Hepatitis Screening, Immunization and Testing for Mobile Populations and Immigrants from Mexico, Central and South America, and the Caribbean

Migrant Clinicians Network, Inc.
Position Paper
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The mission of the Migrant Clinicians Network (MCN) is to provide access to high quality, culturally relevant, and population specific information and tools as an essential part of improving quality of care for farmworkers and other underserved mobile populations.[1] Communicable disease prevention guidelines are often not specific to migrant and immigrant populations. MCN offers these guidelines on hepatitis prevention to supplement standard guidelines[i] in order to suggest a best practice approach to protecting mobile clients in the U.S. from viral hepatitis.

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Hepatitis Screening

MCN recommends that all primary care and public health clinics include questions about hepatitis risks, and history of liver disease and immunization as part of standard medical assessment (whether asked in written or oral format). MCN recommends that clinics ask these questions of all new clients and update this information at least annually. Specific risk question content is given below. Many clients who move for work purposes are young men. **Because young low-income men tend to present in clinics only with acute illness or injury, MCN recommends that, if the client's condition permits, young men in particular be screened for hepatitis risk factors at any visit, even if they are presenting with unrelated illness or injury**.

Hepatitis A

Hepatitis A is transmitted via a fecal-oral route. Though not chronic, hepatitis A can cause serious illness and loss of work time as well as being a more serious health risk to people with chronic liver disease and weakened immune systems. Adults are more likely to show symptoms of illness (jaundice, fatigue, abdominal pain, loss of appetite, nausea, diarrhea, fever) than children.

Mobile working poor persons may be at increased risk for hepatitis A due to lack of access to appropriate water and sanitation facilities while traveling, and substandard housing situations. In addition, hepatitis A is endemic to Mexico, Central and South America, and the Caribbean[ii], and history of exposure is much more common in those countries than in the U.S.

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[1] MCN produced this position paper in conjunction with Community Health Education Concepts (CHEC): http://www.healthletter.com. This paper was inspired by work done on HepTalk, a hepatitis prevention project with health centers and health department clinics serving migrant and immigrant populations. For more information about the HepTalk project and other MCN hepatitis initiatives, see *Clinical Excellence* on the MCN website: http://www.migrantclinician.org/excellence/hepatitis.

Standard risk assessment questions for hepatitis A should include the following: standard handwashing practices around food handling and diapering; gender of sexual partners (men having sex with men or a male partner who has sex with men); country of origin, travel history, and current travel plans; as well as history of hepatitis A disease and hepatitis A vaccination.

Hepatitis A vaccination (a two-shot series, with the second shot at 6-12 months after the first) is recommended for persons with chronic liver disease (including chronic alcoholism), men who have sex with men, and persons who work with hepatitis virus in a laboratory setting. These recommendations apply to migrant and immigrant populations in the same way as to all other groups.

Hepatitis A vaccination is also recommended for "persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A."[iii] This description might include many migrant workers who travel between Mexico (or Central or South America or the Caribbean) and the US. **However, because hepatitis A is endemic in their countries of origin, MCN recommends that clinicians serving migrant and mobile populations assume that adolescents and adults who spent significant portions of their lives in Mexico, Central or South America, or the Caribbean have been exposed and developed immunity to hepatitis A. These adults should not be tested or immunized for hepatitis A, even if they are traveling to Mexico, Central or South America, unless they meet other standard hepatitis A risk criteria (listed above).**

MCN also recommends that children over 24 months[2] who were born in the US and will be traveling to Mexico, Central or South America, or the Caribbean with their families be vaccinated against hepatitis A. For older children, between the ages of five and 12, who have already lived in or traveled to Mexico, Central or South America, or the Caribbean, hepatitis A testing may be cost-effective, if time allows, in order to decide whether to vaccinate them if they are traveling again to an endemic area. One study found that children along the US-Mexico border who visited Mexico with their families were susceptible to food-borne exposure to hepatitis A via street vendors.[iv] The child will have optimal protection from hepatitis A after two weeks from the first vaccination, so the series should be started as far in advance of the travel as possible, but given even if the child is leaving immediately.

