



## KY Hepatitis Connections

August is here...which means the Kentucky State Fair is going on August 14<sup>th</sup>-24<sup>th</sup> and the KY Adult Viral Hepatitis Prevention and Control Program will be there! We encourage you to stop by and visit us at our booth in the South Wing of the Kentucky Exposition Center on August 21<sup>st</sup>. Take our Hepatitis Survey and enter the raffle to win a free blood pressure monitor donated by Walgreens.

Inside this August Edition of the KY Hepatitis Connections you will find current information about viral hepatitis, opportunities for viral hepatitis continuing professional education and information about educational materials available. See all the exciting things happening here in Kentucky Viral Hepatitis Prevention in this issue of *KY Hepatitis Connections*.

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. Follow us on Facebook at: KY Viral Hepatitis.

Kathy Sanders, RN MSN

## Our first Annual Conference:

### Hepatitis: The Silent Epidemic in Kentucky

**THANKS TO ALL OUR SPONSORS WHO HELPED MAKE OUR CONFERENCE SUCH A SUCCESS!**

#### Champion Sponsorship:



*Specialty Pharmacy With A Personal Touch*

#### Underwriter Sponsorship:



## Special thanks to all of our conference guest speakers:

**Dr. Kraig Humbaugh, M.D., M.P.H.**

KY Department for Public Health  
Deputy Commissioner

**Dr. Robert Brawley, MD, MPH, FSHEA**

KY Department for Public Health  
Chief, Infectious Disease Branch

**Dr. John Stutts, MD**

Pediatric GI Division  
University of Louisville

**Dr. Rosenau, MD**

Assistant Professor,  
Medical Director of Liver Transplantation  
University of Kentucky

**Jon Zibell, PhD**

Health Sciences/ Medical Anthropologist  
Division of Viral Hepatitis/ CDC

**Dr. Schaninger, MD**

University of Kentucky Infectious Disease

**Dr. Matthew Cave, MD**

University of Louisville Hepatology

A copy of all Conference Power Point Presentations is listed on our websites:

<http://chfs.ky.gov/dph/diseases/Hepatitis+C.htm> or  
<http://chfs.ky.gov/dph/epi/Immunization+Program.htm>

### Conference Reminder:

For those who attended the conference, go to:  
<https://ky.train.org> Course #1050937  
You must complete the Course Evaluation to get your  
Continuing Education Credits.

## HEPATITIS: IN THE NEWS

### Opioid, Heroin Deaths Continue to Climb

Overdose deaths from both prescription opioids and heroin continued to rise in 2011, the most recent year for which data were available, according to the CDC.

While prescription opioid deaths followed a more than decade-long trend and increased about 2% to 16,917, heroin deaths jumped by 44% -- from 3,036 in 2010 to 4,397.

Officials with the CDC said the increase in heroin deaths may be partly due to users having less access to prescription opioids and switching to the illicit drug.

Leonard Paulozzi, MD, MPH, a physician and researcher with the CDC in Atlanta, said about 75% of heroin users say they started out by using prescription opioids.

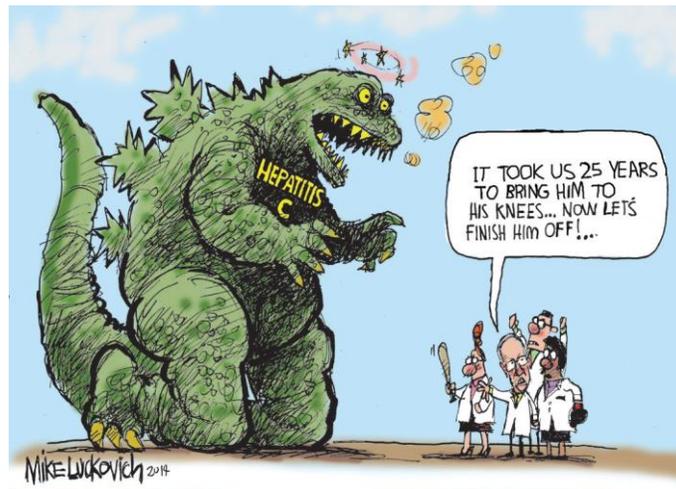
"People might have turned to heroin," Paulozzi told the *Milwaukee Journal Sentinel* and *MedPage Today*.

