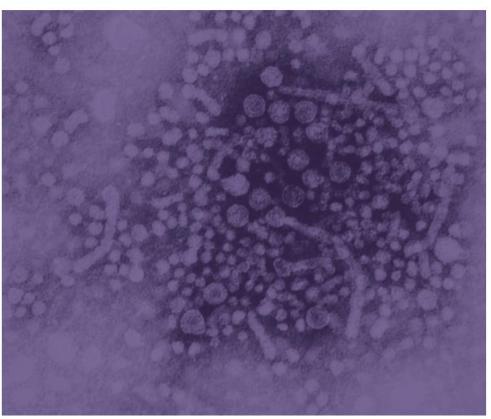


Viral Hepatitis Resource Directory

September 2015







This resource directory is a continuous work in progress.

Please help make it more comprehensive by emailing additions to lesli.choat@illinois.gov
217-782-2747.
Thank you

Illinois Hepatitis Prevention, Care and Treatment Resource Directory

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Introduction

Viral hepatitis is a major public health problem in Illinois. Nationwide, it is estimated that more than 1.2 million people are living with chronic hepatitis B and at least 3.2 million people are living with chronic hepatitis C. In **Illinois**, many people living with viral hepatitis are not aware of it.

The Viral Hepatitis Resource Directory was prepared by the **Illinois Department of Public Health** to inform the general community and health and human services providers about available viral hepatitis services in Illinois.

The directory provides information about a range of services including:

- how to access prevention information,
- where to get vaccinated,
- where testing is available,
- which doctors or clinics provide medical care for people living with viral hepatitis and how to locate support services for people living with viral hepatitis.

Included in this guide is basic information about viral hepatitis and Web links to important resources throughout Illinois and nationally.

Suggested additions or updates to this guide are welcome. If you have comments please contact **Illinois Department of Public Health Sexually Transmitted Disease Program at 217-782-2747.**

Lesli Choat, Illinois Viral Hepatitis Prevention Coordinator lesli.choat@illinois.gov

How to Use this Guide

This guide is to be used by health and human services providers as they work with people affected by viral hepatitis. It is designed to help a person who is living with viral hepatitis navigate through a process to learn about their health status and to understand available resources/services.

New information for 2015 marked with NEW

Organizations

Caring Ambassadors Hep C Program	503-632-9032
www.hepcchallenge.org	
Center for Disease Control and Prevention	800-232-4636
www.cdc.gov/hepatitis	
Hepatitis B Foundation	215-489-4900
www.cdc.gov	
Hep C Support Project	
www.hcvadvocate.org	
Hepatitis Foundation International	800-891-0707
www.hepfi.org	
Hepatitis HelpLine – Hep C Connection	800-522-4372
www.hepc-connection.org	
National Hepatitis C Institute	
www.nationalhepatitiscinstitute.org	

Clinical Trials

www.centerwatch.com - Center Watch clinical trials listing services
 www.clinicaltrials.gov - Listing of clinical trials
 www.searchclinicaltrials.org - Listing of clinical trials
 www.ifpma.org/clinicaltrials - Links information about clinical trials worldwide

Government

www.ssa.gov - Social Security Administration
 www.va.gov - Veterans Administration
 www.fda.gov - Food and Drug Administration
 www.nih.gov - National Institutes of Health
 www.congress.org - Identify legislators and e-mail addresses
 www.eeoc.gov - Equal Employment Opportunity Commission
 www.benefitscheckup.org - Determine eligibility for government programs
 www.govbenefits.gov - Determine eligibility for programs and how to apply
 www.AIDSinfo.nih.gov - HIV/AIDS research, treatment, prevention, medical practice

Medical

www.aasld.org - American Association for the Study of Liver Diseases
 www.acg.gi.org - American College of Gastroenterology
 www.gastro.org - American Gastroenterological Association
 www.digestive.niddk.nih.gov - National Digestive Disease Information Clearinghouse

Health Insurance

<u>www.medicare.gov</u> – Federal site for Medicare information <u>www.patientadvocate.org</u> – Insurance and financial resources

Substance Abuse

www.na.org - Narcotics Anonymous

www.crystalmeth.org - Help for crystal meth addiction

www.hcvananymous.com - 12-step support group for those with HCV

www.harmreduction.org - Harm Reduction Coalition

www.samhsa.gov - Substance Abuse and Mental Health Services Administration

Transplants

<u>www.unos.org</u> - United Network for Organ Sharing <u>www.americantransplantfoundation.org</u> - American Transplant Foundation

Understanding Viral Hepatitis

The word "hepatitis" means inflammation of the liver and also refers to a group of viral infections that affect the liver. The most common types are hepatitis A, hepatitis B, and hepatitis C.

Viral hepatitis is an important public health issue

The chart on page 8 describes how hepatitis A, B, and C are transmitted, how they can be prevented, and what happens if someone becomes infected. Viral hepatitis prevention information is especially important because even though viral hepatitis is preventable, each year in the U.S. it is estimated that 43,000 people will become infected with hepatitis B, 17,000 will become infected with hepatitis C, and 25,000 persons will become infected with hepatitis A.

Vaccines can prevent hepatitis A and B

Vaccination is effective at preventing hepatitis A and B. Hepatitis A vaccination is a standard of care for infants over 1 year of age and vaccination for hepatitis B is given to anyone 18 years old or younger and all infants at birth. Depending on the different types of vaccine, two to four doses are required to provide full protection.

People not vaccinated as children and who are at risk for viral hepatitis should be vaccinated as soon as possible. Adults who are at risk for viral hepatitis include:

- immigrants from areas of the world with high rates of viral hepatitis
- people traveling to areas with high rates of hepatitis A or B
- injection drug users
- men who have sex with men
- people with multiple sexual partners
- people who are incarcerated
- people who received clotting factor before 1987
- household members of people living with hepatitis B
- people living with HIV
- people living with liver disease

Screening for Viral Hepatitis

The only way to know for sure if you have been infected with hepatitis A, B, or C is to be tested. People are not routinely screened for viral hepatitis, so even if a person has seen a doctor he or she should not assume testing was done. There are different tests for each type of viral hepatitis. The decision to get tested depends on a person's health behaviors and other factors described in the chart on the next page.

Hepatitis: The Silent Disease

Hepatitis is called the silent disease because people will often have no symptoms. The symptoms of hepatitis A, B, and C, when they occur, are similar. The symptoms include: jaundice (skin turning yellow), nausea, vomiting, diarrhea, dark urine or pale stool, loss of appetite, fatigue, or joint pain. Even though the symptoms are similar, one type of hepatitis does not progress to become another type of hepatitis – for example, hepatitis A cannot develop into hepatitis B.