The Centers for Disease Control and Prevention (CDC) also recommends hepatitis A vaccination for "children in states, counties, and communities where rates of hepatitis A were/are at least twice the national average during the baseline period of 1987-1997." Also, "children living in areas where rates of hepatitis A are greater than the national average but lower than twice the national average should be considered for routine vaccination." These are urban and rural areas with high rates of hepatitis A.[v] The eleven higher incidence states are: Arizona, Alaska, Oregon, New Mexico, Utah, Washington, Oklahoma, South Dakota, Idaho, Nevada, and California. Intermediate incidence states are: Missouri, Texas, Colorado, Arkansas, Montana and Wyoming. Because migrant children may move through these areas, **MCN recommends that migrant children between the ages of 24 months and 10 years whose families are expected to move frequently for work be vaccinated against hepatitis A.**[vi]

If hepatitis A vaccination is indicated and immunization records are not available and/or history of hepatitis A is inconclusive, clients can be vaccinated for hepatitis A: vaccination of persons with immunity to hepatitis A is considered safe. A combination hepatitis A and B vaccine is an option for immigrant and migrant children for whom both immunizations are indicated (this is a three-shot series: infant vaccination schedules vary slightly by vaccine brand[vii]).

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[2] The hepatitis A vaccine is currently approved in the U.S. for children over 24 months.

Hepatitis B

Hepatitis B virus is spread through blood or infected body fluids, via unprotected sex, sharing injection equipment, job-related needlesticks, and vertical transmission from an infected mother. In the U.S., hepatitis B is primarily a sexually transmitted infection. Adults are more likely to show symptoms of illness (jaundice, fatigue, abdominal pain, loss of appetite, nausea, vomiting, joint pain) than children, and about 30% of those infected show no symptoms. Infection can be acute or chronic and chronic infection is more likely for persons infected in childhood. Chronic infection can lead to cirrhosis, liver cancer, and liver failure.

Standard risk assessment questions for hepatitis B should include the following: current sexual activity, sexual history (number of partners in the last six months) and history of unprotected sex; gender of sexual partners or partners' partners (men having sex with men or woman's male partner who has sex with men); information on partners' partners (whether partner is monogamous, has unprotected intercourse with IDU); history of sexually transmitted infections; history of injection drug use or sharing of any kind of injection equipment; and country of origin; as well as history of hepatitis B disease and hepatitis B vaccination. Anecdotal reports from immigrants and migrant clinicians indicate that sharing of needles for self-injection of vitamins, antibiotics, or injectable contraceptives may occur among groups of immigrants from Mexico and Central America. Therefore, **MCN recommends that clinicians serving this population ask about sharing of any needles for any reason.**

Hepatitis B vaccination (typically a three-shot series, with the second dose at 1-2 months after the first, and the third 4-6 months following) is recommended for adults with renal failure/end-stage liver disease, recipients of hemodialysis or clotting factor concentrates, healthcare and public safety workers who have exposure to blood in the workplace, correctional inmates, persons with HIV, and household and sexual contacts of infected persons. Behavioral risk factors and vaccine indications include injection drug users, persons with more than one sexual partner in the previous six months, persons with a new sexually transmitted infection, all clients of STD clinics, and men who have sex with men. These recommendations apply to migrant and immigrant populations in the same way as to all other groups.

