Summer 2021

KHF Hemosphere

2021 KHF Camp Discovery Family Camp

This year's hybrid summer camp program was developed for the safety of our campers and staff during the continuing COVID-19 pandemic. Children and teens, ages 6-16, who have a bleeding disorder or who are carriers were invited to participate with one or both parents or guardians and one sibling. Campers enjoyed their best-loved camp activities, some with and some without their parents. Parents had an opportunity to familiarize themselves with the Cedar Ridge camp facility and grounds, our programming, and our staff and meet and interact with other participating camper families. Each family was provided with lodging at a nearby hotel.

During indoor activities at the camp, each family was assigned their own table for social distancing. Joint activities included canoeing, archery, swimming, zip line, nature walk/scavenger hunt, and camp olympics. While parents participated in a bleeding disorders wellness discussion, campers played capture the flag, their all-time favorite game. Special family treats included the Kona ice truck, camp fire S'mores, and an ice cream bar. In addition, campers shopped with virtual dollars in the camp canteen for sought-after items. Parents, on the other hand, competed in a corn hole tournament and received family points for each activity their family participated in.

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Patient Education Through Social Media in the COVID Era

A new article, "Emerging Immunogenicity and Genotoxicity Considerations of Adeno-Associated Virus Vector Gene Therapy for Hemophilia," was published in the *Journal of Clinical Medicine* (JCM).

A new article, "Emerging Immunogenicity and Genotoxicity Considerations of Adeno-Associated Virus Vector Gene Therapy for Hemophilia," was published in the Journal of Clinical Medicine (JCM).

In this review, the authors discuss some of the primary considerations relevant to investigational gene therapies that employ adeno-associated viral (AAV) vectors, with particular focus on immunogenicity and genotoxicity – the former denotes the ability of a foreign substance to trigger an immune response, while the latter refers to a substances ability to damage genetic material.

AAV vectors act as delivery vehicles, carrying the genetic messaging that prompt the production of the factor VIII or factor IX proteins that are deficient in people with hemophilia A and B, respectively. Ideally, AAVs deliver this genetic material into living cells to sustain a therapeutic effect that is free of unintended adverse reactions in the short and long term. The challenge, and source of continued investigation by scientific researchers, is to better understand the nature of unwanted biological responses in patients who receive the one-time therapy. Foremost of these concerns are the potential for both innate and adaptive immune responses to AAVs and to the possible integration of the given vector into the genome of patients who have received the therapy. These types of responses could have safety and efficacy impacts, including inflammatory effects on the liver or the development of tumors or malignancies.

Authors of the JCM paper review the evolution of AAV-based gene therapy, including descriptions of the unique vector types that continue to be investigated in both preclinical research and in clinical trials. The article also sheds light on the nuances of each vector and how they interact with a person's natural immunity, including insights into the disparate responses elicited in hemophilia A, versus hemophilia B patients, all with an eye towards achieving a better understanding of long-term safety and efficacy.

The authors go on to lay out various approaches to circumventing possible unwanted effects of AAV gene therapy, including enhanced screening for pre-existing neutralizing antibodies (Nabs), refinements to vector design, and adjustments in manufacturing that may allow the use of lower vector doses to forestall possible negative impacts of vector integration. They also reaffirm the importance of long-term follow-up of trial participants to glean valuable insights on the therapies' overall impact for persons with hemophilia (PWH).

"Gene transfer is likely to play an increasingly important role in the treatment of genetic diseases such as hemophilia. Important challenges remain to be overcome, such as finding solutions to immune-related problems associated with viral vectors to provide safe, predictable, effective, and durable outcomes for PWH, concluded the authors. They added, "Despite the challenges that remain to be overcome, the potential of gene transferto improve therapeutic outcomes is significant. Novel frontiers, such as tolerance induction, show promise for the development of curative treatments for hemophilia."