General Viral Hepatitis Information

CDC Training Resources – Online Training Opportunities http://www.cdc.gov/hepatitis/Resources/Professionals/TrainingResources.htm

NEW

For additional viral hepatitis information, please visit:

- CDC Division of Viral Hepatitis
- HHS Office of HIV/AIDS & Infectious Disease Policy

NEW Training

NACCHO National Association of County and city Health Officials Local Health Departments and Hepatitis C Educational Series http://naccho.org/topics/HPDP/hepatitis-

<u>c.cfm?utm_source=MagnetMail&utm_medium=email&utm_term=lesli.choat@illinois.gov&utm_conte</u> nt=2015%5F05%5F19CONNECT&utm_campaign=NACCHO%20Connect%2C%20May%2019

NEW

Hepatitis B - Hepatitis B Foundation http://www.hepb.org/resources/

Hepatitis C

http://www.hcvadvocate.org/hepatitis/factsheets.asp

Action Plan for the Prevention, Care and Treatment of Viral Hepatitis



Building on the success of the nation's first comprehensive cross-agency action plan, released in 2011, Combating the Silent Epidemic of Viral Hepatitis: Action Plan for the Prevention, Care, & Treatment of Viral Hepatitis, the U.S. Departments of Health and Human Services (HHS), Housing and Urban Development (HUD), Justice (DOJ) and Veterans Affairs (VA) released a three-year update of the plan in April 2014.

www.cdc.gov/hepatitis/hhs-actionplan.htm

CDC Hep A Fact Sheet: For Health Professionals http://www.cdc.gov/hepatitis/HAV/index.htm#

CDC Hep B Fact Sheet: For Health Professionals http://www.cdc.gov/hepatitis/HBV/index.htm

CDC Hep C Fact Sheet: For Health Professionals http://www.cdc.gov/hepatitis/HCV/index.htm

CDC Hep D Fact Sheet: For Health Professionals http://www.cdc.gov/hepatitis/HDV/index.htm

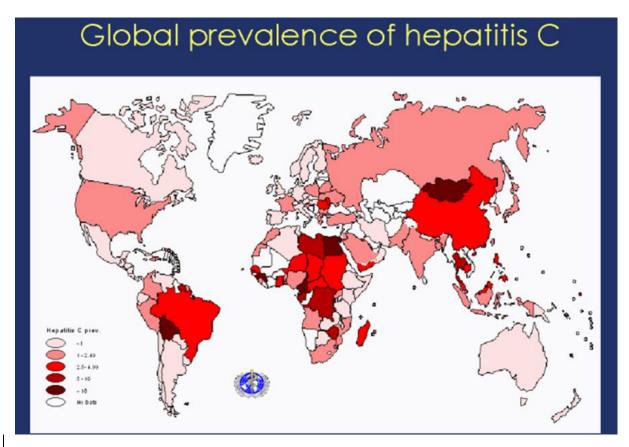
CDC Hep E Fact Sheet: For Health Professionals http://www.cdc.gov/hepatitis/HEV/index.htm

CDC HAV/HBV/HCV Color Coded Fact Sheet: **Patient Educational Materials** http://www.cdc.gov/hepatitis/Resources/PatientEdMaterials.htm

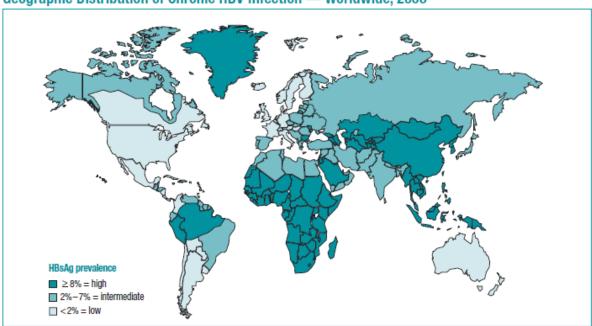
NEW

Viral Hepatitis Surveillance – Unites States, 2013 was recently posted on the CDC/NCHHSTP/DVH Website at: http://www.cdc.gov/hepatitis/Statistics/index.htm.

Worldwide Hepatitis Prevalence



Geographic Distribution of Chronic HBV Infection — Worldwide, 2006*



^{*} For multiple countries, estimates of prevalence of hepatitis B surface antigen (HBsAg), a marker of chronic HBV infection, are based on limited data and might not reflect current prevalence in countries that have implemented childhood hepatitis B vaccination. In addition, HBsAg prevalence might vary within countries by subpopulation and locality.

Source: CDC. Travellers' Health; Yellow Book. http://wwwn.cdc.gov/travel/yellowbookch4-HepB.aspx.

Overview of Viral Hepatitis



Hepatitis Series I, II, III

The Illinois Department of Public Health Communicable Disease Training Program invites you to participate in a webinar series highlighting the various types of hepatitis.

- The webinars are On-Demand and available to review at your convenience
- Contact the training program for technical assistance

For **Trainings/Webinars** in the Communicable Disease Control Section, click on CD <u>Training Resource</u> page.

To view the recorded webinars, please click on the following links:

1. Broadcasted: Wednesday, April 2, 2014, 10:00a.m. – 11:00a.m.

Presenter: Lesli Choat

Hepatitis C: http://idph.adobeconnect.com/hepatitis-c-recorded-webinar-module/event/login.html

2. Broadcasted: Wednesday, April 9, 2014, 10:00a.m. – 11:00a.m.

Presenter: Richard Zimmerman

Hepatitis B & D: http://idph.adobeconnect.com/hep-b-d-mod/event/login.html

3. Broadcasted: Wednesday, April 16, 2014, 10:00a.m. – 11:00a.m.

Presenter: Dr. Fred Echols

Hepatitis A & E: http://idph.adobeconnect.com/hep-a-e-module/event/registration.html

Overview of Viral Hepatitis

Type of hepatitis	Hepatitis A	Hepatitis B	Hepatitis C
What body fluids	Feces	Blood, semen, vaginal	Blood
can transmit the		secretions	
virus?			
What activities can	Eating food prepared	Unprotected sexual	Sharing equipment
pass the virus?	by an infected person	intercourse	used to inject drugs.
	who did not wash		
	properly after going to	Sharing equipment	Unprotected sexual
	the bathroom; eating	used to inject drugs	intercourse, but this is
	uncooked shellfish		less common
	Any contact between		
	the mouth and an		
	infected person's		
	feces or anus		
How it can be	Vaccination	Vaccination	Avoid sharing
prevented?	F 1 1'11 1	F 1 1'1'1 1	injection drug
	Early childhood	Early childhood	equipment; use a new,
	vaccination was	vaccination was	clean syringe every
	started in 1997.	started in 1991.	time you inject.
	Paople over the ego of	Poople over the ego of	Use condoms
	People over the age of 20 who are at risk,	People over the age of 23 who are at risk,	consistently and
	should be vaccinated.	should be vaccinated.	correctly every time
	should be vaccinated.	should be vaccinated.	you have sex.
What happens if	Hepatitis A is a short	About 85% of people	About 20% of people
someone becomes	term illness that clears	who become infected	who become infected
infected?	on its own within six	with hepatitis B are	with hepatitis C are
miceteu.	months.	able to clear the virus	able to clear the virus
		and will not have it	and will not have it
	No specific treatment	for life.	for life.
	is available except		
	rest, drinking plenty	About 15% develop	About 80% develop
	of fluids and taking	lifelong infection and	lifelong infection and
	over the counter	approximately 15% to	approximately 5% to
	medications to control	40% of these people	20% of these people
	symptoms.	will develop liver	will develop liver
		damage (cirrhosis) or	damage (cirrhosis) or
		liver cancer over	liver cancer over 10-
		10 years to 25 years.	25 years.
		Treatment is available	Treatment is available
		to help slow the	with a success rate of
		disease.	about 50%.
	1	arsease.	about 50/0.

Accessing Services: Prevention, Education and Interventions

Prevention, education and interventions – The organizations listed below can provide brochures, information, and counseling about how to avoid infection with viral hepatitis. Some organizations may offer free condoms, sterile syringes or other prevention resources.

NEW

A Guide to Comprehensive Hepatitis C Counseling and Testing

Manual for use in public health settings

http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/CounselingandTesting.pdf

The purpose of this manual is to provide guidance for counseling and testing of individuals who are at risk for or potentially infected with the hepatitis C virus (HCV). The manual was used in draft form as part of a field assessment among hepatitis C counselors and testers, who field tested the manual and provided recommendations for improving its utility. The field assessment was conducted under contract with Battelle Memorial Institute.

Manual for its use in primary care practices

http://www.cdc.gov/hepatitis/Resources/Professionals/PDFs/CounselingandTestingPC.pdf

The purpose of this CDC Hepatitis C Counseling and Testing manual is to provide guidance for hepatitis C counseling and testing of individuals born during 1945–1965. The guide was used in draft form as part of a field assessment conducted among primary care providers, who field tested the manual and provided recommendations for improving its utility.

