

NC Department of Health and Human Services
Perinatal Hepatitis C:
 Testing Recommendations, Linkages, and Care

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1

2020 CDC/USPSTF Hepatitis C Screening Recommendations

CDC Recommendations for Hepatitis C Screening Among Adults — United States, 2020

Recommendations and Reports / April 10, 2020 / 69(2):1-17

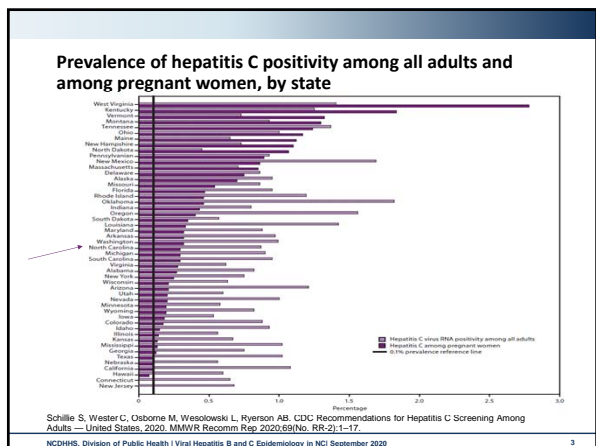
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Universal Screening Recommendations:

- Hepatitis C screening at least once in a lifetime for all adults aged ≥18 years, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is <0.1%
- Hepatitis C screening for all pregnant women during each pregnancy, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is <0.1%

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2



3

HCV screening in FY 2020-2021 AA

- Recommended only in high risk women as per previously: **NO CHANGE**
- Stay posted for future changes to AA

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4


Outline of Presentation

- What is Hepatitis C (HCV)?
- Epidemiology of HCV in North Carolina
- Screening for and Diagnosing HCV
- Management of +HCV during pregnancy
- Management of +HCV over life course
- North Carolina HCV Management Resources

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5

HCV Infection



- RNA virus
- Blood-borne transmission primarily
- Incubation: 2-12 weeks
- Under-reported as many are asymptomatic
- CDC Case definition: An illness with discrete onset of any sign or symptom consistent with acute viral hepatitis (e.g., fever, headache, malaise, anorexia, nausea, vomiting, diarrhea, and abdominal pain),
AND(a) jaundice **OR** (b) peak ALT level >200

CDC, <https://www.cdc.gov/nndss/conditions/hepatitis-c-acute/case-definition/2020/>
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6

HCV Transmission

- Most commonly transmitted:
 - Injection drug use (prevalence up to 50%)
 - Congenital transmission
- Also transmitted:
 - Sexual activity
 - Sharing personal items (e.g. razor, toothbrush)
 - Health care procedures (e.g. injections)
 - Unregulated tattoo
 - Blood or organ receipt (rare since 1992)
 - Healthcare associated needle-stick injury

CDC, <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm>
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7

Consequences of HCV

- Most common bloodborne infection in US
 - 50% undiagnosed
 - 15,713 US deaths attributed to HCV in 2018
- 75% will develop a chronic infection
- 5%-25% of all those infected will develop cirrhosis within 10-20 years
 - 3%-6% annual risk of hepatic failure
- Other manifestations: hepatocellular carcinoma, diabetes, kidney disease, and hematologic diseases
- 90% of those can be treated with current regimens regardless of genotype(s)

CDC, <https://www.cdc.gov/hepatitis/hcv/hcvfaq.htm#ref02>
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8

IN THE SHADOW OF THE OPIOID CRISIS, NEW HEPATITIS C INFECTIONS HAVE **INCREASED**

Year	Number of New Infections
2011	16,500
2016	41,200

Visit www.cdc.gov/hepatitis for more information

CDC, <https://www.cdc.gov/nchhstp/newsroom/2018/hepatitis-c-prevalence-estimates.html>
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9

NEARLY 2.4 MILLION AMERICANS ARE LIVING WITH HEPATITIS C*

1/2 MAY NOT KNOW THEY'RE INFECTED†

Visit www.cdc.gov/hepatitis for more information

CDC

CDC, <https://www.cdc.gov/nchstp/newsroom/2018/hepatitis-c-prevalence-estimates.html>

