Prevention and Treatment of Influenza: Review Questions

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QUESTIONS

Choose the single best answer for each question.

1. Which of the following antiviral medications is effective against influenza B virus?
   A) Acyclovir  
   B) Amantadine  
   C) Famciclovir  
   D) Oseltamivir  
   E) Rimantadine

2. Which of the following statements regarding the use of antiviral medications for the treatment of patients with influenza is true?
   A) Antiviral medications can decrease complications of influenza  
   B) Antiviral medications decrease the duration of influenza by 4 to 5 days  
   C) Antiviral medications must be given within 24 hours of illness onset to be effective  
   D) Rimantadine causes significantly fewer side effects than does amantadine  
   E) Zanamivir is less effective than is oseltamivir for treatment of patients with influenza

3. Which of the following statements accurately describes recently released rapid influenza virus testing?
   A) It can differentiate between influenza A and influenza B virus  
   B) It costs approximately $5 per test  
   C) It detects only influenza A virus  
   D) It is moderately sensitive and highly specific  
   E) It should be performed in all patients suspected of having influenza

4. Which of the following antiviral medications is NOT recommended for patients with bronchospasm?
   A) Amantadine  
   B) Oseltamivir  
   C) Rimantadine  
   D) Valacyclovir  
   E) Zanamivir

5. Which of the following statements is true regarding appropriate drug regimens for influenza treatment in elderly nursing home patients?
   A) Amantadine is contraindicated in these patients because of neurologic side effects  
   B) Rimantadine 100 mg should be given once daily, rather than the usual dosage of 100 mg twice daily  
   C) The same dosage of oseltamivir should be given for influenza prophylaxis as for treatment of acute influenza  
   D) Zanamivir is not effective for influenza prophylaxis in these patients

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EXPLANATION OF ANSWERS

1. (D) Oseltamivir. Amantadine and rimantadine are only effective against influenza A virus. Acyclovir and famciclovir are ineffective against either influenza A or B virus. Oseltamivir is effective against both influenza A and B viruses, as is zanamivir.

2. (D) Rimantadine causes significantly fewer side effects than does amantadine. Rimantadine causes side effects in 3% to 8% of patients, but side effects of amantadine occur in 11% to 19% of patients. Antiviral medications decrease the duration of influenza by an average of 1 to 2 days. Some studies suggest that antiviral medications may decrease influenza complications, but this has not yet been proven. Antiviral medications for treatment of patients with influenza may be administered up to 48 hours after illness onset. Zanamivir and oseltamivir appear to be equally effective in treating patients with influenza.

3. (D) It is moderately sensitive and highly specific. Test sensitivity is approximately 81%, and specificity is approximately 99%. Newer rapid influenza testing can detect both influenza A and B viruses, but it cannot differentiate between the two. The total cost for these tests is between $15 to $20. The role of rapid influenza testing in influenza management is unclear.

4. (E) Zanamivir. Zanamivir, an inhaled medication, has been associated with decreased respiratory function in patients with asthma or chronic obstructive pulmonary disease and is not recommended for use in these patients. Amantadine, rimantadine, oseltamivir, and valacyclovir have no such association.

5. (B) Rimantadine 100 mg should be given once daily, rather than the usual dosage of 100 mg twice daily. A reduced dose of rimantadine is recommended for elderly patients. Amantadine may be used, but the incidence of side effects ranges from 10% to 20% or greater. The prophylactic dosage of oseltamivir is 75 mg daily; the dosage for treatment of influenza is 75 mg twice daily. Zanamivir has been shown to be effective for influenza prophylaxis in elderly patients.

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