The field assessment was conducted under contract with the Battelle Memorial Institute and the American Academy of Family Physicians National Research Network.

NEW Training

NACCHO National Association of County and city Health Officials Local Health Departments and Hepatitis C Educational Series

http://naccho.org/topics/HPDP/hepatitis-

c.cfm?utm_source=MagnetMail&utm_medium=email&utm_term=lesli.choat@illinois.gov&utm_content=2015%5F05%5F19CONNECT&utm_campaign=NACCHO%20Connect%2C%20May %2019

CDC Viral Hepatitis Fact Sheets

http://www.cdc.gov/hepatitis/Resources/PatientEdMaterials.htm

CDC Viral Hepatitis Posters

http://wwwn.cdc.gov/pubs/CDCInfoOnDemand.aspx?ProgramID=48

American Liver Foundation

Free downloadable brochures

http://www.liverfoundation.org/education/downloads/

http://www.liverfoundation.org/chapters/illinois/

Take the first step in helping your patients with liver disease. Visit <u>aasld.org/ACTFirst</u> for complete information about HBV and HCV patient care.

Caring Ambassadors

The Caring Ambassadors Program mission is to help improve the lives of those affected by long-term diseases through advocacy, information, and support. http://caringambassadors.org/

Hepatitis A, B, C, D, and E guide; Alabama Department of Public Health http://www.adph.org/hepatitis/

AIDS.GOV Hepatitis resources

http://aids.gov/news-and-events/hepatitis/

Hepatitis B Asian Liver Center

http://liver.stanford.edu/Public/brochures.html

NEW

Hepatitis C & Injection Drug Use Fact Sheet

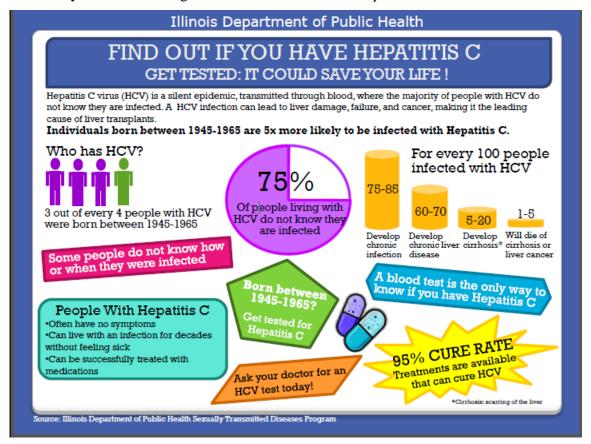
CDC has developed a fact sheet on Hepatitis C and injection drug use. The fact sheet includes an overview of hepatitis C including symptoms, testing, transmission, prevention, treatment, and reinfection.

http://www.cdc.gov/hepatitis/HCV/PDFs/FactSheet-PWID.pdf

NEW

Hepatitis Infographic

Created by IDPH STD Program - PDF version can be requested at 217-782-2747



Accessing Services: Vaccination

Vaccination – The organizations listed below can provide vaccination against hepatitis A and B. Some organizations may offer the screening free of charge and others may require the individual to pay a fee.

Illinois Local Health Department Directory

These Local Health Departments (LHD's) with STD clinics provide hepatitis A and B vaccinations. Contact the LHD to confirm vaccine availability.

http://intra.idph.il/IDPH+Intranet/Directories/Local+Health+Dept+Directory.htm

The Pink Book -Epidemiology & Prevention of Vaccine-Preventable Diseases http://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html

Hepatitis A ACIP Vaccine Recommendations

http://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/hepa.html

Hepatitis B Vaccination ACIP Vaccine Recommendations

http://www.cdc.gov/Vaccines/vpd-vac/hepb/default.htm

Accessing Services: Screening

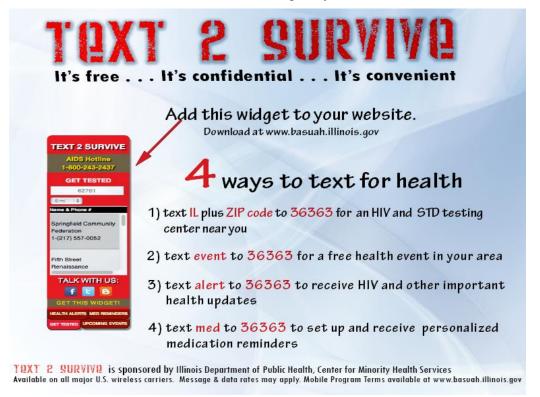
Screening – The organizations listed below can provide screening to help a person learn whether they are infected with viral hepatitis. Some organization may offer the screening free of charge and others may require the individual to pay a fee.

CDC Testing Recommendations for Chronic Hepatitis C Virus Infection

http://www.cdc.gov/hepatitis/hcv/guidelinesc.htm

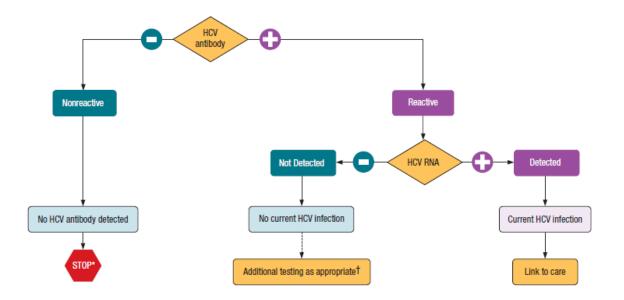
Contact Illinois Department of Public Health HIV program at 217-524-5983 for assistance in locating rapid testing sites.

TEXT 2 SURVIVE Find Health Screenings in your area



Recommended Testing Sequence for Identifying Current Hepatitis C Virus (HCV) Infection





Source: CDC. Testing for HCV infection: An update of guidance for clinicians and laboratorians. MMWR 2013;62(18).

^{*} For persons who might have been exposed to HCV within the past 6 months, testing for HCV RNA or follow-up testing for HCV antibody is recommended. For persons who are immunocompromised, testing for HCV RNA can be considered.

*To differentiate past, resolved HCV infection from biologic false positivity for HCV antibody, testing with another HCV antibody assay can be considered. Repeat HCV RNA testing if the person tested is suspected to have had HCV exposure within the past 6 months or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Interpretation of Results of Tests for Hepatitis C Virus (HCV) Infection and Further Actions



TEST OUTCOME	INTERPRETATION	FURTHER ACTIONS
HCV antibody nonreactive	No HCV antibody detected	Sample can be reported as nonreactive for HCV antibody. No further action required.
		If recent exposure in person tested is suspected, test for HCV RNA.*
HCV antibody reactive	Presumptive HCV infection	A repeatedly reactive result is consistent with current HCV infection, or past HCV infection that has resolved, or biologic false positivity for HCV antibody. Test for HCV RNA to identify current infection.
HCV antibody reactive, HCV RNA detected	Current HCV infection	Provide person tested with appropriate counseling and link person tested to care and treatment.†
HCV antibody reactive, HCV RNA not detected		No further action required in most cases. If distinction between true positivity and biologic false positivity for HCV antibody is desired, and if sample is repeatedly reactive in the initial test, test with another HCV antibody assay. In certain situations, follow up with HCV RNA testing and appropriate counseling.

^{*} If HCV RNA testing is not feasible and person tested is not immunocompromised, do follow-up testing for HCV antibody to demonstrate seroconversion. If the person tested is immunocompromised, consider testing for HCV RNA.

Source: CDC. Testing for HCV infection: An update of guidance for clinicians and laboratorians. MMWR 2013;62(18).