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10

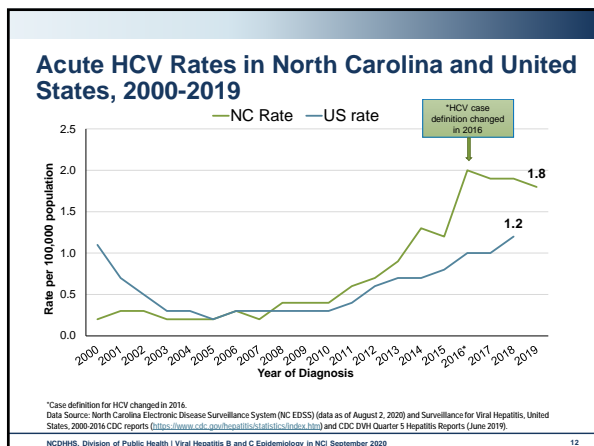
Hepatitis C in United States and North Carolina

- HCV infections are rising in US
 - Acute HCV cases in 2018*: 3,621 (a 4-fold increase since 2010)
 - Estimated new cases, 2018*: 50,300 (95% CI: 39,800-171,600)
 - Increase associated with rising rates of injection drug use and improved case detection
 - Greatest rise in acute HCV occurred among the 20-39 age group
- CDC estimates that 2.4 million people are living with HCV in the US
- NC estimate: 150,000 people are living with HCV (1.8 per 100,000)
- Chronic HCV in NC at the end of 2019: 62,831 people

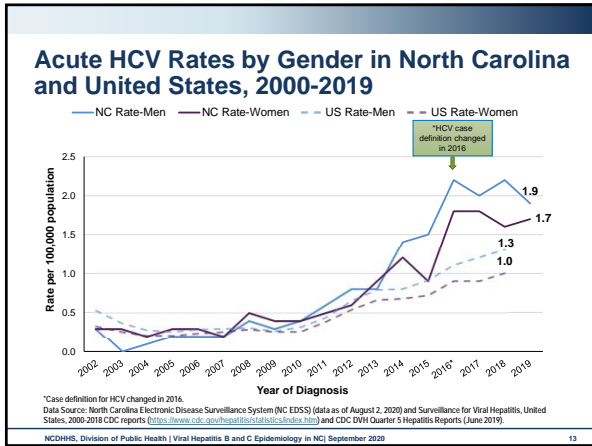
*Data only available for 2018. Surveillance for Viral Hepatitis-United States, 2018 from Centers for Disease Control and Prevention (<https://www.cdc.gov/hepatitis/statistics/index.htm>)

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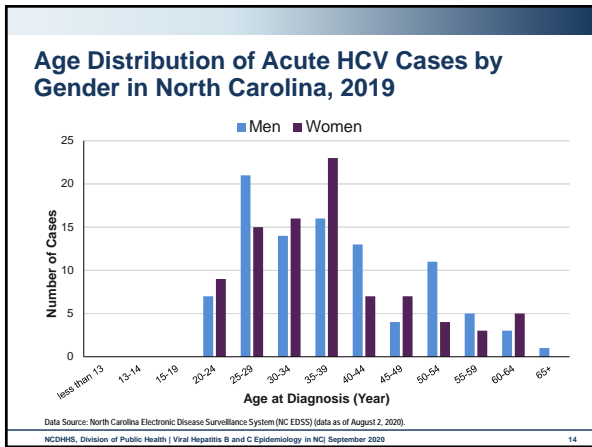
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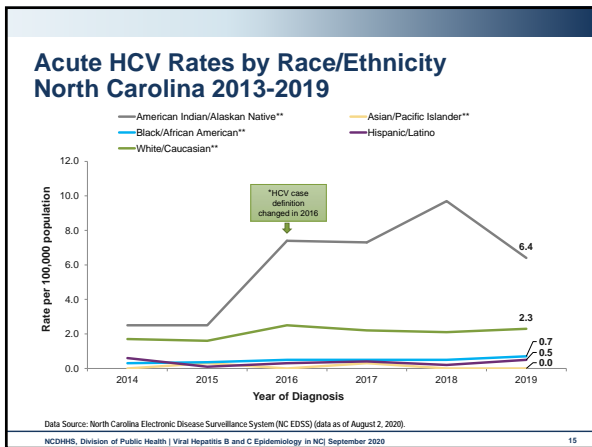
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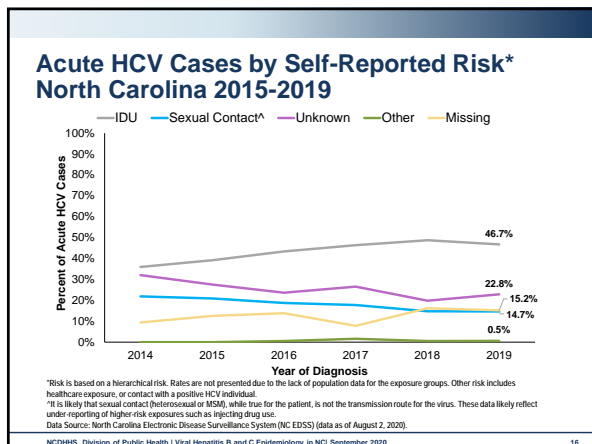