The increasing number of heroin deaths also coincides with anecdotal reports about rising heroin use among people who have had diminished access to prescription opioid painkillers.

Paulozzi said the prescription opioid death number is getting close to stabilizing, but added that it's "still bad because it hasn't gone down."

Read More:

[http://www.medpagetoday.com/PublicHealthPolicy/PublicHealth/46594?isalert=1&uun=g418265d1671R5517831u&utm\\_source=breaking-news&utm\\_medium=email&utm\\_campaign=breaking-news&xid=NL\\_breakingnews\\_2014-07-01](http://www.medpagetoday.com/PublicHealthPolicy/PublicHealth/46594?isalert=1&uun=g418265d1671R5517831u&utm_source=breaking-news&utm_medium=email&utm_campaign=breaking-news&xid=NL_breakingnews_2014-07-01)



## MMWR Reports:

### Vital Signs: Variation Among States in Prescribing of Opioid Pain Relievers and Benzodiazepines — United States, 2012

**Background:** Overprescribing of opioid pain relievers (OPR) can result in multiple adverse health outcomes, including fatal overdoses. Interstate variation in rates of prescribing OPR and other prescription drugs prone to abuse, such as benzodiazepines, might indicate areas where prescribing patterns need further evaluation.

**Methods:** CDC analyzed a commercial database (IMS Health) to assess the potential for improved prescribing of OPR and other drugs. CDC calculated state rates and measures of variation for OPR, long-acting/extended-release (LA/ER) OPR, high-dose OPR, and benzodiazepines.

**Results:** In 2012, prescribers wrote 82.5 OPR and 37.6 benzodiazepine prescriptions per 100 persons in the United States. State rates varied 2.7-fold for OPR and 3.7-fold for benzodiazepines. For both OPR and benzodiazepines, rates were higher in the South census region, and three Southern states were two or more standard deviations above the mean. Rates for LA/ER and high-dose OPR were highest in the Northeast. Rates varied 22-fold for one type of OPR, oxymorphone.

**Conclusions:** Factors accounting for the regional variation are unknown. Such wide variations are unlikely to be attributable to underlying differences in the health status of the population. High rates indicate the need to identify prescribing practices that might not appropriately balance pain relief and patient safety.

**Implications for Public Health:** State policy makers might reduce the harms associated with abuse of prescription drugs by implementing changes that will make the prescribing of these drugs more cautious and more consistent with clinical recommendations.

Read More:

[http://www.cdc.gov/mmwr/preview/mmwrhtml/mm63e0701a1.htm?s\\_cid=mm63e0701a1\\_e](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm63e0701a1.htm?s_cid=mm63e0701a1_e)



## Opioid Painkiller Prescribing



Each day, 46 people die from an overdose of prescription painkillers\* in the US.



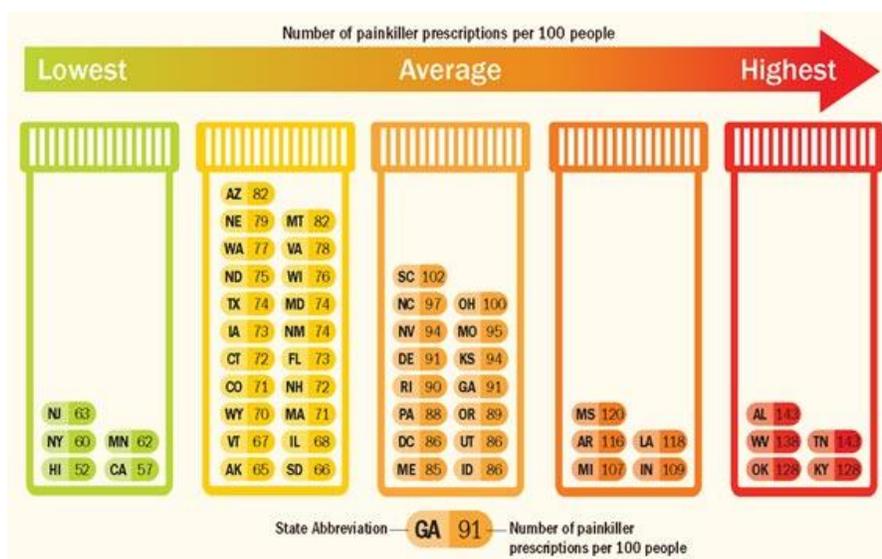
Health care providers wrote 259 million prescriptions for painkillers in 2012, enough for every American adult to have a bottle of pills.



