



KY Hepatitis Connections

We are pleased to share with you the August issue of *KY Hepatitis Connections*. Each issue of *KY Hepatitis Connections* provides current information, opportunities for viral Hepatitis continuing professional education, and information about educational materials available.

Please feel free to forward and/or copy and distribute to other professionals in your network. Your knowledge and input are greatly valued, as we are committed to keeping you up to date on shared progress in the medical community on viral Hepatitis and its impact on our families throughout the Commonwealth. Join us on Facebook at KY Viral Hepatitis.

Kathy Sanders, RN MSN

Hepatitis C Virus Survival: Syringe Specifics

Hepatitis C is known to be transmitted via blood to blood contact; however, there is still some grey area regarding how long the virus can persist out of the body. Putting a time limit on Hepatitis C's viability on inanimate surfaces helps quantify how long a contaminated object can transmit this infection. In an attempt to gain clarity on the survivability of Hepatitis C long after the contaminated blood is no longer fresh, a study delves into the virus's longevity in its most likely vehicle.

Before 1992, when widespread screening of the blood supply began in the United States, Hepatitis C was commonly spread through blood transfusions and organ transplants. Today, most new Hepatitis C infections are a result of the sharing of needles or other drug-injecting equipment. To learn more about Hepatitis C's ability to survive in the environment most implicated in its spread, Yale researchers investigated whether or not the virus remains viable for long periods in contaminated syringes. What they found cements our regard for Hepatitis C as being a hardy virus – and it provides an explanation for a good percentage of Hepatitis C transmissions. Continue Reading: http://www.hepatitis-central.com/mt/archives/2013/06/hepatitis-c-virus-survival-syringe-specifics.html?eml=hepcen188&utm_source=iContact&utm_medium=email&utm_campaign=Hepatitis%20Cenral&utm_content=HepCen+%23188+A

Hep C Drug Resistance Thwarted by RNA Aptamers

Researchers develop RNA aptamers that inhibit HCV replication

Treatments against hepatitis C virus have only been partially successful. A major problem is that antivirals generate drug resistance. Now Seong-Wook Lee of Dankook University, Yongin, Republic of Korea and his collaborators have developed agents that bind to the business end of a critical protein, disabling it so successfully that no resistance has arisen. The research is published in the June 2013 issue of the Journal of Virology.

The target protein for the new agents is the NS5B replicase protein, which is the central catalytic enzyme in HCV replication. The researchers developed "RNA aptamers" which bind tightly to the part of that protein that performs the catalysis, disabling the replicase. Aptamers are short nucleic acids or peptides that provide the same level of recognition and binding ability that is common to antibodies.

Continue reading: <http://www.news-medical.net/news/20130603/Researchers-develop-RNA-aptamers-that-inhibit-HCV-replication.aspx>

Hepatitis C Infection Among Young Injection Drug Users: Addressing an Emerging Trend –

In recent years, there has been an emerging epidemic of hepatitis C virus (HCV) infection among young injection drug users (IDU) in rural and suburban settings. Early this spring, the U.S. Department of Health and Human Services convened a multidisciplinary technical consultation to discuss the existing evidence and to identify and define priorities for the development of a public health response. Already working together to implement the Action Plan for the Prevention, Care, and Treatment of Viral Hepatitis—which includes among its priorities “reducing viral hepatitis caused by drug use behaviors”—the Office of HIV/AIDS and Infectious Disease Policy, the National Institutes of Health, the Centers for Disease Control and Prevention, the Substance Abuse and Mental Health Services Administration organized the consultation which brought together representatives of federal agencies, state health department officials, researchers, care providers, staff of community-based organizations, and other experts in the field. Over two days the participants explored factors fueling this epidemic and recommended priorities around epidemiology and surveillance initiatives, prevention and linkages to care interventions, and research questions designed to curb the rising rate of HCV among young persons who inject drugs (PWID) in the United States. Continue reading:

<http://blog.aids.gov/2013/06/hepatitis-c-infection-among-young-injection-drug-users-addressing-an-emerging-trend.html#sthash.VoAjoML0.dpuf>

In \$15B hepatitis race, drugs speed from revolutionary to outdated

The doctor in the town of Creteil, just outside Paris, is telling hepatitis C patients to delay treatment until later this year, when two new drugs that may boost their chances of defeating the lethal liver infection hit the market.