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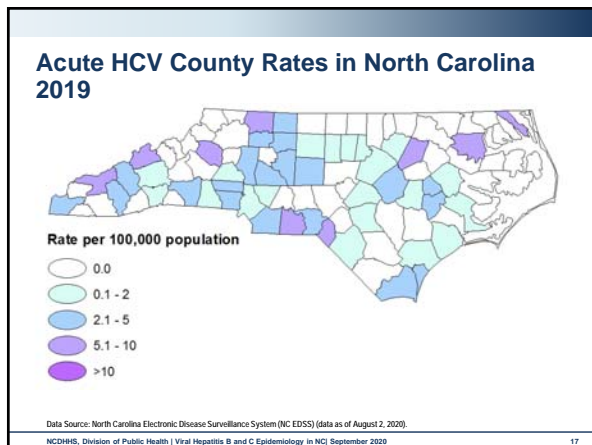


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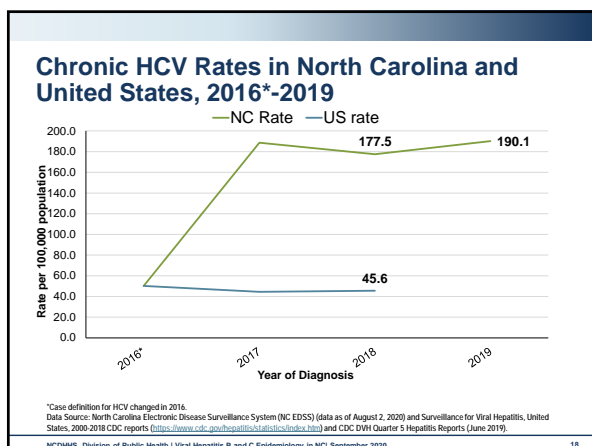




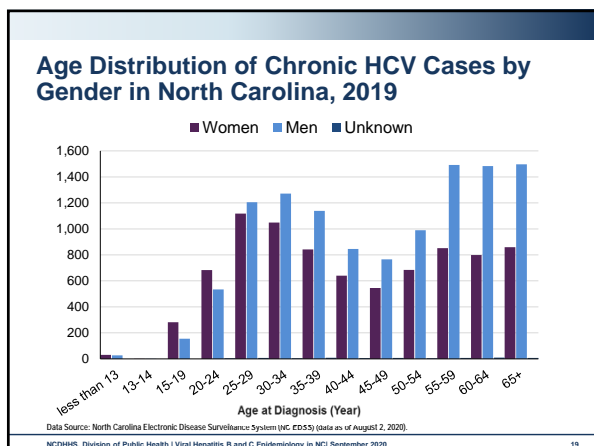
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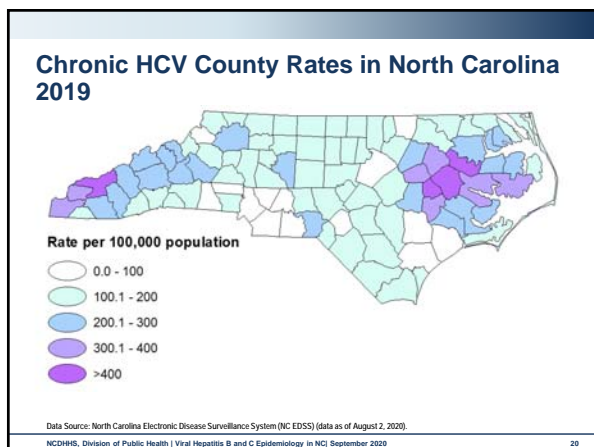
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20