The paper, which was published online in JCM on June 2, 2021, is open access at JCM | Free Full-Text | Emerging Immunogenicity and Genotoxicity Considerations of Adeno-Associated Virus Vector Gene Therapy for Hemophilia (mdpi.com)

Study Looks at Neuraxial Anesthesia and Postpartum Complications in Hemophilia

Findings from a recently published study in the Journal of Anesthesia suggest that pregnant patients with hemophilia whose factor VIII or IX levels drop below 50% at the time of receiving neuraxial anesthesia are more likely to experience postpartum complications. Neuraxial anesthesia refers to the administration of local anesthetics and analgesia to targeted locations in the spinal area. Epidurals are a commonly utilized form of neuraxial anesthesia, often used as a method of pain relief during labor.

Investigators were led by Brandon Togioka, MD, Associate Professor, Department of Anesthesiology and Perioperative Medicine at the Oregon Health & Science University in Portland. Togioka and his colleagues conducted two sets of literature reviews in October 2019. The first review, which included 13 articles, encompassed individual case reports and case series that described neuraxial techniques in patients with hemophilia—regardless of sex, age, or pregnant status. The second review, which included 19 articles, looked for case reports and series that outlined bleeding outcomes among pregnant patients.

Findings from the first review showed that 3 of 134 patients had neuraxial hematoma with paraplegia (paralysis of the legs and lower body). All three of these patients presented with a factor level of 1%. The second review showed that out of 2,712 deliveries, postpartum hemorrhage occurred in 193 patients (7.1%), which necessitated blood transfusion in 60% of these patients. Overall, postpartum bleeding complications were nearly "twice as likely" where factor levels were below 50%.

"In summary, we found low level evidence (Level 4) that factor VIII and IX levels should be greater than 50% for delivery and neuraxial techniques. In our review of 134 neuraxial placements and 2,712 deliveries, neuraxial hematomas were found with a factor level of 1% and hemorrhagic complications were higher when factor activity was <50%," explained Togioka and his fellow authors. "Therefore, factor levels should be assessed and increased above 50% prior to neuraxial technique and delivery."

The review, "Delivery and Neuraxial technique Outcomes in Patients with Hemophilia and in Hemophilia Carriers: A Systematic Review," was published March 2021 in the Journal of Anesthesia.

Please note that earlier this year, NHF's Medical and Scientific Advisory Council (MASAC) issued MASAC Document #265 which provides recommendations for the diagnosis and management of women with bleeding disorders during pregnancy, labor, and delivery. It also addresses the critical postpartum period with specific treatment recommendations designed to both mitigate the risk of bleeding-related complications in women and to enable the early diagnosis of affected infants. *The document also does include recommendations on the appropriate use of neuraxial anesthesia*.

You can view and download MASAC Guidelines for Pregnancy and Perinatal Management of Women with Inherited Bleeding Disorders and Carriers of Hemophilia A or B on the NHF website.

Source: Hematology Advisor, April 6, 2021

Event News

KHF Family Day at the Louisville Zoo

This year's Family Day at the Louisville Zoo at the end of June presented a welcome first opportunity for an in-person family event. The response was great, and everyone who attended had a wonderful time being out and about in a lovely setting among friends.

We had a warm and sunny day, perfect for viewing the animal exhibits, a subsequent picnic lunch, and carnival games for the kids. The Oasis Tent, a large outdoor event venue on the zoo's grounds, provided welcome shade and ample space for social distancing. Parents perused the various exhibits to educate themselves regarding available products and services for the treatment of bleeding disorders, while children enjoyed the games and associated prizes in the grassy play area right outside the Oasis Tent.

Many thanks to our volunteers – Connie Thacker and granddaughter, Patrick and Jennifer Dunegan, William Black, Quincy Sturgill, Marissa and Sierra Johns, Madison Bowles, Nicki Mumford, Kayla Roe, Lauren and Julia Ceresa, and sponsors who helped make this event a success: Biomatrix, Colburn-Keenan Foundation, CSL Behring, CVS Caremark, Genentech, HEMA Biologics, Kosair Charities, Novo Nordisk, Paragon Health Care, and Takeda.

