



HEPATITIS WEB STUDY

Counseling for the Prevention of Transmission of Hepatitis C

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Preventing Transmission of Hepatitis C

Counseling Patients with Injection Drug Use

- Stop or reduce frequency of injection drug use
- Receive substance-use treatment
- If Continuing to Use Injection Drugs
 - Always use new, sterile needles and syringes
 - Do not share needles or syringes
 - Safely dispose of needles and syringes
 - Do not reuse or share other injection materials
 - If possible use sterile water to prepare drugs



Sexual Transmission

Sexual Transmission of Hepatitis C

Can Hepatitis C be spread through sexual contact?



Sexual Transmission of Hepatitis C

Can Hepatitis C be spread through sexual contact?

“Yes, but the risk of transmission from sexual contact is believed to be low. The risk increases for those who have multiple sex partners, have a sexually transmitted disease, engage in rough sex, or are infected with HIV. More research is needed to better understand how and when Hepatitis C can be spread through sexual contact.”



Relative Risk of Acquiring HCV Lifetime Number of Sexual Partners

| Relationship of HCV Prevalence and Number of Sexual Partners* | |
|---|---------------------------------|
| Number of Lifetime Sexual Partners | Prevalence of Anti-HCV (95% CI) |
| 0-1 | 0.6 (0.3-1.0) |
| 2-9 | 1.6 (1.1-2.2) |
| 10-49 | 3.3 (2.6-4.3) |
| ≥ 50 | 9.4 (5.6-15.8) |

*Note: these data do not distinguish whether partner were heterosexual or homosexual

Heterosexual Transmission of Hepatitis C among Monogamous Serodiscordant Couples

- 895 monogamous heterosexual spouses of HCV-infected individuals
- Couples prospectively followed for 10 years
- Follow-up of 7,760 person years of observation
- Couples denied: anal sex, sex during menses, or condom use
- 3 transmissions occurred
 - Incidence 0.37/1000 person-years
 - Phylogenetic analysis did not support sexual transmission



Heterosexual Transmission of Hepatitis C among Monogamous Serodiscordant Couples

Conclusion: “Our data indicate that the risk of sexual transmission of HCV within heterosexual monogamous couples is extremely low or even null. No general recommendations for condom use seem required for individuals in monogamous partnerships with HCV-infected partners.”



2010 CDC STD Guidelines Recommendations for Preventing Hepatitis C Transmission

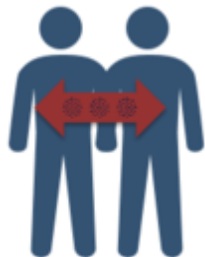
“HCV-positive persons with one long-term, steady sex partner do not need to change their sexual practices. They should discuss the low but present risk for transmission with their partner and discuss the need for counseling and testing.”



Hepatitis C among HIV-Infected MSM

Identified Risk Factors for HCV Infection

- Unprotected anal intercourse
- Concurrent anogenital infections
- Sex while high on methamphetamine
- Rough (traumatic sexual practices)
- Group sex



HIV-Infected Men who have Sex with Men Recommendations Preventing Hepatitis C Transmission

- Perform annual HCV antibody screening for HCV seronegative
- Provide education regarding HCV transmission
- Provide education regarding sexual risk reduction



Counseling for Preventing Transmission of Hepatitis C

- Injection Drug Use
- Sexual
- Household
- Mother-to-Child
- Other

Household Transmission

Survival of Hepatitis C Virus Outside the Body

- **Environmental Surfaces**
 - 16 hours to 4 days
- **Liquid Medium**
 - 2 days to 20 weeks depending on temperature

Recommendations for Preventing Household Transmission of Hepatitis C

- **Avoid Sharing Items with Potential Blood Contamination**
 - Razors
 - Nail clippers
 - Toothbrushes
- **Clean Up Any Blood Spill with Appropriate Method**
 - Use dilution of 1 part bleach to 10 parts water
 - Wear gloves during clean up of blood spill
- **Cover Cuts and Sores**

Recommendations for Preventing Household Transmission of Hepatitis C

- **Ways that hepatitis C not Spread in Household**
 - Sharing eating utensils
 - Sharing food
 - Sharing water
 - Sneezing
 - Coughing
 - Holding hands
 - Hugging
 - Kissing

Mother to Child Transmission

Mother-to-Child Transmission of Hepatitis C Risk of Transmission

- Annual births with HCV-infected mothers: estimated at 40,000
- Risk of Transmission from mother-to-child: 3-10%



US Preventive Services Task Force Review Reducing Risk for Mother-to-Infant HCV Transmission

