Hepatitis in Kentucky: Updates on Epidemiology, Testing, and Treatment

Spring is here in Kentucky! Many exciting things happening. In this April 2018 edition of Kentucky Hepatitis Connections, you will find information and update concerning the Hepatitis A Outbreak in Kentucky, the HIV/HCV cluster in Northern Kentucky, reminder of the changes to the Medicaid Fee for Service Pharmacy Benefits, viral hepatitis, most recent Hepatitis C treatments, and opportunities for viral hepatitis continuing professional education.

Thanks for all of your hard work, dedication, and commitment in keeping our communities healthy and safe.

As always, feel free to forward, copy, and/or distribute this newsletter to other professionals in your network. We hope you enjoy our April newsletter!

Kathy Sanders, RN, MSN
REGISTER NOW! for the Kentucky 5th Annual Viral Hepatitis Conference July 31, 2018
Kentucky Rural Health Association, in partnership with Kentucky Department for Public Health’s Adult Viral Hepatitis Prevention Program and the Kentucky Immunization Program is proud to present:

Kentucky's Hepatitis Epidemic:
The Role of Professionals in Hepatitis Elimination
at the
Griffin Gate Marriott Resort & Spa 1800
Newtown Pike
Lexington, Kentucky

Join us at Kentucky’s comprehensive conference on hepatitis!
Experts in Viral Hepatitis will discuss opportunities for professionals and community members to engage in dialogue and share successes and best practices on successful hepatitis prevention, treatment and care strategies.

Register at: http://KRHA.wildapricot.org/event-2847029

Reservations can be made, ask for the KY Hepatitis Conference Discounted Group Rate:
http://www.marriott.com/meeting-event-hotels/group-corporate-travel/groupCorp.mi?resLinkData=KY%20HEPATITIS%20CONFERENCE%5ELEXKY%60KHCKHCA%60134.00%60USD%60false%604%607/30/18%608/1/18%607/6/18&app=resvlink&stop_mobi=yes

For more Information, contact: Kathy Sanders- KathyJ.Sanders@ky.gov or Deborah Bolton-Plucknett- Deb.Bolton-Plucknett@ky.gov
Phone: (502) 564-4478

Presentations will be available after the conference on line at: www.KYRHA.org
SAVE THE DATE
August 1, 2018

Kentucky Rural Health Association in partnership with the Kentucky Department for Public Health Adult Viral Hepatitis Prevention Program and the Kentucky Immunization program is proud to present:

KHAMP
Kentucky Hepatitis Academic Mentorship Program

at the
Griffin Gate Marriott Resort & Spa Lexington, Kentucky

Join us at Kentucky’s first KHAMP!
Experts in Viral Hepatitis will discuss HCV management, treatment and standard of care. This training is for targeted primary healthcare professionals. Selected professionals will engage in dialogue and learn successes and best practices on successful hepatitis prevention, treatment and care strategies.

For a KHAMP Application packet, contact:
Kathyj.sanders@Ky.gov or call: (502) 564-3261 ext. 4236
Additional KHAMP information will soon follow
Get Ready! MAY is Hepatitis Awareness Month!
The month of May is designated as Hepatitis Awareness Month in the United States, and May 19 is Hepatitis Testing Day. During May, CDC, the Kentucky Department for Public Health and other public health partners work to shed light on this hidden epidemic by raising awareness of viral hepatitis and encouraging priority populations to get tested.

Visit this page to find an array of digital tools including buttons, badges, and banners in different shapes and sizes that are ready for use on websites and in emails.
March 20, 2018

Hepatitis A Outbreak Impacting Illicit Drug Users and Homeless in Kentucky

The following public health advisory has been issued to inform healthcare providers of the recent outbreak of acute hepatitis A virus (HAV) infections affecting illicit drug-using and/or homeless individuals throughout Kentucky. Recommendations and resources for the prevention and control of acute hepatitis A are attached.

Situation
In November 2017, the Kentucky Department for Public Health (DPH) identified an outbreak of acute hepatitis A. The increase of Kentucky’s hepatitis A cases has exceeded the 10-year average of reported cases of about 20 per year. To date, more than 193 Kentuckians statewide have been identified as being infected with hepatitis A since August 1, 2017. Of those, 41 cases were infected with a strain of the hepatitis A virus (HAV) genetically linked to outbreaks in both California and Utah: over 50 additional specimens are awaiting genetic sequencing at CDC. Of the outbreak-associated cases, 148 (76%) were reported in Jefferson County. Kentucky counties that have reported outbreak-associated cases include Anderson, Boyd, Bullitt, Carter, Greenup, Hopkins, Kenton, Leslie, Marion, McCracken, Russell, Spencer, Taylor and Warren counties.

Similar to hepatitis A outbreaks in other states, the primary risk factors have been illicit drug use and homelessness. A common source of infection has not been identified, and HAV transmission is believed to occur through person-to-person contact. Kentucky is experiencing a 70% hospitalization rate and one death as a result of the hepatitis A outbreak. However, it is important to note that the individual who died had other health issues that contributed to their death.

Several food service workers across the state have also been infected, potentially exposing co-workers and patrons of their grocery and restaurant establishments, though the CDC considers the risk to patrons to be extremely low. No outbreak cases have been linked to exposure to a food service establishment to date.

Background
The Centers for Disease Control and Prevention (CDC) notes that HAV infection rates in the United States have declined by 95% since the hepatitis A vaccine became available in 1995. The most recent national data indicated that in 2014 1,239 cases were reported from the 50 states to CDC. Historically, Kentucky has averaged 20 cases of hepatitis A per year.

In the U.S., person-to-person transmission through the fecal-oral route is the primary means of HAV transmission. Most infections result from close personal contact with an infected household member or
sexual partner. Common-source outbreaks and sporadic cases may also occur from exposure to fecally-
contaminated food or water.