It’s the same advice he offered two years ago, when earlier medicines developed by Vertex Pharmaceuticals and Merck & Co. were poised for approval. Now he says those drugs, hailed as breakthroughs in 2011, will soon be superseded by products from Gilead Sciences and Johnson & Johnson.

The pace of innovation, spurred by drug makers jostling for a slice of a market that may reach \$15 billion by 2018, has turned hepatitis C research into one of the fastest-developing areas of medicine. That boosted Gilead’s shares to a record last month, and left others like Vertex facing dwindling sales as their products quickly go from revolutionary to outdated. Continue reading:

<http://blog.aids.gov/2013/06/hepatitis-c-infection-among-young-injection-drug-users-addressing-an-emerging-trend.html#sthash.VoAjoML0.dpuf>

NIDA Research Seeks to Reduce Viral Hepatitis Caused by Drug Use Behaviors –

Hepatitis C virus (HCV) is the leading cause of liver failure and liver transplantation in the United States and people who inject drugs (PWID) are particularly susceptible to this disease with as many as 70% or more of this population testing positive for the virus. To make matters worse, PWID enjoy little if any consistent health care and are largely unaware of their HCV infection status. Those who are successful in accessing healthcare and are diagnosed with hepatitis C are rarely offered antiviral treatment. If they are offered HCV treatment, they often face additional treatment challenges since many suffer from mental disorders and/or HIV in addition to HCV and drug addiction. To address these challenges, the National Institute on Drug Abuse (NIDA) is investing in research to break down the barriers PWID confront when accessing HCV screening, treatment, and prevention services. This research is contributing to government-wide efforts to implement the Action Plan for the Prevention Care and Treatment of Viral Hepatitis, which sets forth among its six priorities “Reducing Viral Hepatitis Caused by Drug Use Behaviors.” Continue reading: <http://blog.aids.gov/2013/05/nida-research-seeks-to-reduce-viral-hepatitis-caused-by-drug-use-behaviors.html#sthash.NkidRfdg.dpuf>

Dietary Cholesterol Promotes Progression in Hepatitis C

UNITED STATES: Viral Hepatitis
Food Consumer (06.26.2013): By Jimmy Downs

Results of a study by Lei Yu of the Division of Gastroenterology at the University of Washington, Seattle, and colleagues indicate that patients with hepatitis C virus (HCV) infection should avoid eating foods with cholesterol, which is present in meat and dairy products.

The researchers analyzed data from 608 participants in the Hepatitis C Antiviral Long-Term Treatment Against Cirrhosis Trial who had advanced fibrosis and compensated cirrhosis. Researchers collected data on cholesterol intake from food frequency questionnaires completed at the trial’s baseline and 1.8 years later. Clinical progression referred to events, symptoms, or conditions, including death, variceal bleeding, encephalopathy, ascites, peritonitis, Child-Turcotte-Pugh score greater than or equal to 7, or hepatocellular carcinoma. Histologic progression of disease referred to an increase in Ishak fibrosis score of two or more points in a second liver biopsy, compared with the first.

After the researchers adjusted for gender, age, race, cirrhosis, body mass index, treatment, alcohol use, smoking status, general health, coffee consumption, and macronutrient intake, each higher quartile of cholesterol intake was correlated with a 46-percent increased risk of clinical or histologic progression. Compared with HCV-infected patients in the lowest quartile of cholesterol intake (32–152 milligrams (mg)/day), patients in the third quartile (224–310 mg/day) and the fourth quartile (greater than 310 mg/day) had significantly increased risk for disease progression.

The researchers concluded that higher amounts of dietary cholesterol are associated with greater risk of disease progression among HCV-infected patients with advanced fibrosis or compensated cirrhosis.

