Fall 2017

KHF Hemosphere

What's in a Number?

The Bethesda inhibitor assay is a test that measures the titer (strength) of the inhibitor, described in Bethesda units. Inhibitor titers may range from less than 1 BU to thousands of BU. Knowing this number will help determine how bleeds are treated. If the inhibitor registers as low titer (less than or equal to 5 BU), bleeds may be treated with high doses of standard factor concentrate. If the inhibitor registers as high titer (greater than 5 BU), standard factor concentrates are ineffective and special factor concentrates called bypassing agents are used instead. Attempting to treat bleeds in the presence of inhibitors is less effective than treating bleeds without inhibitors—so the goal is to eradicate the inhibitor. If the inhibitor registers as less than 10 BU, this is when many providers will have patients begin immune tolerance therapy (ITT), also called immune tolerance induction (ITI), a treatment protocol designed to eliminate the inhibitor.1 Knowing your BU is crucial in order to take the next step in working toward that goal.

It's easy to put your faith completely in the numbers. Knowing your current BU is important, but know first that every individual is unique and there are several different ITT protocols. Each person does not react to ITT in the same way. One body may accept ITT easily, and his BU will come down in a short time. Others on the protocol may take years to get the same results. Numbers do not dictate that the treatment for one person will be the same as for another. For example, two brothers, both with severe hemophilia and inhibitors and with the same parents, can live very different lives with an inhibitor. My older son, Julian, was one year old when he was diagnosed with a low-titer inhibitor; it never rose above 5 BU. He immediately had a port inserted, and he started ITT for two and a half years. He tolerized, meaning his inhibitor dropped to zero, and he has never had an inhibitor resurface.

My younger son, Caeleb, was 11 months old when diagnosed with a high-titer inhibitor that registered over 2,200 BU. His titer dropped to 0 BU at one point after ITT, but now he is living with a low-titer inhibitor, and he receives factor daily to maintain his tolerance. My sons both reached 0 BU after ITT, but they had different outcomes. The numbers can be promising and sometimes disappointing. But ultimately, the numbers are a key component to treatment.

Everyone who tracks his BU has an ultimate goal in mind: to lower the titer to zero. If your titer is 323 BU, your goal may first be 299 BU, then 250 BU.2 Another person may be hoping to get to double digits, and another to single digits. Of course, when you're tracking your BU, you want to get to zero and stay there. When you reach 0 BU, you may think that the inhibitor is now a thing of the past—but not necessarily. Once 0 BU is attained, the next step is to monitor the half-life of the factor. To be successfully considered tolerized (this is also called complete tolerance), the following must be maintained:

- The inhibitor titer can no longer be measured.
- Factor recovery is greater than 66% of normal.
- The half-life of factor VIII is greater than six hours.3

But someone may live with 0 BU for many years without these three characteristics. This is called partial tolerance. For example, if your child has 0 BU and a three-hour half-life of factor in his body, he will probably continue with the same ITT therapy, which may be daily infusions. ITT is not always successful: an ITT attempt

What's in a Number? cont..

in which inhibitor titers fail to decrease at least 20% over three to six months, or remain over 5 BU after three to five years, is considered a failure. This example shows that not only is BU important, but monitoring the number of hours for the half-life is critical to treatment. So how does a family live with the numbers?

"Lab work disappointment" is a phrase Kari Atkinson's family used when the numbers were not what they had expected for their son. "We had so much hope that the inhibitor would go away." But now, says Kari, "we are not as concerned about the number because we can tell when [the BU is] up and down by how our son bleeds." How an individual's body reacts to treatment is the ultimate measure of success. If you're living a full life with few bleeds and an active inhibitor, the important thing is that you are healthy, happy, and thriving. Eric Frey's son, age seven, has lived with an inhibitor for over five years. "After time, we learned two things: First, we already knew what the results [BU] were going to show by the way our son was bleeding, bruising, and behaving. Second, the Bethesda number is far less important than how our son was bleeding, bruising, and behaving."