Individuals at increased risk for HAV infection include: travelers to countries with high or intermediate
endemicity of HAV infection (countries outside the US such as Canada, Australia, New Zealand,
Japan, and Western Europe should be considered to have high or intermediate endemicity for HAV
transmission); men who have sex with men; users of injection and non-injection illegal drugs, persons
with clotting factor disorders; persons who have contact with newly arrived international adoptees
within the first 60 days of their US arrival; and persons working with nonhuman primates.

HAV outbreaks have been reported among the homeless, who have an increased risk of infection due
to living conditions when compared with the general population. The increased risk due to
homelessness has been demonstrated to be independent of other known risk factors, such as injection
of illicit drugs and sexual practices. Morbidity and mortality have been reported to be higher in HAV
outbreaks involving the homeless and illicit drug users.

**Recommendations for Providers**

1. **Consider HAV infection** in individuals, especially homeless and those who use illicit drugs, with
discrete onset of symptoms consistent with acute hepatitis A (e.g., nausea, vomiting, diarrhea,
anorexia, fever, malaise, dark urine, light-colored stool, or abdominal pain), jaundice or elevated liver
function tests.

2. **Promptly report all confirmed and suspected HAV cases** to the local or state public health
department within 24 hours of the probably diagnosis of acute hepatitis A, in accordance with

Providers are urged to contact the local health department while suspected cases are still at the
healthcare facility. This action will ensure that a public health investigator can interview the patient by
phone for a risk history and facilitate serum specimen submission to the Kentucky Department of
Laboratory Services for potential genotyping. If the local health department is not available, providers
can contact Kentucky Department for Public Health’s Division of Epidemiology at (502) 564-3261.

3. **Obtain proper specimens** for initial hepatitis A testing (IgM anti-HAV). Positive total anti-HAV
antibody results are not sufficient evidence of acute hepatitis A infection. Specimens for molecular
testing are also recommended to be forwarded to the Division of Laboratory Services. Further
information on public health investigations relating to the Health Insurance Portability and
Accountability act (HIPAA) and laboratory testing guidance are enclosed.

4. **Provide post-exposure prophylaxis (PEP) for close contacts of confirmed acute hepatitis A
cases.** Persons who have recently been exposed to HAV and who previously have not received
hepatitis A vaccine should be administered a single dose of single-antigen vaccine or IG (0.1 mL/kg)
as soon as possible. Note that the recommended dose of IG for hepatitis A PEP was increased in 2017
([https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm](https://www.cdc.gov/mmwr/volumes/66/wr/mm6636a5.htm))
For susceptible healthy persons aged 12 months through 40 years, single-antigen hepatitis A vaccine at the age-appropriate dose is preferred to immune globulin (IG) because of vaccine advantages that include long-term protection and ease of administration. For persons aged >40 years, IG is preferred because of the absence of information regarding vaccine performance and the more severe manifestations of hepatitis A in this age group; vaccine can be used if IG cannot be obtained.

The magnitude of the risk for HAV transmission from the exposure should be considered in decisions to use IG or vaccine. IG should be used for children aged <12 months, immunocompromised persons, persons who have had chronic liver disease diagnosed, and persons for whom vaccine is contraindicated.

Persons administered IG for whom hepatitis A vaccine also is recommended for other reasons should receive a dose of vaccine simultaneously with IG. For persons who receive vaccine, the second dose should be administered according to the licensed schedule to complete the series. The efficacy of IG or vaccine when administered >2 weeks after exposure has not been established.

The efficacy of the combined Hepatitis A/Hepatitis B virus (HBV) vaccine for PEP has not been evaluated, so it is not recommended for PEP for adults in place of the single-antigen hepatitis A vaccine.

5. Provide HAV vaccine to at-risk persons who are not already immunized. Vaccination of at-risk individuals remains the best means to control the spread of HAV infection. Administer hepatitis A vaccine in accordance with ACIP recommendations. CDC recommendations for hepatitis A vaccine are included in the enclosed CDC HAV Fact Sheet. Due to Kentucky’s current outbreak, DPH recommends that persons who have frequent work or volunteer contact with at-risk populations become vaccinated against hepatitis A.

6. Implement disinfection procedures that are effective against hepatitis A. DPH recommends that facilities review disinfection procedures to ensure products are both effective against hepatitis A virus and used in accordance with the manufacturer’s label. Guidance on disinfection is enclosed.

7. Consider further testing and vaccination. It is believed that the current hepatitis A outbreaks in California and Utah are causing high rates of morbidity and mortality due, in part, to co-infections with hepatitis B and/or hepatitis C. DPH requests that healthcare providers also give hepatitis B vaccination as appropriate and consider hepatitis C screening and confirmatory testing for at-risk patients. Hepatitis C testing algorithms are enclosed.

Resources
http://chfs.ky.gov/dph/hepatitis.htm

https://www.cdc.gov/hepatitis/hav/havfaq.htm

https://www.cdc.gov/hepatitis/hav/havfaq.htm
Reminder: Kentucky Announces Medicaid Fee-For-Service Pharmacy Benefit Changes

Effective October 27, 2017, the Kentucky Medicaid Fee-for-Service benefit has taken measures to reduce hepatitis treatment barriers, these steps include:

1. Opening access in terms of disease severity (F-score) so that coverage is not predicated on fibrosis score and is now available for F0-F4 and for all ages.

2. Alcohol or substance abuse no longer disqualifies recipients from an initial treatment course.

3. Less restrictive laboratory submissions requirements.

4. Primary Care provider consults with specialists are allowed when necessary.

5. Retreatment requests are handled on a case-by-case basis.

6. Driving collaborative efforts with the managed care plans to develop interventions and programs to improve member access to providers, services, and hepatitis treatment; including health record performance measures, clinical decision support tools, prior authorization guidelines, innovative models of care and delivery systems.