HBV Diagnosis

Diagnostic Tests for HBV			
HBsAg	Hepatitis B surface antigen	Detect acute or chronic infection; used in HepB vaccine	
Anti-HBs*	Antibody to HBsAg	Identify resolved infections or immunity from vaccine	
HBeAg	Hepatitis B e antigen	Identify people who are highly infectious	
Anti-Hbe	Antibody to Hbe	Identify people at lower risk for transmitting HepB	
Anti-HBc	Antibody to HBcAg	Identify people with acute, resolved or chronic HBV	
IgM anti-HBc**	IgM antibody to HBcAg	Identify acute or recent HBV infection	

Source Hep B foundation www.hepb.org

 $^{^{\}dagger}$ It is recommended before initiating antiviral therapy to retest for HCV RNA in a subsequent blood sample to confirm HCV RNA positivity.

⁵ If the person tested is suspected of having HCV exposure within the past 6 months, or has clinical evidence of HCV disease, or if there is concern regarding the handling or storage of the test specimen.

Interpretation of Hepatitis B Serology tests (Hep B Panel) #1

TESTS	RESULTS	INTERPRETATION
HBsAg	negative	
anti-HBc	negative	susceptible
anti-HBs	negative	
HBsAg	negative	Immune (probably
anti-HBc	negative	vaccinated)
anti-HBs	positive	
HBsAg	negative	Immune (from
anti-HBc	positive	infection)
anti-HBs	positive	

Interpretation of Hepatitis B Serology tests (Hep B Panel) #2

TESTS	RESULTS	INTERPRETATION
HBsAg	positive	
anti-HBc	positive	Acutely infected
IgM anti-HBc	positive	
anti-HBs	negative	
HBsAg	positive	
anti-HBc	positive	Chronically
IgM anti-HBc	negative	infected
anti-HBs	negative	

Interpretation of Hepatitis B Serology tests (Hep B Panel) #3

RESULTS	INTERPRETATION	
negative	Recovering from acute	
positive	infection?	
negative	λ	
negative	Immune but low level	
positive	anti-HBs in serum?	
negative		
negative	Susceptible with false	
positive	positive anti-HBc?	
negative		
negative	Carrier with low level	
positive	HBsAg?	
negative		
	RESULTS negative positive negative negative positive negative negative positive negative negative negative negative negative positive	

Source Hep B foundation www.hepb.org

Accessing Services: Treatment

Treatment – The links listed below provide information about treatment for people living with chronic hepatitis B or C. These facilities may or may not accept private insurance or Medicaid. Some facilities may provide free care free to individuals without coverage. It is important to consult with the facilities about how they handle reimbursement for their services.

Important Links for Locating Treatment in Illinois

Find a Specialty Doctor in Illinois

http://www.hepchope.com/hepatitis-c-treatment/find-a-doctor

http://health.usnews.com/doctors/city-index/illinois#S

Find a Drug Treatment Program

http://drugabuse.com/usa/drug-abuse/illinois/

<u>Substance Abuse Treatment Facility Locator</u> to locate alcohol and substance abuse treatment programs near you

HIV care in Illinois

http://www.hivcareconnect.com/

Find Ryan White HIV/AIDS care providers

http://findhivcare.hrsa.gov/Search_HAB.aspx?byCounty=1

VA Healthcare Sites in Illinois

http://www.va.gov/directory/guide/state.asp?dnum=ALL&STATE=IL

This website provides the most up-to-date guidance on appropriate care for practitioners who treat patients infected with hepatitis C virus (HCV). <u>HCVguidelines.org</u>, developed by Infectious Disease Society of America (IDSA) and the American Association for the Study of Liver Disease (AASLD) in collaboration with the International Antiviral Society-USA (IAS-USA), offers evidence-based, consensus recommendations for the screening, treatment and management of patients with HCV.

AASLD/IDSA Recommendations for Testing, Managing and Treating Hepatitis C

The AASLD American Association for the Study of Liver Diseases (AASLD) and the IDSA Infectious Diseases Society of America (IDSA) have partnered with the International Antiviral Society USA (IAS-USA) to launch a website offering up-to-date guidance on the treatment of HCV infection. http://hcvguidelines.org/

American College of Gastroenterology Hepatitis C Treatment Resource Kit

http://gi.org/acg-institute/hepatitis-c-treatment-resources/

NEW

Treatment Advances in Medications to Treat Hepatitis C

May 2011

The FDA approved two new medications that are part of a drug group called protease inhibitors:

- Boceprevir (brand name VICTRELIS)
- Telaprevir (brand name INCIVEK)

These drugs directly attack the Hepatitis C virus to stop it from reproducing and are referred to as direct-acting antivirals (DAAs). The protease inhibitors were approved to be used in people with HCV genotype 1 in combination with Peg-IFN/RBV therapy. They could not be used alone; using Peg-IFN/RBV plus one of the protease inhibitors was called <u>triple therapy</u>. These medications were no longer used after interferon-free regimens became widely available in 2014.

November 2013

The FDA approved the first once-daily protease inhibitor:

• Simeprevir (brand name OLYSIO)

It received its initial FDA approval in combination with Peg-IFN/RBV therapy, but few people received this regimen. Broad use of simeprevir occurred when it was used in combination with a newer drug, sofosbuvir (SOVALDI). This all-oral regimen was initially prescribed off-label (meaning that it wasn't part of the FDA-approved labeling) for genotype 1 patients and was offered with and without ribavirin. FDA approval for the simeprevir and sofosbuvir combination was ultimately received in **November 2014**.

December 2013

The FDA approved a new medication that is a part of a drug group called polymerase inhibitors. It works by blocking a specific protein the Hepatitis C virus needs to grow. It is called:

• Sofosbuvir (brand name SOVALDI)

Sofosbuvir, a once-daily pill, was approved to treat HCV genotypes 1, 2, 3 and 4. This was the first drug that allowed genotype 2 and 3 patients to be treated with pills only, offering an interferon-free regimen with ribavirin. The first line therapy for genotype 1 and 4 patients became a 12-week combination regimen with peginterferon and ribavirin. Patients ineligible for interferon could be offered a 24-week regimen of sofosbuvir and ribavirin.

Sofosbuvir was the first HCV drug with the initial FDA approval inclusive of people who had HIV-HCV co-infection.

October 2014

The FDA approved the first combination pill to treat Hepatitis C, offering people with HCV genotype 1 an all-oral treatment regimen:

• Ledipasvir/sofosbuvir (brand name HARVONI)

This once-daily pill combined sofosbuvir (Sovaldi) and a new drug called ledipasvir. These medications are part of the class of drugs called direct-acting antivirals (DAAs), which interfere with the enzymes the hepatitis C virus needs to multiply.

Harvoni was approved to treat adults with HCV genotype 1, the most common form of HCV in the U.S. This was the first drug that allowed people with genotype 1 to be treated with only one pill, eliminating the need for weekly injections of interferon or a second antiviral, ribavirin, both of which are challenging to take and tolerate.

In clinical trials, Harvoni cured HCV after 12 weeks of treatment in about 94% of people who took it.

November 2014

The FDA granted **simeprevir** (**OLYSIO**) an additional approval to be used in combination with **sofosbuvir** (**SOVALDI**) as a once-daily, all-oral, interferon and ribavirin-free treatment for adults with genotype 1 HCV infection. (Previous to this, simeprevir had to be used in combination with Peg-IFN/RBV therapy, as outlined above.) This approval gave people with genotype 1 another all-oral treatment option.

December 2014

The FDA approved a new combination medicine, which can be given with or without ribavirin, to treat adults with genotype 1 HCV infection, including people who have a certain kind of cirrhosis (compensated):

• Ombitasvir/paritaprevir/ritonavir tablets; dasabuvir tablets (brand name VIEKIRA PAK)

Viekira Pak, an all-oral interferon-free regimen, is also approved for HCV/HIV co-infection and people who have had a liver transplant. It is not for people with advanced cirrhosis (decompensated). If you have cirrhosis, you should talk with your healthcare provider before taking Viekira Pak.