- **Factors Identified that Increase Risk of Transmission**
 - High HCV RNA at delivery
 - Maternal HIV coinfection
 - Female gender of baby
 - Prolonged rupture of membranes
- **Factors NOT Identified to Increase Risk of Transmission**
 - Cesarean delivery
 - Breastfeeding



Mother-to-Child Transmission of Hepatitis C

Recommendations for Reducing Risk of Transmission

- No known effective intervention
- HCV treatment contraindicated during pregnancy
- Cesarean acceptable if indicated
- Avoid prolonged rupture of membranes
- Baby needs HCV testing and follow-up
- Breastfeeding safe unless nipples cracked/bleeding

Additional Counseling

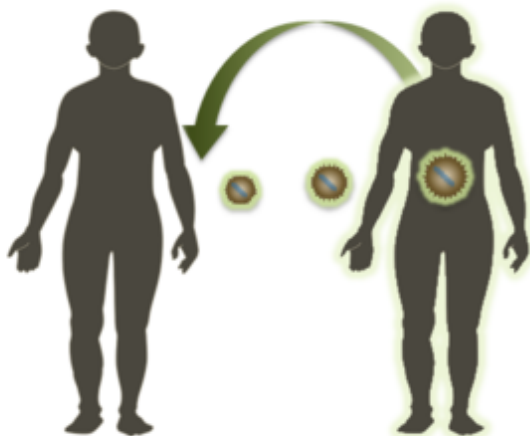
CDC and Prevention Viral Hepatitis Additional Messages for HCV-Infected Persons

- Do not donate blood, organs, tissue, or semen
- Persons should not be excluded from work, school, play, child care, or other settings on the basis of their HCV infection status
- There are no CDC recommendations to restrict a health care worker who is infected with HCV

Counseling for Prevention of Hepatitis C Transmission

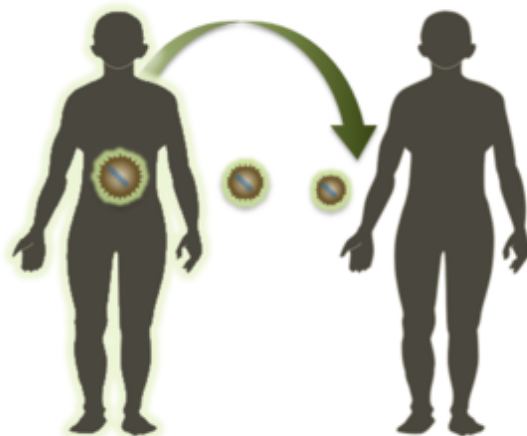
Counseling for HCV Negative

HCV (-)



Counseling for HCV Positive

HCV (+)



Counseling for Preventing Transmission of Hepatitis C: Summary

- Tailor message based on whether person is HCV-negative or positive
- Persons with injection drug use should not share or reuse any syringes, needles, or drug injection equipment
- The risk of sexual transmission is low in monogamous heterosexual couples but higher if high number of partners
- Risk of HCV transmission in HIV-infected men who have sex with men is significant with high-risk sex, especially with methamphetamine use
- The risk of mother-to-child hepatitis C transmission is low and HCV-infected women should not avoid pregnancy or breastfeeding
- Hepatitis C is not spread by casual household contact, but persons should not share razors, toothbrushes, or nail clippers