32nd Play a Round for a Cure KHF Golf Scramble

The 32nd Play a Round for a Cure KHF Golf Scramble at Glen Oaks Country Club in Prospect proved to be an all-around successful fundraiser in early June. Players enjoyed 18 holes of golf at a beautiful golf course under sunny skies. They also had a chance to win great prizes, and enjoyed themselves with friends while supporting a very worthy cause.

Congratulations to the team and contest winners. In 1st place was Team Novo Nordisk, in 2nd place Team Octapharma, and in 3rd place - Team Aaron Lopez and Friends. The "Longest/Straightest Drive" was won by Mike Francis, the "Longest Drive" by Darrell Blenniss, and the four "Closest to the Pin" awards went to Reid Thacker, Bri Vieke, John Plumeri, and Jerry Ward. John Tharp won the ever-popular "Ball Drop," and Eric Marcum won the "50/50" raffle. Both John and Eric generously donated their winnings back to KHF, for which we are very appreciative. The event concluded with a hearty burger and sausage meal, libations and merriment, silent auction, and awards. We thank all who participated as sponsors, players, donors, and volunteers.

Team and event sponsors were Gold Level - CSL Behring, Novo Nordisk; Silver Level – HEMA Biologics; Bronze Level – Bayer Healthcare, Octapharma; Team Plus Level – BIOMARIN, Republic Bank & Trust Company, LTC (R) & Mrs. Patricia Tharp in memory of Gary Bandy; Team/Player Level – Aaron Lopez and Friends; Kosair Charities, I, II, and III; Marwood Live Edge Slabs & Lumber; and Paragon Health Care. Much gratitude also to our Golf Committee under the leadership of William Black and our day-of-event volunteers Emily Black, Madison Bowles, Steve Chaput, Deborah and Glen Hitt, Matt Holland, Elizabeth Howard, Kim Jones, Milton Kamala, Myra Loeser, Nicki Mumford, Mark O'Brien, Vince Poma, Travis Price, Pat and John Tharp, and Carl Weixler. The event raised $21,000 in support of KHF's programs and services for Kentucky's Bleeding Disorders Community.

KHF Honor Roll

We are excited to introduce two honorees who graduated from high school this spring: Tyler Marcum and Isaac Webb. Tyler is the son of Eric and Venus Marcum of Louisville. He is a 2021 graduate of Ballard High School. Tyler plans to attend the University of Louisville this fall.

Isaac is the son of Glenn and Laura Webb and also resides in Louisville. Isaac graduated in 2021 as a valedictorian from Waggener High School and will attend Bellarmine University. He will study music theory and music composition. Both Isaac and Tyler are accomplished musicians, and both are Junior Counselors at our Camp Discovery summer camp program and prior campers. They both also have been actively involved in KHF's advocacy efforts. We congratulate Tyler and Isaac and wish them much success in their future educational pursuits! We extend the same congratulations and best wishes to all other graduates as well.

More News

Summer Camp cont...

Congratulations to Josh and Monica Poynter from Bowling Green who won 1st place in the corn hole tournament and Nathan and Hunter Hill from Cynthiana who won 2nd place. For the family olympics, further congratulations go to the Hill family who won 1st place, the Omerso family from New Albany who won 2nd place, and the Nielson family from Valparaiso who won 3rd place. Their efforts were acknowledged with Amazon gift cards. A drawing for great prizes, which included a Fire HD-10 tablet, a Nintendo Switch Light, a gaming head set, and a Bluetooth speaker, rounded out the family camp activities. Each camper received a ribbon and medal for their successful participation in this unique camp experience.

