Hepatitis C
Patient Guide

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User Persona

Billy

Billy is a 21-year-old male, of aboriginal descent, living in Vancouver, BC.

Family and home life

A member of the Gitxsan nation, Billy grew up in the village of Kispiox, outside Hazelton in Northwest BC.

Billy's mother was 18 years old when Billy was born, and 15 years old when his older sister was born. His older sister lives in Vancouver and his younger half-sister lives in Kispiox with his mother and stepfather.

Billy's parents never married. He and his older sister share a father who died when Billy was four years old. Billy and his stepfather, who his mother married when Billy was 9 years old, do not get along. Billy left Kispiox when he was 16 years old and moved to Vancouver.

When he is sober, Billy lives with his older sister and her two children, aged 18 months and three years, in a two-bedroom townhouse in a Vancouver-area social housing development. When he isn't sober (which is about half the time) he couch-surfs at fellow-drug users homes or wherever he may be at the time he injects himself.

Billy can read, but not at an advanced level because he left school in the ninth grade. His vocabulary is basic. Compounding his limited education, heroin use has led to a loss in his cognitive ability. He has a hard time grasping concepts involving large numbers or statistics.

Work environment

Billy hasn't worked in the past 16 months. His addiction makes him an unreliable employee and he is unlikely to pursue work until after he has successfully addressed his heroin use. He currently survives on a monthly distribution from the Gitxsan nation along with the support of his sister.

Previously, Billy worked in a warehouse moving pallets and loading truck trailers. This work involved a powered forklift and a hydraulic hand cart, for which he was certified to follow safety practices.

Before that job, he was as a janitor at a seniors' care home. That work involved cleaning floors, walls and windows, unplugging drains and emptying trash containers. The position involved using a mop and bucket, vacuum cleaner, and ladder, and the handling of cleaning chemicals following established safety protocols. In his work he regularly engaged with the facility's residents in a friendly and respectful manner.

Computer proficiency

Billy has very limited computer skills and hasn't touched a PC in more than five years. His warehouse and janitor work involved basic machinery and did not call for any computer or technical skill. His smartphone is his primary social and communication tool and he is comfortable using common social media, browsers and messaging applications.

Pet peeves and technical frustrations

Technology that he doesn't know intimidates Billy. He lacks confidence and is self-conscious about his education and limited technical knowledge.

Attitudes

Billy prioritizes family and community before wealth or status and is proud of his Gitxsan roots. His addiction is in part a product of his impressionable and naïve nature.

He is forgiving and un-judgemental but fears what others might judge of him. He is most afraid that he will infect his friends and family with hepatitis C. He also afraid that they will shun him because of their own fears or misunderstandings of the disease. He will benefit socially and emotionally from knowing, and being able to share, practical facts of his disease.

Motivation for using high-tech products

Beyond his smartphone Billy is reticent to embrace technologies. His upbringing and education included limited internet or digital devices. He is not as technologically prepared as most of his generation. He aspires to overcome this, but also fears that he is too far behind to catch up.

Personal and professional goals

His hepatitis C diagnosis is a wake-up call for Billy and motivates him to make life changes. He wants to address his addiction as well as his hepatitis C, but doesn't believe that he can do both at the same time. He has four goals, ranked by priority:

- **To get healthy** and treat his hepatitis C.
- **To overcome** his heroin addiction.
- **To gain** a skill in a construction trade.
- **To return** to Kispiox and contribute to his community.

These goals support Billy's aim to become a positive example and a mentor to his young niece and nephew. To be the caring and responsible father-figure for them that he didn't have for himself.

Candid Quotes

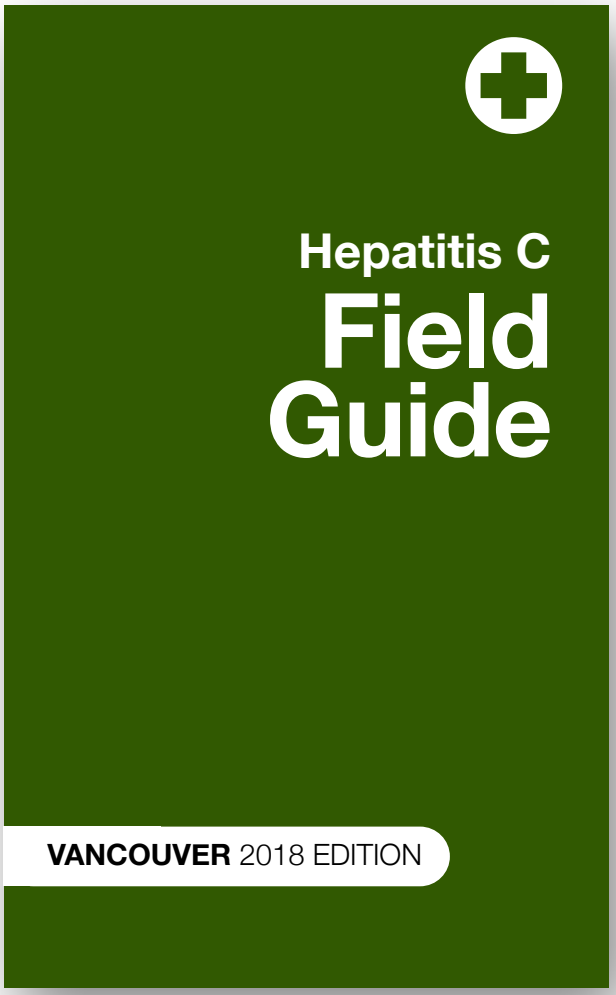
“I get lost when there is a big number.”

“I am ready to be better. I want to follow another path.”

“It’s time for me to be a man.”

“I am Gitxsan. I want to live like a Gitxsan.”