In clinical trials, Viekira Pak cured 97% of people with HCV genotype 1a and 1b, including people both new and experienced to treatment, and people with compensated cirrhosis.

New Developments in Hepatitis C Treatments

http://www.hcvadvocate.org/hepatitis/hepC/HCVDrugs.html

Accessing Services: Support Services

Support services – The organizations listed below provide support services for people living with viral hepatitis. Services may include support groups, individual counseling, case management services, and other types of social or emotional support.

Free Hepatitis C Helpline 800-GO-LIVER (800-465-4837) Monday through Friday 9a.m.-7p.m. EST. It is manned by trained professionals in liver diseases.

American Liver Foundation

http://www.liverfoundation.org/chapters/illinois/

Support Groups

http://www.liverfoundation.org/chapters/illinois/resources/

Caring Ambassadors

The Caring Ambassadors Program mission is to help improve the lives of those affected by long-term diseases through advocacy, information, and support. http://caringambassadors.org/

HCV Advocate – The Hepatitis C Support Project

http://hcvadvocate.org/hcsp/hcsp.asp

The Hepatitis C Support Project (HCSP) is a registered non-profit organization founded in 1997 by Alan Franciscus and other HCV positive individuals to address the lack of education, support, and services available at that time for the HCV population. HCSP's mission is to provide unbiased information, support, and advocacy to all communities affected by HCV and HIV/HCV coinfection, including medical providers.

Accessing Services: Perinatal Hepatitis B

NEW

CDC Perinatal hepatitis B information

http://www.cdc.gov/hepatitis/hbv/perinatalxmtn.htm

NEW

ACIP and CDC Guidelines for preventing perinatal hepatitis B

http://liver.stanford.edu/resources/articles/Perinatal%20Hepatitis%20B%20Prevention.pdf

Educational Links/Fact sheets for Patients

http://hepbmoms.org/projects.html

http://www.immunize.org/catg.d/p4306.pdf

http://www.cdc.gov/vaccines/vpd-vac/hepb/downloads/PL-dis-hepB-color-office.pdf

http://www.cdc.gov/vaccines/vpd-vac/hepb/downloads/dis-hepB-bw-office.pdf

http://www.cdc.gov/hepatitis/HBV/PDFs/HepBPerinatal-ProtectHepBYourBaby.pdf

http://www.cdc.gov/hepatitis/HBV/PDFs/HepBPerinatal-ProtectWhenPregnant.pdf

http://www.immunize.org/catg.d/p4110.pdf

http://www.immunize.org/catg.d/p4055.pdf

Educational Links/Fact sheets for Providers

http://www.immunize.org/protect-newborns/

http://www.ilga.gov/commission/jcar/admincode/077/077006900C04510R.html

http://www.in.gov/isdh/files/Give_the_Birth_Dose.pdf

http://www.hepbmoms.org/brochure/PhysiciansGuide2012.pdf

http://www.immunize.org/catg.d/p2081.pdf

http://www.immunize.org/catg.d/p2126.pdf

http://www.immunize.org/catg.d/p2128.pdf

http://www.immunize.org/catg.d/p2062.pdf

Accessing Services: Co - Infections

Coinfection

People with HIV infection are often affected by viral hepatitis; about one-third are co-infected with either HBV or HCV, which can cause long-term illness and death. More people living with HIV have HCV than HBV. Viral hepatitis progresses faster and causes more liver-related health problems among people with HIV than among those who do not have HIV. Although drug therapy has extended the life expectancy of people with HIV, liver disease—much of which is related to HCV and HBV—has become the leading cause of non-AIDS-related deaths in this population.

People with HIV who are co-infected with either HBV or HCV are at increased risk for serious, life-threatening complications. As a result, anyone living with HIV should be tested for HBV and HCV. Coinfection with hepatitis may also complicate the management of HIV infection. To prevent coinfection for those who are not already infected with HBV, the Advisory Committee on Immunization Practices recommends HAV and/or HBV vaccination of high-risk patients (including those who are gay, bisexual, and other men who have sex with men [MSM] ; injection drug users;) with HIV infection or AIDS. Read more about the recommendation at http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5516a1.htm?s_cid=rr5516a1_e.

The Numbers

- Of people with HIV in the United States, about 25% are co-infected with HCV, and about 10% are co-infected with HBV.
- About 80% of people with HIV who inject drugs also have HCV.
- HIV coinfection more than triples the risk for liver disease, liver failure, and liver-related death from HCV.
- About 20% of all new HBV infections and 10% of all new HAV infections in the United States are among MSM. In the United States, HCV is twice as prevalent among blacks as among whites.

CDC HIV/AIDS and Viral Hepatitis

http://www.cdc.gov/hepatitis/Populations/hiv.htm

http://www.cdc.gov/hiv/pdf/library factsheets HIV and viral Hepatitis.pdf

Training course for Hepatitis C/ HIV co-infection

 $\underline{http://www.treatmentactiongroup.org/hcv/publications/training-manual-treatment-advocates-slides}$

AIDS.GOV Hepatitis resources

http://aids.gov/news-and-events/hepatitis/

HIV and Hepatitis

This website provides information on HIV and viral hepatitis sponsored by pharmaceutical companies. The focus is on clinical issues related to HIV, viral hepatitis and co-infection. http://www.hivandhepatitis.org/

National AIDS Treatment and Advocacy Project

This website provides extensive information about HIV, HCV and HIV/HCV co-infection. http://natap.org/

Living with Hepatitis C

An important purpose of this guide is to provide information about services available to people living with hepatitis C. If you have recently tested positive for hepatitis C, know that you are not alone. In Illinois there are more than 7,000 people living with hepatitis C.

Know your HCV Status

The only way to know for sure if you have hepatitis C is to get tested. Some of the screening sites listed in this guide may offer antibody testing for hepatitis C. In about 20% of the cases of hepatitis C, a person's body is able to fight off the infection and clear the virus. This means, the person may test positive for antibodies, but may not have lifelong infection. In order to know if you have lifelong infection (also called chronic infection), it is important to have a confirmatory test, such as an HCV viral load test.

Get Medical Care

Hepatitis C is known as a "silent epidemic" because people can live with the infection for many years without any noticeable symptoms. People with chronic hepatitis C should be monitored regularly for signs of liver disease. Even though a person may not feel sick, damage to the liver can still occur. People with hepatitis C should get medical care that includes:

- an initial physical exam and medical history
- liver function tests
- viral load and genotype testing
- vaccination for hepatitis A and B
- routine health maintenance and evaluation for other problems such as diabetes, high blood pressure and other diseases.

To evaluate the health of your liver, your medical provider may want to conduct an ultrasound or biopsy of your liver.

Talk with your Provider about Treatment

Antiviral medication can be used to treat some people with hepatitis C, but not everyone needs or can benefit from treatment. The decision to undergo treatment is an individual one you would make in consultation with your medical provider.

Reduce Alcohol Consumption

One of the most important steps that people living with hepatitis can take to protect their health is to reduce or eliminate alcohol consumption. Even small amounts of alcohol - two to three drinks per day - may speed up liver damage in people with hepatitis C. People living with hepatitis C should talk with their doctor before taking prescription or over the counter medications, herbal supplements, or vitamins. It is important to avoid large amounts (2000 mg) of acetaminophen (Tylenol and other non-aspirin pain relievers), because they are toxic to the liver.

Learn About How to Maximize Your Health

Other important steps to help improve health and quality of life for people living with HCV include: eating a healthy, balanced diet, drinking plenty of water, getting eight hours of sleep each night, exercising, and taking steps to reduce stress.

Resources: Living with Hepatitis

If you are living with chronic hepatitis C, there are a number of helpful websites and brochures to help you navigate through the process of learning your status to accessing care and treatment.