7. Implementing programs and education to address the disproportionate access found among black, urban, and younger enrollees, and to improve screening and treatment of pregnant enrollees.
Kentucky Will Soon Lead Nation In Syringe Exchanges, But Work Isn’t Done

Kentucky ranks in the top five highest number of drug overdoses in the country. It also has one of the highest of Hepatitis C, and while HIV/AIDS cases are declining the U.S., Kentucky holds steady with new cases. Much of this can be traced back to people who use IV drugs, using needles or syringes to inject opioids. But there’s some progress being made. Kentucky will soon have the highest number of syringe exchange sites in the country, bypassing California and New Mexico.

A woman knocks on the door of an RV parked outside a firehouse in Lake Dreamland. It’s pouring rain, and inside the RV, Donald Davis sighs and tells his colleague to let the woman in. It’s after 2 p.m. — closing time — and the woman is late. Davis hands her a small bag with three kinds of needles, alcohol wipes and antibiotic cream, and she goes on her way.

The RV is the site of the Lake Dreamland syringe exchange. And for three hours on this day, Davis, a harm reduction supervisor with the Metro Louisville Department of Health, has handed out these same bags to 43 people. Each person will use the needles to inject drugs — but hopefully won’t be sharing needles with anyone else.

“It’s about the spread of disease,” Davis said. “With Kentucky having one of the highest rates of hepatitis C in the country, you want to bring those numbers down and don’t want those numbers to increase.”

Kentucky will soon have the largest number of syringe exchange sites in the country, after nine more open in coming months.

At that point, Kentucky’s total sites will jump to 52, leaping ahead of California’s 42 sites and New Mexico’s 49 sites, which had in recent years topped the list of states with the most syringe exchanges. This is remarkable considering Kentucky’s size and population: geographically three times smaller than New Mexico and with about one-ninth the population of California.

Kentucky also only legalized syringe exchanges three years ago. State Public Health Epidemiologist Jonathan Ballard said the number of exchanges demonstrates a great need. “They’re mostly in areas where it was most vulnerable,” Ballard said. “That’s public health.” Syringe exchanges — or needle exchanges as they are often called — are open to anyone who uses a syringe or needle to inject drugs. These users can bring in their used syringes and exchange them for new ones. The exchanges also hand out safety boxes for syringe storage.

The goal is to prevent people from sharing needles, which can lead to outbreaks of diseases like hepatitis C and HIV. Kentucky ranks in the top five states with the highest number of drug overdoses, in addition to its ranking as having some of the highest rates of hepatitis C. And while HIV/AIDS cases are declining the U.S., at the most recent count in 2015 Kentucky was holding steady with new cases.

A serious liver ailment is stalking Kentucky’s children. But they aren’t getting care

LEXINGTON — Since she was four years old, Kaylee Ferrell guarded a secret. A dangerous virus lived in her small body, a germ relatives described as “a cold in her blood.”

She’d been born with hepatitis C, an insidious liver disease her mother got shooting up drugs.

To keep other kids safe, Kaylee stashed a couple dozen pairs of latex gloves in her school backpack so she could clean up her own skinned knees and bloody noses. She spent a lot of time riding horses because they couldn’t judge her like people could. And she rarely spoke of her illness because “it made me feel extremely odd and different.”

Today, at 18, Kaylee realizes she’s one of thousands of people born with hepatitis C.

A Courier Journal investigation found hepatitis C has skyrocketed among Kentucky births amid the state’s raging drug epidemic, but attempts to prevent, track and control the infectious, curable disease have fallen short. That means many kids don’t get the care they need, risking cirrhosis and liver cancer in adulthood — or even early death.

State statistics obtained through an open-records request show one in 56 Kentucky births from 2014-2016 were to moms with a history of hepatitis C. Those births more than quadrupled between 2010 and 2016, from 260 to 1,057 a year. The latest national rate, from 2014, was one in 308.

It’s difficult to know how many Kentucky kids go on to develop the disease because state records show most don’t get the necessary testing when they grow out of their moms’ immunity as toddlers. Experts say as many as 46,000 U.S. children are living with hepatitis C, and research suggests Kentucky fares much worse than other states because drug use among young women is so widespread.

**Rampant opioid injection: 'A ticking time bomb' that puts all Americans at risk for disease**

ATLANTA — First came the opioid epidemic. Then, a wave of drug-fueled infections. Now, after years of quietly spreading across the nation, diseases like hepatitis and HIV are prompting action by a critical mass of top doctors, health officials and policymakers.

Such infections were among the many issues tackled at the recent National Rx Drug Abuse & Heroin Summit in Atlanta. Experts said disease threatens not only drug users but the entire population, hitting especially hard in Kentucky, Indiana and other rural states awash in addiction.

“If you don’t do anything, it’s a ticking time bomb,” said Dr. Nora Volkow, director of the National Institute on Drug Abuse. “I think we can contain it, but we need to move rapidly.”

The fight is being waged on several fronts: Lawmakers at the state and national levels are introducing legislation. Federal health officials are issuing guidance on detecting and responding to outbreaks. And doctors are calling for more disease testing, treatment and education, as well as preventive measures such as needle exchanges.

The stakes are high – and getting higher.

With more people shooting up, new hepatitis C infections reported to the U.S. Centers for Disease Control and Prevention tripled over five years, from 850 in 2010 to 2,436 in 2015 – and officials acknowledge the insidious liver disease is vastly under-reported. Hepatitis C kills 20,000 Americans each year, more than any other infectious disease reported to CDC.

Drug-fueled HIV is also on the rise after a decade-long decline, with more than 3,400 infections diagnosed among IV drug users in 2016. The largest outbreak ever to hit rural America struck Scott County, Indiana, in 2015, ultimately infecting 230 people. The epicenter was the struggling city of Austin, which has a population of 4,200 and an HIV rate comparable to many countries in Africa.