Perinatal HCV

- Given the rise in HCV among younger women, there is concern for more perinatal HCV cases
 - Currently 1,700 cases per year in the US
- Vertical transmission risk for HCV viral RNA positive mothers: 5%-7%
 - NC numbers not available
- CDC now recommends universal screening in every pregnancy with reflex to HCV RNA if positive as well as repeat screening in people with continuing risk factors

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21

USPSTF Screening Recommendation

- **Recommends screening for HCV infection in adults aged 18-79**
 - Pregnant women should be screened; consider screening pregnant women less than 18
 - Most adults need to be screened only once
 - Those with ongoing risk factors should be screened periodically

USPSTF March 2020 <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/hepatitis-c-screening#tab>

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22

22

CDC HCV Screening: Universal

- Hepatitis C screening at least once in a lifetime for **all adults** aged 18 years and older, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is less than 0.1%*
- Hepatitis C screening for **all pregnant women during each pregnancy**, except in settings where the prevalence of HCV infection (HCV RNA-positivity) is less than 0.1%*

CDC, April 2020 <https://www.cdc.gov/mmwr/volumes/69/rr/r6902a1.htm>

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23

23

CDC HCV Screening: One-time

- **One-time hepatitis C testing regardless of age or setting prevalence among people with recognized conditions or exposures:**
 - HIV
 - Ever injected drugs
 - People who ever received maintenance hemodialysis or have persistently abnormal ALT
 - Prior recipients of transfusions or organ transplants, including before 1992
 - Healthcare, emergency medical, and public safety personnel after needle sticks, sharps, or mucosal exposures to HCV-positive blood
 - Children born to mothers with HCV infection

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24

24

CDC HCV Screening-Other

- **Routine periodic testing for people with ongoing risk factors**, while risk factors persist:
 - Injection drug use
 - Maintenance hemodialysis
- **Any person who requests hepatitis C testing** should receive it, regardless of disclosure of risk, because many people may be reluctant to disclose stigmatizing risks

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25

25

WHO SHOULD GET TESTED FOR HEPATITIS C?

EVERY ADULT  At least once	EVERY PREGNANT WOMAN  Every pregnancy	EVERYONE WITH RISK FACTORS  Regularly
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SOURCES: CDC Recommendations for Hepatitis C Screening, MMWR, April 2020
CDC Vital Signs, April 2020

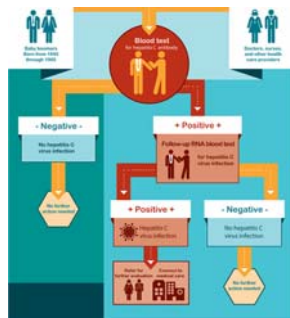
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26

26

HCV Screening Process

- **Universal screening in pregnancy**
 - Timing not specified
- **If positive test, obtain HCV RNA test**
 - Reflex testing of HCV+ screens at state lab
 - +RNA test → HCV
 - -RNA test → no active HCV

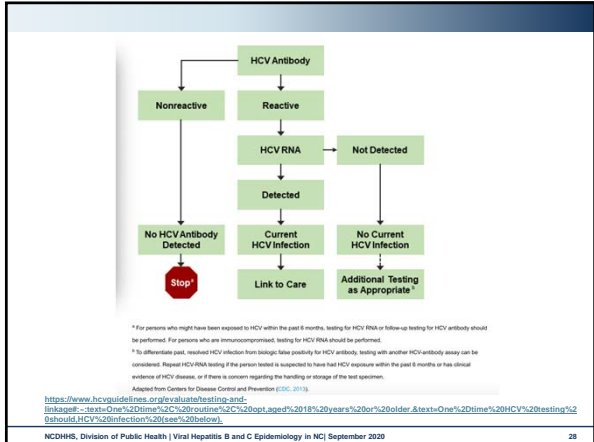


CDC: <https://www.cdc.gov/vitalsigns/hepatitis/index.html>

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27

27



28

HCV Testing Interpretation

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.