10 of highest prescribing states for painkillers are in the South.

Health issues that cause people pain don't vary much from place to place—not enough to explain why, in 2012, health care providers in the highest-prescribing state wrote almost 3 times as many opioid painkiller prescriptions per person as those in the lowest prescribing state in the US. Or why there are twice as many painkiller prescriptions per person in the US as in Canada. Data suggest that where health care providers practice influences how they prescribe. Higher prescribing of painkillers is associated with more overdose deaths. More can be done at every level to prevent overprescribing while ensuring patients' access to safe, effective pain treatment. Changes at the state level show particular promise.

### Health care providers in different states prescribe at different levels.



<http://www.cdc.gov/vitalsigns/opioid-prescribing/index.html>

## HEPATITIS: CME's

### ACT-First: Free, Online CME Course for Primary Care Providers

More than 3 million people in the U.S. have hepatitis C (HCV), and three in four don't know they are infected. The Centers for Disease Control and Prevention (CDC) recommends screening all baby boomers – people born between 1945 and 1965 – for HCV. In addition, the U.S. Preventative Services Task Force recently upgraded to B its recommendation for hepatitis B (HBV) screening of persons at high risk of infection.

Primary care physicians are on the front lines of implementing screening recommendations. AASLD developed ACT-First — AASLD Curriculum and Training — for these first-line providers. A free, online CME course, ACT-First will help improve providers' knowledge and clinical skills in hepatology. Physicians will learn which patients to screen for liver diseases, how to screen, what to do in the patient with positive serologies, what to tell the patient, and how to decide who is a candidate for therapy.

Two units — on HCV and HBV — are available now, with additional units on other liver diseases to be released soon. Each teaching unit includes seven to eight short (20-minute) presentations addressing every aspect of the disease state. **Read More:**

<http://www.aasld.org/LiverLearning%c2%ae/Pages/LiverProgramforPrimaryCareProviders.aspx>

## HEPATITIS B:

### Perinatal Transmission

Hepatitis B virus (HBV) infection in a pregnant woman poses a serious risk to her infant at birth. Without post exposure immunoprophylaxis, approximately 40% of infants born to HBV-infected mothers in the United States will develop chronic HBV infection, approximately one-fourth of whom will eventually die from chronic liver disease.

Perinatal HBV transmission can be prevented by identifying HBV-infected (i.e., Hepatitis B surface antigen [HBsAg]-positive) pregnant women and providing Hepatitis B immune globulin and Hepatitis B vaccine to their infants within 12 hours of birth.

Preventing perinatal HBV transmission is an integral part of the national strategy to eliminate Hepatitis B in the United States. National guidelines call for the following:

- Universal screening of pregnant women for HBsAg during each pregnancy
- Case management of HBsAg-positive mothers and their infants
- Provision of immunoprophylaxis for infants born to infected mothers, including Hepatitis B vaccine and Hepatitis B immune globulin
- Routine vaccination of all infants with the Hepatitis B vaccine series, with the first dose administered at birth

For Additional Information: <http://www.cdc.gov/hepatitis/HBV/PerinatalXmntn.htm>

# HEPATITIS C: LABORATORY TESTING

## Guidelines for Laboratory Testing and Result Reporting

### Testing for HCV infection: An update of Guidance for Clinicians and Laboratorians:

In the United States, an estimated 4.1 million persons have been infected with hepatitis C virus (HCV), of whom an estimated 3.2 (95% confidence interval [CI] = 2.7–3.9) million are living with the infection (1). New infections continue to be reported particularly among persons who inject drugs and persons exposed to HCV-contaminated blood in health-care settings with inadequate infection control (2).