Because of the overwhelmingly positive response, we plan to repeat this family camp opportunity next year in addition to our regular Camp Discovery Program for kids and teens only. We thank all the families who participated in this pilot hybrid camp for their enthusiasm and appreciation. We also thank our wonderful camp volunteers, director, and nurses for facilitating this awesome program. We extend our utmost gratitude to the companies and organizations which provided financial support: Takeda, Kosair Charities, WHAS Crusade for Children, Pfizer, CVS Caremark, CSL Behring, and Grifols.

KHF Cares

Kentucky Hemophilia Foundation continues to provide financial assistance to bleeding disorder families whose household income has decreased because of loss of job, lay off, furlough, or reduced hours during the current COVID-19 health crisis and who are unable to pay a specific household bill.

Requesting families must reside in Kentucky, and the person seeking assistance must either have a bleeding disorder or be the parent of a minor child with a bleeding disorder. Assistance is contingent on the availability of funds.

Call 502-456-3233 or 800-582-CURE (2873) or send an email to info@kyhemo.org to make a request.

More News

2021 Spring/Summer Donations

We thank the following individuals and companies for their generous support!

Donors, $750
CSL Behring
Snow Companies

Donor, $300+
Kroger Community Rewards

Donors, $100+
Michael A. Gatton, for KHF Camp Discovery
Greg Fiscus
S. Spalding Grayson
Eric Marcum, for Play a Round for a Cure
Republic Bank & Trust Company
John & Pat Tharp, for Play a Round for a Cure

Donors, $50 - $99
Jennifer Hitt
Paul Layman, for Play a Round for a Cure
Cory W. Meadows
John Plumeri, for Play a Round for a Cure
Richard Sloan

Donors, Up to $49
Amazon Smiles
Scott Beckham, for Play a Round for a Cure
Nathan Hill, for Easter lilies
Dr. Donald Stokes, for Easter lilies
April Zimmerman, for Easter lilies

In Memory

April 1, 2021 – June 30, 2021

Gone from our sight but never our memories; gone from our touch but never our hearts… May their memory be a blessing!

Eva A. Brenner
Debra & Tim Bertram
Sherry Boyken
Charles Bryant
Donna Dickman
Elberta Duncan
Karla & David Jochim
Sheila Knable

Leander "Lee" Goff
Martha & Scott Beyke
Cara, Michelle, Amanda
Marydel & Ben John Brewer

Do The Five

Follow these steps to prevent or reduce complications of bleeding disorders

1. **Get an annual comprehensive checkup at a hemophilia treatment center.**
2. **Get vaccinated – Hepatitis A and B are preventable.**
3. **Treat bleeds early and adequately.**
4. **Exercise to protect your joints.**
5. **Get tested regularly for blood-borne infections.**

To find out more about the National Prevention Program developed by the National Hemophilia Foundation in collaboration with the Centers for Disease Control and Prevention (CDC), click on www.hemophilia.org or call toll-free 800-42-HANDI.

Like us on Facebook and keep up-to-date on all **KHF** activities and events.

KOSAIR CHARITIES

WHAS CRUSADE FOR CHILDREN

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Pharmacokinetics is the study of the activity of drugs in the body over a period of time.
Jivi®
antihemophilic factor (recombinant) PEGylated-aucl
LET'S GO
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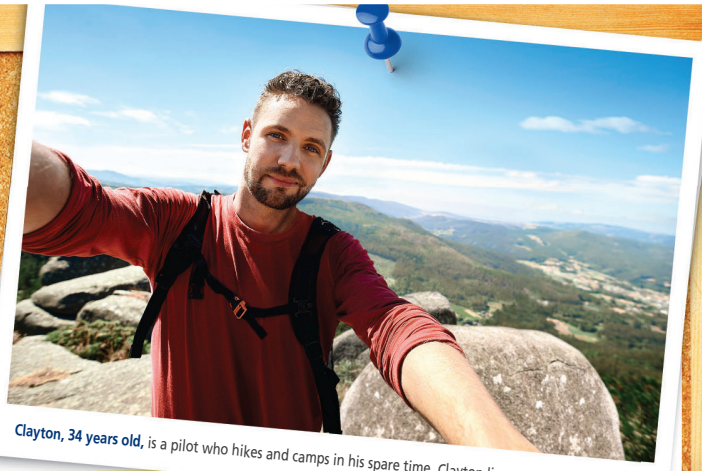
In hemophilia B