“Indiana was the wake-up call for the nation,” said Dr. Anne Schuchat, CDC’s acting principal deputy director. Since then, the CDC has identified 220 counties as vulnerable to similar outbreaks. Kentucky had the most – 54 – as well as the nation’s highest rate of acute hepatitis C infections from 2008 to 2015, with 1,089 cases.

Lesser-known diseases linked to shooting up are also rising in Kentucky and elsewhere, including hepatitis A, hepatitis B and endocarditis, an infection of the inner lining of the heart chambers and valves.

Mandatory hepatitis C tests for all pregnant women approved by Kentucky lawmakers

All pregnant women in Kentucky would be tested for the dangerous liver disease hepatitis C under a bill that won final passage in the General Assembly on Thursday.

The legislation – passed amid the state's devastating opioid epidemic – also recommends testing for babies of hep C-positive moms.

The Kentucky House passed Senate Bill 250 without discussion. The proposal was approved in the Senate about two weeks ago and now goes to Gov. Matt Bevin for his signature.

Dr. Claudia Espinosa, an assistant professor in the department of pediatrics at the University of Louisville, said she supports required testing for Kentucky moms given how rampant hep C has become. While it will cost money to test women and babies, she said preventing advanced liver disease is worth the cost. Hep C tests cost about $240 to $310, while a liver transplant can cost $800,000. Government Medicaid pays for about half of U.S. births.

"If we can save one person from liver transplant and cirrhosis, it will save a lot of money" and prevent a lot of suffering, said Espinosa, a pediatric infectious disease specialist who works with University of Louisville Physicians.

Courier Journal reported that hep C has skyrocketed among Kentucky births amid the state's raging drug epidemic, but attempts to prevent, track and control the disease have fallen short. That means many kids don't get the care they need.

State statistics obtained through an open-records request show one in 56 Kentucky births from 2014-2016 were to moms with a history of hep C. The latest national rate, from 2014, was one in 308. As many as 55,000 babies are born in Kentucky each year.

Experts say as many as 46,000 U.S. children are living with hep C, and research shows Kentucky fares much worse than other states because drug use among young women is so widespread. One federal study showed the disease rose 213 percent in four years among Kentucky women of childbearing age – nearly 10 times the national rise of 22 percent.

Espinosa tracks children at her clinic born to moms who screened positive for the virus. At that clinic alone, she found, the number of affected children rose from 16 in 2012 to 189 in 2016.

“When you see these numbers," she said, "you get worried that more needs to be done."

About 9,500 people treated at dental clinics in Texas City and Galveston over the past three years will be notified about potential exposure to hepatitis and HIV as a result of poor sanitation at the facilities, the Galveston County Health District announced Friday March 24, 2018.

After what officials called a “very scary” breach of medical protocols, the district was preparing to activate a medical hotline and offer thousands of free screenings for people who might have been exposed to the diseases.

The concerns about possible infection was first raised 38 days ago. In that time, the district has not identified anyone infected during treatment at the Coastal Health & Wellness Clinics in Texas City and Galveston, said Dr. Philip Keiser, the Galveston County local health authority.

Still, after consulting with state and federal authorities, the district on Friday moved to inform the public about the risk of exposure and begin soliciting former patients to identify themselves and be tested.

“To date, our investigation has not found that anyone was infected as a result of the dental procedures at Coastal Health & Wellness,” Keiser said.

“However, after consulting with the Texas Department of State Health Services, as well as several federal agencies, we have concluded that there is sufficient concern to ask all patients who received dental services at Coastal Health & Wellness between March 15, 2015, and Feb. 12, 2018, to be tested for hepatitis B, hepatitis C and HIV.”

During an accreditation inspection on Feb. 12, officials identified 11 “immediate threat-to-life” violations at the Coastal Health & Wellness dental clinic in Texas City, Keiser said.

He didn’t outline all 11 violations, but said they all involved the cleaning and sterilization of dental instruments used for minor surgeries, such as root canals and tooth extractions. Because the tools potentially weren’t cleaned properly, patients may have been exposed to infectious diseases carried between procedures, Keiser said.

“There are many (violations) about sterilization, about poor sterilization, not adequately documenting sterilizing of dental instruments, dirty areas that were not being properly cleaned where sterile instruments were passing through,” Keiser said. “There was a breakdown of the sterilization.”

Read More: http://www.galvnews.com/news/free/article_ef656db3-01ad-5f45-9584-86bc45f73b6b.html

Related Article: Six hepatitis C diagnoses prompted infection warnings
National Governors Association Learning Laboratory Meeting

Recently members of the Kentucky Department for Public Health (KY DPH) had the opportunity to represent KY DPH at the National Governor’s Association “Learning Lab on State Strategies for Addressing Infectious Diseases Related to Substance Abuse” meeting on March 15-16 in Louisville. This was a great opportunity for KY DPH to showcase the great work being done in Kentucky.

Newly Discovered HCV Subtype is Resistant to Antiviral Treatment

A newly discovered hepatitis C virus (HCV) genotype 1 subtype harbors multiple resistance-associated mutations that combine to block therapeutic effect of NS5A inhibitor direct-acting antivirals (DAAs).

Josep Quer, PhD, Liver Disease Laboratory-Viral Hepatitis, Vall d’Hebron Institut Recerca-Hospital Universitari, Barcelona and colleagues report the identification of a new HCV genotype 1 subtype isolated from a treatment-naive patient in Equatorial Guinea.