The full report, “Dietary Cholesterol Intake Is Associated with Progression of Liver Disease in Patients with Chronic Hepatitis C: Analysis of the Hepatitis C Antiviral Long-term Treatment Against Cirrhosis Trial,” was published online in the journal *Clinical Gastroenterology and Hepatology* (2013; doi:10.1016/j.cgh.2013.05.018).

http://www.foodconsumer.org/newsite/Safety/chemical/cholesterol_hepatitis_c_0626130846.html

U.S. Preventive Services Task Force - Screening for Hepatitis C Virus (HCV) Infection Guidance

The USPSTF recommends screening for hepatitis C virus (HCV) infection in persons at high risk for infection. The USPSTF also recommends offering one-time screening for HCV infection to adults born between 1945 and 1965. Please share and read the clinical summary and pass along the consumer fact sheet.

<http://www.uspreventiveservicestaskforce.org/uspstf12/hepc/hepcfact.pdf>

<http://www.uspreventiveservicestaskforce.org/uspstf12/hepc/hepcsumm.htm>

Expanded Hepatitis C Virus Screening Recommendations Promote Opportunities for Care and Cure

Chronic hepatitis C virus (HCV) infection is a major health problem in the United States. An estimated 2.7 million to 3.9 million Americans are living with HCV, and transmission continues to occur (1). Hepatitis C is the leading cause of liver transplants in the United States, and without treatment, 15% to 40% of persons living with the virus will develop cirrhosis or cancer. Hepatitis C–related mortality has been steadily increasing, with a 50% rate increase from 1999 to 2007. An estimated 45% to 85% of persons with chronic HCV are unaware that they are infected and thus do not receive needed care and treatment (1). The Centers for Disease Control and Prevention (CDC) estimates that, in the absence of interventions, approximately 1 million HCV-infected persons will die of HCV-related disease. When accompanied by appropriate care and treatment, HCV testing can reduce risk by 70% for hepatocellular carcinoma and by 50% for all-cause mortality (1).

Viral hepatitis was recognized as an important public health problem by the Institute of Medicine in its groundbreaking 2010 report, “Hepatitis and Liver Cancer: A National Strategy for Prevention and Control of Hepatitis B and C” (2). In this report, the institute identified viral hepatitis as an “underappreciated health concern” and provided recommendations to improve hepatitis prevention and control. In response, the U.S. Department of Health and Human Services (HHS) convened a Viral Hepatitis Interagency Working Group to develop an action plan (3) that provides specific HHS agencies with explicit steps to achieve viral hepatitis prevention goals, including increasing the number of persons living with HCV who are aware of their infection status.

<http://annals.org/article.aspx?articleid=1700384>

Why Those with HCV Must Know About Carotid Artery Atherosclerosis

Although hepatitis literally translates to inflammation of the liver, increasing research into the Hepatitis C virus (HCV) has revealed that its reach extends well beyond the liver. Posing a real concern to those with this disease, a relatively new study presents evidence that infection with HCV is associated with atherosclerosis of the carotid arteries. Since a clear connection between these two conditions has been drawn, those with HCV must be aware of the warning signs of carotid artery atherosclerosis.

http://www.hepatitis-central.com/mt/archives/2013/06/why-those-with-hcv-must-know-about-carotid-artery-atherosclerosis.html?eml=hepcen189&utm_source=iContact&utm_medium=email&utm_campaign=Hepatitis%20Cenral&utm_content=HEPCEN189A

Medscape CDC Expert Commentary - Testing for Hepatitis C: New Guidance

This Medscape activity features Chong-Gee Teo, MD, PhD, Laboratory Branch Chief in the Division of Viral Hepatitis at CDC. Dr. Teo discusses CDC’s updated guidance for clinicians and laboratorians for testing for hepatitis C virus (HCV) infection. Testing for hepatitis C should be initiated with a test for antibody to HCV, and all reactive results should be followed by a test for HCV RNA. The bottom line - HCV testing must ensure the identification of persons with current HCV infection. If you do not already have a Medscape account, you will need to sign up by providing your name, email address and profession. Continue Reading: <http://www.medscape.com/viewarticle/808327>

Heroin task force announces response to sharp rise in overdose deaths

By Valarie Honeycutt Spears and Taylor Harrison — vhoneycutt@herald-leader.com

In the first six months of 2013, there were 28 heroin overdose deaths in Lexington, six more than in all of 2012 and more than five times as many as two years ago.