TAKE CONTROL TO A HIGH LEVEL WITH REBINYN®



Clayton, 34 years old, is a pilot who hikes and camps in his spare time. Clayton lives with hemophilia B.

Rebinyn® elevates factor levels above normal levels[a]

+94% Factor IX (FIX) levels achieved immediately after an infusion[b]

17% FIX levels sustained after 7 days[a]

With a single dose of Rebinyn® 40 IU/kg in adults with ≤2% FIX levels[a]

[a]In two phase 3 studies, factor levels were evaluated for 1 week after the first dose of Rebinyn® 40 IU/kg. The average levels after 7 days were 16.8% in 6 adults, 14.6% in 3 adolescents, 10.9% in 13 children ages 7 to 12 years, and 8.4% in 12 children up to age 6 years.

[b]Based upon a 2.34% increase in factor levels per IU/kg infused in adults.

Image of hemophilia B patient shown is for illustrative purposes only.

INDICATIONS AND USAGE

What is Rebinyn® Coagulation Factor IX (Recombinant), GlycoPEGylated?

Rebinyn® is an injectable medicine used to replace clotting Factor IX that is missing in patients with hemophilia B. Rebinyn® is used to treat and control bleeding in people with hemophilia B. Your healthcare provider may give you Rebinyn® when you have surgery. Rebinyn® is not used for routine prophylaxis or for immune tolerance therapy.

IMPORTANT SAFETY INFORMATION

What is the most important information I need to know about Rebinyn®?

- **Do not attempt to do an infusion yourself unless you have been taught how by your healthcare provider or hemophilia treatment center.** Carefully follow your healthcare provider's instructions regarding the dose and schedule for infusing Rebinyn®.

Who should not use Rebinyn®?

Do not use Rebinyn® if you:

- are allergic to Factor IX or any of the other ingredients of Rebinyn®.
- are allergic to hamster proteins.

What should I tell my health care provider before using Rebinyn®?

Tell your health care provider if you:

- have or have had any medical conditions.
- take any medicines, including non-prescription medicines and dietary supplements.
- are nursing, pregnant, or plan to become pregnant.
- have been told you have inhibitors to Factor IX.

How should I use Rebinyn®?

- Rebinyn® is given as an infusion into the vein.
- **Call your healthcare provider right away if your bleeding does not stop after taking Rebinyn®.**
- Do not stop using Rebinyn® without consulting your healthcare provider.

What are the possible side effects of Rebinyn®?

- **Common side effects include** swelling, pain, rash or redness at the location of the infusion, and itching.
- **Call your healthcare provider right away or get emergency treatment right away if you get any of the following signs of an allergic reaction:** hives, chest tightness, wheezing, difficulty breathing, and/or swelling of the face.
- **Tell your healthcare provider about any side effect that bothers you or that does not go away.**
- Animals given repeat doses of Rebinyn® showed Polyethylene Glycol (PEG) inside cells lining blood vessels in the choroid plexus, which makes the fluid that cushions the brain. The potential human implications of these animal tests are unknown.

Please see Brief Summary of Prescribing Information on the following page.

Rebinyn® is a prescription medication.

