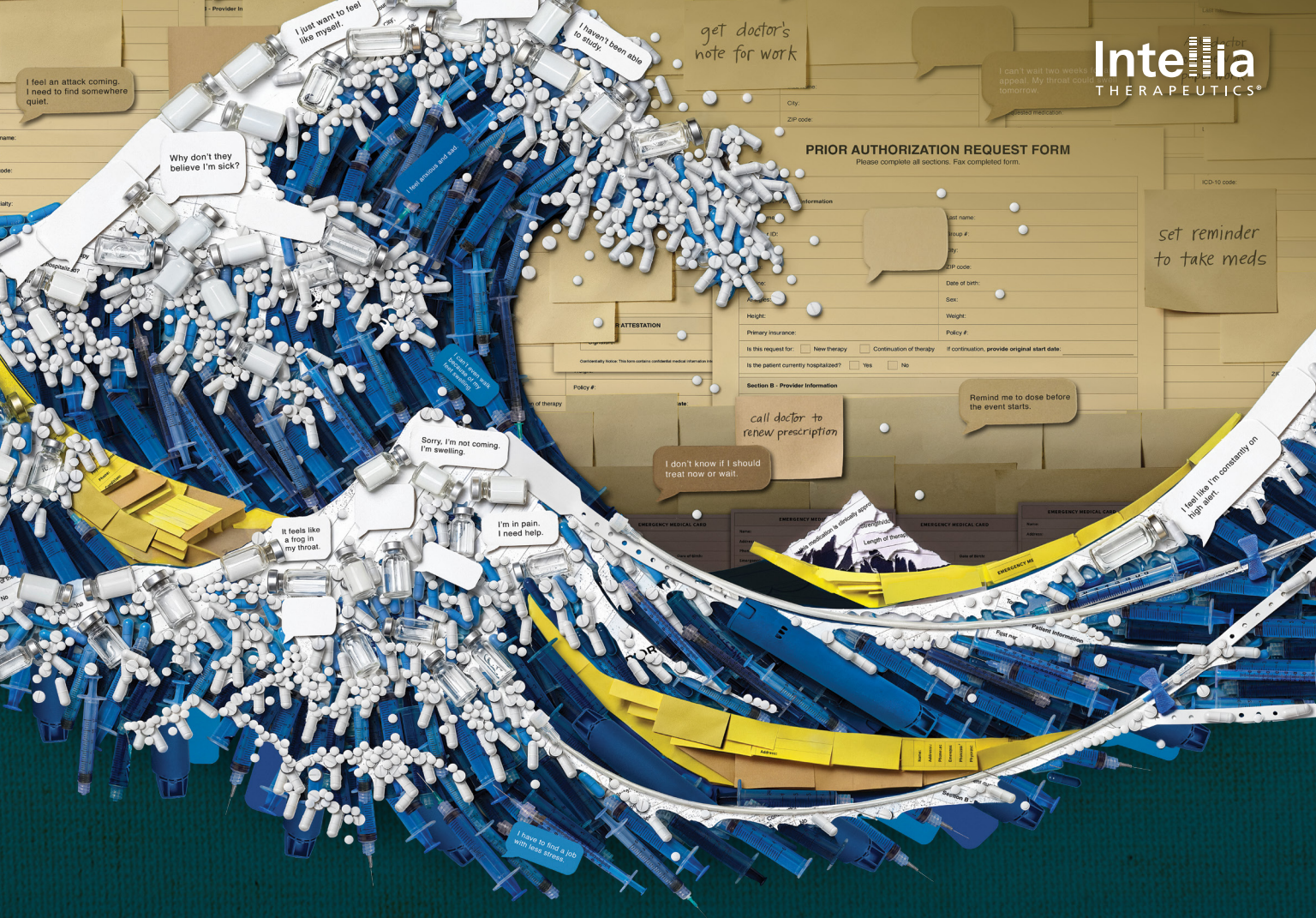