Since 1998, CDC has recommended HCV testing for persons with risks for HCV infection (3). In 2003, CDC published guidelines for the laboratory testing and result reporting of antibody to HCV (4). In 2012, CDC amended testing recommendations to include one-time HCV testing for all persons born during 1945–1965 regardless of other risk factors (1).

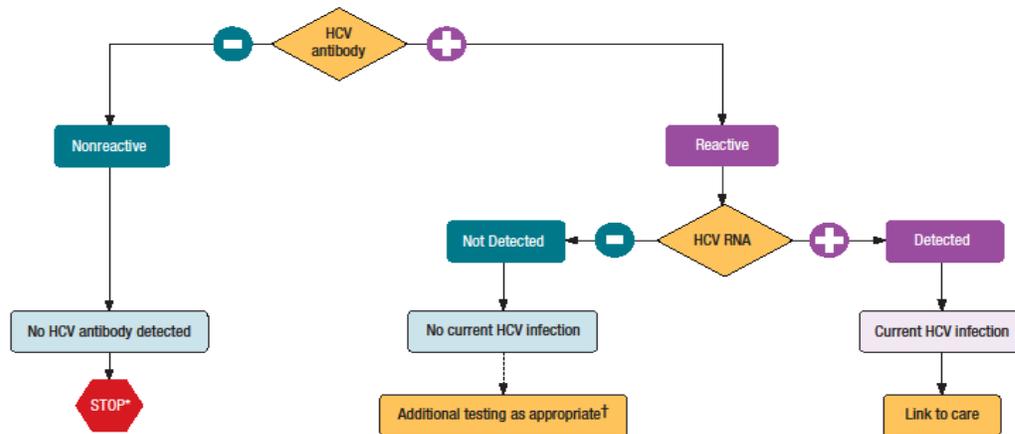
CDC is issuing this update in guidance because of 1) changes in the availability of certain commercial HCV antibody tests, 2) evidence that many persons who are identified as reactive by an HCV antibody test might not subsequently be evaluated to determine if they have current HCV infection (5), and 3) significant advances in the development of antiviral agents with improved efficacy against HCV (6). Although previous guidance has focused on strategies to detect and confirm HCV antibody (3,4), reactive results from HCV antibody testing cannot distinguish between persons whose past HCV infection has resolved and those who are currently HCV infected. Persons with current infection who are not identified as currently infected will not receive appropriate preventive services, clinical evaluation, and medical treatment. Testing strategies must ensure the identification of those persons with current HCV infection.

Read More: <http://www.cdc.gov/mmwr/pdf/wk/mm62e0507a2.pdf>

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



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention



\* 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.

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

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



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

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 current HCV infection	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.

† It is recommended before initiating antiviral therapy to retest for HCV RNA in a subsequent blood sample to confirm HCV RNA positivity.

‡ 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.

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



**National Estimates of Healthcare Utilization by Individuals With Hepatitis C Virus Infection in the United States., Galbraith JW, Donnelly JP, Franco RA, Overton ET, Rodgers JB1, Wang HE.**

<http://www.ncbi.nlm.nih.gov/pubmed/24917659>

**BACKGROUND:** Hepatitis C virus (HCV) infection is a major public health problem in the United States (US). While prior studies have evaluated HCV-related healthcare burden, these studies examined a single treatment setting and did not account for the growing "baby boomer" population (individuals born 1945-1965).

**METHODS:** Data from the National Ambulatory Medical Care Survey (NAMCS), the National Hospital Ambulatory Medical Care Survey (NHAMCS), and the Nationwide Inpatient Sample (NIS) were analyzed. We sought to characterize healthcare utilization by individuals infected with HCV in the US, examining adult ( $\geq 18$  years) outpatient, ED and inpatient visits among individuals with HCV diagnosis for the period 2001-2010. Key subgroups included persons born before 1945 (older), between 1945 and 1965 (baby boomer), and after 1965 (younger).