City leaders and law enforcement officers have tried to get a handle on that trend. Officials formed a task force that has held closed-door meetings for months, trying to devise a strategy to overcome the punishing blows that heroin has laid on the city.

Continue reading: <http://www.kentucky.com/2013/07/12/2712421/lexington-task-force-announces.html#storylink=cpy>

Related articles:

http://www.lanereport.com/22595/2013/07/lexington-combats-heroin-abuse/?utm_source=Faster%20Lane%20Newsletter&utm_medium=Email&utm_campaign=july-15-2013

Hepatitis C Reinfection Rising Among HIV Patients

Neil Canavan

KUALA LUMPUR, Malaysia — Nearly 25% of HIV patients infected with and subsequently cured of the hepatitis C virus went on to acquire a second or even third infection within 24 months at one hospital in the United Kingdom.

"Liver disease is one of the leading non-AIDS causes of death in HIV-infected individuals," said lead investigator Thomas Martin, from the Chelsea and Westminster Hospital in London, United Kingdom. In fact, hepatitis C accounted for "roughly two thirds of those cases."

<http://www.medscape.com/viewarticle/807680>

Virginia Tech professor to study spread of hepatitis E between people and animals

BLACKSBURG, Va., July 16, 2013 – Dr. X.J. Meng, a University Distinguished Professor at Virginia Tech and a virologist at the Virginia-Maryland Regional College of Veterinary Medicine, has received a four-year, nearly \$1.6 million grant from the National Institutes of Health to better understand the genetic elements that allow hepatitis E virus to transfer from animals to people.

Meng is the principal investigator in the new NIH award to identify the virus gene or genes that enable the animal hepatitis E virus strains in pigs and rabbits to infect humans. His laboratory in the Center for Molecular Medicine and Infectious Disease is one of the leading international research centers on hepatitis E virus, which causes an estimated 20 million liver infections each year.

Continue reading: <http://blogs.roanoke.com/ticker/2013/07/16/virginia-tech-professor-to-study-spread-of-hepatitis-e-between-people-and-animals/>

DOH Encourages Awareness of Potential Bacteria in Gulf Waters

TALLAHASSEE – The Florida Department of Health urges Floridians with certain health conditions to avoid eating raw oysters and exposing open wounds to seawater and estuarine water, which may harbor bacteria called *Vibrio vulnificus*.

Occurring naturally in the warm waters of the Gulf coast, particularly during the summer months, *Vibrio vulnificus* has the potential to cause serious illness.

Those with liver damage due to excessive drinking and individuals with liver disease, including Hepatitis C and cirrhosis, are most at risk for developing serious illness from *Vibrio vulnificus*.

<http://www.wjhg.com/home/headlines/DOH-Encourages-Awareness-of-Potential-Bacteria-in-Gulf-Waters-215677311.html>

CDC WORKS WITH PARTNERS AROUND THE WORLD TO COMBAT HEPATITIS

On July 28th, the United States joined countries around the globe to observe the third annual World Hepatitis Day. One of only eight health campaigns recognized by the World Health Organization (WHO), this health observance raises awareness of the silent yet growing epidemic of viral hepatitis worldwide. Each year, 1.4 million persons lose their life to viral hepatitis, similar to the number of deaths from HIV/AIDS (1.5 million), tuberculosis and malaria (1.2 million each). Read this week's blog to learn more about the challenges and progress in the fight against hepatitis. Continue reading:

<http://blogs.cdc.gov/global/>

Viral Hepatitis Updates from CDC

Hepatitis C Online Course

A new self-study, interactive course for medical providers on Hepatitis C infection is now available. At this time, Module 1: Screening and Diagnosis of Hepatitis C Infection and Module 2: Evaluation, Staging, and Monitoring of Chronic Hepatitis C are active. Additional modules will be posted soon. The project is brought to you from the University of Washington and in collaboration with the International Antiviral Society-USA (IAS-USA). Free CME credit is offered throughout the site and free CNE credit will be available soon. Funded by a grant from the Centers for Disease Control and Prevention. Continue reading: <http://hepatitisc.uw.edu/index.php>

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