You are encouraged to report negative side effects of prescription drugs to the FDA.
Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Learn more at rebinyn.com

novo nordisk®

Novo Nordisk Inc., 800 Scudders Mill Road, Plainsboro, New Jersey 08536 U.S.A.

rebinyn®
Coagulation Factor IX (Recombinant), GlycoPEGylated

rebinyn®

Coagulation Factor IX (Recombinant), GlycoPEGylated

Brief Summary Information about:
REBINYN® Coagulation Factor IX (Recombinant), GlycoPEGylated

Rx Only

This information is not comprehensive.

- Talk to your healthcare provider or pharmacist
- Visit www.novo-pi.com/REBINYN.pdf to obtain FDA-approved product labeling
- Call 1-844-REB-INYN

Read the Patient Product Information and the Instructions For Use that come with REBINYN® before you start taking this medicine and each time you get a refill. There may be new information.

This Patient Product Information does not take the place of talking with your healthcare provider about your medical condition or treatment. If you have questions about REBINYN® after reading this information, ask your healthcare provider.

What is the most important information I need to know about REBINYN®?

Do not attempt to do an infusion yourself unless you have been taught how by your healthcare provider or hemophilia treatment center.

You must carefully follow your healthcare provider's instructions regarding the dose and schedule for infusing REBINYN® so that your treatment will work best for you.

What is REBINYN®?

REBINYN® is an injectable medicine used to replace clotting Factor IX that is missing in patients with hemophilia B. Hemophilia B is an inherited bleeding disorder in all age groups that prevents blood from clotting normally.

REBINYN® is used to treat and control bleeding in people with hemophilia B.

Your healthcare provider may give you REBINYN® when you have surgery.

REBINYN® is not used for routine prophylaxis or for immune tolerance therapy.

Who should not use REBINYN®?

You should not use REBINYN® if you

- are allergic to Factor IX or any of the other ingredients of REBINYN®
- if you are allergic to hamster proteins

If you are not sure, talk to your healthcare provider before using this medicine.

Tell your healthcare provider if you are pregnant or nursing because REBINYN® might not be right for you.

What should I tell my healthcare provider before I use REBINYN®?

You should tell your healthcare provider if you

- Have or have had any medical conditions.
- Take any medicines, including non-prescription medicines and dietary supplements.
- Are nursing.
- Are pregnant or planning to become pregnant.
- Have been told that you have inhibitors to Factor IX.

How should I use REBINYN®?

Treatment with REBINYN® should be started by a healthcare provider who is experienced in the care of patients with hemophilia B.

REBINYN® is given as an infusion into the vein.

You may infuse REBINYN® at a hemophilia treatment center, at your healthcare provider's office or in your home. You should be trained on how to do infusions by your hemophilia treatment center or healthcare provider. Many people with hemophilia B learn to infuse the medicine by themselves or with the help of a family member.

Your healthcare provider will tell you how much REBINYN® to use based on your weight, the severity of your hemophilia B, and where you are bleeding. Your dose will be calculated in international units, IU.

Call your healthcare provider right away if your bleeding does not stop after taking REBINYN®.

If your bleeding is not adequately controlled, it could be due to the development of Factor IX inhibitors. This should be checked by your healthcare provider. You might need a higher dose of REBINYN® or even a different product to control bleeding. Do not increase the total dose of REBINYN® to control your bleeding without consulting your healthcare provider.

Use in children

REBINYN® can be used in children. Your healthcare provider will decide the dose of REBINYN® you will receive.

If you forget to use REBINYN®

If you forget a dose, infuse the missed dose when you discover the mistake. Do not infuse a double dose to make up for a forgotten dose. Proceed with the next infusions as scheduled and continue as advised by your healthcare provider.

If you stop using REBINYN®

Do not stop using REBINYN® without consulting your healthcare provider.

If you have any further questions on the use of this product, ask your healthcare provider.

What if I take too much REBINYN®?

Always take REBINYN® exactly as your healthcare provider has told you. You should check with your healthcare provider if you are not sure. If you infuse more REBINYN® than recommended, tell your healthcare provider as soon as possible.

What are the possible side effects of REBINYN®?

