



HEMLIBRA


(emicizumab)

ALL ABOUT HEMLIBRA

FOR PEOPLE WITH HEMOPHILIA A
WITHOUT INHIBITORS



Canadian Hemophilia Society
Help Stop the Bleeding



This booklet was adapted from a publication entitled *Emicizumab (Hemlibra®) For people with Factor VIII Deficiency without Inhibitors* produced by the Irish Haemophilia Society (IHS). The Canadian Hemophilia Society would like to thank the IHS for generously allowing this adaptation.

Adapted by:

David Page, Canadian Hemophilia Society

Reviewed by:

Mark Belletrutti, MD, BC Children's Hospital, and

Erica Crilly, NP, BC Children's Hospital



The Canadian Hemophilia Society

The Canadian Hemophilia Society (CHS) is committed to improving the health and quality of life of all people in Canada living with an inherited bleeding disorder until cures are universally available. The CHS consults qualified medical professionals before distributing any medical information. However, the CHS does not practice medicine and in no circumstances recommends particular treatment for specific individuals. Brand names of treatment products are provided for information only. Their inclusion is not an endorsement of a particular product or company. In all cases, it is strongly recommended that individuals consult a physician experienced in the care of bleeding disorder patients before pursuing any course of treatment.

For further information, please contact:

Canadian Hemophilia Society

Telephone: 514 848-0503

Toll-free: 1-800-668-2686

chs@hemophilia.ca

www.hemophilia.ca

© Canadian Hemophilia Society, 2022

ISBN: 978-1-897489-48-2

Contents



What is Hemlibra?	4
Who can use Hemlibra?	5
Is Hemlibra suitable for children?	5
How does Hemlibra work?	5
Is the half-life of Hemlibra different from factor VIII?	5
How much Hemlibra should I use?.	6
How is Hemlibra given?	7
What if I miss a dose?	7
Can Hemlibra cause factor VIII inhibitors?	7
Will I ever get a factor VIII inhibitor?	8
Can my immune system react to Hemlibra?	8
What are the benefits of Hemlibra?.	9
What are the drawbacks of Hemlibra?.	9
What should I know about Hemlibra’s safety and side effects?.	10
How is Hemlibra stored?	11
Hemlibra ancillaries	11
What happens if I switch from my current treatment to Hemlibra?	11
Are there people for whom Hemlibra may not be suitable?	12
Will I still have to record my Hemlibra treatments on my MyCBDR or iCHIP app?	12
What happens if I have a bleed?	12
Emergency treatment	13

This booklet is about Hemlibra® (its scientific name is emicizumab), one of the latest treatments for people with clinically severe hemophilia A without factor VIII inhibitors, who need prophylaxis to prevent bleeding.



What is Hemlibra?

Hemlibra is a bispecific monoclonal antibody. A monoclonal antibody is a type of protein made in a laboratory that can bind to substances in the body. Normally, a monoclonal antibody is made so that it binds to only one substance. A *bispecific* monoclonal antibody is one that is made to bind specifically to two substances, in this case factor IXa and factor X. Hemlibra is not a factor protein like factor VIII. It is approved by Health Canada only for prophylactic treatment and can NOT be used to treat acute bleeding episodes.

Who can use Hemlibra?

Hemlibra is a treatment for anyone with ...

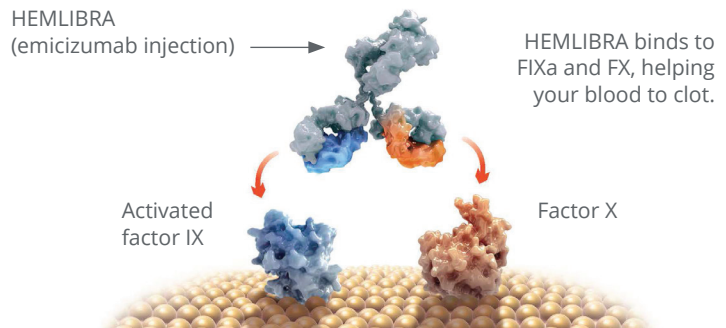
- clinically severe hemophilia A without inhibitors;
- hemophilia A of any severity with inhibitors. This booklet is intended for people without inhibitors.

Is Hemlibra suitable for children?

Hemlibra was used in clinical trials in infants, children and adolescents. No differences in dose or side effects were reported in younger age groups. In children less than one year of age, the blood system is still developing. If your child is less than one year old, your doctor may prescribe Hemlibra only after carefully weighing the expected benefits and risks of using this product.

