines only. Round doses up to the nearest vial.
If the products listed are not available, please call the nearest Canadian Blood Services or Héma-Québec Centre.