The topic of this issue is viral hepatitis. The term “hepatitis” means inflammation of the liver. The liver is a vital organ with many tasks, including helping the body to filter blood, turn food into energy and nutrients, fight infections and clot the blood. If the liver is inflamed or damaged, these and other functions can be affected. Hepatitis is most often caused by a virus. In the United States and in Oregon, the most common types of viral hepatitis are hepatitis A, hepatitis B and hepatitis C.

Viral hepatitis is an important issue for health care professionals working in jails. Persons involved with the criminal justice system (CJS) experience higher prevalence of hepatitis B and C compared to the general public. Several factors, including the higher rates of substance abuse, dependency, addiction and mental health issues among CJS involved persons contribute to this health disparity.

Since the vast majority of persons passing through jail systems return to their communities, increasing awareness of viral hepatitis among persons involved with the CJS, offering hepatitis C screening and hepatitis A and B vaccinations, referring insured persons at risk of or infected with viral hepatitis to their health care provider, and supporting uninsured patients at risk of or infected with viral hepatitis to sign up for health insurance are a few actions that can help reduce viral hepatitis transmission, liver disease, cirrhosis and liver cancer in our communities.

**Viral Hepatitis Quiz**

1. Check all that apply, there is a vaccine for
   - (a) Hepatitis A
   - (b) Hepatitis B
   - (c) Hepatitis C

2. A person can tell by how they feel or look that their liver is healthy.
   - (a) True
   - (b) False

3. The OraQuick Rapid HCV test screens for HCV antibodies.
   - (a) True
   - (b) False

4. The only way for a person with chronic HCV to prevent further liver damage is to stop drinking alcohol.
   - (a) True
   - (b) False

5. Medications can now cure chronic hepatitis C infection in most adults.
   - (a) True
   - (b) False
**ABC’s of Viral Hepatitis**

<table>
<thead>
<tr>
<th></th>
<th>Hepatitis A (HAV)</th>
<th>Hepatitis B (HBV)</th>
<th>Hepatitis C (HCV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>Oral – fecal</td>
<td>Blood, semen and</td>
<td>Blood</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other bodily fluids</td>
<td></td>
</tr>
<tr>
<td>Incubation period</td>
<td>15-50 days (avg. 28 days)</td>
<td>45-160 days (avg. 120 days)</td>
<td>14-180 days (avg. 45 days)</td>
</tr>
<tr>
<td>Likelihood of acute symptoms in adults</td>
<td>70-80%</td>
<td>30-50%</td>
<td>20-30%</td>
</tr>
<tr>
<td>Potential for chronic infection in adults</td>
<td>No</td>
<td>Yes 6-10%</td>
<td>Yes 75-85%</td>
</tr>
<tr>
<td>Vaccine Preventable</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

**Viral Hepatitis Quiz Answers**

1. **There are preventive vaccines for *hepatitis A and hepatitis B***.

   Thanks to the availability of effective vaccines for hepatitis A and B, new (acute) infections with these two viruses have declined significantly in the United States and Oregon. There is no preventive vaccine for hepatitis C and rates of new (acute) infections with hepatitis C and deaths from hepatitis C infection are higher in Oregon than the United States as a whole. Injection drug use account for the majority of new (acute) HCV cases in Oregon, with nearly half of new (acute) cases occurring in persons under 30 years of age and the majority of cases under age 40.

   The hepatitis A vaccine series is recommended for: all children at age 1 year; persons at increased risk for hepatitis A infection; persons at increased risk for complications from hepatitis A; and any person who would like immunity. *Persons who inject drugs are at increased risk of hepatitis A infection and persons with chronic liver disease are at increased risk for complications if infected with hepatitis A.*

   The hepatitis B vaccine series is recommended for: all infants beginning at birth before hospital discharge; everyone under the age of 18; and all previously unvaccinated adults at increased risk of infection including those in settings where a high proportion of adults are likely to have a risk factor. *Incarcerated settings have been identified as settings for universal HBV vaccination.*

2. **A person can tell by how you feel and look that your liver is healthy. *False***

   Many people with chronic viral hepatitis infections have no symptoms at all.

   The only way to know if a person is infected with viral hepatitis is through blood testing, usually antibody screening. If a person tests positive or reactive for hepatitis B or hepatitis C antibodies, additional blood tests determine if the infection is chronic.