How does Hemlibra work?

When you infuse factor VIII, you are replacing the factor VIII that is missing from the body. Factor VIII connects two other proteins: activated factor IX (FIXa) and factor X. Factor VIII creates the bridge between these proteins so the clotting process continues to form a clot and stop the bleeding. With Hemlibra, instead of the factor VIII protein bridging the other two proteins, it is the antibody that makes this connection. So Hemlibra is said to copy or “mimic” the action of factor VIII.



Is the half-life of Hemlibra different from factor VIII?

The half-life is the time it takes for a substance to be reduced by half in your body. The half-life of factor VIII concentrates can range from 8 to 22 hours depending on your body's response and the product that you are using. This is why factor VIII treatments are given frequently so that you maintain the level of protection in your blood to prevent bleeding. The half-life of Hemlibra is much longer, about four weeks.

How much Hemlibra should I use?

The dose of Hemlibra depends on your weight and your doctor will calculate the amount (in milligrams or mg) and corresponding amount of Hemlibra solution (in millilitres or mL) to be injected.

When you first start taking Hemlibra you need to take four once-weekly doses. We refer to this as the “loading dose.” This allows Hemlibra to build up in your body. During the first week of treatment with Hemlibra, you may need to continue on your current factor VIII prophylaxis to prevent any bleeding which may occur while the Hemlibra levels are building up in your body.

The loading doses are taken on Weeks 1 to 4. The dose is 3 milligrams for every 1 kilogram you weigh and given as a once weekly injection.

Your first maintenance dose must be given on Week 5. There are three different maintenance doses available to you; every week, two weeks or four weeks. The dose of Hemlibra is different for each frequency. The decision as to which frequency is right for you will be made by you and your doctor.

- Once weekly – 1.5 milligram for every 1 kilogram you weigh (1.5 mg/kg)
- Every two weeks – 3 milligrams for every 1 kilogram you weigh (3 mg/kg)
- Every four weeks – 6 milligrams for every 1 kilogram you weigh (6 mg/kg)

Hemlibra is currently available in four different vial sizes:

- 30 mg/1 mL
- 60 mg/0.4 mL
- 105 mg/0.7 mL
- 150 mg/1 mL

Different Hemlibra concentrations (for example, 30 mg/mL and 150 mg/mL) should not be combined in a single injection when making up the total volume to be injected. The amount of Hemlibra solution given in each injection must not be more than 2 mL. If your total volume is greater than 2 mL, you will need to give two injections per treatment or you may decide to look at a different maintenance frequency to avoid two injections.

The number of vials and the number of injections required per Hemlibra treatment will vary depending on your body weight and the maintenance frequency. These options will be discussed with you should you decide to switch to Hemlibra.

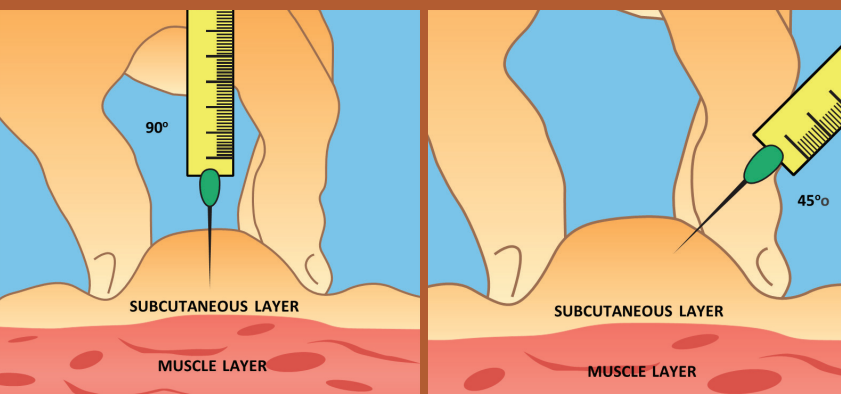
How is Hemlibra given?

Hemlibra is given as an injection under the skin (a subcutaneous injection), so you do not need to access a vein. The recommended sites to give an injection are:

- the front of the waist (lower abdomen), at least 5 cm away from the navel
- the upper outer arms (only suitable if given by caregiver), or
- the front of the thighs.

Use only recommended sites for injection.

