



San Francisco Hep B Free - Bay Area ECHO Notes

Session 6

March 16, 2021

- I. **Didactic Presentation: Hepatocellular Carcinoma Surveillance in Persons with Chronic Hep B Infection** (Dr. Brian McMahon - Director of Liver Disease and Hepatitis Program, Alaska Native Tribal Health Consortium - presentation can be found at <https://www.sfhepbfree.org/echo-program> Password: Echo2020)
- II. Case Presentation: Connie Tran, Nurse at North East Medical Services

Case Summary

- 39-year-old Asian female, born in China, with past medical history of obesity (BMI 38.5), chronic hepatitis B infection, HBeAg negative/anti-HBe positive
- HBV DNA 5,000-44,000 IU/mL, and ALT 40s-70s over the last 2 years
- In 2020, the patient had a platelet count of 265, FIB4 score 0.39, Fibrosure F0, Fibroscan showed F2 moderate fibrosis and S3 severe steatosis.
- The patient was advised HBV antiviral for immune active chronic hepatitis B.

Clinical questions:

1. How often to perform liver cancer surveillance imaging and AFP if patient starts antiviral for immune active chronic hepatitis B?
2. How do HCC surveillance recommendations change if patient also has fatty liver?
 - a. If ultrasound imaging HCC surveillance is difficult due to severe fatty liver changes, recommend CT/MRI or alternating with US? How often?
3. If difference in fibrosis assessment (e.g. Fibrosure F0, Fibroscan F2, FIB-4 score 0.39-0.51), how to reconcile which test to use for staging fibrosis? How often to reassess?

Recommendations from Project ECHO panel:

Dr. Will Holt - Hepatology (Sutter Health)

Dr. Amy Tang – Primary Care (North East Medical Services)

Dr. Frank Trinh – Infectious Disease (San Mateo Medical Center)

Dr. Stuart Fong

1. How often to perform liver cancer surveillance imaging and AFP if patient starts antiviral for immune active chronic hepatitis B?
 - The patient does not qualify for HCC surveillance under current AASLD recommendations for persons with chronic hepatitis B since she is an Asian female younger than age 50 without family history of liver cancer or personal

history of cirrhosis, however her risk is increased due to F2 fibrosis and immune active CHB.

- At minimum, we add q6mo serum AFP to routine HBV DNA and ALT monitoring labs
- If insurance coverage or resources/access are not a limitation, we also offer liver ultrasound q6-12mo

2. How do HCC surveillance recommendations change if patient also has fatty liver?

- Current guidelines do not recommend screening for HCC based on the presence of NAFLD without fibrosis.
- 25% of persons with NAFLD (non-alcoholic fatty liver disease) have NASH (non-alcoholic steatohepatitis). Patients with NASH and fibrosis have an increased risk of liver cancer, though this comorbidity was not addressed in the AASLD HCC surveillance recommendations, many NASH patients will have advanced fibrosis or cirrhosis that would qualify then for HCC surveillance.
- If ultrasound imaging HCC surveillance is difficult due to severe fatty liver changes, recommend CT/MRI or alternating with US? How often?
 - Because of risks associated with CT or MRI (radiation exposure, contrast agents, cost), q6mo US is recommended unless the radiologist specifically recommends a CT/MRI for follow-up of a concerning lesion or AFP increased from baseline.

3. If difference in fibrosis assessment (e.g. Fibrosure F0, Fibroscan F2, FIB-4 score 0.39-0.51), how to reconcile which test to use for staging fibrosis? How often to reassess?

- Fibroscan has high sensitivity and specificity for the detection of advanced fibrosis. The negative predictive value of a low Fibroscan score is particularly good, but positive predictive value of a higher Fibroscan score is not as good because liver stiffness is influenced by factors such as fat and inflammation. Anyone can be trained to perform Fibroscan assessments, however similar to ultrasound, Fibroscan assessments are more reliable once the operator has performed more than 50-100 scans. If Fibroscan is available, we recommend re-evaluating Fibroscan score after the patient has been on antiviral for a couple years.
- FIB-4 has lower sensitivity and specificity compared to Fibroscan but can be useful for ruling in cirrhosis or when resources are limited.
- FibroSure tests are more expensive and not significantly better than FIB-4, and are not as sensitive or specific as Fibroscan but can be useful if Fibroscan not available.
- In the case of discrepant scores, the performance characteristics of each test and the clinical characteristics of each case should be taken into account.