"This novel isolate was identified during routine classification of the HCV virus in patient samples using a high-resolution HCV subtyping method," Quer and colleagues wrote. "Phylogenetic analysis, genetic distance analysis, and sliding window analysis of this genome (GenBank KY348757) clearly demonstrated that our isolate is not a recombinant product of different subtypes and that the genetic distance to the closest accepted reference sequence is higher than 15%." Read More: http://www.mdmag.com/medical-news/newly-discovered-hcv-subtype-is-resistant-to-antiviral-treatment
Governor Cuomo Announces Statewide Expansion of Enhanced Rental Assistance Program To Increase Access To Affordable Housing For New Yorkers Living With HIV/AIDS

Governor Announces Nation’s First State-Level Hepatitis C Elimination Strategy to Increase Access to Medication, Expand Comprehensive Programs and Enhance Treatment Services

Governor Andrew M. Cuomo today announced he is advancing a statewide expansion of the HIV/AIDS Services Administration rental assistance program for New Yorkers living with HIV/AIDS. Additionally, the Governor announced the nation’s first state-level Hepatitis C comprehensive elimination strategy to end the Hepatitis C and HIV epidemics in New York State. The new effort aims to stop the Hepatitis C virus in its tracks by increasing access to medications that can cure Hepatitis C and expanding programs to connect New Yorkers in high-risk communities with wrap-around Hepatitis C prevention, screenings and treatment services.

The announcements build on the success of recent reductions in HIV diagnoses in New York to record lows and coincides with the release of the "Ending the Epidemic" progress report, which highlights the historic advancements New York is making to End the AIDS Epidemic by the end of 2020.

"The HIV/AIDS epidemic was a terrible tragedy in our nation's history but make no mistake the Empire State has led the nation in ending the epidemic and helping New Yorkers lead long, healthy and happy lives," Governor Cuomo said. "With our Ending the Epidemic Blueprint, we are making historic progress and I am proud that we have reached another milestone in our fight against the spread of HIV/AIDS. By expanding access to affordable housing and eliminating the spread of Hepatitis C, we will further build on the gains we've achieved and continue our historic march forward."

In the FY 2018-19 Budget, the Governor is proposing a statewide expansion of the successful housing assistance program for persons living with HIV that first launched in New York City in 2016. The program would provide localities outside of New York City the option of capping the income contribution toward rental costs at 30 percent for all persons living with HIV in their communities. In addition, localities may budget and pay for up to 100 percent of fair market rent, with support of funds obtained through healthcare savings. This initiative will potentially impact 4,700 New Yorkers living with HIV outside of New York City.

To increase access to Hepatitis C (HCV) medications, the Governor is also proposing to increase funding for HCV prevention, testing and treatment programs, such as education, patient navigation, and HCV prevention programs in primary care and other settings. HCV-related deaths have exceeded HIV-related deaths in the state outside of New York City since 2007, and with injecting drug use as the most common risk factor, the opioid epidemic has fueled a rise in new HCV cases. One in five persons with HIV is co-infected with HCV, and studies show that over 90 percent of people who are treated can be cured of HCV. New direct-acting antiviral drugs have minimal side effects and can prevent the need for a liver transplant, cirrhosis, liver failure, liver cancer or death. Read More: https://www.governor.ny.gov/news/governor-cuomo-announces-statewide-expansion-enhanced-rental-assistance-program-increase-access?platform=hootsuite
Hepatitis C Success – Thoughts on Fibrosis Resolution

There is hope for curing Hepatitis C now that effective treatments are available. Although the new drugs may ‘cure’ someone of Hepatitis C, those affected can still have residual problems from years of being infected with this virus. Viral eradication is typically accompanied by improvements in liver function and liver fibrosis reduction, but the liver can still suffer from cellular damage. Giving those who sustained significant liver damage renewed hope, an increasing body of evidence is demonstrating that liver fibrosis can be reversed (or resolved) once the Hepatitis C virus is eradicated.

What Is Sustained Virologic Response?

Newer medications such as direct-acting antiviral agents – including HCV protease inhibitors, polymerase inhibitors, and NS5A inhibitors – are facilitating a high Hepatitis C treatment success rate. Especially if there are no co-morbidities, today’s antiviral drugs have a rate of success around 95%. When it comes to eliminating the Hepatitis C virus from the body, attaining sustained virologic response (SVR), is the standard measurement. SVR is the absence of detectable Hepatitis C virus in the blood six months after treatment ends. Now that SVR has been reliably reproduced, experts are moving towards investigating fibrosis resolution.

Fibrosis Resolution

Similar to trying to rebuild a ravaged metropolis after a decades-long war, restoring the health of the liver after years of Hepatitis C infection presents a challenge. According to an article published in a 2015 edition of the Journal of Hepatology, the following mechanisms are involved in fibrosis resolution after achieving SVR:

- **Shifting the balance in the liver from inflammation to restoration** – On a cellular level, this is the change describing when liver cells and neighboring cells transition from a pro-inflammatory environment to an anti-inflammatory environment. Supporting your body with foods and supplements that scavenge free radicals to squelch the inflammatory response is advised.

- **Deactivation and elimination of myofibroblasts** – The main collagen producing cells in the liver are hepatic stellate cells (HSC) that convert into myofibroblasts. The deactivation of myofibroblasts is key to fibrosis regression. Apoptosis (cell death) of HSC paves the way for improvement in liver tissue and is the focus of anti-fibrotic pharmacology. While a drug to reverse liver fibrosis is not yet a reality, there is evidence supporting an ancient herbal remedy for this purpose. As described in the June 2009 issue of Journal of Hepatology, silybin (a component of milk thistle) inhibits hepatic stellate cells.

- **Extracellular matrix degradation** – Breaking down liver scars involves degradation of the extracellular matrix. Enzymes known as matrix metalloproteinases (MMPs) are the primary identified substances known to dissolve scarred tissue. Research on MMPs, and how to direct them towards unwanted extracellular matrixes (such as liver fibrosis), is ongoing. Although not involving MMPs, many holistic healthcare providers instruct patients hoping to break down fibrotic tissue to engage in regular cardiovascular activity. In general, their belief is that stimulating systemic circulation via exercise helps mobilize and accelerate an exchange of nutrients among all cells, which breaks down unhealthy tissue accumulation.
Study shows shorter hepatitis C regimen effective in black patients

Boston, MA - A study by the Harvard Pilgrim Health Care Institute found that contrary to current hepatitis C treatment guidelines, an eight-week treatment regimen may be just as effective as 12 weeks in black patients. The new study of more than 2,600 patients in Kaiser Permanente's Northern California region also showed that more people overall could take advantage of the shorter treatment duration, which has important implications for access given the medication's cost. The study, "No Difference in Effectiveness of 8 vs 12 Weeks of Ledipasvir and Sofosbuvir for Treatment of Hepatitis C in Black Patients," appears in Clinical Gastroenterology and Hepatology, published online on March 12, 2018.