Prototype



Prototype

Knowing the disease

What it does.

Hep C attacks your liver.

Your body counts on your liver to clean blood, fight off sickness and make energy from food you eat.

When hep C attacks it damages your liver and leaves scars. When the scars build up your liver gets hard and can no longer do its job.

When your li its job, the re body gets st damaged in

Protecting other people

What is safe.

Most of the things that you'll want to do are harmless to the people around you:

Home	Work
Hugging	Touching food
Kissing	Sharing tools
Sex using a condom	
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Getting treated and cured

How it feels.

You will feel the same when you first start taking your medicine. There is a only a small chance that you will feel any side effects.

Once you have taken your medicine for two weeks you will start to feel stronger and have more energy.

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Source Material

Excerpt 2

Understanding Hepatitis C Interferon Therapy

Whether you are a candidate for interferon therapy or simply want to learn more about the most common medical treatment for viral hepatitis, this article can be your introduction to how it works, and more importantly, how effective it is.

Interferon is a cytokine, a specific protein that is no stranger to the human body. In fact, the human body is constantly making interferon, and makes even greater amounts when trying to fight off an intruder, such as a virus. People experience this when suffering with the flu. When sick with the flu, the body makes extra interferon to defeat the virus causing the illness. The extra interferon causes symptoms such as fever, nausea, achy and sore muscles, joint pain and fatigue. This is called an antiviral effect. Interferon therapy is currently the gold standard in treatment for certain types of hepatitis B and C.

How Does it Work?

While the interferon used for hepatitis treatment is slightly different from the kind made in the body, it helps defeat the virus in three ways:

1. By attaching to healthy cells to help defend against invading viruses.

2. By helping the immune system to stop the virus from multiplying.

3. By assisting the body in ridding itself of infected cells while preventing healthy cells from being infected.

Interferon helps the body distinguish between cells infected by the virus and non-infected cells, targeting infected cells for destruction. For unknown reasons, a virus in the liver often becomes invisible to the immune system. If your body can't see the virus, it can't destroy it. This invisibility permits the virus to multiply within the liver, fostering a more chronic and severe infection. Scientists have learned that if they gave synthetic (created through genetic engineering) interferon to a person with chronic viral hepatitis, they could increase the immune system's ability to detect, or see, the infection. Imagine liver cells blending in with invaders, both a clear transparent color. The addition of interferon is like staining the infection deep red, highlighting them so they can be targeted for the immune system's fighter cells. Interferon also helps patients with viral hepatitis by directly suppressing the formation of new virus particles within the liver.

What kinds are there?

Scientists have determined that the body makes three distinct types of interferon; alpha, beta and gamma interferon, each containing several members. Alpha interferon has been approved for therapeutic use against a specific type of leukemia, hepatitis B and C, genital warts, AIDS- related Kaposi's sarcoma and some rare cancers of blood and bone marrow. Nasal sprays containing alpha interferon provide some protection against colds caused by rhinoviruses.

There are two primary types of interferon currently available. To date, interferon-alpha 2a or 2b is the compound that has been extensively used and tested. Though the dose varies, patients with chronic hepatitis C usually receive 3 million units, three times per week. Individuals with chronic hepatitis B receive a higher dose of 10 million units, three times per week. Although it can widely vary, the typical duration of therapy is 48 weeks for hepatitis C, and 16 weeks for hepatitis B.

A newer formulation on the market is called pegylated interferon. This drug was developed in response to the fall in blood levels, rapid breakdown and subsequent loss of antiviral effect of interferon given 3 times per week. By attaching a molecule called polyethylene glycol to interferon-alpha 2a or 2b, researchers were able to slow its breakdown by the body. More consistent drug levels were achieved with the need to only give the drug once per week. Above and

beyond the convenience of once a week injection, the pegylated formulations also result in higher viral clearance rates.

Side Effects

Interferon used for hepatitis treatment — alpha and pegylated forms — have been known to cause severe side effects, including:

* worsening of psoriasis
* irritability and insomnia
* trouble breathing
* chest pain
* high fever and chills
* fatigue
* headaches
* decreased appetite, nausea and vomiting
* weight loss
* muscle aches
* bone marrow suppression
* weight and hair loss
* depression and mood changes
* decreased white blood cells and platelets
* elevated liver enzymes
* difficulty concentrating and impaired memory

Interferon's effectiveness

For hepatitis C, the cure rate is defined as the inability to detect virus in the blood 6 months after stopping therapy. This rate varies significantly depending on a number of patient, viral and drug regimen characteristics. The most important factor is the viral genotype. Unfortunately, genotypes 1a and 1b, the most common types in North America, have the worst response rate, with only 19 percent in interferon and 25-40 percent in pegylated interferon responses, respectively. Adding a second anti-viral drug, ribavirin, increases the response rate to between 35 and 60 percent. Genotypes 2 and 3 carry a much higher eradication rate (60 percent or more).

Hepatitis B is associated with a 35 percent response rate as defined by normalization of liver enzymes and loss of markers of active viral infection. Such a response signifies conversion to a healthy carrier state. This is further characterized by a decrease in the ability to spread the virus to others and a decrease in the liver damage associated with viral infection. Complete elimination of the Hepatitis B virus is rare.

As you can see, not everyone responds to interferon therapy, causing some people to turn to natural alternatives. According to many physicians in Japan, the prescription-strength remedy Sho-saiko-to may be helpful for nonresponders to interferon therapy. If you want more information about Sho-saiko-to, you may wish to visit http://www.shosaikoto.com.

Perhaps having a better understanding of interferon, including what it is, how it works, what its side effects are and how effective it is will help people make the best treatment decisions. Clinical trials are being conducted around the world to increase interferon's effectiveness, reduce its side effects and create even better alternatives for the eradication of viral hepatitis.

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