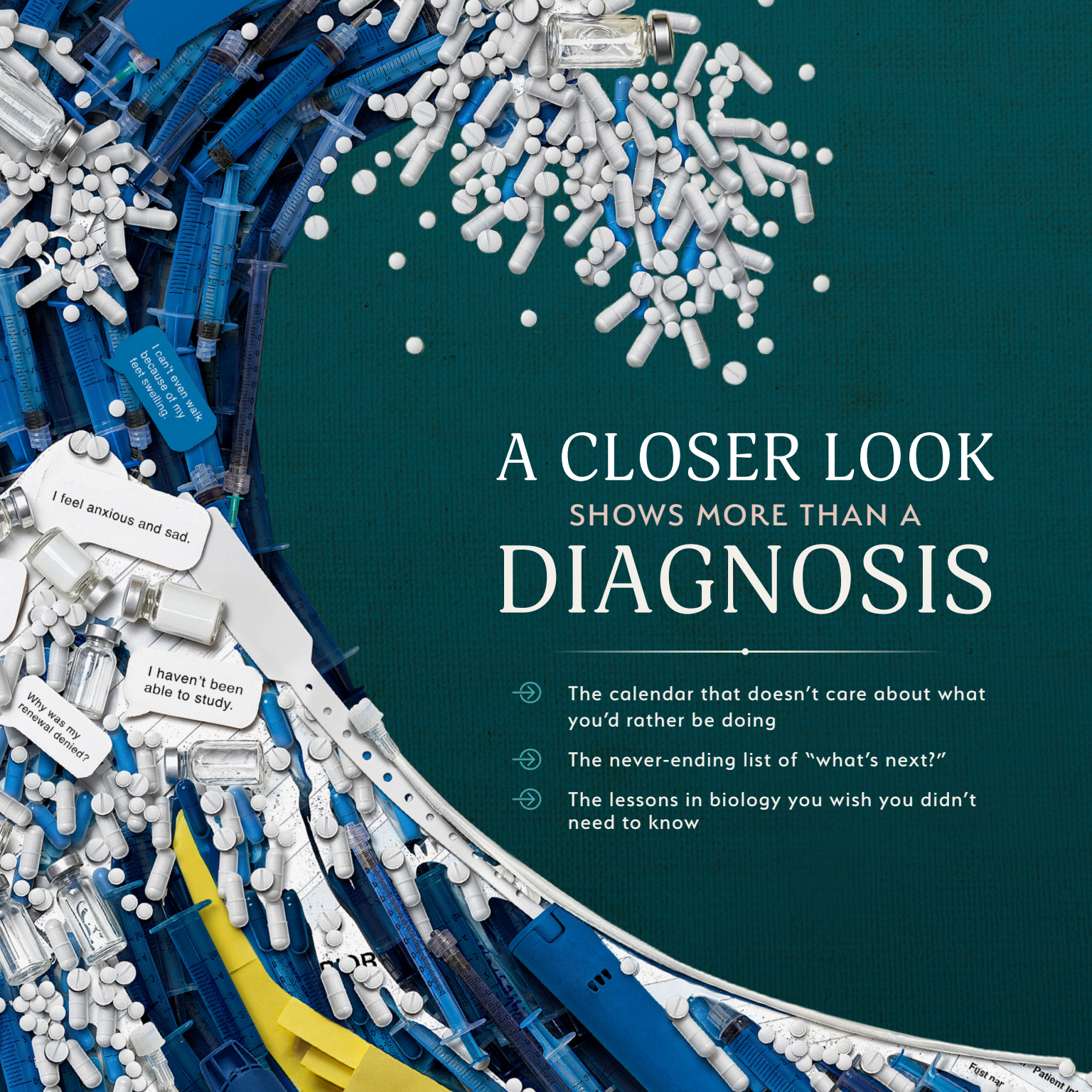