"Our findings do not support current hepatitis C treatment guidelines that recommend against the use of a shorter course of treatment in black patients," said lead author Julia L. Marcus, PhD, MPH, Assistant Professor of Population Medicine at Harvard Medical School and Harvard Pilgrim Health Care Institute.

Hepatitis C can now be cured with highly effective, direct-acting antiviral agents. The most common type of hepatitis C infection in the United States can be treated with a combination of ledipasvir and sofosbuvir for 12 weeks. Read More: https://www.eurekalert.org/pub_releases/2018-03/hphc-sss031518.php

Obesity, Older Age, and Pretreatment Cirrhosis Delay Fibrosis Improvements in HCV

Although liver fibrosis improves in many patients with chronic hepatitis C (HCV), obesity, older age, and the presence of cirrhosis before treatment represent key risk factors for improvement delays, according to findings from a cross-sectional study published in the Journal of Viral Hepatitis.

Participants in this study had chronic HCV and either pretreatment advanced fibrosis or cirrhosis and had achieved a sustained virologic response (SVR) after successful treatment with an interferon-containing regimen (n=269). In this study, a negative HCV RNA approximately 6 months after the end of treatment comprised a SVR. Investigators evaluated the effect of potential risk factors, including body mass index and age, on delayed fibrosis improvement. Patients were followed for a median of 7.7 years (range, 0-20 years). Read More: https://www.infectiousdiseaseadvisor.com/hepatitis-advisor/cirrhosis-age-bmi-weight-fibrosis-systemic-virologic-response-hcv/article/751887/
Hepatitis C Drugs Save Lives, but Sick Prisoners Aren’t Getting Them

Any national campaign to eliminate hepatitis C, an insidious virus that kills tens of thousands of Americans a year, would almost certainly involve prisons.

One in seven state inmates are believed to be infected, and the regimented environment of a prison has its advantages when it comes to screening and treatment.

The problem is, the drugs that effectively cure the disease are priced in the tens of thousands of dollars — far more than prisons can pay. In 2015, state corrections departments were treating less than 1 percent of those inmates known to be infected, a survey found.

Now courts have begun ordering states to provide the drugs regardless of cost, prompting an unusual showdown over how pharmaceutical companies set prices for the treatments.

In at least nine states, prisoners have filed lawsuits arguing that withholding drugs constitutes deliberate indifference to their dire medical needs, violating a constitutional ban on cruel and unusual punishment.

Last week, Massachusetts settled a lawsuit by agreeing to give all prisoners in advanced stages of the disease access to drugs.

In November, a federal district judge in Florida was the first to order a state prison to begin treating sick inmates. The state must now provide drugs to all inmates with severe liver damage by the end of this year and those with significant damage in 2019.

“This Court will not tolerate further foot dragging,” Judge Mark E. Walker wrote. “One can only wonder how long Defendant would have kicked the can down the road had Plaintiffs not filed this case.”

Dr. Anne Spaulding, an associate professor of public health at Emory University and the former medical director of the Rhode Island Department of Corrections, called the order an unfunded mandate. “It’s an impossible situation that the prison administrators are put in,” she said. “You can’t buy something you don’t have any money for.”

Read More: http://www.hcvinprison.org/images/stories/Pre-Meeting_Article_II.pdf
Rural Risk: Fighting Disease Amid The Opioid Crisis

Health officials in the Ohio Valley are investigating outbreaks of disease associated with needle drug use, an emerging public health threat from the region’s profound opioid addiction crisis.

In Northern Kentucky, the health department is tracking a cluster of 43 recent HIV cases, about half of which are related to needle drug use. In West Virginia, the Centers for Disease Control and Prevention released a report on 40 new HIV cases diagnosed in 2017 in 15 mostly rural counties.

When CDC researchers looked for the country’s places most at risk for outbreaks of needle-borne diseases such as HIV and Hepatitis C, they found them in Kentucky, Ohio and West Virginia. The 2016 analysis found nearly a hundred counties in the Ohio Valley at high risk.

Health officials say the stigma associated with HIV can add to that risk. In rural communities, stigma can hinder monitoring, testing, and treatment and add to the risk of widespread outbreaks.

The stories of two rural West Virginia residents living with HIV show how powerful stigma can be and what it takes to overcome it.

HEALTH EFFECTS OF HEPATITIS C OUTSIDE OF THE LIVER

Hepatitis C: It's About More than Liver Disease

The effects of the hepatitis C virus (HCV) on the liver are well-known. For example, chronic HCV infection can lead to long-term liver damage and increased risk of liver cancer.

But up to 74% of HCV-infected patients have symptoms outside the liver.1

It is important to recognize these health effects because they may play a role in diagnosis, treatment, and the overall wellbeing of an infected individual.

WHAT ARE SOME COMMON EFFECTS OF HCV OUTSIDE OF THE LIVER?

- Depression and anxiety
- Heart disease
- Diabetes
- Skin conditions
- Kidney disease
- Cancer
- Pain and fatigue
- Dry eyes and mouth
- Thyroid conditions
- Immune, lymphatic, and vascular system disorder
- Numbness or tingling
- Reproductive health issues

Health effects of HCV can appear in many parts of the body.

Some have distinct features that are easy to identify, while others are hard to diagnose and often get overlooked.