CDC. https://www.cdc.gov/hepatitis/HCV/PDFs/hcv_graph.pdf

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29

- ### HCV screening counseling
- Patients should at least verbally consent and may opt out
 - Can treat HCV testing under general consent similar to HBV and HIV testing
 - Positive testing associated with high risk of past or current injection drug use
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30

Prevention of Perinatal Transmission

SMFM Guidelines 2017

- No vaccine, prophylaxis or treatment available in pregnancy
- Choose amniocentesis over chorionic villous sampling
- Cesarean delivery should not be chosen solely for the indication of Hepatitis C
- Internal fetal monitoring, prolonged rupture of membranes and episiotomy should be avoided
- Breastfeeding is encouraged

SMFM <https://www.smfm.org/publications/248-smfm-consult-series-43-hepatitis-c-in-pregnancy-screening-treatment-and-management>

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31

31

Perinatal Transmission Prevention

- All babies born to HCV+ mothers should be tested at 18 months of age or older for perinatal transmission
- 20%-50% of babies with HCV+ mothers are currently appropriately tested for HCV
- Rates are much lower among Black babies than white babies
- "Cascade to Care"
 - Universal screening in pregnancy → HCV viremic → linked to care → infants tested at 18 months → HCV+ infants linked to care

<https://pubmed.ncbi.nlm.nih.gov/32050140/> <https://pubmed.ncbi.nlm.nih.gov/29720535/> <https://pubmed.ncbi.nlm.nih.gov/31292149/>

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32

32

Viral Hepatitis Care Cascade

COLLABORATION



Case Management/PT Support

https://www.dph.ncdhhs.gov/ncd/ncpa/ncpa-1100/C_Factsheet_FINAL_WEB.pdf

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33

33

Prevention of liver disease

- Active hepatitis A and B outbreaks are occurring in NC
- Combined infection increases risks associated with HCV infection
- Hepatitis A/B vaccination is strongly recommended in HCV+ patients during pregnancy
- Twinrx is available for all patients without documentation of prior full HBV series

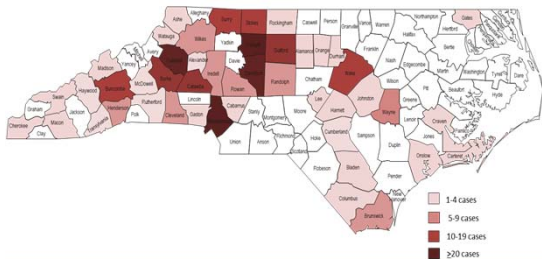
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34

34

Hepatitis A (HAV)- North Carolina

- As of October 7, 2020:
- 346 cases
- 65% hospitalized
- 2 deaths

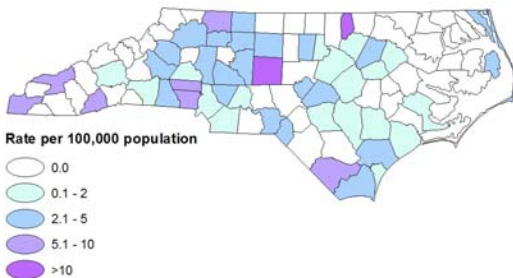


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35

35

Acute HBV County Rates in North Carolina 2019



Data Source: North Carolina Electronic Disease Surveillance System (NC EDSS) (data as of August 12, 2020).

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36

36

Long-term management of HCV

- Direct-acting antiviral treatments (DAAs) NOT FDA approved in pregnancy but will treat 95%-98% of infections
 - Care linkage postpartum is important
 - GI v. trained primary care physicians
 - Reinfection possible
- Secondary Prevention strategies
 - Abstain from alcohol for life
 - Safe sex practices including condoms, lube and avoiding rough sex/fisting
 - Harm reduction for injection drug use
 - Substance use disorder treatment

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37

MPW coverage

- Per Medicaid HCV treatment and GI referral should be covered by MPW (communication 10/2020)
- Use appropriate Pregnancy-related ICD-10 codes: O98.4 Viral hepatitis complicating pregnancy, childbirth and the puerperium
 - O98.411 first trimester
 - O98.412 second trimester
 - O98.413 third trimester
 - O98.43 Viral hepatitis complicating the puerperium

