KASL Clinical Practice Guidelines: Management of chronic hepatitis B

The Korean Association for the Study of the Liver (KASL)

Keywords: Chronic hepatitis B; Management; KASL guidelines

PREAMBLE

Introduction

The guideline on the management of chronic hepatitis B (CHB) was first developed in 2004 and revised in 2007 by the Korean Association for the Study of the Liver (KASL). Since then there have been many developments, including the introduction of new antiviral agents and the publications of many novel research results from both Korea and other countries. In particular, a large amount of knowledge on antiviral resistance—which is a serious issue in Korea—has accumulated, which has led to new strategies being suggested. This prompted the new guideline discussed here-in to be developed based on recent evidence and expert opinion.

Target population

The main targets of this guideline comprise patients who are newly diagnosed with CHB and those who are followed or treated for known CHB. This guideline is also intended to provide guidance for the management of patients under the following special circumstances: malignancy, transplantation, dialysis, co-infection with other viruses, pregnancy, and children.

Intended users

This revised CHB guideline is designed as resource for all Korean clinicians caring for patients with CHB. It also provides physicians in training courses with practical information on the management of CHB.

Keywords:
Chronic hepatitis B; Management; KASL guidelines

Abbreviations:
AASLD, American Association for the Study of Liver Diseases; AGREE II, Appraisal of Guidelines for Research and Evaluation II; ALP, alkaline phosphatase; ALT, alanine aminotransferase; anti-HAV, hepatitis A virus antibody; anti-HBc, hepatitis B core antibody; anti-HBe, hepatitis B surface antibody; anti-HBs, hepatitis B surface antigen; APR, Antiretroviral Pregnancy Registry; AST, aspartate aminotransferase; BCP, basal core promoter; cccDNA, covalently closed circular DNA; CDC, Center for Disease Control; CHB, chronic hepatitis B; CPGRC, Clinical Practice Guideline Revision Committee; cpm, copies/mL; EASL, European Association for the Study of the Liver; GGT, gamma-glutamyl transpeptidase; GRADE, Grading of Recommendations, Assessment, Development and Evaluation; HAART, highly active antiretroviral therapy; HbcAg, HBc core antigen; HBeAg, Hepatitis B core envelope antigen; HBIG, Hepatitis B immunoglobulin; HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; HCC, hepatocellular carcinoma; HCV, hepatitis C virus; HDV, hepatitis D virus; HIV, human immunodeficiency virus; IFN, interferon; IgG, immunoglobulin G; IgM, immunoglobulin M; IJ, international unit; KASL, The Korean Association for the Study of the Liver; NUC, nucleos(t)ide analogue; PCR, polymerase chain reaction; peginterferon, pegylated interferon; REVEAL-HBV, Risk Evaluation of Viral Load Elevation and Association Liver Disease/Cancer-Hepatitis B Virus, ULN, upper limit of normal

Received: April 20, 2012
Accepted: May 8, 2012

Corresponding author: KASL (President: Byung Chul Yoo)
Room A1210 MapoTrapalace, 53 Mapo-daero, Mapo-gu, Seoul 121-784, Korea
Tel. +82-2-703-0051, Fax. +82-2-703-0071, E-mail; kasl@kams.or.kr

Contributors:

CHB Clinical Practice Guidelines Revision Committee
Director: Joong-Won Park (National Cancer Center)
Members: Jin-Wook Kim (Seoul National University), June Sung Lee (Inje University), Won Young Tak (Kyungpook National University), Sang Hoon Park (Hallym University), Si Hyun Bae (Catholic University), Moon Suk Choi (Sungkyunkwan University), Young-Suk Lim (University of Ulsan), Yong Han Paik (Sungkyunkwan University), Byung-Cheol Song (Cheju National University), Hyung Joong Yim (Korea University), Sang Hoon Ahn (Yonsei University), Geum-yeon Gwak (Sungkyunkwan University), Hwi Young Kim (National Cancer Center), Ju Hyun Shim (University of Ulsan), Jae Sung Ko (Seoul National University)