Common Side Effects Include:

- swelling, pain, rash or redness at the location of infusion
- itching

Other Possible Side Effects:

You could have an allergic reaction to coagulation Factor IX products. **Call your healthcare provider right away or get emergency treatment right away if you get any of the following signs of an allergic reaction:** hives, chest tightness, wheezing, difficulty breathing, and/or swelling of the face.

Your body can also make antibodies called "inhibitors" against REBINYN®, which may stop REBINYN® from working properly. Your healthcare provider may need to test your blood for inhibitors from time to time.

You may be at an increased risk of forming blood clots in your body, especially if you have risk factors for developing blood clots. Call your healthcare provider if you have chest pain, difficulty breathing, leg tenderness or swelling.

Animals given repeat doses of REBINYN® showed Polyethylene Glycol (PEG) inside cells lining blood vessels in the choroid plexus, which makes the fluid that cushions the brain. The potential human implications of these animal tests are unknown.

These are not all of the possible side effects from REBINYN®. Ask your healthcare provider for more information. You are encouraged to report side effects to FDA at 1-800-FDA-1088.

Tell your healthcare provider about any side effect that bothers you or that does not go away.

What are the REBINYN® dosage strengths?

REBINYN® comes in three different dosage strengths. The actual number of international units (IU) of Factor IX in the vial will be imprinted on the label and on the box. The three different strengths are as follows:

Cap Color Indicator	Nominal Strength
Red	500 IU per vial
Green	1000 IU per vial
Yellow	2000 IU per vial

Always check the actual dosage strength printed on the label to make sure you are using the strength prescribed by your healthcare provider.

How should I store REBINYN®?

Prior to Reconstitution (mixing the dry powder in the vial with the diluent):

Store in original package in order to protect from light. Do not freeze REBINYN®.

REBINYN® vials can be stored in the refrigerator (36-46°F [2°C-8°C]) for up to 24 months until the expiration date, or at room temperature (up to 86°F [30°C]) for a single period not more than 6 months.

If you choose to store REBINYN® at room temperature:

- Note the date that the product is removed from refrigeration on the box.
- The total time of storage at room temperature should not be more than 6 months. Do not return the product to the refrigerator.
- Do not use after 6 months from this date or the expiration date listed on the vial, whichever is earlier.

Do not use this medicine after the expiration date which is on the outer carton and the vial. The expiration date refers to the last day of that month.

After Reconstitution:

The reconstituted (the final product once the powder is mixed with the diluent) REBINYN® should appear clear without visible particles.

The reconstituted REBINYN® should be used immediately.

If you cannot use the reconstituted REBINYN® immediately, it should be used within 4 hours when stored at or below 86°F (30°C). Store the reconstituted product in the vial.

Keep this medicine out of the sight and out of reach of children.

What else should I know about REBINYN® and hemophilia B?

Medicines are sometimes prescribed for purposes other than those listed here. Do not use REBINYN® for a condition for which it is not prescribed. Do not share REBINYN® with other people, even if they have the same symptoms that you have.

More detailed information is available upon request.

Available by prescription only.

For more information about REBINYN®, please call Novo Nordisk at 1-844-REB-INYN.

Revised: 11/2017

REBINYN® is a trademark of Novo Nordisk A/S.

For Patent Information, refer to: http://novonordisk-us.com/patients/products/product-patents.html

Manufactured by:
Novo Nordisk A/S
Novo Allé, DK-2880 Bagsværd, Denmark

For information about REBINYN® contact:
Novo Nordisk Inc.
800 Scudders Mill Road
Plainsboro, NJ 08536, USA