Despite living full, healthy lives with an inhibitor, many families still worry about the numbers. "Making peace" with the inhibitor is something that most people don't want to do. It can feel as if you're giving in and accepting that the inhibitor will always be present. In order to live a life where hemophilia is not the center of everything, making peace is crucial. "We have had enough experience that we know if the inhibitor is under 7 BU, we are living pretty good," says Kari. Her family is not focusing on 0 BU, but for now, they know that anything under 7 BU is acceptable. "It's really hard to not focus on the numbers, especially when you have the active inhibitor and either you need to get below 10 BU to start ITT, or you are doing ITT and trying to get down to zero," says Eric. "We understand how hard that is. Focus on health. Focus on wellness."

Article Excerpt, Cazandra Campos-MacDonald, May 2017

1. ITT is a proven treatment toward eradicating inhibitors. Larger-than-normal doses of factor are given in the hope of overriding the inhibitor. ITT protocols can differ in frequency of infusing, depending on the physician's and individual's needs.
2. Once you achieve 10 BU, it doesn't matter if the BU gets lower, because all infused factor is inactivated in minutes. Even so, families living with an inhibitor will find emotional relief when the numbers get closer to zero.
3. D. M. DiMichele, W. K. Hoots, S. W. Pipe, G. E. Rivard, and E. Santagostino, "International Workshop on Immune Tolerance Induction: Consensus Recommendations," Haemophilia 13(2007): 1–22.

BloodCenter of Wisconsin Announces New Test for VWD

The BloodCenter of Wisconsin (BCW) recently announced the launch of a new and more sensitive test for von Willebrand disease (VWD), a genetic disorder characterized by either a qualitative or quantitative flaw in von Willebrand factor (VWF). Milwaukee-based BCW is a not-for-profit organization that specializes in blood services, organ, tissue and marrow donation, diagnostic testing, medical services and research.

Depending on the specific type, individuals with VWD can experience bleeding-related symptoms that range from mild to severe. Despite being the most common bleeding disorder VWD is historically a more challenging condition to screen for, often necessitating a battery of tests to pinpoint a diagnosis.

The "VWF GPIbM Activity" test is designed to uncover qualitative VWF defects to reduce variability and provide "more precise, reliable and sensitive test results," according to a BCW press release. The availability of the test could be a boon to clinicians, particularly hematologists encountering potential cases of VWD.

continued on the next page

BloodCenter of Wisconsin cont...

"As a physician caring for individuals with inherited bleeding disorders, this development is an exciting advancement in von Willebrand disease diagnostics," said Jonathan Roberts, MD, Associate Medical Director, Bleeding & Clotting Disorders Institute, Peoria, IL. "This assay will reduce some of the diagnostic challenges in caring for individuals with von Willebrand disease."

Source: BloodCenter of Wisconsin press release dated April 4, 2017

Study Yields Important Findings on the Functions of von Willebrand Factor

Researchers at the Boston Children's Program in Cellular and Molecular Medicine and the Harvard Medical School recently made important discoveries relevant to the functioning of von Willebrand factor (VWF). The study, "Flow-induced Elongation of von Willebrand Factor Precedes Tension-Dependent Activation," was published online, August 23, 2017, in the journal Nature Communications.

Using fluorescent imaging and microfluidic tools, Jiang and his colleagues recreated the blood flow that occurs in humans, particularly the function of VWF within the bloodstream. Through a series of valves, cylinders and tubes, investigators were able to mimic the increase in blood flow that occurs after an injury.

Experiments showed that as the blood flow grew more intense, changes in the shape of VWF would occur. VWF molecules, which are normally rounded and compact, quickly became rapidly elongated in response to the increased tension. Scientists also observed that as VWF elongates it binds with platelets to ensure that a viable blood clot forms. Notably, VWF activates locally at the site of an injury and not in other parts of the body.

"If you can imagine stretching out your arms, and then opening your hands to capture platelets, that's basically what we are seeing VWF do in response to bleeding," said researcher Wesley P. Wong, PhD. "It's so important that this process occurs only when and where it is needed—this two-step activation process makes that possible."