- For each injection, use a different area of the body to the one you used the previous time.
- Do not give injections where the skin is red, bruised, tender, hard, or areas where there are moles or scars.
- When using Hemlibra, any other medicine injected under the skin should be given in a different area.
- Injection site irritation or redness can occur.
- Your hemophilia nursing team will train you on how to inject your Hemlibra.



© CANHC-OR/Designer Joseph Cantin

What if I miss a dose?

If you miss a treatment on your scheduled day, you should take the treatment as soon as you remember, then continue with your normal schedule. You must not take two doses of Hemlibra on the same day. If you have forgotten to take your treatment and are unsure what to do, contact your treatment centre for advice.

Can Hemlibra cause factor VIII inhibitors?

Hemlibra is not a factor VIII protein. When your body develops an inhibitor to factor VIII, it creates an inhibitor (also an antibody) that recognizes and then attaches itself to the factor VIII protein to stop it doing what it is supposed to do, that is, stop or prevent bleeding. As your body has built the inhibitor to specifically recognize and search for factor VIII proteins, the inhibitors do not recognize the Hemlibra antibody and therefore let it carry on to do its job.



Will I ever get a factor VIII inhibitor?

Factor VIII inhibitors almost always occur within the first 50 injections (also known as exposure days) of factor VIII in your lifetime. If you have received Hemlibra after that, it is unlikely that you will develop an inhibitor. If you receive Hemlibra before you receive 50 factor VIII injections, there is a possibility that you might still develop an inhibitor to factor VIII in the future. Your physician may suggest that you receive at least 50 injections of factor VIII before starting or while using Hemlibra in order to tolerize you against developing an inhibitor to factor VIII.

Can my immune system react to Hemlibra?

Yes. Your body identifies Hemlibra as a foreign body and can create antibodies, known as anti-drug antibodies (ADAs). There are two types of ADAs: a neutralizing and a non-neutralizing ADA. A non-neutralizing antibody will attach itself to Hemlibra but will not stop it building the bridge between factor IXa and factor X and therefore Hemlibra will continue to work. A neutralizing antibody completely stops Hemlibra from working. In trials, ADAs were present in 3.5% of people but less than 1% (1 person in 100) of these were neutralizing. This is much less common than with factor VIII antibodies. A neutralizing ADA may be suspected if you start to develop spontaneous bleeding. Blood tests can be done to see if an ADA has developed.

What are the benefits of Hemlibra?

- There is a constant level of protection from bleeding.
- You will have fewer injections.
- You will dramatically reduce the need for intravenous injections.
- Subcutaneous injections (which might take some getting used to) are easier to give than intravenous therapy.
- For minor surgeries such as some dental treatments or other invasive procedures, you may not need additional factor VIII or you may require only tranexamic acid (Cyklokapron) if you do have some bleeding. You should always check with your treatment centre prior to having any procedure, especially if it is being carried out in a facility or hospital which is not your bleeding disorder treatment centre.
- Trials have shown that the steady state of protection has been shown to reduce bleeding events over time.
- The risk of developing antibodies to Hemlibra which prevent it from working is very low.

What are the drawbacks of Hemlibra?

- Hemlibra offers a different type of protection to the current factor VIII treatment; it provides a constant level of protection which is higher than the trough (lowest level) currently achieved with factor VIII prophylaxis but it also never provides the higher level of protection in the normal clotting range that you get in the hours immediately following a factor VIII infusion. If you are an individual who is very active or involved in high-contact sports, Hemlibra may not be for you. You should discuss this with your treatment centre to decide which is currently the best treatment option for you.
- Hemlibra cannot be used to treat a bleed, so you need to continue to use factor VIII concentrate to treat any bleeding episode.
- Routine clotting/coagulation blood tests may be misleading in people on Hemlibra. This is important in cases of emergency if you are unable to tell the treating clinicians you have hemophilia.
- Hemlibra takes up to six months to leave your system if you stop taking it.
- Hemlibra has been in routine use only since 2019; all the potential benefits and risks may not yet be known.

What should I know about Hemlibra's safety and side effects?

Like all medicines, this medicine can cause side effects, although not in everybody who uses it.