Accelerated hepatitis B vaccine schedules have been considered for international travelers leaving before the three-shot series can be completed[viii] and for inmates in correctional facilities for whom the vaccine is indicated but who are scheduled to be released before the series can be completed. Similarly, **MCN recommends that clinicians consider acceleration of the second dose of hepatitis B vaccine in adults for whom the vaccine is indicated who will be migrating and leaving the care of the clinic**; clinicians may choose to administer the second dose within three weeks of the first and assume that adequate coverage is likely with two completed doses rather than three. Hepatitis B vaccination given in series closer than the suggested guidelines is considered safe. The entire three dose hepatitis B vaccine series is preferred whenever possible, to ensure long-term immunity. There is no outer time limit to complete the schedule: the third dose can be given years later.

All children in the U.S. should be vaccinated against hepatitis B as part of their routine immunization series[ix]. Hepatitis B is also recommended for children in Mexico, and vaccination coverage rates are reported to be high in recent years (since 2000).[x] If hepatitis B vaccination is indicated and immunization records are not available and/or history of hepatitis B is inconclusive, clients can be vaccinated for hepatitis B: vaccination of persons with immunity to hepatitis B is considered safe. **MCN recommends that clinicians take every opportunity to assess immunization status of immigrant adolescents from Mexico, Central and South America and the Caribbean**: routine hepatitis B vaccine was generally not in place in those countries when those children were young.

All pregnant women should be tested for hepatitis B early in pregnancy and retested later in pregnancy if they have behavioral risk factors during the pregnancy. **MCN recommends that mobile prenatal clients lacking complete records from previous prenatal visits indicating hepatitis B screening be tested for hepatitis B.**

Because many young adults have multiple sexual partners, changes to current recommendations are being considered to move toward vaccination of all young adults, since adequate sexual risk assessment is sometime not undertaken or possible. **MCN recommends that all adults be vaccinated against hepatitis B, especially adolescents and young adults under 30.** This appears to be best clinical practice to fully protect young people against hepatitis B.

Parts of Central America and the Caribbean are considered to have intermediate rates of hepatitis B.[xi] This includes countries of common origin for migrant workers in the U.S., including Guatemala, Honduras, El Salvador, Dominican Republic[3][xii] and Haiti. Little data has been gathered on hepatitis B rates in these countries. Countries with endemic hepatitis B have high rates of vertical or perinatal transmission and children infected with hepatitis B have a much higher risk of developing chronic hepatitis B (and subsequent problems including liver cancer).[xiii] In light of these risks,[4] **MCN recommends that persons born in Guatemala, Honduras, El Salvador, the Dominican Republic and Haiti be tested for hepatitis B.**[5] In addition to providing optimal protection from disease for clients, screening of immigrant clients will also add to the knowledge base about the level of risk for children from those countries. MCN will advocate for further data collection on hepatitis B rates in Latin America and among immigrants to the United States.

Vaccinating young adults against hepatitis B and testing persons born in countries that may have high rates of perinatal transmission of hepatitis B is best practice for protecting the health of Latin American immigrant clients. Many clinics and clinicians do not have funding for adult immunizations and serologic testing for hepatitis B. MCN will continue to advocate for funding for these clinical resources.

Hepatitis C

Hepatitis C virus is spread through blood or infected body fluids, via sharing injection equipment, job-related needlesticks, and vertical transmission from an infected mother. In the US, hepatitis C is primarily transmitted through sharing of injection drug needles and equipment. Hepatitis C is the most common chronic bloodborne infection in the US. Hepatitis C often found to be chronic and can lead to liver failure. There is no vaccine against hepatitis C infection.

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[3] While these four countries are rated by CDC as "intermediate risk," there is a lack of data. One study (in 2000) indicated a 21.4% seroprevalence rate in the Dominican Republic, which would place the Dominican Republic in the high prevalence category.

[4] Approximately 90% of hepatitis B infected infants become chronically infected. Risk of death for cirrhosis or hepatocellular carcinoma for chronically infected persons is 15-25%.