While these findings could have future implications for treatment, leading to more novel therapies, they are also scientifically noteworthy. Researchers are no doubt excited to uncover such valuable molecular-level insights on the intricacies of the bloodstream and the mechanisms of VWF.

"This experiment really represents a new platform for seeing and measuring what's happening in the blood on a molecular level," said Wong. "Through the use of novel microfluidic technologies that allow us to mimic the body's vasculature in combination with single-molecule imaging techniques, we are finally able to capture striking images that uncover the mystery of nature's forces at work in our bodies."

Source: Genetic Engineering & Biotechnology News, August 23, 2017

Event News

Camp Discovery – KHF Summer Camp

Thirty-two children and teens enjoyed our annual summer camp program at Camp Cedar Ridge in Jefferson County, Kentucky. Cedar Ridge provides an idyllic setting with a fishing lake, hiking trails, and rustic cabins. The goal of camp is to provide an educational and recreational program for youngsters affected by bleeding disorders and their siblings in a supervised and safe setting. Objectives are for campers to be physically active, develop confidence and self-esteem, and learn about self-infusion and overall wellness. Making new friends and allowing campers to be carefree and have fun is essential as well. All activities are planned with that premise in mind, and our camp leadership staff works hard to make sure our camp empowerment objectives are achieved. The on-site infirmary provides a safety net for adherence to an uninterrupted treatment regimen and to address any unforeseen bleeds, minor scrapes, and bumps. All of this is achieved thanks to the exceptional caliber of caring and competent counselors, nurses, and directors. We are very proud of our camp, our camp volunteers, and our campers. Camp funding was provided by Shire, Kosair Charities, WHAS Crusade for Children, Pfizer, HEMA Biologics, CSL Behring, Bayer HealthCare, Novo Nordisk, Amerisource Bergen, Grifols, and Accredo.

Save One Life *by Justin Lindhorst*

Capture the Flag is perhaps one of the most highly anticipated activities every year at the Kentucky Hemophilia Foundation's Camp Discovery. The week-long program offers children with a bleeding disorder the opportunity to participate in an array of traditional camp activities while learning positive self-development techniques. As the Associate Camp Director also affected with severe hemophilia, one of my main goals is recreating the magic I experienced at camp for a new generation. This year, in addition to our usual adventures, I wanted campers to learn about the struggles faced by children living with a bleeding disorder in other countries. Save One Life provided the perfect opportunity to both teach and actively engage our campers with this topic.

As a sponsor, I know how rewarding it feels to have a beneficiary. I wanted our campers to experience that same feeling. After some thought and consideration, I figured out a way to implement Save One Life into our activities. Our campers participated in a "Canteen" program. Each camper started the week off with a $15 balance and was provided the opportunity to earn additional "Canteen Bucks" through active participation in activities and reaching certain goals. Campers spent their "money" at the Canteen – a general store stocked to the brim with all types of goodies from snacks to toys and camp supplies. The kids highly enjoyed the Canteen Program – and Canteen Bucks were quite the commodity. One morning, we provided an overview of Save One Life and challenged our campers to participate by donating their Canteen Bucks. If campers collectively reached the $50 goal we had set, the Kentucky Hemophilia Foundation would sponsor a child on behalf of Camp Discovery.

Knowing how precious Canteen Bucks were, I was not sure how engaged our campers would be with the program. I was soon overwhelmed by the generous spirit of our group. Immediately following the announcement, campers lined up to pledge their support. We reached our goal in moments. A few campers wanted to give all their "money" to sponsor a child. The amazing staff at Save One Life were able to quickly provide us with a profile of our beneficiary. The kids were very interested in learning all about Genesis K., and watching them repeatedly pour over the pictures was unforgettable. Campers and counselors began writing notes to Genesis K., and their messages were both heartwarming and tear inducing. Many also purchased toys from the Canteen and requested we send them to him. The program was an immediate success.

Event News

Annual Meeting

The KHF Summer Family Event - Annual Meeting, is not only our major education event but also an opportunity to meet and interact with other families from Kentucky's bleeding disorders community for support and fellowship. This year's event was held at the beautiful Hyatt Hotel in downtown Louisville, where more than one hundred adults and children enjoyed a light breakfast, a hearty lunch, and mid-afternoon snacks in between educational sessions. A hands-on swim clinic led by Tim Grams delighted kids and adults alike in the brand new hotel pool.