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38

HCV+ Counseling

- Explain what results mean;
 - HCV is treatable (95%-98% will respond to DAA)
 - Limited mother-to-child transmission
 - You can still breastfeed
 - Treatment approved for children 3 and up
- Ask about other resources mom might need?
 - Limit stigmatizing language
 - Mom's might be resistant to talk about drug use; offer a variety of services from harm reduction to food services to housing resources to counsel
 - [Drug User Health Resource Guide: https://epi.ncpublichealth.info/cd/hepatitis/DrugUserHealthResourceGuide_10.14.20-WEB.pdf](https://epi.ncpublichealth.info/cd/hepatitis/DrugUserHealthResourceGuide_10.14.20-WEB.pdf)

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39

Viral Hepatitis Counseling

Viral Hepatitis

Virus	Transmission Routes	Vaccine	Cure
A	Fecal/Oral	Yes	Acute illness results in immunity
B	Blood to blood & sexual contact	Yes	No cure (treatment available)
C	Blood to blood	No	Curable (12-18 week treatment)

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40

Viral Hepatitis Prevention

Hepatitis A:

- VACCINE
- Hand washing
- Condom use
- Dental dams
- Safe injection and drug use practices

Hepatitis B:

- VACCINE
- Safer sex practices
- Safer drug use practices

Hepatitis C:

- Safer sex practices: prevention around rough sex/fisting
 - Lube is your friend!
- Safer drug use practices

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41

Harm Reduction and Viral Hepatitis

HIV	Hepatitis B	Hepatitis C
Transmitted through blood, semen, vaginal secretions, and breast milk	Transmitted through blood, semen, and vaginal secretions	Transmitted through blood to blood contact
Virus lives outside of body only a few hours	Virus lives outside of body for up to 7 days, and as long as 3 months in a closed container	Virus lives outside of body for up to 7 days, and as long as 3 months in a closed container
Baseline infectivity (1x)	100x	10x
No Vaccine	Vaccine Available	No Vaccine

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42

Harm Reduction

- Viral Hepatitis can be spread by sharing:
 - Drugs themselves
 - Water
 - Cottons
 - Cookers
 - Syringes and Ties
 - Blood on surfaces, will later contaminate other items
 - Bloody fingers
 - Pipes
 - Nasal straws

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43

Harm Reduction: A few sample messages

- ❖ Try to use different methods to take drugs
 - ❖ Can you snort it?
 - ❖ Can you smoke it?
 - ❖ Take it orally?
 - ❖ Take it intra-anally?
- ❖ Never share: this goes for all works, especially cotton and water
- ❖ Clean surfaces with 10% bleach before and after
 - ❖ Other options: water, ethanol, hand sanitizer
- ❖ Wash hands, use hand sanitizer to clean off fingers
- ❖ Utilize [Syringe Exchange Programs](#)

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44

Non-stigmatizing language

Instead Of...	Use...	Because...
<ul style="list-style-type: none"> • Addict • User • Substance or drug abuser • Junkie • Former addict 	<ul style="list-style-type: none"> • Person with opioid use disorder (OUD) or person with opioid addiction [when substance in use is opioids] • Patient • Person in recovery or long-term recovery/person who previously used drugs 	<ul style="list-style-type: none"> • Person-first language. • The change shows that a person "has" a problem, rather than "is" the problem. • The terms avoid elicit negative associations, punitive attitudes, and individual blame.?
<ul style="list-style-type: none"> • Habit 	<ul style="list-style-type: none"> • Substance use disorder • Drug addiction 	<ul style="list-style-type: none"> • Inaccurately implies that a person is choosing to use substances or can choose to stop.
<ul style="list-style-type: none"> • Abuse 	<ul style="list-style-type: none"> • For illicit drugs: Use • For prescription medications: Misuse, used other than prescribed 	<ul style="list-style-type: none"> • The term "abuse" was found to have a high association with negative judgments and punishment.
<ul style="list-style-type: none"> • Clean 	<ul style="list-style-type: none"> • Not currently or actively using drugs • Sterile or new supplies 	<ul style="list-style-type: none"> • Use clinically accurate, non-stigmatizing terminology the same way it would be used for other medical conditions.
<ul style="list-style-type: none"> • Dirty 	<ul style="list-style-type: none"> • Person who uses drugs • Tested positive for drugs 	<ul style="list-style-type: none"> • May decrease patients' sense of hope and self-efficacy for change.
<ul style="list-style-type: none"> • Addicted baby 	<ul style="list-style-type: none"> • Baby born to mother who used drugs while pregnant • Baby with signs of withdrawal from prenatal drug exposure • Baby with neonatal opioid withdrawal/neonatal abstinence syndrome 	<ul style="list-style-type: none"> • Babies cannot be born with addiction because addiction is a behavioral disorder—they are simply born manifesting a withdrawal syndrome. • Using person-first language can reduce stigma.