[5] In addition, Hepatitis B is endemic to the Amazon Basin of South America. Few migrants come to the US from this area, but if these patients do present, **MCN recommends that persons who were born or whose parents were born in the Amazon Basin (including Peru, northern Chile, southern Columbia, extreme southern Venezuela, northwestern Brazil and northern Bolivia) be tested for hepatitis B**, as well as those from the intermediate-risk areas of northern Venezuela, Guyana, Suriname and central and southern Brazil.

Standard risk assessment questions for hepatitis C should include the following: history of injection drug use (including experimenting minimal times many years in the past) or sharing of any kind of injection equipment including for health benefit (e.g. vitamins); receipt of donated blood or organs prior to 1992; and receipt of clotting factors made before 1987; as well as history of hepatitis C disease. As stated above, anecdotal reports from immigrants and migrant clinicians indicate that sharing of needles for self-injection of vitamins, antibiotics, or injectable contraceptives may occur among groups of immigrants from Mexico and Central America. Therefore, **MCN recommends that clinicians serving this population ask about sharing of any needles for any reason.**

CDC recommends hepatitis C testing for persons with a history of injection drug use, recipients of clotting factors made before 1987, hemodialysis patients, recipients of blood or solid organs before 1992, and persons with undiagnosed liver problems (e.g., persistently abnormal ALT levels). These recommendations apply to migrant and immigrant populations in the same way as to all other groups.

Because treatment of hepatitis C is currently very expensive, clinicians serving poor clients often question the benefits of testing (which is also itself expensive). **MCN recommends that all persons for whom standard (CDC) recommendations indicate testing be tested if financially feasible.** Diagnosis of hepatitis C, even in the absence of treatment, can be useful in helping clients maintain liver health and quality of life, as well as in counseling to prevent transmission.

In addition, MCN will continue its work to advocate for the availability of hepatitis C treatment for indigent clients, including working with primary care physicians to explore possibilities for hepatitis C treatment management in the primary care setting as this burgeoning epidemic leaves fewer specialist-only treatment options available.

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[i] All vaccination and testing guidelines cited here are from the Centers for Disease Control and Prevention. Viral Hepatitis Division website: http://www.cdc.gov/ncidod/diseases/Hepatitis *and* MMWR QuickGuide: Recommended adult immunization schedule—United States, October 2004-September 2005, November 19, 2004/Vol. 53/No. 45.

[ii] All geographic information on prevalence and risk in this report is from: CDC, *Health Information for International Travel* (The "Yellow Book") 2003-2004. The Yellow Book is published every two years by CDC as a reference for those who advise international travelers of health risks.

[iii] ibid i.

[iv] Wienberg, M et al, Hepatitis A in Hispanic children who live along the United States-Mexico border: The role of international travel and food-borne exposures. Pediatrics vol. 114, No. 1, July 2004.

[v] Prevention of hepatitis A through active or passive immunization: Recommendations of the Advisory Committee on Immunization Practices (ACIP), MMWR, October 01, 1999 / 48(RR12);1-37.

[vi] Dentinger, CM et al, A prevalence study of hepatitis A virus infection in a migrant community: Is hepatitis A vaccine indicated? Journal of Pediatrics, May 2001.

[vii] See schedule recommendations of the Immunization Action Coalition at http://www.immunize.org/catg.d/2081ab.htm

[viii] Bock HL, Löscher T, Scheiermann N, et al. Accelerated schedule for hepatitis B immunization. J Travel Med 1995; 2: 213-7.

[ix] ibid i.

[x] World Health Organization, Vaccines, Immunizations and Biologicals, http://www9.who.int/vaccines/globalsummary/timeseries/TScoverageHepB3.htm

[xi] ibid ii, and http://www.cdc.gov/travel/diseases/maps/hbv_map.htm

[xii] J Tanaka, Hepatitis B epidemiology in Latin America, Vaccine 18 (2000) S17-S19.

[xiii] KA Wokowski, WC Levine, Sexually transmitted disease treatment guidelines 2002, MMWR, May 10, 2002/ 25(RR06); 1-80.