HCV Advocate

The HCV Advocate is a national organization with expertise regarding HCV and HBV. Its website provides information on hepatitis C treatment options, articles, newsletters, and resources for people living with HCV and HBV.

http://www.hcvadvocate.org/ http://www.hbvadvocate.org/

Specific materials of interest from HCV Advocate

First Steps for Living with HCV

Brochure offers suggestions for managing the early phases of living with an HCV diagnosis. http://hcvadvocate.org/hepatitis/First_Steps.asp

Guide to Healthy Living with HCV

Brochure provides a guide for living with HCV.

http://hcvadvocate.org/hepatitis/factsheets_pdf/Healthy%20Living%20Guide_09.pdf

Hepatitis C Caring Ambassadors......503-632-9032

The Hepatitis C Caring Ambassadors Program mission is to improve the lives of people living with hepatitis C through information and awareness. http://caringambassadors.org/

Hepatitis C Choices: http://www.hepcchallenge.org/

Hepatitis C Choices is a book available online to help people living with HCV becomes the best possible advocate for their health care. It provides useful information to help make treatment and lifestyle choices.

http://www.hepcchallenge.org/choices/disclaimer.htm

Hepatitis C Primer

Find answers to hepatitis **C**, **B** and **D** and liver support questions. This website was developed by a patient to help you learn the facts.

http://www.hepcprimer.com/

Centers for Disease Control and Prevention (CDC).......404-718-8596

www.cdc.gov/hepatitis

800-CDC-INFO (232-4636)

www.cdc.gov

http://www.chronicliverdisease.org/

http://www.cdc.gov/knowmorehepatitis/LearnMore.htm

Hepatitis B Foundation	215-489-4900
Hepatitis Foundation International www.hepfi.org	301-622-4200 800-891-0707
Hepatitis HelpLine – Hep C Connection	800-522-HEPC (4372)

National Hepatitis C Institute http://www.nationalhepatitiscinstitute.org/

Patient Assistance Programs

Patient assistance programs are coordinated by pharmaceutical companies to provide free medications to people who cannot afford to buy their medicine. Pharmaceutical companies have a long-standing tradition of providing prescription medicines free of charge to physicians whose patients might not otherwise have access to necessary medicines. Pharmaceutical companies operate these programs, commonly referred to as patient assistance programs, voluntarily. Many drug manufacturers offer patient assistance programs, which can greatly decrease or entirely eliminate the costs of many medications.

RxAssist Directory of Patient Assistance Programs:

RxAssist offers a comprehensive database of these patient assistance programs, as well as practical tools, news, and articles so that health care professionals and patients can find the information they need. All in one place: www.rxassist.org

To receive a copy of Directory of Prescription Drug Patient Assistance Programs call 1-800-762-4636

Partnership for Prescription Assistance

The Partnership for Prescription Assistance brings together America's pharmaceutical companies, doctors, other health care providers, patient advocacy organizations and community groups to help qualifying patients who lack prescription coverage get the medicines they need through the public or private program that's right for them. Among the organizations collaborating on this program is the American Academy of Family Physicians, the American Autoimmune Related Diseases Association, the Lupus Foundation of America, the NAACP, and the National Alliance for Hispanic Health and the National Medical Association. To access the Partnership for Prescription Assistance by phone, call toll-free,

888-4PPA-NOW / 888-477-2669 or go to www.pparx.org

Note that the requirements for program eligibility vary. Some programs may be applied for directly by the patient, whereas other program applications must be initiated by the health care provider (physician, pharmacist or agency). Below are telephone numbers and internet sites you can contact to ask questions.

PRODUCT NAME	PHARMACEUTICAL COMPANY AND CONTACT INFORMATION	ТҮРЕ	
Epivir HBV (lamuvidine)	GlaxoSmithKline Pharmaceuticals www.hepatitisbhelp.com www.gskforyou.com 866-PATIENT / 866-728-4368	Hepatitis B	
Hepsera (adefovir dipivoxil)	Gilead Pharmaceuticals www.hepsera.com/reimbursement.aspx 800-226-2056	Hepatitis B	
Baraclude (entecavir)	Bristol-Myers Squibb www.bmspaf.org 800-736-0003	Hepatitis B	

PRODUCT NAME	PHARMACEUTICAL COMPANY AND	TYPE
	CONTACT INFORMATION	
Tyzeka	Idenix Pharmaceuticals, Inc. and Novartis	Hepatitis B
(telbivudine)	Pharmaceuticals Corporation	
	www.idenix.com	
	877-8-TYZEKA / 877-889-9352	
Pegasys (Peg	Roche Pharmaceuticals	Hepatitis B and C
Interferon alfa-2a)	http://www.rocheusa.com/programs/patientassist.asp	
injection		
Pegasys/Copegus	877-75ROCHE / 877-757-6243	
Combination		
(Peginterferon		
alfa-2a+Ribavirin)		
Intron-A	Schering Pharmaceuticals	Hepatitis C
(Interferon alfa-2b	www.hep-help.com/peg/application	
recombinant)	www.beincharge.com	
injection		
Rebetron	Commitment to Care 800-521-7157	
(Ribavirin, capsules)		
Peg-Intron (Peg		
Interferon alfa-2b)		
powder for injection		
DU DIEW	TI DI DI	11 C
RibaPak TM	Three Rivers Pharmaceuticals	Hepatitis C
(ribavirin) tablets	www.3riverspharma.com/pat_riba.html	
	RibaCare® 866-650-RIBA	
	Monche 000-050-MDA	
Infergen	Valeant Pharmaceuticals	Hepatitis C
(Interferon	Infergent Aspire Nursing and Reimbursement	
alfacon-1)	Support program	
,	www.infergen.com/5-Aspire/6-Reimbursement.html	
	888-MOVE-FWD / 888-668-3393	

PATIENT ASSISTANCE PROGRAMS

The medications to treat hepatitis C are very expensive. There are many assistance programs that can help you with the cost of the medicines including the insurance co-payments. Talk to and work closely with your medical provider to access these programs.

Umbrella Organizations

Chronic Disease Fund	1-877-968-7233	www.cdfund.org/Default.aspx
Needymeds.org	1-800-503-6897	www.needymeds.org
Partnership for Prescription	1-888-477-2669	www.pparx.org
Assistance		

Patient Access Network Foundation Patient Advocate Foundation Co- Pay Relief	1-866-316-PANF (7263) 1-866-512-3861	www.panfoundation.org/ www.copays.org/diseases/hepatitis -c
Vaccines Merck-VAQTA – hepatitis A vaccine; RECOMBIVAX HB – hepatitis B vaccine GSK - HAVRIX – hepatitis A	1-800-293-3881 1-877-822-2911	www.merck.com/merckhelps/vaccines/ home.html www.gsk-vap.com/
vaccine; ENGERIX-B – hepatitis B vaccine; TWINRIX – combination hepatitis A and hepatitis B vaccine		
Pharmaceutical Companies		
Pharmaceutical Companies AbbVie	1-844-2proCeed	https://www.viekira.com/proceed- program
-	1-844-2proCeed 1-866- 422-2377	program
AbbVie	•	-
AbbVie Genentech	1-866- 422-2377	program www.genentech-access.com/hcp
AbbVie Genentech Gilead Johnson & Johnson Patient Assistance Foundation	1-866- 422-2377 1-855-769-7284	program www.genentech-access.com/hcp www.mysupportpath.com/
AbbVie Genentech Gilead Johnson & Johnson Patient	1-866- 422-2377 1-855-769-7284 1-800-652-6227	program www.genentech-access.com/hcp www.mysupportpath.com/ www.jjpaf.org

Understanding Medicaid Pharmacy Benefits

Understanding Medicaid Pharmacy Benefits

Medicaid - Medicare

In all states, Medicaid provides health coverage for some low-income people, families and children, pregnant women, the elderly and people with disabilities. In some states, the program covers adults/families below a certain income level. Medicaid programs must follow federal guidelines, but benefits, coverage, and patient costs vary from state-to-state. Some Medicaid programs pay for health care directly. Others pay for or provide care through private insurance companies or managed care plans.