It can be difficult to recognize that these symptoms are associated with HCV.

HOW DOES HCV AFFECT OTHER PARTS OF THE BODY?

HCV can live in the body for many years, causing long-term inflammation and constant stress on the immune system. Over time, this produces problems across multiple body systems.

The virus invades cells in the body other than liver cells. Even though HCV usually infects liver cells, there is also evidence that it attacks other cell types including those found in the brain and immune system.2-3

Some health conditions are associated with HCV, but the reasons are unknown. For example, the risk of heart disease is higher among HCV patients than the general population, and researchers are still working to understand why.4-5

WHY IS THIS IMPORTANT?

HCV-related effects on other parts of the body can be an early indicator of HCV infection.

Chronic HCV infection may not have noticeable impacts on the liver for many years. However, patients may experience earlier symptoms in other parts of the body that could be related to HCV.

HCV treatment improves many health conditions. Clearing HCV from the body can relieve health conditions affecting multiple parts of the body, in addition to the liver.6-7

http://nvhr.org/sites/default/files/.users/u34/EHM%20Fact%20Sheet%201%20Final.pdf
Hepatitis C Reporting: Perinatal, Newborn Infants, and Children Aged Five Years or Less

Health care providers should report:

- All HCV-positive pregnant women;
- All infants born to HCV-positive women; and
- All HCV-positive infants and children aged 5 years or less seen in birthing hospitals, medical practices and clinics.

Routine prenatal testing for HCV is not recommended. Pregnant women with known risk factors for HCV infection should be offered HCV counseling and testing.

Infants born to HCV-positive mothers should be tested for HCV infection with an HCV RNA test at 2 months of age or older (at a routine well-child visit), or HCV antibody testing can be done at 18 months of age (HCV antibody testing should be delayed until 18 months of age to avoid detecting maternal antibody).

The Kentucky Department for Public Health recommends the use of quantitative HCV RNA tests at 2 months of age or older to assess whether HCV was transmitted to the infant from the HCV-positive mother.

Complete and fax the EPID 394 Form at the end of this newsletter.
Fax forms to (502) 564-4760
Viral Hepatitis Prevention Program Staff:

Robert Brawley, MD, MPH, FSHEA  
Infectious Disease Branch  
502-564-3261, ext. 4235  
Robert.Brawley@ky.gov

Kathy Sanders, RN, MSN  
Adult Viral Hepatitis Prevention Program Coordinator  
502-564-3261, ext. 4236  
KathyJ.Sanders@ky.gov

Amanda Wilburn, MPH  
Epidemiologist and  
Viral Hepatitis Surveillance Coordinator  
Amanda.Wilburn@ky.gov

Deborah Bolton-Plucknett, RN  
Perinatal Hepatitis B Prevention Program Coordinator  
502-564-4478, ext. 4260  
Deb.Bolton-Plucknett@ky.gov
# Kentucky Reportable Disease Form

**Department for Public Health, Division of Epidemiology and Health Planning**

275 East Main St., Mailstop HS2E-A
Frankfort, KY 40621-0001

**Hepatitis Infection in Pregnant Women or Child (aged five years or less)**

Report HBV electronically in NEDSS or by fax using EPID 394. Report HCV electronically or by fax using EPID 394.

Fax reports to 502-564-4760

---

<table>
<thead>
<tr>
<th>Date Report Submitted:</th>
<th>Agency Report Submitted by:</th>
<th>Agency Contact Phone Number:</th>
</tr>
</thead>
</table>

## NEWBORN INFANT BORN TO MOTHER WITH HBV/HCV or CHILD AGED 5 AND UNDER WITH HBV/HCV

<table>
<thead>
<tr>
<th>Infant/Child: Last Name</th>
<th>First</th>
<th>M.I.</th>
<th>Date of Birth</th>
<th>Gender</th>
<th>Male</th>
<th>Female</th>
<th>Neonatal Abstinence Syndrome</th>
<th>Yes</th>
<th>No</th>
<th>Not known</th>
<th>HBV vaccination given at birth:</th>
<th>Yes</th>
<th>No</th>
<th>Not known</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>County of Residence</th>
<th>Infant/Child Medical Record #</th>
<th>Ethnic Origin</th>
<th>Non-Hispanic</th>
<th>Race:</th>
<th>* W</th>
<th>B</th>
<th>A</th>
<th>AI</th>
<th>PI</th>
<th>Birth weight: lbs. oz.</th>
<th>Mother's Current Legal Last Name:</th>
<th>First</th>
<th>M.I.</th>
</tr>
</thead>
</table>

## PREGNANT/ POST PARTUM MOTHER INFORMATION

<table>
<thead>
<tr>
<th>Current Legal Last Name:</th>
<th>First</th>
<th>M.I.</th>
<th>Maiden</th>
<th>Is Patient Pregnant?</th>
<th>Yes</th>
<th>No</th>
<th>Is Patient Post-Partum?</th>
<th>Yes</th>
<th>No</th>
<th>If yes, date of delivery:</th>
<th>/</th>
<th>/</th>
<th>Mother's Medical Record #:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>History of Incarceration:</th>
<th>Yes</th>
<th>No</th>
<th>Not known</th>
<th>Ethnic Origin:</th>
<th>Non-Hispanic</th>
<th>Race:</th>
<th>* W</th>
<th>B</th>
<th>A</th>
<th>AI</th>
<th>PI</th>
<th>Social Security #:</th>
<th>Name of Physician/ Hospital for Delivery:</th>
<th>Address:</th>
</tr>
</thead>
</table>