Speaker topics focused on "Women and Bleeding Disorders," "Inhibitors," the "Benefits of Exercise," and the "Evolving Landscape of Hemophilia." These sessions were kindly sponsored by Shire, Grifols, CSL Behring, and Bioverativ. Children's activities were facilitated by volunteers from Christian Fellowship. Vendor exhibits were provided by Accredo, Bayer HealthCare, Bioverativ, Cottrill's Pharmacy, CSL Behring, CVS Caremark, First Choice Home Infusion, Genentech, Grifols, HEMA Biologics, Matrix Health, Novo Nordisk, PSI, Pfizer, and Shire. Rounding out the day's activities were a baseball game and dinner at Slugger Field sponsored by CSL Behring.

Walk Kick-Off

Walkers and Team Captains were invited to attend the Kick-Off Lunch during the Annual Meeting. Last year's Walk fundraising and sponsorship results were acknowledged. Helpful materials were provided to team members in attendance to boost their recruitment and fundraising efforts. Our Walk Committee Chair, Venus Marcum, addressed our guests and generated an atmosphere of Walk motivation and enthusiasm. On site opportunities were provided to sign up on line for this year's Walk and participate in the drawing for several exciting door prizes including gift cards and fit bit type watches. This year's Walk season was surely shaping up to be a success!

Shire Teen Leadership Award

At the National Hemophilia Foundation's Annual Meeting in Chicago this August, Samantha Johnson of Evansville, IN, was among a group of deserving teens from all across the U. S. These teens had been selected to receive teen leadership awards for community service work in their respective communities or hemophilia chapters. Samantha is a prior KHF summer camp participant, and we are very proud of her achievement. We congratulate her for receiving this award.

More News

2017 Fall Semester Scholarship Awards

KHF was pleased to award three $500 post-secondary scholarships for the 2017 fall semester.

John Noe, II received the Terry D. Turner Memorial Scholarship. John is from Crab Orchard, KY and attends Eastern Kentucky University in Richmond, where he is majoring in pre-med studies. John is involved in numerous community service activities and has received several leadership awards. He enjoys playing his guitar and softball in his spare time.

Andrew Harmon received the Betty Meadors Mattingly Memorial Scholarship. Andrew resides in Bedford, KY and just transferred to Midway College. He is an education major who has been on the Dean's list three times. Andrew enjoys soccer, basketball, tennis, and photography outside of school.

John Rhea received the Herb Schlaughenhoupt, Jr. Memorial Scholarship. John, whose family lives in Louisville, is pursuing a master's degree in Health Administration at the University of Kentucky. He received awards of excellence and leadership as an undergraduate. John enjoys music, time with family and friends, and various sports, such as swimming, running, surfing, and snowboarding. We congratulate these young men for their achievements and wish them well in their continued studies.

New Board Members

We welcome Laura Webb and Kristin Taylor as new board members. Laura is Director of Agent Services at Keller Williams Realty Louisville East and holds a BA in Business Management from the University of Louisville. She and her family have been actively involved with KHF for a number of years. Last year, Laura's Walk Team raised $1,582 and achieved 4th place among the top fundraising teams. Family time and swimming are Laura's favorite hobbies. Kristin Taylor's expertise is in accounting, and she holds a bachelor's and master's degree from the University of Louisville. She is employed by Healthcare Practice Consultants. Kristin enjoys family time, cooking, gardening, and theatre. Kristin will also serve as Treasurer this year. The other officers are Deborah Hitt, President; Venus Marcum, Vice President; and Cory Meadows, Secretary. We congratulate them all on their election and appreciate and thank them for their willingness to serve on the KHF Board of Directors.

More News

2016 – 2017 KHF Fund Drive
We appreciate your support!