Medicare is a federal health insurance program for people 65 years of age or older and certain younger people with disabilities. Hence, retired "baby boomers" (over the age of 65) that need HCV treatment may be covered by Medicare. Some low income persons on Medicare may be eligible for Medicaid benefits from their state. These people are generally referred to as Medicare/Medicaid Dual Eligibles and it can be difficult for individuals to navigate the overlap of these two programs.

Medicaid Expansion

The Affordable Care Act (ACA) provides states with additional federal funding to expand their Medicaid programs to cover adults under 65 who earn up to 133% of the federal poverty level. To find out if your state is expanding access to Medicaid, visit: https://www.healthcare.gov/what-if-my-state-is-not-expanding-medicaid/.

Prescription Drug Benefits Under Medicaid

Although pharmacy coverage is an optional benefit under federal Medicaid law, all states currently provide coverage for outpatient prescription drugs to categorically eligible individuals and most other enrollees within their Medicaid programs. The Medicaid prescription drug programs include the management, development and administration of systems and data collection necessary to operate the Medicaid Drug Rebate program, the Federal Upper Limit calculation for generic drugs and the Drug Utilization Review program. For more information about these topics click on the highlighted terms above or, visit: Medicaid-CHIP-Program-Information/Prescription-Drugs.

Preferred Drug List or Medicaid Formulary

Medicaid programs generally have a centralized list of medications covered for reimbursement. This may be called the Medicaid Formulary or Preferred Drug List. Generally speaking, the Preferred Drug List is made accessible to health care providers and the general public via the Medicaid Program's website or newsletter. Here is a link to the websites of state Medicaid programs: Medicaid-CHIP-Program-State/By-State. If you don't find a good link to your State Medicaid Program's Preferred Drug List on this site, Google (state) Medicaid Preferred Drug list.

Medicaid Covered Outpatient Prescription Drug Reimbursement Policies

For information about state-by-state cost sharing for medication expenses, visit: Medicaid-CHIP-Program-Information/Prescription-Drugs/Reimbursement-chart-.pdf .

National Organization and Resources

U.S. Centers for Disease Control and Prevention (CDC)

CDC Viral Hepatitis home page provides links to hepatitis fact sheets, resource center, on-line training, reports, and recommendations.

http://www.cdc.gov/ncidod/diseases/hepatitis/index.htm

CDC Hepatitis Coordinator Website Portal

This website serves as a home page for Viral Hepatitis Prevention Coordinator's (VHPC) with a list of AVHPCs, link to each state's hepatitis webpage, glossary, bibliography, and a host of other resources.

http://www.cdc.gov/ncidod/diseases/hepatitis/resource/coordinators_portal.htm

CDC Morbidity and Mortality Weekly Report

This weekly report provides updated information on specific diseases as reported by state and territorial health departments. It is a source for updated CDC recommendations, reports, and other items of interest to the public health community.

http://www.cdc.gov/mmwr/?s_cid=mmwr_online

Immunization Action Coalition

Information about immunizations; vaccine information sheets, brochures, vaccine recommendations and other related resources. You can access several publications such as IAC Express, Hep Express and Needle Tips. Hepprograms.org is a catalogue of different hepatitis-based programs around the country.

http://immunize.org/ and http://www.hepprograms.org/hepexpress/

American Liver Foundation

This website provides information on liver diseases, as well as advocacy for education, treatment, and research funding.

http://www.liverfoundation.org/

Free Hepatitis C Helpline 800-GO-LIVER (800-465-4837) Monday through Friday 9a.m.-7p.m. EST, manned by trained professionals in liver diseases.

HepC Guide Forward Motion

Learn more about hepatitis C and how it affects your body at www.hepcinfo.com

Hepatitis Central

This website is dedicated to providing information for hepatitis C patients and their families, caregivers and health professionals.

www.hepatitis-central.com

The Liver Transplant Support Forum - National Institutes of Health

www.nih.gov

Department of Veterans Affairs (VA)

The VA is the largest single provider of medical care to people with hepatitis C in the United States and provides the highest quality, comprehensive care to veterans.

www.hepatitis.va.gov

Living with Hepatitis C

HCV Advocate

This website provides information on hepatitis C treatment options, articles, newsletters, and resources for people living with HCV.

http://www.hcvadvocate.org/

Hepatitis C Caring Ambassadors

The Hepatitis C Caring Ambassadors Program mission is to improve the lives of people living with hepatitis C through information and awareness.

 $\underline{http://caringambassadors.org/}$

http://www.hepcchallenge.org/

Hep C Primer

Provides answers to hepatitis C and liver support questions.

http://www.hepcprimer.com/

Hep C Vets

This website is provided by past and presents members of the United States military with hepatitis C (HCV) to assist fellow retirees/veterans / active military and dependents with awareness to the hepatitis C virus exposure methods during military service.

www.hcvets.com

Hep-C Alert

Hep-C Alert raises awareness, provides health education, counseling, testing, and linkage services to more than 30,000 people throughout the U.S.

www.hep-c-alert.org

Hep C Connection

Hep C Connection is a hepatitis C-focused organization that provides community education, patient support, and disease prevention strategies.

www.hepc-connection.org

HIV and Hepatitis C

Mountain Plains AIDS Education and Training Center

The AIDS Education and Training Center has materials and resources on HIV and hepatitis co-infection.

http://www.mpaetc.org/

HIV and **Hepatitis**

This website sponsored by pharmaceutical companies, provides information on HIV and viral hepatitis. The focus is on clinical issues related to HIV, viral hepatitis, and co-infection. http://www.hivandhepatitis.org/

National AIDS Treatment and Advocacy Project

This website provides information about HIV, HCV and HIV/HCV co-infection. http://natap.org/

Hepatitis B

Asian Liver Center

The Asian Liver Center at Stanford University addresses the high rate of hepatitis B and liver cancer in Asians and Asian Americans.

www.liver.stanford.edu

Hepatitis B Foundation

The organization dedicated to finding a cure and to improving the quality of life for those affected by hepatitis B. www.hepb.org

Global Hepatitis

World Health Organization (WHO)

This website provides fact sheets, information about travel and epidemiological data about viral hepatitis around the world.

http://www.who.int/topics/hepatitis/en/

Hepatitis Foundation International

This website educates the public and health care providers about viral hepatitis and its prevention, diagnosis and treatment. Educational videos and other resources are available. http://www.hepfi.org/

Clinical Information

Hepatitis Web Study

This website provides interactive, case-based modules related to the clinical care of persons with viral hepatitis.

http://depts.washington.edu/hepstudy/

American Gastroenterological Association

This is the website for the professional association of gastroenterologists and its purpose is to advance the science and practice of gastroenterology.

http://www.gastro.org/wmspage.cfm?parm1=2

American Association for the Study of Liver Diseases

This organization is for physicians and others striving to prevent and to cure diseases of the liver. https://www.aasld.org/eweb/StartPage.aspx

Center Watch: Clinical Trials Listing Service

This website offers a state-by-state listing of clinical trials for viral hepatitis. http://www.centerwatch.com/patient/studies/cat79.html

Hepatitis and Harm Reduction

Harm Reduction Coalition

The Harm Reduction Coalition is committed to reducing drug-related harm among individuals and communities by initiating and promoting harm reduction education, interventions, and community organizing.

http://www.harmreduction.org/

Harm Reduction Journal

Harm Reduction Journal focuses on prevalent patterns of psychoactive drug use, the public policies meant to control them and the search for effective methods of reducing the adverse medical, public health, and social consequences associated with both drugs and drug policies. http://www.harmreductionjournal.com/home.