HAE CHALLENGES CAN

COME IN WAVES

REFRAME HOW YOU THINK ABOUT HEREDITARY ANGIOEDEMA (HAE)

HAEREFRAMED



A CLOSER LOOK SHOWS MORE THAN A DIAGNOSIS

- The calendar that doesn't care about what you'd rather be doing
- The never-ending list of "what's next?"
- The lessons in biology you wish you didn't need to know

THE BIGGER PICTURE

With HAE, Disruptions are a Common Denominator

Even with preventive treatment, attacks can still surface, disrupting everyday life. Treatment delays and insurance denials only add to the stress of managing HAE, leaving some people feeling like they're barely treading water.

Across multiple surveys, approximately 80% of people on preventive treatment still reported attacks within the last year.[1,2]

of respondents in a different survey reported that insurance delays and denials were a major source of anxiety.[3]

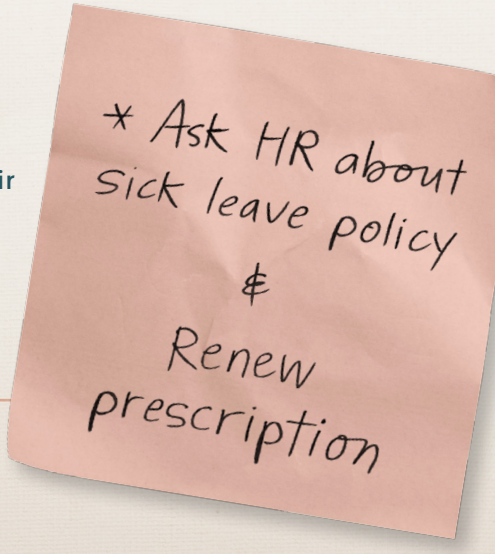
Is Managing HAE Disrupting Your Life?

Managing treatment for HAE is a challenge in itself. In a recent survey, top concerns included the need for lifelong treatment (68%) and unpredictability of attacks (58%).[1] It's understandable to feel overwhelmed. That's why it's important to partner with your doctor to find an option that truly fits your life and goals.

MANAGING HAE IS HARD WORK

If you've made career sacrifices because of HAE, you're not alone. In one study:

of participants reported having their career choices limited by HAE[4]



Searching for Solutions

While many treatments for HAE exist today, finding the right one can be a significant challenge. A study that analyzed the health records of patients with HAE showed that:

of people on preventive therapy stopped or switched treatment within a year[5]

Common cited reasons for stopping treatment included breakthrough attacks, treatment burden, side effects, and a search for better options.[1,6]

REFRAME YOUR NEXT DOCTOR'S VISIT

Managing HAE can feel overwhelming, but you can still find ways to feel more in control. Some people find that keeping a journal of medications, attacks, and appointments can be helpful when talking with their doctor about living with fewer limitations from HAE.

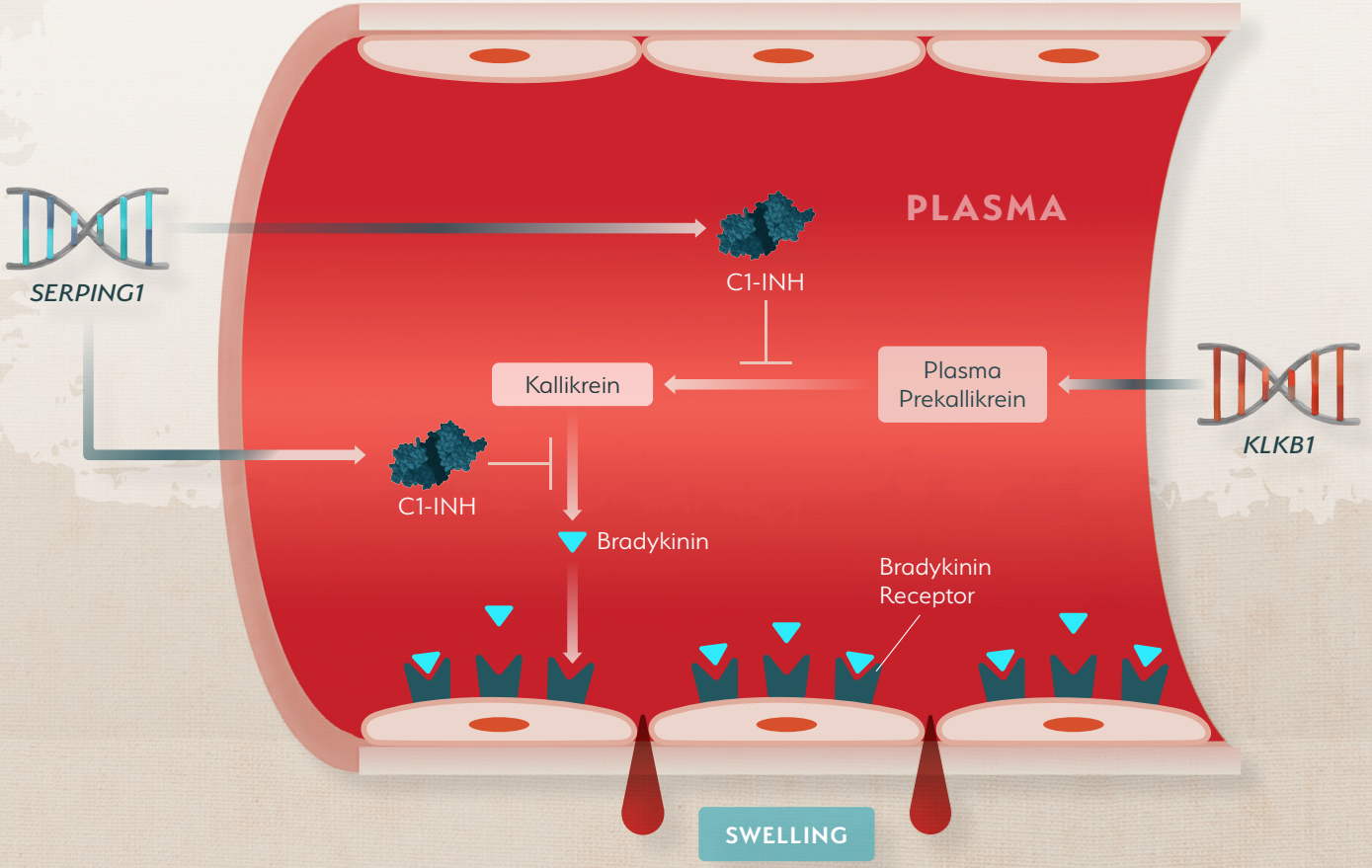
You can use the following talking points to reframe the conversation about managing life with HAE:

- Right now, I feel like I'm living on HAE's terms, but I'd like to turn the tide. What can I do to work toward a life with fewer disruptions from HAE?
- I'm worried about how HAE will impact my career. What are some steps I can take to get the support I need?
- I have a good handle on how to manage the physical side of HAE when attacks occur. But how can I better cope with the stress and anxiety that I'm feeling in between attacks?

> "You can still have a full life with HAE—
> but it's okay for us to want more."
>
> **— KIM, LIVING WITH HAE**

UNDERSTANDING HEREDITARY ANGIOEDEMA

HAE swelling attacks begin with an internal chain reaction. Approved treatments target different parts of the reaction, but may require repeated lifelong dosing to continuously maintain control of the chain reaction and manage attacks.[7]



UNDERSTANDING HEREDITARY ANGIOEDEMA

What Causes HAE?

Typically, a protein called C1-inhibitor (C1-INH) helps control swelling. The instructions for making C1-INH come from the *SERPING1* gene. People living with HAE Type I or Type II have changes in this gene. Their bodies can't make enough C1-INH, or the C1-INH doesn't work properly. As a result, a substance called bradykinin builds up and causes swelling.[8,9]

How Do HAE Swelling Attacks Happen?

HAE attacks happen when too much bradykinin builds up in the blood vessels, causing fluid to leak into nearby tissues. Bradykinin is produced after factors in your body activate a protein called plasma prekallikrein, which is made using instructions from the *KLKB1* gene.[8,9]

What is a Gene?

Genes provide the body with instructions to make proteins and control different functions.[10]

What is a Protein?

Proteins are made by your body to do specific jobs.[11]

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KEEP PURSUING YOUR GOALS

There's so much more to managing HAE than coping with its physical impacts. Talk to your doctor about ways to manage the full burden of HAE with fewer limitations, and explore the bigger picture by visiting **HAEreframed.com**

HAEREFRAMED

Connect With Other Members of the HAE Community

Share experiences, connect with others who have HAE, and learn more with the US Hereditary Angioedema Association (HAEA). You can find a variety of services and resources at **HAEA.org**

This information is for educational purposes only and is not intended to constitute medical advice. For all healthcare decisions, talk with your healthcare team. Intellia does not endorse and is not responsible for the content included in third-party resources.

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