Abbreviations:
AASLD, American Association for the Study of Liver Diseases; AGREE II, Appraisal of Guidelines for Research and Evaluation II; ALP, alkaline phosphatase; ALT, alanine aminotransferase; anti-HAV, hepatitis A virus antibody; anti-HBc, hepatitis B core antibody; anti-HBe, hepatitis B surface antibody; anti-HBs, hepatitis B surface antigen; APR, Antiretroviral Pregnancy Registry; AST, aspartate aminotransferase; BCP, basal core promoter; cccDNA, covalently closed circular DNA; CDC, Center for Disease Control; CHB, chronic hepatitis B; CPGRC, Clinical Practice Guideline Revision Committee; cpm, copies/mL; EASL, European Association for the Study of the Liver; GGT, gamma-glutamyl transpeptidase; GRADE, Grading of Recommendations, Assessment, Development and Evaluation; HAART, highly active antiretroviral therapy; HbcAg, HBc core antigen; HBeAg, Hepatitis B core envelope antigen; HBIG, Hepatitis B immunoglobulin; HBsAg, hepatitis B surface antigen; HBV, hepatitis B virus; HCC, hepatocellular carcinoma; HCV, hepatitis C virus; HDV, hepatitis D virus; HIV, human immunodeficiency virus; IFN, interferon; IgG, immunoglobulin G; IgM, immunoglobulin M; IJ, international unit; KASL, The Korean Association for the Study of the Liver; NUC, nucleos(t)ide analogue; PCR, polymerase chain reaction; peginterferon, pegylated interferon; REVEAL-HBV, Risk Evaluation of Viral Load Elevation and Association Liver Disease/Cancer-Hepatitis B Virus, ULN, upper limit of normal
Developer and funding source

The CHB Clinical Practice Guideline Revision Committee (CPGRC) comprising 15 hepatologists and 1 pediatrician was formed with support from KASL (Appendix 2). All of the required funding was provided by KASL. Each member of CHB-CPGRC collected and evaluated evidence, and contributed to writing the manuscript. Conflicts of interests of the CHB-CPGRC members are summarized in Appendix 1.

Evidence collection

Relevant evidence obtained in a comprehensive literature search using MEDLINE (up to 2011) was systematically reviewed and selected. The literature languages were limited to English and Korean. In addition to published articles, abstracts of important meetings published before 2011 were also evaluated. The following search terms were used: “hepatitis B”, “hepatitis B virus”, “HBV”, “chronic hepatitis”, and other key words related to clinical questions (see below). These clinical questions covered a variety of pertinent topics ranging from epidemiology, natural course, and prevention to diagnosis, treatment, antiviral resistance, and special situations.

Levels of evidence and grades of recommendation

The evidences and recommendations were graded according to the GRADE system (Grading of Recommendations, Assessment, Development and Evaluation) with minor modifications.1-4 (Table 1) The levels of evidences were determined by the possibility of change in the estimate of clinical effect by further research, and were described as high (A), moderate (B) or low (C). The grades of recommendation were either strong (1) or weak (2), as determined by the quality of evidence as well as patient-important outcomes and socioeconomic aspects.

List of the clinical questions

The committee considered the following questions as key components to be covered in this guideline.

1. How does this guideline differ from previous guidelines?
2. What is the updated knowledge on the epidemiology and natural course?
3. How should the infection be prevented?
4. How are the patients evaluated prior to treatment?
5. When should treatment be considered?
6. What are the goals and endpoints of treatment?
7. What are the optimal first-line treatments for different disease status?
8. How should the treatment be monitored?
9. When can we consider stopping treatment?
10. What are the predictors of the treatment response?
11. What are the definitions of treatment failure, antiviral resistance, and recurrence after treatment completion, and how should these aspects be managed?
12. How should the following special groups be managed: acute hepatitis B, liver transplantation, chemotherapy/immunosuppression, renal failure, coinfection [with hepatitis C virus (HCV), hepatitis D virus (HDV), and/or human immunodeficiency virus (HIV)], pregnancy, and children?

Review of the manuscript

Drafts of the revised guideline were thoroughly reviewed at six separate meetings of the committee. In addition to the con-