Challenge Gift, $25,000
Forcht Bancorp, Mr. & Mrs. Terry Forcht

Fundraisers Toward Meeting the Challenge, $18,000+
Various Corporate Solicitations and Fundraisers
7th Annual KHF Strides for a Cure Relay Walk/Run

Forcht Challenge Donors, $1,000 - $2,000
The Community Foundation of Louisville, made possible by the Zoeller Company
David Hasch
Don L. Mattingly

Donors, $500 - $980
Chevron Matching Employee Funds
Jennifer Hitt
Louisville Oral Surgery & Dental Implants
George Schlaughenhoupt for Herb Schlaughenhoupt, Jr. Memorial Scholarship

Donors, $250 - $465
Commonwealth Credit Union
Kroger Community Rewards
Greg Fiscus
Nicklies Foundation, Inc.
Mr. & Mrs. Charles E. Hall
LTC John & Pat Tharp

Donors, $100 - $200
Michael Gatton in honor of Greg Gatton for camp
Community Health Charities
Thomas & Alice Hendrix
Justin Lindhorst
Donna Steen

Donors, $50 - $75
Mike Koziak
Sharen & Keith Harmon
Mrs. William L. Farmer, Sr.
Stan Hankins
Harrell Locksmith LLC
Rex Herald
Woman of Immanuel, Immanuel UCC

Donors, Up to $49
AFP Greater Louisville Chapter in honor of Mike Schultz
Amazon Smile
Lyman & Regina Brown in honor of Patrick Sanders
Eric Hayes
Deborah & Glen Hitt
Louisville Web Group
David & Terry Moore
Charles Music
Michael J. Ryan
Ida Scott Family in honor of Patrick Sanders
Truist

In Memory

August 1, 2017 – September 30, 2017

Gone from our sight but never our memories; gone from our touch but never our hearts…

Mr. William L. Farmer, Sr.
Mrs. William L. Farmer, Sr.

William Walter Hall
William Hall, Jr.
Immanuel Baptist Church-Lexington, KY
Carolyn Jacobs

N. E. & S. B. Lawrence
Betsy S. Lawson
Jim & Judy Mahan
Marian Gail McAlister
Glenn & Sharon McNabb
Prayer Warriors Bible Study Class, Immanuel Baptist Church-Lexington, KY

Howard & Terri Schafer
Barbara & Susan Walker

Rita Turner
Donna Fleming

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.

KHF neither recommends nor endorses the products in this publication and does not make recommendations concerning treatment regimen for individuals. KHF suggests that you consult your physician or treatment center before pursuing any course of treatment. This publication is for general information only.

LOOKING AHEAD

Poinsettia Fundraiser –
November/December

Year End Holiday Event –
December 3

Deadline for KHF Postsecondary Education Scholarship –
January 15

Advocacy Day –
January/February

Vegasville Fundraiser –
February 24

KOSAIR CHARITIES

WHAS CRUSADE FOR CHILDREN

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Pfizer Hemophilia

DEDICATION AND PERSONAL SUPPORT

The Patient Affairs Liaison role was created based on community feedback about the importance of helping to connect patients and caregivers with Pfizer Hemophilia tools and resources.

PATIENT AFFAIRS LIAISONS

Working for you—From the home of Motown to the Bluegrass State

Name: Chris Liddell

Home state: Michigan

Fun fact: If I'm watching TV, it's most likely sports-related. Go Tigers!

Ideal vacation spot: Anywhere quiet, unplugged from all electronics

What past experiences can you bring to this job? I've worked in hemophilia for over 10 years, so I've collaborated with and advocated for different members of this community.

To get in touch with Chris, call
Pfizer Hemophilia Connect 1.844.989.HEMO(4366)

What we do:

- Provide helpful information about Pfizer Hemophilia programs and services
- Serve as a resource to hemophilia treatment centers to help patients obtain access to Pfizer medicines
- Serve as a primary point-of-contact for local advocacy groups
- Participate in local and national events and programs
- Upon request, meet with patients and caregivers to answer questions related to Pfizer Hemophilia resources

"IT'S IMPORTANT TO CONNECT ON ALL LEVELS: HTCs, PATIENTS, FAMILIES, THE WHOLE COMMUNITY."