End

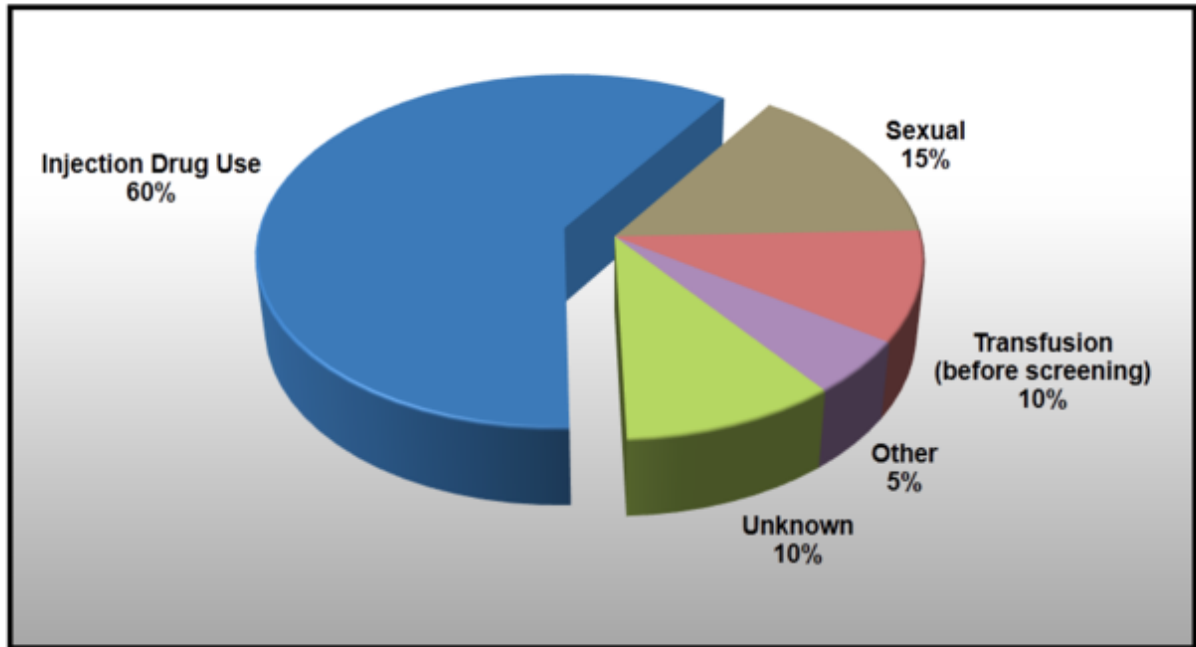


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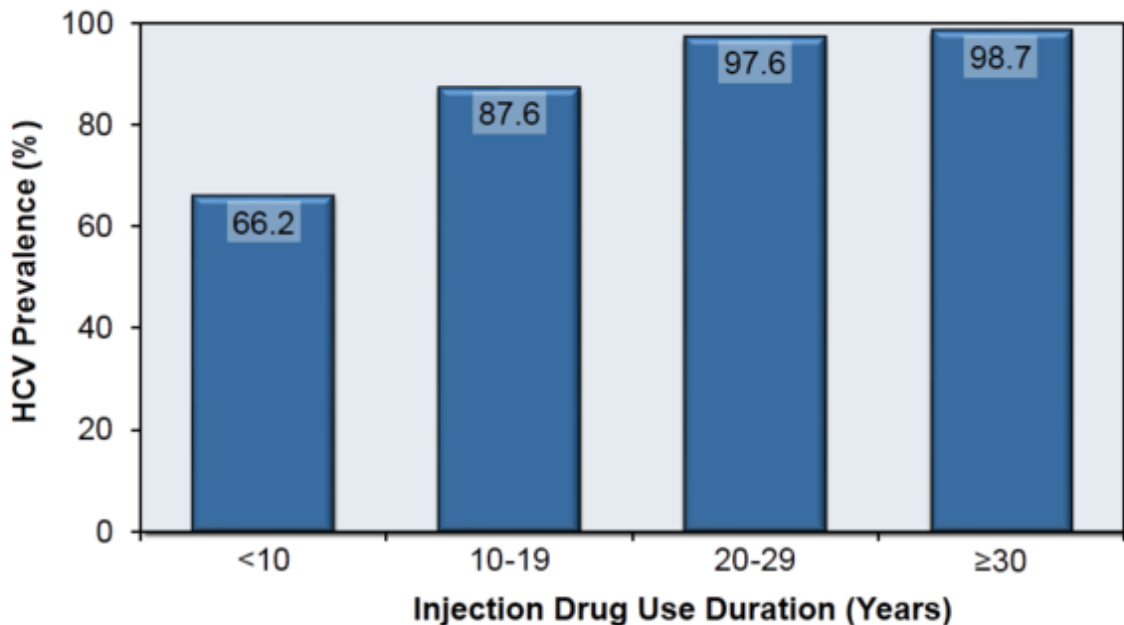
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Injection Drug Use and HCV Transmission

Sources of Infection for Persons with Hepatitis C



HCV Prevalence of Anti-HCV Among Street Injection Drug Users San Francisco Bay Area, 1998-2000



Injection Drug Use Equipment

- Syringes and Needles
- Cookers
- Filters
- Water
- Water Containers



HCV Survival in Syringes

- HCV survives for up to 63 days in syringes
- Lower survival in insulin syringes than tuberculin syringes



HCV Survival in Bottled Water

- **Main Finding**

- HCV survives for up to 3 weeks in bottled water

- **Conclusion**

- “This study demonstrates the potential risk of HCV transmission among injection drug users who share water, filters, and water containers and will help to define public health interventions to reduce HCV transmission.”