Find a Drug Treatment Program

http://drugabuse.com/usa/drug-abuse/illinois/

National Alliance of State and Territorial AIDS Directors (NASTAD)

Resource for information about hepatitis integration, legislative updates that impact viral hepatitis, advocacy issues, and other topics. http://nastad.org/Programs/viralhepatitis/

National Viral Hepatitis Roundtable

The National Viral Hepatitis Roundtable is a coalition of public, private and voluntary organizations dedicated to reducing the incidence of infection, morbidity and mortality from viral hepatitis in the U.S. through strategic planning, leadership, advocacy and research. http://www.nvhr.org/.

Glossary of Important Terms

Abdomen – The portion of the body located between the chest and the pelvis. Contains the stomach, lower part of the esophagus, small and large intestines, liver, gallbladder, spleen, pancreas and bladder.

Acetaminophen – A type of medication used to relieve pain and fever such as Tylenol.

Acute illness – Acute refers to the short-term, initial stage of infection.

Adipose tissues – Fatty tissues.

Albumin – A protein produced by the liver that circulates in the blood.

Alpha-fetoprotein (**AFP**) – A protein produced by cancerous liver cells.

Anemia – Condition in which there is a reduction in the number of circulating red blood cells, usually resulting in a decrease in the amount of oxygen in the blood.

Antibody – A molecule produced by the immune system in response to a foreign body such as a virus or bacteria. Antibodies circulate in the blood to protect against infection.

Antigen – A foreign substance the body's immune system identifies as potentially harmful.

Ascites – Fluid accumulation in the abdomen.

Asymptomatic – Without symptoms or signs of illness.

Autoimmune – A condition in which the body produces antibodies against normal parts of the body to such an extent as to cause tissue injury.

Benign – Not recurrent or progressive.

Bile – A fluid that is stored in the gallbladder for release when needed. Bile is necessary for the digestion of fats – it dissolves fat into small globules (similar to the way that detergent lifts oil off greasy plates). Bile also assists in the absorption of fat-soluble vitamins (i.e., vitamins A, D, E and K) and converts beta-carotene to vitamin A.

Bilirubin – A product of red blood cells.

Biopsy – The removal of a small piece of living tissue for examination under a microscope. Usually performed to establish a diagnosis.

Chemotherapy – Chemical agents that have a specific and toxic effect upon the disease-causing microorganism.

Cholesterol – A soft, waxy substance found in all parts of the body. It is made in the liver and is also found in animal and diary products.

Chronic illness – An illness that lasts longer than six months.

Cirrhosis – Extensive scarring of the liver.

Decompensated cirrhosis – A condition in which the liver becomes so scarred that blood can no longer flow through it.

Encephalopathy – Disease of the brain. Symptoms include confusion, disorientation and insomnia and can progress to coma.

Endemic – A disease that occurs continuously in a particular population.

Epidemiology – Investigation of the causes of and ways to control, diseases.

Glossary of Important Terms

Esophagus – The tube that carries food from the mouth to the stomach.

Fibrous – Composed of or containing fibers.

Fulminant – Sudden onset, most severe.

Gastroenterologist – A doctor that specializes in the function and disorders of the esophagus, stomach, pancreas, intestines and liver.

Glucose – A sugar formed during digestion.

Glycogen – A substance found in the liver and muscles that is easily converted to glucose for energy.

Hemodialysis – The process of filtering the accumulated waste products from the blood of a person, whose kidneys are not functioning properly, using a kidney machine.

Hepatitis – Inflammation of the liver. It may be caused by a variety of agents, including viral infections, bacterial invasion and physical or chemical agents. Symptoms include fever, jaundice and, usually, an enlarged liver.

Hepatitis A – Formerly called infectious hepatitis, hepatitis A is caused by the hepatitis A virus (HAV). It is an acute infection and does not progress to chronic hepatitis or cirrhosis. Most patients recover completely within six to ten weeks. Hepatitis A is spread mainly via feces and contaminated food and water. A vaccine against the hepatitis A virus is available.

Hepatitis B – Formerly called serum hepatitis, it is caused by the hepatitis B virus (HBV). About 10% of cases progress to chronic infection. It is transmitted through sexual contact with an infected individual, injection drug use and other exposure to infected body fluids. A vaccine against the hepatitis B virus is available.

Hepatitis C – A form of hepatitis that was previously known as non-A, non-B hepatitis and is caused by the hepatitis C virus (HCV). The U.S. Centers for Disease Controland Prevention estimates 26,000 new cases each year, a marked decline in new infections since the virus was identified in 1988. There is no vaccine against hepatitis C virus.

Hepatitis D – Also called delta hepatitis, hepatitis D is caused by the hepatitis D virus (HDV). A person cannot be infected with HDV without current or simultaneous infection with hepatitis B virus. Hepatitis D infection is rare in the U.S. and occurs primarily in recipients of multiple blood transfusions, including patients with hemophilia or undergoing renal dialysis and among those who share contaminated needles.

Hepatitis E – Also referred to as enterically transmitted non-A, non-B hepatitis, hepatitis E is caused by a waterborne virus (HEV). It is rare in the U.S. and occurs primarily in developing countries. Hepatitis E infection results in an acute infection much like hepatitis A. It does not cause chronic infection. It is spread by fecal contamination in water.

Hepatocellular carcinoma (HCC) – Liver cancer.

Hepatocytes – Liver cells.

Hepatologist – A doctor who specializes in the study and treatment of liver disease.

Immunoglobulin – One of a family of closely related, though not identical, proteins capable of acting as antibodies.

Immunology – The branch of medicine that focuses on the immune system, immunity and allergy.

Glossary of Important Terms

Jaundice – Yellowing of the skin and whites of the eyes.

Laparoscopic biopsy – A medical procedure performed when a tube (laparoscope) is inserted through an incision in the abdomen and a piece of tissue is removed.

Lipid – Component of fat.

Lipoproteins – A complex of lipids and proteins that carries lipids around the body.

Liver – The largest glandular organ in the body. It has many functions that include, but are not limited to, the production of protein and cholesterol, the production of bile, the storage of sugar in the form of glycogen and the breakdown of carbohydrates, fats and proteins. The liver also breaks down and excretes many medications.

Malaise – Discomfort, uneasiness often indicates infection.

Nucleoside analogues – A class of HIV medications.

Pancreas – A long, irregularly shaped gland lying behind the stomach that secretes digestive enzymes and produces insulin.

Pathologist – A specialist in diagnosing the abnormal changes in tissues removed at operations and postmortem examinations.

Perinatal – Concerning the period beginning after the 28th week of pregnancy through 28 days following birth.

Perinatal Transmission – Transmission of an infectious disease from mother to infant. It can happen in the uterus, or during or after birth.

Peripheral edema – Fluid build up in the feet and ankles.

Phospholipid – A phosphorus-containing lipid found in cell membranes.

Polymerase inhibitors – A compound that stops an essential enzyme needed for viral replication.

Portal hypertension – High pressure in the liver, intestines and spleen.

Prophylaxis – A type of treatment to prevent disease or stop it from spreading.

Protease inhibitor – A compound that breaks down proteins, inhibiting the replication of viruses, such as HIV.

Prothrombin time (PT) – A measure of blood clotting.

Serologic testing – Blood test.

Transvenous biopsy – A procedure during which a tube is inserted into a vein in the neck, then a needle is put into the catheter to remove tissue samples.

Ultrasound – A test that uses a wand, placed on a body part, such as the abdomen and moved back and forth to examine the shape, size and appearance of the liver.

Variceal bleeding – Bleeding from blood vessels in the esophagus. This may occur in patients with cirrhosis.