**RESULTS:** Individuals with HCV infection were responsible for over 2.3 million out patient, 73,000 ED, and 475,000 inpatient visits annually. Persons in the baby boomer cohort accounted for 72.5%, 67.6%, and 70.7% of care episodes in these settings, respectively. While the number of outpatient visits remained stable during the study period, inpatient admissions among HCV infected baby boomers increased by over 60%. Inpatient stays totaled 2.8 million days and cost over \$15 billion annually. Non-whites, uninsured individuals, and individuals receiving publicly funded health insurance were disproportionately affected in all health care settings.

**CONCLUSIONS:** Individuals with HCV infection are large users of outpatient, ED, and inpatient health services. Resource use is highest and increasing in the baby boomer generation. These observations illuminate the public health burden of HCV infection in the United States.

**[www.PipelineReport.org](http://www.PipelineReport.org)**

<http://www.pipelinereport.org/>

**2014 Pipeline Report**

**HIV, Hepatitis C Virus (HCV), and Tuberculosis (TB)**

Drugs, Diagnostics, Vaccines, Preventive Technologies, Research Toward a Cure, and Immune-Based and Gene Therapies in Development

By Polly Clayden, Simon Collins, Colleen Daniels, Mike Frick, Mark Harrington, Tim Horn, Richard Jefferys, Karyn Kaplan, Erica Lessem, Lindsay McKenna, and Tracy Swan

## Combo Cures HCV in HIV Patients

MELBOURNE, Australia -- A drug combination approved to treat hepatitis C virus (HCV) delivers similar efficacy in patients who also have HIV, researchers reported.

In an open-label nonrandomized trial, the combination of sofosbuvir (Sovaldi) and ribavirin yielded HCV cure rates ranging from 67% to 94%, according to [Mark Sulkowski, MD](#), of Johns Hopkins University, and colleagues.

There was no adverse effect on HIV disease or on treatment for the virus, Sulkowski and colleagues reported at the International AIDS Conference here and in the July 23/30 issue of the *Journal of the American Medical Association*.

The "very exciting" findings open new doors to the treatment of co-infected patients, commented [Turner Overton, MD](#), of the University of Alabama at Birmingham.

Read more: [http://www.medpagetoday.com/meetingcoverage/iac/46843?xid=nl\\_mpt\\_DHE\\_2014-07-21&utm\\_content=&utm\\_medium=email&utm\\_campaign=DailyHeadlines&utm\\_source=ST&eun=g418265d0r&userid=418265&email=kathyj.sanders%40ky.gov&mu\\_id=5517831&utm\\_term=Daily](http://www.medpagetoday.com/meetingcoverage/iac/46843?xid=nl_mpt_DHE_2014-07-21&utm_content=&utm_medium=email&utm_campaign=DailyHeadlines&utm_source=ST&eun=g418265d0r&userid=418265&email=kathyj.sanders%40ky.gov&mu_id=5517831&utm_term=Daily)

## Reminder:

### Hepatitis C: Perinatal and Children Aged Five Years or Less

The Kentucky Department for Public Health (KDPH) is requesting your ongoing assistance to report pregnant women and children aged five years and less who are infected with hepatitis C virus (HCV), and seen in birthing hospitals, medical practices, and clinics throughout the Commonwealth.

Please complete the reporting form at the end of this newsletter and fax to the Kentucky Department for Public Health at: 502-564-4760 to continue to report any HCV-positive individuals in the above categories.

If you have additional questions or concerns, please call Kathy Sanders, RN, MSN at 502-564-3261, ext. 4236 or Julie Miracle, RN, BSN at 502-564-4478, ext. 4260.

## HEPATITIS PREVENTION: SPREAD THE WORD

IV DRUG ABUSE and HEPATITIS C go HAND in HAND



TEEN MEDICINE ABUSE IS AN EPIDEMIC - ONE THAT IS NOT POISED TO GET BETTER.

