Chronic hepatitis B virus (HBV) is the most common cause of chronic viral liver disease throughout the world. Despite there being an effective vaccine for over 50 years, chronic HBV remains a primary cause of hepatocellular carcinoma (HCC), a common cause of cirrhosis, and leads to an estimated 880,000 deaths annually. Given the worldwide magnitude, health implications, and constant advances made in our understanding and treatment of HBV, this virus has been a recurring topic of Clinics in Liver Disease. This issue, “Challenging Issues in the Management of Chronic Hepatitis B Virus,” addresses the most relevant issues that physicians struggle with when evaluating and treating patients with HBV infection.

One of the most striking aspects of HBV today is the marked change that continues to occur in the demographics of this disease. This is primarily due to immigration of persons from areas of the world where HBV is common to countries where HBV has traditionally been less common. The impact of migration on the worldwide prevalence of HBV is important for clinicians to consider when they provide routine medical care.

HBV exists in several different states, some of which cause chronic liver injury and require treatment. Many serologic and virologic tests are utilized to assess HBV activity and viral resolution. Mutations in the HBV virus genome may lead to confusing serologic patterns. As a result, many physicians remain uncertain of how to interpret HBV serologies and manage those patients with discordant HBV serologic patterns.

Although the recommendations for managing and treating acute and chronic HBV are contained within practice guidelines produced by various hepatology and gastroenterology societies, many patients with HBV do not fit neatly into various categories, and the practitioner is sometimes left undecided on whether to treat for prolonged periods of time. Both interferon and oral antiviral agents are available for treatment of chronic HBV. Although the vast majority of physicians and patients prefer oral therapy, interferon can be very effective and remains a viable option for some patients. Measuring HBV DNA and HB surface antigen titer may be very useful in selecting patients for treatment and assessing response to these treatments.

Chronic HBV is one of the most important risk factors for developing HCC. Patients with chronic HBV should be screened for HCC. HBV needs to be effectively managed.
in patients who develop HCC. New treatments for HCC, particularly the checkpoint in-
hibitors, may impact HBV.

Patients with chronic HBV can be coinfected with hepatitis C virus (HCV) or hepatitis
D virus (HDV). All patients with chronic HCV should be evaluated for HBV and treated
or administered prophylactic therapy to prevent HBV flare if appropriate. Immigration
is also changing the demographics of HBV-HDV coinfection. Managing HBV-HDV co-
infection has been a challenge in the past, but a new treatment for HDV has been
shown to be effective and should soon be available.

Given the effectiveness of oral antiviral therapy and the increased waiting time for
patients in need of organ transplants, many liver transplant centers are now actively
transplanting organs with previous exposure to HBV into patients without HBV.
Whether transplant recipients who receive such organs or patients with chronic
HBV who undergo liver transplantation require life-long antiviral therapy remains
controversial.

Health care workers and first responders are now routinely vaccinated against HBV.
However, some may not respond to the vaccine or have undetectable anti-HB surface.
The medical and legal ramifications of a health care worker with chronic HBV require
careful consideration.

We would very much like to have a treatment that cures HBV, like we now have for
HCV. Unfortunately, HBV is a much more complicated virus and has proven itself to be
a formidable enemy. However, novel therapies with different mechanisms of action
and targets are being developed and tested as potential treatments that may one
day cure HBV.

I would like to thank the authors, who represent 8 countries and 4 continents, for
their excellent contributions to this issue of Clinics in Liver Disease. It is my hope
that our readers will find this issue informative, clinically relevant, and helpful in the
assessment and management of their patients with HBV infection.

Mitchell L. Shiffman, MD, FACP, FACG, FAASLD
Liver Institute of Richmond
Liver Institute of Hampton Roads
Bon Secours Mercy Health
Richmond and Newport News, Virginia, USA

Eastern Virginia Medical School
Norfolk, Virginia, USA

E-mail address:
Mitchell_Shiffman@bshsi.org