## WOMEN/ POST PARTUM OR CHILD LABORATORY INFORMATION

<table>
<thead>
<tr>
<th>Hepatitis/Markers</th>
<th>Results</th>
<th>Date of test</th>
<th>Viral Load (If applicable)</th>
<th>Name of Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBsAg</td>
<td>Pos</td>
<td>Neg</td>
<td>Unknown</td>
<td>/</td>
</tr>
<tr>
<td>IgManti-HBc</td>
<td>Pos</td>
<td>Neg</td>
<td>Unknown</td>
<td>/</td>
</tr>
<tr>
<td>HBeAg</td>
<td>Pos</td>
<td>Neg</td>
<td>Unknown</td>
<td>/</td>
</tr>
<tr>
<td>IgManti-HAV</td>
<td>Pos</td>
<td>Neg</td>
<td>Unknown</td>
<td>/</td>
</tr>
<tr>
<td>HCV Antibody</td>
<td>Pos</td>
<td>Neg</td>
<td>Unknown</td>
<td>/</td>
</tr>
<tr>
<td>HCV RNA Confirmation</td>
<td>Pos</td>
<td>Neg</td>
<td>Unknown</td>
<td>/</td>
</tr>
</tbody>
</table>

## SERUM AMINOTRANSFERASE LEVELS

<table>
<thead>
<tr>
<th>Mother or Child</th>
<th>Reference</th>
<th>Date of test</th>
<th>Name of Laboratory</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST (SGOT)</td>
<td>U/L</td>
<td>U/L</td>
<td>/</td>
</tr>
<tr>
<td>ALT (SGPT)</td>
<td>U/L</td>
<td>U/L</td>
<td>/</td>
</tr>
</tbody>
</table>

**Mother: Hepatitis Risk Factors:**

<table>
<thead>
<tr>
<th>IV Drug Use</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
<th>Intrausal Drug Use</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
<th>Tattoos</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI History</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
<td>HIV</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
<td>Foreign Born? Country:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Sex Partners</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
<td>HCV Contact Exposure</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Child: Hepatitis Risk Factors:**

<table>
<thead>
<tr>
<th>Mother HBV Pos</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
<th>HBV Contact Exposure</th>
<th>Yes</th>
<th>No</th>
<th>Unknown</th>
<th>Foreign Born? Country:</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother HCV Pos</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
<td>HCV Contact Exposure</td>
<td>Yes</td>
<td>No</td>
<td>Unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Mother Or Child Vaccination History:**

| Hepatitis A vaccination history: | Yes | No | Unknown | Refused | Date Given: | / | / |
| Hepatitis B Vaccination history: | Yes | No | Unknown | Refused | If yes, how many doses 1 2 3 Dates completed: | / | / |

For infants born to mothers with HBV, was HBIG given: Yes | No | Unknown | Date Given: | / | / |

**Note:** If exhibiting signs and symptoms of HCV, report using the EPID 200
Fax or Mail the Completed Form to the Local Health Department

<table>
<thead>
<tr>
<th>DEMOGRAPHIC DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient’s Last Name</td>
</tr>
<tr>
<td>Address</td>
</tr>
<tr>
<td>Phone Number</td>
</tr>
<tr>
<td>Hispanic</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISEASE INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease/Organism</td>
</tr>
<tr>
<td>List Symptoms/Comments</td>
</tr>
<tr>
<td>Hospitalized?</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Hospital Name:</td>
</tr>
<tr>
<td>School/Daycare Associated?</td>
</tr>
<tr>
<td>Name of School/Daycare:</td>
</tr>
<tr>
<td>Person or Agency Completing form:</td>
</tr>
<tr>
<td>Address:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LABORATORY INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDITIONAL INFORMATION FOR SEXUALLY TRANSMITTED DISEASES ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disease:</td>
</tr>
<tr>
<td>Syphilis</td>
</tr>
<tr>
<td>Chlamydia</td>
</tr>
<tr>
<td>Gonorrhea</td>
</tr>
<tr>
<td>Chancroid</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

| Date of Spec. Collection | Laboratory Name | Type of Test | Results | Treatment Date | Medication | Dose |

If syphilis, was previous treatment given for this infection? | Yes | No |
If yes, give approximate date and place ______________________________________
Please use the following information and fax numbers (when relevant) for reporting:

### HIV/AIDS Cases:
Forms other than the EPID 200 are required for reporting HIV/AIDS cases in children and adults. Obtain those forms by calling 866-510-0008, or those forms can be downloaded from the DPH Website, [http://chfs.ky.gov/dph/epi/HIVAIDS/surveillance.htm](http://chfs.ky.gov/dph/epi/HIVAIDS/surveillance.htm). Contact information for telephoning case reports and addresses for mailing case reports are on that Website.

**Reports for HIV/AIDS cases should not be faxed.**

- **Pediatric Confidential Case Form** (PDF, 451k) for patients younger than 13 at time of diagnosis
- **Adult Confidential Form** (PDF, 441k) for patients 13 or older at time of diagnosis

### Sexually Transmitted Disease Cases:
Confidential reports for STD cases can be submitted on the EPID 200 form. Fax a completed form for STD Cases, only, to 502-564-5715. Or, mail to: Kentucky Department for Public Health STD Prevention and Control Program 275 E Main St, MS: HS2CC Frankfort, KY 40621

### Animal Bite Reports:
Healthcare providers and healthcare facilities should fax reports about animal bites directly to the Local Health Department (LHD) serving the county in which the patient resides. Please do not fax reports about animal bites to the Kentucky Department for Public Health.

### Reporting All Other Diseases and Conditions Listed in 902 KAR 2:020 (Reportable Disease Surveillance) or in any Public Health Advisory (PHA) Issued per that KAR that Requires Using the EPID 200 Form for Reporting:
Reports, depending upon the notification classification described in 902 KAR 2:020 or in a PHA, shall be submitted by phone, by electronic submission, or by fax or mail submission on an EPID 200 form to the Local Health Department (LHD) serving the county in which the patient resides.

If submitted by telephone, an electronic or fax submission shall be made within one business day to the LHD serving the county in which the patient resides.