Q&A

CME Outfitters

Based on a CME Outfitters Live & On Demand webcast held on June 18, 2015

Faculty Response to Questions from the Live Webcast

Taking Action Against Chronic Hepatitis B Infection

Q: Would you recommend a booster vaccination in patients who are core negative?

A: *Boosters are not necessary for patients who had an initial response to the vaccine but then had decay of titers over time. However, I recommend a repeat cycle of vaccination for patients at risk for HBV (including health care workers) who have a primary non-response to the vaccine.*[1]

Q: In a patient who is surface antibody negative and core negative and is going to receive chemotherapy, do you vaccinate?

A: *The Centers for Disease Control and Prevention recommend that before patients receive immunosuppressive or immunomodulatory therapy, they should be vaccinated.*[2]

Q: Do you have any recommendation for improving compliance with the vaccine? This is a major issue in our practice.

A: *One option is to offer the divalent vaccine (HAV and HBV together) which can be given in two doses a month apart. This is sufficient in most cases. If the patient is already immune to HAV, then giving two doses of HBV vaccine is probably adequate.*[3]

Q: Would HBV vaccine make more sense to administer during late childhood to avoid waning immunity in adulthood?

A: *The risk of chronicity after exposure to HBV is highest among newborns and is as high as 40% in children up to age 4. By contrast, exposure to HBV in adulthood is associated with only a 5% chance of chronicity. The Centers for Disease Control and Prevention recommend that all newborns be vaccinated.*[4]

Q: Is there any data in patients with chronic hepatitis B infection, e antigen +, and long-term treatment with entecavir? Safety? Outcome?

A: *Entecavir and tenofovir have been studied in long-term open-label studies, with a recent paper in over 50,000 patients. The long-term safety profile appears excellent, although there was a higher risk of hip-fractures with nucleotide analogs (entecavir is a nucleoside analog) and patients should be monitored.*[5]

Q: Do nucleoside analogues have any protective effect against hepatocellular carcinoma (HCC)?

A: *Long-term antiviral therapy is associated with a reduction in the risk of HCC; this has been most convincing in patients with cirrhosis; there remains debate about whether treatment reduces the risk in non-cirrhotic patients. However it is important to point out that successful treatment does not eliminate the risk of HCC and so surveillance in appropriate patients is required.*[6]

Q: Which HCV drug(s) are being tested for HBV activity? Is there one drug that could treat HCV/HBV co-infected patients effectively?

A: *Since HBV is a DNA virus and HCV is an RNA virus, and since their structure is quite different, it is unlikely that HCV antiviral drugs will work for these patients. I am not aware of clinical trials where HCV drugs have been studied in HBV patients.*

Q: In patients who are treatment-naive would you start with tenofovir and what dose?

A: *In treatment-naïve patients you can start with either tenofovir (300 mg per day) or entecavir (0.5 mg per day on a fasting stomach).*[7,8,9]

Based on a CME Outfitters Live & On Demand webcast held on June 18, 2015

Faculty Response to Questions from the Live Symposium

Taking Action Against Chronic Hepatitis B Infection

Q: What about patients who become treatment resistant to entecavir, would you switch to tenofovir?

A: *Yes, tenofovir has a different resistance profile (in fact, resistance to tenofovir is rare), so tenofovir is a good option for entecavir-resistant patients.*[7,10]

Q: Should patients show response to therapy in 4 weeks?

A: *Yes, the HBV DNA level should be at least one log10 lower after one month, and per European Association for the Study of the Liver (EASL) guidelines, should be checked every 1-3 months for the first 12 months of treatment.*[11,12]

References

1. Centers for Disease Control and Prevention [CDC]. CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection and for Administering Postexposure Management. CDC Website. http://www.cdc.gov/mmwr/preview/mmwrhtml/rr6210a1.htm. Published December 20, 2013. Accessed July 8, 2015.
2. Centers for Disease Control and Prevention [CDC]. Morbidity and Mortality Weekly Report. www.cdc.gov/mmwr. Recommendations and Reports September 19, 2008 / Vol. 57 / No. RR-8. Accessed July 24, 2015.
3. Nothdurft HD, Dietrich M, Zuckerman JN, et al. A new accelerated vaccination schedule for rapid protection against hepatitis A and B. *Vaccine*. 2002;20(7-8):1157-62. PMID: 11803077.
4. Centers for Disease Control and Prevention [CDC]. Recommendations of the Immunization Practices Advisory Committee Prevention of Perinatal Transmission of Hepatitis B Virus: Prenatal Screening of all Pregnant Women for Hepatitis B Surface Antigen. CDC Website. http://www.cdc.gov/mmwr/preview/mmwrhtml/00000036.htm. Published June 10, 1988. Accessed July 8, 2015.
5. Wong GL, Tse YK, Wong VW, et al. Long-term safety of oral nucleos(t)ide analogues for patients with chronic hepatitis B - a cohort study of 53,500 subjects. *Hepatology*. 2015 May 14. doi: 10.1002/hep.27894. [Epub ahead of print]. PMID: 25973979.
6. Vlachogiannakos J, Papatheodoridis G. Hepatocellular carcinoma in chronic hepatitis B patients under antiviral therapy. *World J Gastroenterol.* 2013;19(47):8822-30. Review. PMID: 24379605.
7. Lok AS, McMahon BJ. Chronic hepatitis B: update 2009. Hepatology. 2009;50(3):661-2. PMID: 19714720.
8. Highlights from prescribing information for Viread® (tenofovir) formulation. Drugs@FDA.gov Website. http://www.accessdata.fda.gov/drugsatfda_docs/label/2015/021356s049,022577s007lbl.pdf. Published May 29, 2015. Accessed July 8, 2015.
9. Highlights from prescribing information for Baraclude (entecavir) formulation. Drugs@FDA.gov Website. http://www.accessdata.fda.gov/drugsatfda_docs/label/2014/021797s018,021798s019lbl.pdf. Published March 20, 2014. Accessed July 8, 2015.
10. Kitrinos KM, Corsa A, Liu Y, et al. No detectable resistance to tenofovir disoproxil fumarate after 6 years of therapy in patients with chronic hepatitis B. *Hepatology*. 2014;59(2):434-42. PMID: 23939953.
11. Andersson KL, Chung RT. Monitoring during and after antiviral therapy for hepatitis B. *Hepatology*. 2009;49(5 Suppl):S166-73. PMID: 19399793.
12. de Franchis R, Hadengue A, Lau G, et al. EASL Jury. EASL International Consensus Conference on Hepatitis B. 13-14 September, 2002 Geneva, Switzerland. Consensus statement (long version). *J Hepatol*. 2003;39 (Suppl 1):S3-25. Review. PMID: 14708673.

For complete information about the live activity this was based off of, including faculty disclosures and learning objectives, please visit www.cmeoutfitters.com/CM5999 or call CME Outfitters at 877.CME.PROS (877.263.7767).

CME Outfitters