Very common

(may affect 1 in 10 people or more)

- A reaction in the area the injection was given (redness, itching, pain)
- Headache

Common

(may affect from 1 in 100 up to 1 in 10 people)

- Fever
- Joint pain
- Muscle aches
- Diarrhea

Uncommon

(may affect from 1 to 1,000 up to 1 in 100 people)

- Blood clot in a vein behind your eye (cavernous sinus thrombosis)
- Severe damage of the skin tissue (skin necrosis)
- Blood clot in a vein near the surface of the skin (thrombophlebitis superficial)
- Thrombotic microangiopathy

N.B. These serious adverse events occurred only when Hemlibra was used with high doses of FEIBA® in the treatment of bleeding episodes in people with hemophilia A and an inhibitor. They have not been seen when Hemlibra was used at the same time as factor VIII.

If you experience any of these symptoms during or after treatment with Hemlibra, get medical help right away.

How is Hemlibra stored?

Hemlibra must be kept in its original box and stored in a refrigerator between 2°C and 8°C until its expiry date. Once removed from the refrigerator, the unopened vial can be stored at room temperature for up to seven days at a temperature not exceeding 30°C. Vials stored at room temperature can be returned to the refrigerator but the total time the vial can be stored at room temperature must not exceed seven days. For further advice on the storage of Hemlibra, contact your bleeding disorder treatment centre.

Hemlibra ancillaries

To draw up and administer Hemlibra you will be provided with a convenience kit. The contents of the convenience kit may be updated from time to time. Currently, the kit contains vial adaptors or filter needles (x12 or x24), syringes (x12), subcutaneous needles with safety shield (x12) and other supplies as required.

You must use one adaptor or filter needle for every vial used. There are currently two different kits available – one which contains a 1 mL syringe and another which contains a 2 mL syringe. You will be supplied with the kit that best suits your treatment requirements.

The frequency of kit re-supply will be determined by the number of adaptors or filter needles used per dose. You must use a separate adaptor or filter needle for every vial you draw up. You should contact your treatment centre to coordinate the frequency of kit delivery.

What happens if I switch from my current treatment to Hemlibra?

When you start on Hemlibra, you will need to visit your treatment centre to be trained in how to draw up and administer your Hemlibra. Your treatment centre will also monitor you for any side effects to Hemlibra. Once you have been fully trained and feel confident to draw up and administer your Hemlibra dose, you can start to self-administer your treatment at home. Factor VIII prophylaxis may be given for the first seven days of Hemlibra treatment; you will need to discuss this with your clinician.

Are there people for whom Hemlibra may not be suitable?

Yes, there are. This will be discussed with your doctor at your bleeding disorder treatment centre. Hemlibra may not be suitable for:

- People with a past history of thrombosis or significant risk factors for thrombosis;
- People with severe kidney or liver disease.

Will I still have to record my Hemlibra treatments on my MyCBDR or iCHIP app?

Yes, it is important that you keep a record of all your treatment and any bleeds on the home treatment apps, MyCBDR or iCHIP. This helps you and your hemophilia team to monitor how well Hemlibra is working.

What happens if I have a bleed?

Hemlibra prevents bleeds, but it is not a treatment for bleeding. When you switch to Hemlibra, check with your hemophilia team how to manage a bleed or injury – it may be different to what you have done in the past or you may need a lower dose of factor VIII because you are receiving Hemlibra.

People using Hemlibra have observed that apparent bleeds often resolve by themselves without additional factor VIII; however, in the first few months after starting Hemlibra, it is best to contact your treatment centre for advice if you do have a bleed or injury. If your bleed needs further treatment, treat with factor VIII concentrate but only after discussing with your team.

Apart from your hemophilia medication, treat bleeds as you normally would, with P.R.I.C.E: protection, rest, ice (in case of pain), compression and elevation.





Emergency treatment

If an individual with hemophilia presents at an emergency department with a bleeding episode which requires treatment, it is important to be seen and treated as quickly as possible. To avoid delays, it can be helpful to show your *FactorFirst* card. Show the alert card for Hemlibra. This will be given to you when you start Hemlibra.

For the person with hemophilia, the most important piece of equipment in a non-specialist centre is the telephone so that the emergency department staff can receive instructions from your treatment centre.

Call your treatment centre or ask a family member to do so. It helps if your hemophilia team knows that you are in the emergency department, no matter which hospital you are in.

Always remember to carry your *FactorFirst* card and Hemlibra card with you at all times.



NEED MORE INFORMATION?

You can go to

www.hemophilia.ca ...

Send a message to

chs@hemophilia.ca ...

Or call

1-800-668-2686.



Canadian Hemophilia Society
Help Stop the Bleeding