—Chris Liddell

Pfizer

UNLOCKING YOUR SELF-POTENTIAL

ONLY ADVATE® HAS 13 YEARS OF EXPERIENCE IN THE REAL WORLD AS A RECOMBINANT FACTOR VIII[1]

- Proven in a pivotal clinical trial to reduce the number of bleeding episodes in adults and children when used prophylactically*[2]
- Third-generation full-length molecule, similar to the factor VIII that occurs naturally in the body[1,2]

*Multicenter, open-label, prospective, randomized, 2-arm controlled trial of 53 previously treated patients with severe hemophilia A. Two different ADVATE prophylaxis regimens (standard, 20-40 IU/kg every 48 hours, or pharmacokinetic-driven, 20-80 IU/kg every 72 hours) were compared with on-demand treatment. Patients underwent 6 months of on-demand treatment before 12 months of prophylaxis.[2]

The market leader in Hemophilia A treatment (as of October 2016)[3]

Learn more at ADVATE.com

ADVATE [Antihemophilic Factor (Recombinant)] Important Information

Indications

ADVATE is a medicine used to replace clotting factor (factor VIII or antihemophilic factor) that is missing in people with hemophilia A (also called "classic" hemophilia).
ADVATE is used to prevent and control bleeding in adults and children (0-16 years) with hemophilia A.
Your healthcare provider may give you ADVATE when you have surgery.
ADVATE can reduce the number of bleeding episodes in adults and children (0-16 years) when used regularly (prophylaxis).

ADVATE is not used to treat von Willebrand disease.

DETAILED IMPORTANT RISK INFORMATION

You should not use ADVATE if you:
- Are allergic to mice or hamsters.
- Are allergic to any ingredients in ADVATE.

Tell your healthcare provider if you are pregnant or breastfeeding because ADVATE may not be right for you.

You should tell your healthcare provider if you:
- Have or have had any medical problems.
- Take any medicines, including prescription and non-prescription medicines, such as over-the-counter medicines, supplements or herbal remedies.
- Have any allergies, including allergies to mice or hamsters.
- Have been told that you have inhibitors to factor VIII (because ADVATE may not work for you).

Your body may form inhibitors to factor VIII. An inhibitor is part of the body's normal defense system. If you form inhibitors, it may stop ADVATE from working properly. Consult with your healthcare provider to make sure you are carefully monitored with blood tests for the development of inhibitors to factor VIII.

You can have an allergic reaction to ADVATE.

Call your healthcare provider right away and stop treatment if you get a rash or hives, itching, tightness of the throat, chest pain or tightness, difficulty breathing, lightheadedness, dizziness, nausea or fainting.

Side effects that have been reported with ADVATE include: cough, headache, joint swelling/aching, sore throat, fever, itching, dizziness, hematoma, abdominal pain, hot flashes, swelling of legs, diarrhea, chills, runny nose/congestion, nausea/vomiting, sweating, and rash.

Tell your healthcare provider about any side effects that bother you or do not go away or if your bleeding does not stop after taking ADVATE.

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.

Please see the following page for the ADVATE Important Facts.

For full Prescribing Information, visit www.ADVATE.com.

References: 1. Grillberger L, Kreil TR, Nasr S, Reiter M. Emerging trends in plasma-free manufacturing of recombinant protein therapeutics expressed in mammalian cells. *Biotechnol J.* 2009;4(2):186-201. **2.** ADVATE Prescribing Information. **3.** Elsayed M. Hemophilia Treatment. London, United Kingdom: Datamonitor Healthcare; 2016.

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Shire

ADVATE
[Antihemophilic Factor (Recombinant)]

ADVATE
[Antihemophilic Factor (Recombinant)]

Important facts about

ADVATE [Antihemophilic Factor (Recombinant)]

This leaflet summarizes important information about ADVATE. Please read it carefully before using this medicine. This information does not take the place of talking with your healthcare provider, and it does not include all of the important information about ADVATE. If you have any questions after reading this, ask your healthcare provider.

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

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

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

What is ADVATE?