MORE TEENS ARE ABUSING PRESCRIPTION MEDICINE THAN EVER. RECENT FINDINGS FROM THE PARTNERSHIP ATTITUDE TRACKING STUDY SHOW THAT

### **ONE IN FOUR TEENS**

HAS MISUSED OR ABUSED A PRESCRIPTION DRUG AT LEAST ONCE IN THEIR LIFETIME. THAT IS A 33 PERCENT INCREASE SINCE 2008.

ONE STEP WE CAN ALL TAKE IS TO HAVE FREQUENT CONVERSATIONS WITH THE TEENS IN OUR LIVES ABOUT THE DANGERS OF MEDICINE ABUSE.

IT IS IMPORTANT THAT PARENTS MONITOR, SAFEGUARD AND PROPERLY DISPOSE OF THE MEDICINES THEY KEEP AT HOME, AS MORE THAN FOUR IN TEN TEENS WHO HAVE MISUSED OR ABUSED A PRESCRIPTION DRUG HAS TAKEN IT RIGHT OUT OF THEIR PARENT'S MEDICINE CABINET. KIDS WHO ABUSE MEDICINE ARE STARTING EARLY. IN FACT, ONE IN FIVE KIDS HAS DONE SO BEFORE THE AGE OF 14. PARENTS ARE THE FIRST LINE OF DEFENSE IN PROTECTING TEENS FROM THIS DANGEROUS BEHAVIOR.



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# 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 (under the age of five)**  
**Fax Form to 502-564-4760**

DEMOGRAPHIC DATA					
Patient's Last Name	First	M.I.	Date of Birth	Age	Gender <input type="checkbox"/> M <input type="checkbox"/> F <input type="checkbox"/> Unk
Address		City	State	Zip	County of Residence
Phone Number	Patient ID Number	Ethnic Origin <input type="checkbox"/> His. <input type="checkbox"/> Non-His.		Race <input type="checkbox"/> W <input type="checkbox"/> B <input type="checkbox"/> A/PI <input type="checkbox"/> Am.Ind. <input type="checkbox"/> Other	

DISEASE INFORMATION			
Describe Clinical Symptoms:	Date of Onset: / /	Jaundice: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Diagnosis: / /
Is Patient Pregnant? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, # wks _____	Expected Date of Delivery: / /	Name of Hospital for Delivery:	
Physician Provider Name: Address: Phone:			

LABORATORY INFORMATION				
Hepatitis Markers	Results	Date of test	Viral Load *if applicable	Name of Laboratory
HBsAg	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /		
IgM anti-HBc	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /		
HBeAg	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /		
IgM anti-HAV	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /		
HCV Antibody	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /		
HCV RNA Confirmation	<input type="checkbox"/> Pos <input type="checkbox"/> Neg	/ /		

SERUM AMINOTRANSFERASE LEVELS				
Patient	Reference	Date of test	Name of Laboratory	
AST (SGOT) U/L	U/L	/ /		
ALT (SGPT) U/L	U/L	/ /		

<b>Mother: Hepatitis Risk Factors</b> <input type="checkbox"/> IDU <input type="checkbox"/> Multiple Sexual Partners <input type="checkbox"/> Tattoos <input type="checkbox"/> STD <input type="checkbox"/> HIV <input type="checkbox"/> Foreign Born/ Country _____ <input type="checkbox"/> Exposure to known HBV/HCV Pos contact	<b>Child: Hepatitis Risk Factors</b> <input type="checkbox"/> Mother HBV Pos <input type="checkbox"/> Household member exposure HBV Pos <input type="checkbox"/> Mother HCV Pos <input type="checkbox"/> Household member exposure HCV Pos <input type="checkbox"/> Foreign Born / Country _____
Mother: Hepatitis A vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Dates Given: / / Hepatitis B Vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused If yes, how many doses <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 Year completed: / /	
Child: Hepatitis A vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Dates Given: / / Hepatitis B Vaccination history: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused Dates Given: / / Was PEP Infant of Positive HBV mother given at birth? <input type="checkbox"/> Yes <input type="checkbox"/> No	