USA17BIO03951 12/2017

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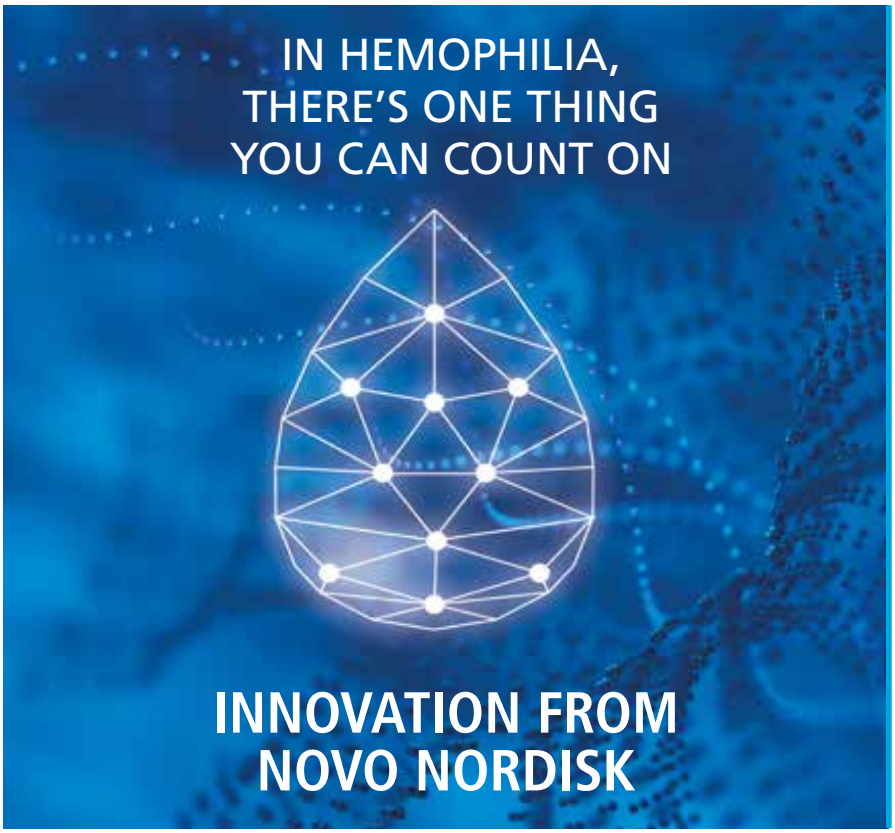

We strive to help improve the lives of people with hemophilia

For 30 years, Novo Nordisk has been a driving force for people living with rare bleeding disorders. We take pride in striving for innovative solutions to help improve patients' lives. This motivates us to uphold the highest standards in our product research and development. This vital research is just the beginning of our commitment in hemophilia.

We will continue our research and connect with people with hemophilia and health care professionals to ensure we understand and respond to the specific needs of the hemophilia community.

With a rich history, Novo Nordisk remains at the forefront of discovery. We are poised to continue to develop innovative solutions that can help improve the lives of people with hemophilia in the future.

Please visit www.rarebleedingdisorders.com or find us on Facebook at www.facebook.com/cpih.us.

changing hemophilia™

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WE'RE IN THIS TOGETHER.

Let's make today brilliant.

Takeda is here to support you throughout your journey and help you embrace life's possibilities. Our focus on factor treatments and educational programs, and our dedication to the bleeding disorders community, remain unchanged. And our commitment to patients, inspired by our vision for a bleed-free world, is stronger than ever.

bleedingdisorders.com

Takeda

Walk it off!

Ready to walk off those Covid pounds — or 2020 in its entirety? Ready to attend something in person rather than in Zoom? Ready to contribute to something good?

Then mark your calendars and sign up now for the 2021 UNITE Walk.

Saturday, October 16th

E.P. "Tom" Sawyer State Park

www.uniteforbleedingdisorders.org/event/KY21

For more information:
info@kyhemo.org or
502-456-3233
800-582-CURE (2873)

Unite for Bleeding Disorders

Kentucky Hemophilia Foundation

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To find out about a prescription option, talk to your doctor or visit

OnceWeeklyForHemophiliaB.com

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