ADVATE is a medicine used to replace clotting factor (factor VIII or antihemophilic factor) that is missing in people with hemophilia A (also called "classic" hemophilia). The product does not contain plasma or albumin. Hemophilia A is an inherited bleeding disorder that prevents blood from clotting normally.

ADVATE is used to prevent and control bleeding in adults and children (0-16 years) with hemophilia A.

Your healthcare provider may give you ADVATE when you have surgery. ADVATE can reduce the number of bleeding episodes in adults and children (0-16 years) when used regularly (prophylaxis).

ADVATE is not used to treat von Willebrand disease.

Who should not use ADVATE?

You should not use ADVATE if you:

- Are allergic to mice or hamsters.
- Are allergic to any ingredients in ADVATE.

Tell your healthcare provider if you are pregnant or breastfeeding because ADVATE may not be right for you.

How should I use ADVATE?

ADVATE is given directly into the bloodstream.

You may infuse ADVATE 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 healthcare provider or hemophilia treatment center. Many people with hemophilia A learn to infuse their ADVATE by themselves or with the help of a family member.

Your healthcare provider will tell you how much ADVATE to use based on your weight, the severity of your hemophilia A, and where you are bleeding.

You may have to have blood tests done after getting ADVATE to be sure that your blood level of factor VIII is high enough to clot your blood.

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

What should I tell my healthcare provider before I use ADVATE?

You should tell your healthcare provider if you:

- Have or have had any medical problems.
- Take any medicines, including prescription and non-prescription medicines, such as over-the-counter medicines, supplements or herbal remedies.
- Have any allergies, including allergies to mice or hamsters.
- Are breastfeeding. It is not known if ADVATE passes into your milk and if it can harm your baby.
- Are pregnant or planning to become pregnant. It is not known if ADVATE may harm your unborn baby.
- Have been told that you have inhibitors to factor VIII (because ADVATE may not work for you).

What are the possible side effects of ADVATE?

You can have an allergic reaction to ADVATE.

Call your healthcare provider right away and stop treatment if you get a rash or hives, itching, tightness of the throat, chest pain or tightness, difficulty breathing, lightheadedness, dizziness, nausea or fainting.

Side effects that have been reported with ADVATE include:

cough	headache	joint swelling/aching
sore throat	fever	itching
unusual taste	dizziness	hematoma
abdominal pain	hot flashes	swelling of legs
diarrhea	chills	runny nose/congestion
nausea/vomiting	sweating	rash

Tell your healthcare provider about any side effects that bother you or do not go away.

These are not all the possible side effects with ADVATE. You can ask your healthcare provider for information that is written for healthcare professionals.

What else should I know about ADVATE and Hemophilia A?

Your body may form inhibitors to factor VIII. An inhibitor is part of the body's normal defense system. If you form inhibitors, it may stop ADVATE from working properly. Consult with your healthcare provider to make sure you are carefully monitored with blood tests for the development of inhibitors to factor VIII.

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

The risk information provided here is not comprehensive. To learn more, talk with your health care provider or pharmacist about ADVATE. The FDA approved product labeling can be found at www.ADVATE.com or 1-888-4-ADVATE.

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.

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BAYER

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Looking for a new, fresh perspective on living with hemophilia?

Introducing your all NEW guide to **Living With Hemophilia**

Discover the new online destination for learning about hemophilia, living a healthy life and even leading in the hemophilia community. It's all at the new **LivingWithHemophilia.com**. Our site has been totally redesigned to give you more of the information you want and less of the stuff you don't want.

See What's New at

www.LivingWithHemophilia.com

Science matters. Because patients matter.™

It's because of this belief that we:

Brought the leading extended half-life therapies to people with hemophilia —innovation that has changed the way hemophilia can be managed.

Sponsor free genetic testing for people with hemophilia and carriers through *My Life, Our Future*. Together with program co-founders the American Thrombosis and Hemostasis Network, Bloodworks Northwest, and the National Hemophilia Foundation, we are advancing disease understanding and research for the entire community.