   When a person has viral hepatitis, liver function tests are used to check how well the liver is working. These are usually a series of blood tests done at the same time and may be called a liver or hepatitis profile.
3. The OraQuick® Rapid HCV test screens for HCV antibodies. True

The OraQuick® Hepatitis C Rapid Test is used to detect the presence of hepatitis C antibodies. There is a ‘window period’ after hepatitis C infection occurs before antibodies are detectable by the screening test. The average window period for the development of detectable hepatitis C antibodies in the blood with current testing technology is eight to twelve weeks. Since approximately 1 in 4 persons infected with hepatitis C will clear the virus and still test hepatitis C antibody-positive, it is important that all persons who test ‘reactive’ be referred for a hepatitis C RNA test or other viral load test to determine current hepatitis C infection status. If the person is confirmed to have hepatitis C, s/he should be referred to health care provider for an assessment. The test results from the OraQuick® Rapid HCV test may be

- Reactive—A ‘reactive’ result means that antibodies to hepatitis C were detected and the person will need additional testing to determine if s/he is currently infected with hepatitis C;
- Non-reactive—A ‘non-reactive’ result means that the test did not detect antibodies in the blood at the time of the test, and unless the person is in the ‘window period’, s/he is unlikely to be infected with the hepatitis C virus, or
- Invalid—An ‘invalid’ test result means that there was a problem running the test either related to the specimen or to the test device. An invalid result cannot be interpreted.

4. The only way for a person with chronic HCV to prevent further liver damage is to completely stop drinking alcohol. False

The liver processes alcohol and drinking more alcohol than the liver is able to manage can cause damage and faster progression of liver disease for people with chronic viral hepatitis.

While discontinuing alcohol is the best option, if a person is not ready or able to completely stop drinking less alcohol is better than taking no action. Other ways to keep the liver healthy include reaching or maintaining a healthy weight through a well-balanced diet and exercise; and consulting with their health care provider about any medications they take that could be harmful to the liver, including vitamins, minerals and herbal supplements.

5. There are medications that can cure chronic hepatitis C infection. True

Significant advances in the treatment of hepatitis C this year have included the approval of interferon free and all-oral regimens with cure rates above 90%. While there are outstanding cost issues to be addressed, learning one’s hepatitis C status is an important first step.

Information and Resources for Viral Hepatitis

If you would like to learn more about viral hepatitis, there are many resources available.

The CDC Division of Viral Hepatitis website contains information, educational campaign materials and more. The University of Washington and American Association for the Study of Liver Disease (AASLD) have developed free on-line CME/CNE on viral hepatitis for health care professionals. The Oregon Health Authority website has information about Oregon Disease Investigative Guidelines for viral hepatitis.
Your feedback and questions are always welcome! In response to the topic of sexually transmitted diseases (STD) we received a question about STD reporting and partner notification services in correctional settings.

Along with treating a patient diagnosed with an STD, if the disease is reportable, the infection should be reported to the local health authorities. Providing partner services is crucial to ensure individuals exposed to an STD are tested and treated and that the spread of disease is minimized.

Partner Services (sometimes referred to as partner notification or contact tracing) is used to identify persons infected with STDs, notify partners of their possible STD exposure, and provide a range of medical, prevention, and psychosocial services to persons infected and their partners. While Partner Services can be conducted for any reportable STD (including HIV, gonorrhea, chlamydia, Hepatitis B, and syphilis), some individuals are prioritized for partner services, including individuals diagnosed with syphilis, HIV, or gonorrhea, pregnant women with an STD, and males with an STD and known pregnant partner.

Partner Services begins with a contact interview with the individual infected. The objective of the interview is to prevent further spread of disease through the prompt identification and examination of all partners the individual identifies. The interview is designed to ensure that the person understands the seriousness of the disease and motivates the individual to cooperate with STD/HIV control efforts.

If you have diagnosed a person in the jail with an STD, you can request assistance in a number of different ways:

- **Contact your local health department** – Local health departments are responsible for conducting STD case management services, including partner notification, in their individual counties. Your local health department can assist with contact interviews, notifying exposed partners, and offering them testing and treatment.

- **Contact the OHA STD program** – The state STD program has a number of resources available for correctional facilities related to partner services. State staff can assist with challenging partner notification cases, outbreaks of STDs in a correctional setting, as well as shadowing and mentoring opportunities for correctional facilities interested in conducting contact interviews.

Some facilities use a hybrid approach. When a patient in their facility tests positive for an STD, they provide STD treatment and conduct a contact interview. They then pass the interview information on to the local health department or OHA STD program who assists with notifying exposed partners and getting them to providers for testing and treatment.

For more information: OHA web-based course on providing Partner Services, OHA STD Program, OHA Investigative Guidelines (including information on treatment and partner notification), Oregon STD Statistics & Fact Sheets, & Managing STDs in the Correctional Setting: A Guide for Clinicians.