

Revolutionizing Treatment Outcomes in Hepatitis C: Managed Care Implications and Considerations

Physician Credit

Instructions for Receiving Continuing Physician Education (CME) Credit: Testing and Grading Information

This activity is free online at www.ajmc.com/ce and at www.arcmesa.org, where you will be directed to the activity including the online posttest, activity evaluation, and request for credit. Instant online grading is available, along with a downloadable CME certificate.

Testing and Grading Directions

1. Each participant evaluating the activity and achieving a passing grade of 70% or higher on the online posttest will be eligible to receive a CME certificate.
2. Participants receiving a failing grade on the exam will be notified and permitted to take 1 reexamination at no cost.
3. To receive credit, go to www.ajmc.com/ce or www.arcmesa.org, locate this activity in the CE course list, click on the online posttest link, and complete the online posttest and activity evaluation form to receive your certificate.

Release date: March 15, 2015

Expiration date: March 15, 2016

Pharmacy Credit

Instructions for Receiving Continuing Pharmacy Education (CPE) Credit: Testing and Grading Information

This lesson is free online; receive instant grading and request your CE credit at www.PharmacyTimes.org.

Testing and Grading Directions

1. Each participant evaluating the activity and achieving a passing grade of 70% or higher on the online posttest is eligible to receive CE credit.
2. Participants receiving a failing grade on the exam will be notified and permitted to take 1 reexamination at no cost.
3. To receive your credit online, go to www.PharmacyTimes.org, and complete the online posttest (achieving a passing grade of 70% or better) and the online activity evaluation form. Your CE credit will be automatically uploaded to CPE Monitor™. Please ensure that your *Pharmacy Times* account is updated with your NABP e-profile ID number and your date of birth (MMDD format). Participation data will not be uploaded into CPE Monitor™ if you do not have your NABP e-profile ID number and date of birth entered into your profile on www.PharmacyTimes.org.

Sample of Online Posttest

Choose the best answer for each of the following:

1. Based on the results of epidemiology studies, which HCV genotype is the most common worldwide?
 - A. HCV genotype 1
 - B. HCV genotype 2
 - C. HCV genotype 3
 - D. HCV genotype 4
2. Which of the following are the 3 main therapeutic targets of HCV treatments?
 - A. Core protein, NS2/3A protein, and NS5A replication complex
 - B. NS2/3A protein, NS5B polymerase, and NS5A replication complex
 - C. NS3/4A protease, NS5B polymerase, and NS5A replication complex
 - D. NS3/4A protein, core protein, and NS5B polymerase
3. Inflammatory response in HCV infection is likely associated with the development of which of the following manifestations?
 - A. Cirrhosis, hepatocellular carcinoma, and lymphoproliferative disorders
 - B. Cryoglobulinemia vasculitis, hyperlipidemia, and hypertension
 - C. Hypertension, lymphoproliferative disorders, and diabetes
 - D. Pulmonary fibrosis, stroke, and seizures
4. Due to risk factors or exposure, HCV testing is recommended in the following persons EXCEPT:
 - A. Adults born from 1960 to 1980
 - B. Patients with a current or prior history of injection drug use
 - C. Healthcare or emergency medical workers after a needlestick
 - D. Patients with HIV infection