Transformed humanitarian aid in hemophilia, with Sobi, by committing to donate up to one billion IUs of factor therapy over 10 years to help close the treatment gap in the developing world. More than 12,300 people have been treated through the WFH Humanitarian Aid Program, which is receiving 500 million IUs over five years.

We not only believe great science can conquer the toughest medical challenges, we live it every single day.

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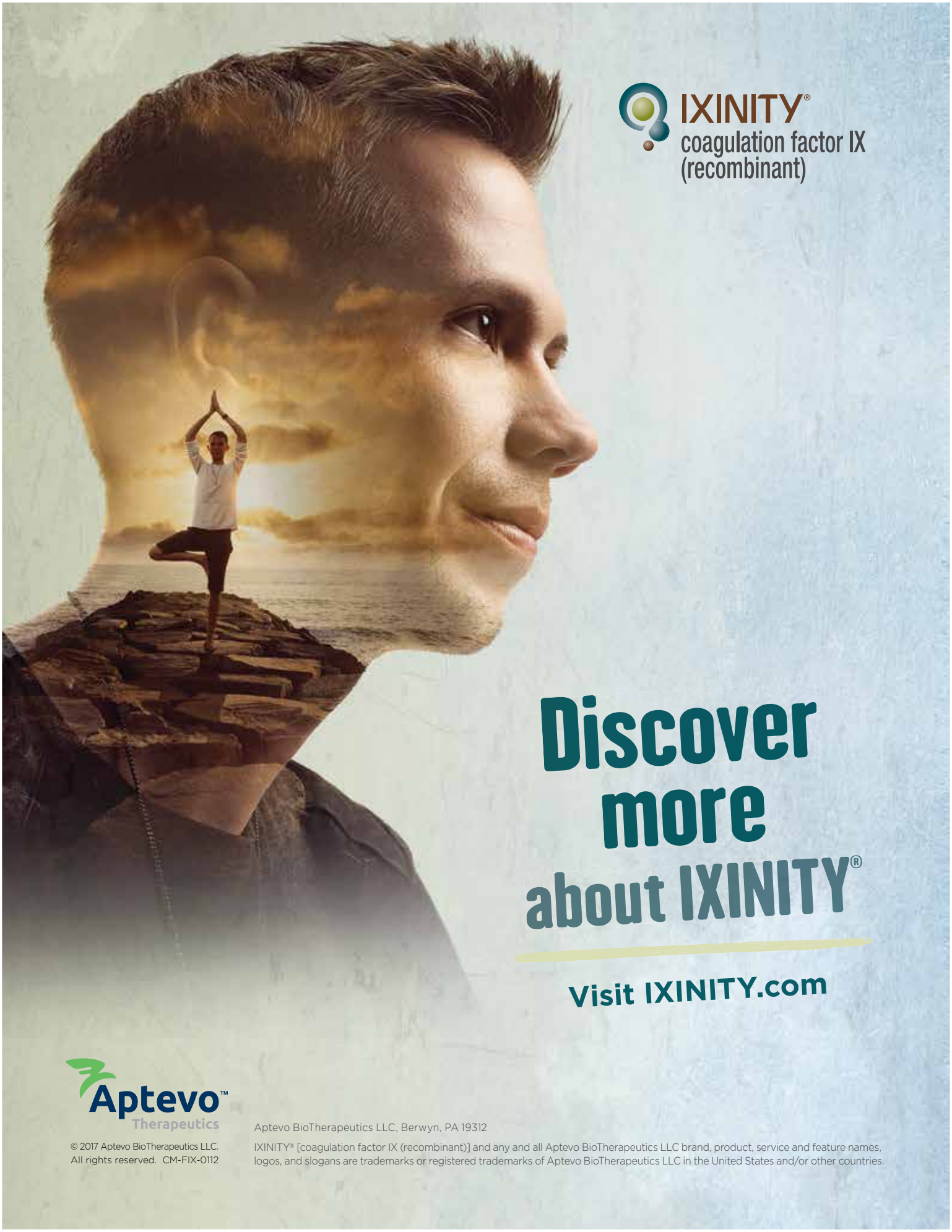

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