45

North Carolina Resources for HCV

- State resource website: https://epi.dph.ncdhhs.gov/cd/diseases/hep_c.html
- Bridge Program: counsellors connect patients with resources and treatment once tested positive
- Viral Hepatitis Prevention Nurse: follow kids with perinatal exposure
- CHAMP: program connecting prescribing providers with GI mentors at two academic institutions to improve access to treatment

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46

Bridge Counselors: Referral Process

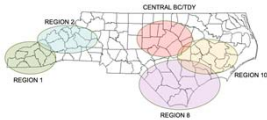
- Referrals: Local Health Department (LHD), private provider, community-based organization (CBO), self-referral
- Outreach:
 - Call three times,
 - Send letter
 - Follow up after one year if not ready or not reached
- Bridging session appointment with counsellor: Offer comprehensive care resources
 - Social services
 - Housing
 - Food stability
 - Syringe services and harm reduction
 - Primary care
 - SUD treatment/MAT
 - Wound care
 - Hepatitis B/C, HIV and syphilis testing
 - HCV treatment
- First appointment with HCV treater
- Bridge Counsellor Follow up through 12-week treatment
- Follow up for Sustained Viral Response (SVR) or cure
- 1 year reinfection check in

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47

Hepatitis C Bridge Counselor Contacts

<u>Region 1:</u> Sally Sutton Home base: Jackson Co HD Phone: (828)587-8291 Email: sallysutton@jacksonnc.org	<u>Statewide:</u> Morgan Culver Home base: Raleigh, NC Phone: (919)546-1614 Email: morgan.culver@dhhs.nc.gov
<u>Region 2:</u> Michelle Goyeau Home base: CCWNC- Asheville Phone: (828)348-2190 Email: mgoyeau@ccwnc.org	<u>Region 10 and Statewide Support:</u> Kayla Ellis Home base: Raleigh, NC Phone: (919)546-1689 Email: kayla.ellis@dhhs.nc.gov
<u>Region 8:</u> Rebecca Morgan Home base: New Hanover Co HD Phone: (910)798-6516 Email: remorgan@nhcgov.com	



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48

Viral hepatitis Prevention Nurse

- **Testing for baby- Viral Hepatitis Prevention Nurse**
 - Delay testing for baby until 18 months or older to ensure that mom's antibodies are not detected
 - Surveillance for all babies born to HCV+ moms
 - DAAs FDA approved for children over three years of age
 - Contact Dianne Brewer to alert her to babies exposed perinatally so she can add them to her list of follow-up
 - Phone (for HIPPA):
 - Email: Dianne.brewer@dhhs.nc.gov

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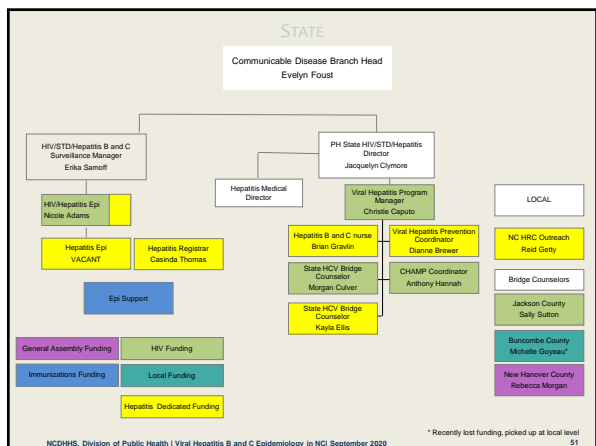
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Linkage

- **DAA use is not FDA approved during pregnancy**
 - Mom may be linked to first appt, or bridge counselor
- **Infant testing:**
 - Recommended at >18 months to ensure antibodies detected are not moms
 - If positive: DAAs approved in children over three years of age. Referral may occur to pediatric GI, or pediatrician may choose to monitor care
 - For testing reminder, contact Viral Hepatitis Prevention Nurse (Dianne.brewer@dhhs.nc.gov)

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50



51