5. The proximate goal of therapy for chronic hepatitis C is sustained virologic response (SVR). Which of the following statements is an accurate definition of SVR that is typically used in clinical and research settings?
- Any decrease in HCV RNA compared with baseline at least 12 weeks after completion of treatment
 - The continued absence of detectable HCV RNA at least 12 weeks after completion of treatment
 - The continued absence of detectable HCV RNA at least 36 weeks after completion of treatment
 - The continued absence of detectable HCV RNA at least 8 weeks after completion of treatment
6. BC is a 30-year-old HIV-positive male who has been recently diagnosed with HCV genotype 1 infection. When therapy for HCV infection is initiated, potential treatment challenges of his HCV/HIV coinfection are likely to include which of the following?
- Increased risk of drug-related adverse events
 - Longer duration of therapy required
 - Treatments for HIV must be discontinued before initiating treatments for HCV
 - Both A and B
7. Which of the following statements regarding the rapid anti-HCV antibody test is TRUE?
- For persons with a reactive result, no additional testing is needed to confirm active HCV infection.
 - Its availability provides wider testing access to persons at risk for HCV infection and allows for use in physician offices.
 - Its sensitivity and specificity is much lower than the FDA-approved, laboratory-based HCV antibody assays.
 - Its use in community health clinics and hospital emergency departments is not recommended.
8. A diagnosis of active HCV infection is determined by:
- a reactive HCV antibody test
 - a reactive HCV antibody test and a positive HCV RNA test
 - a reactive HCV antibody test and positive symptoms
 - persistently abnormal alanine aminotransferase (AST) levels
9. Which of the following therapy regimen is recommended for treatment-naïve patients with HCV genotype 1a infection with cirrhosis?
- Daily sofosbuvir (400 mg) and weight-based ribavirin for 24 weeks
 - Daily sofosbuvir (400 mg) and weight-based ribavirin plus weekly peginterferon for 12 weeks
 - Daily sofosbuvir (400 mg) and weight-based ribavirin plus weekly peginterferon for 24 weeks
 - Daily sofosbuvir (400 mg) plus simeprevir (150 mg), with or without weight-based ribavirin for 24 weeks
10. Which of the following statement(s) regarding ledipasvir-sofosbuvir is (are) correct?
- It is an inhibitor of the HCV NS5A protein, which is required for viral replication.
 - It is FDA-approved for the treatment of chronic HCV genotype 1 infection.
 - The recommended treatment duration with ledipasvir-sofosbuvir for treatment-naïve patients with or without cirrhosis is 24 weeks.
 - Both A and B
11. PA is a 52-year-old male with a diagnosis of chronic HCV genotype 1a infection without cirrhosis. He has not previously received treatment for HCV infection. A decision is made to initiate therapy with daily sofosbuvir 400 mg plus simeprevir 150 mg. The recommended duration of treatment for PA is:
- 12 weeks
 - 24 weeks
 - 36 weeks
 - 48 weeks
12. PA should be advised to avoid the concomitant use of which of the following agents?
- Milk thistle, as it may decrease sofosbuvir concentration, resulting in decreased efficacy
 - Milk thistle, as it may increase sofosbuvir concentration, resulting in increased adverse events
 - St. John's wort, as it may decrease sofosbuvir concentration, resulting in decreased efficacy
 - St. John's wort, as it may increase sofosbuvir concentration, resulting in increased adverse events

13. Which of the following fixed-dose combination agents is also a treatment option for PA?
- Ledipasvir-sofosbuvir; recommended treatment duration of 12 weeks
 - Ledipasvir-sofosbuvir; recommended treatment duration of 24 weeks
 - Sofosbuvir-ribavirin; recommended treatment duration of 12 weeks
 - Sofosbuvir-ribavirin; recommended treatment duration of 24 weeks
14. Daily fixed-dose combination of paritaprevir (150 mg)/ritonavir (100 mg)/ombitasvir (25 mg) plus twice-daily dasabuvir and weight-based ribavirin is a recommended treatment option for which of the following genotype(s)?
- Genotype 1a, without cirrhosis
 - Genotype 1b, without cirrhosis
 - Genotype 3
 - Both genotypes 1a and 1b, without cirrhosis
15. Which of the following patient characteristics is considered to be associated with the highest risk for severe complications, and therefore should be given top priority for early treatment of HCV?
- Coinfection with hepatitis B
 - Coinfection with HIV
 - Incarcerated patients
 - Stage 3 or 4 compensated cirrhosis
16. Which of the following statements is TRUE regarding patient “warehousing,” as it relates to the management of HCV?
- Patient warehousing with respect to HCV treatment has decreased in recent years.
 - Providers do not treat patients immediately because they are waiting for emerging treatments to become available.
 - Providers prescribe a lower-cost treatment prior to trying more expensive treatments to determine if the lower-cost treatment is sufficient to achieve SVR.
 - Both B and C
17. All of the following statements regarding the cost of HCV treatment are true, EXCEPT:
- Drug costs for a treatment regimen containing sofosbuvir or simeprevir plus PEG-IFN/ribavirin may be higher than \$100,000.
 - Newer oral agents will prove to be cost-effective due to increased efficacy compared with other, traditional treatments.
 - The first-generation protease inhibitors are generally considered to be cost-effective.
 - Traditional treatments for HCV (PEG-IFN/ribavirin) have generally been found to be cost-effective.
18. Which of the following statements regarding the economic burden associated with HCV infection is FALSE?
- Indirect costs related to HCV disease may frequently be higher than direct costs.
 - The 2 liver-related HCV complications with the highest cost burden are liver transplant and hepatocellular carcinoma.
 - The total overall cost burden of HCV disease is expected to decrease within the next decade.
 - Total healthcare costs of HCV-related advanced liver disease are predicted to increase in coming years.
19. Which of the following agents, when combined with sofosbuvir, has recently demonstrated strong efficacy in the treatment of patients with HCV genotype 3?
- Asunaprevir
 - Daclatasvir
 - Ombitasvir
 - Ritonavir
20. Which of the following recent events has led to more competitive pricing for available HCV therapies?
- FDA approval of 3 all-oral regimens for treatment of HCV
 - Government-based grants for access to HCV treatment
 - Availability of only 1 FDA-approved all-oral regimen for HCV treatment
 - Lack of agents in the pipeline for treatment of HCV