Chronic hepatitis B

Persons with chronic hepatitis B are known as “chronic carriers” — a state of infection defined by the persistence of hepatitis B surface antigen (HBsAg) in the blood for more than six months. The likelihood of becoming a chronic carrier varies by age at infection. Fewer than 6% of acutely infected adults in the United States become carriers, compared to 25% (with HBeAg-negative moms) to 90% (with HBeAg-positive moms) of children infected in early childhood or during birth. Perinatal infection can be prevented by prompt administration of hepatitis B immune globulin (HBIG) and initiation of the three-dose hepatitis B vaccination series. This perinatal intervention is widely practiced in the United States — all states have federal funding for perinatal hepatitis B prevention programs. This is not true in other parts of the world, particularly Asia and sub-Saharan Africa, where the prevalence of chronic hepatitis B is higher to begin with. Chronic carriers are at greater risk of developing life-threatening diseases (e.g., chronic active hepatitis, cirrhosis or liver cancer) decades later. Carriers will continue to transmit hepatitis B until vaccine-induced immunity is nearly universal.

Recommendations and strategies to prevent new cases include the following: routinely vaccinating all infants at birth, screening all pregnant women for hepatitis B, administering HBIG in addition to hepatitis B vaccine to infants born to HBsAg-positive mothers, and ensuring all infants complete the hepatitis B vaccine series. Combined, the three-dose hepatitis B vaccine series and HBIG are nearly 95% effective in preventing hepatitis B disease in children born to HBV-infected mothers. Despite receiving the recommended case management, one case of perinatal hepatitis B was identified in Oregon in 2017.

In 2017, there were 490 newly reported carriers in Oregon, slightly more than the 466 reported in 2016. Forty-one percent of these were women who tend to be diagnosed earlier than men, perhaps due to prenatal screening. Among women of child-bearing age, 36% were pregnant. A large majority, 86% of cases who reported their country of birth, were born outside of the United States. Chronic carriers are not reportable in many states, so a table comparing Oregon to the rest of the United States is not provided.
Newly reported chronic hepatitis B by year: Oregon, 1993–2017

Incidence of chronic hepatitis B by age and sex: Oregon, 2017
Prevention

- Get vaccinated.
- Persons who are sexually active can:
  › Limit the number of partners.
  › Use condoms properly from start to finish when having sex.
- Persons who inject drugs can:
  › Avoid sharing needles or works with others.
  › Use only clean needles and works.
  › Purchase new sterile needles from pharmacies.
- Use universal precautions and best practices to prevent needlestick injuries.
- Vaccinate all newborns against hepatitis B.
- Screen all pregnant women for hepatitis B. Infants born to hepatitis B-positive mothers should receive hepatitis immunoglobulin along with vaccine at birth.
- Chronic carriers should not share personal care items such as razors or toothbrushes.
- Investigate cases, including the identification of unvaccinated contacts to encourage vaccination.