Answers - Recommendations on the Management of Human Immunodeficiency Virus and Tuberculosis Coinfection (SCAS, CHP, DH Nov 2020)

Expiration Date: 28 April 2022

CME point / CNE point: 1 / PEM point: 0 (Midwifery related) #

- Please choose the best option.
- Answer these on the answer sheet and make submission by fax to Special Preventive Programme, Department of Health.

 # Please contact respective authorities directly for CME/CPD accreditation if it is not on listed below.

Accreditors	CME Point
Department of Health / HKMA/ HKAM / HKDU *(for practising doctors who are not taking CME programme for specialists)*	1
Anaesthesiologists	1
Community Medicine	1
Dental Surgeons	1
Emergency Medicine	1
Family Physicians	1
Obstetricians and Gynaecologists	Pending
Ophthalmologists	1
Orthopaedic Surgeons	1
Otorhinolaryngologists	1
Paediatricians	1
Pathologists	1
Physicians	1
Psychiatrists	1
Radiologists	1
Surgeons	1

1. Which of the following is not true regarding clinical diagnosis of TB in HIV patients?

   a. Negative AFB smear or culture is not uncommon in HIV/TB coinfected patients especially in those with a low CD4 count
   b. Xpert MTB/RIF assay can only be used as a diagnostic test on respiratory samples✓
   c. AFB smear in sputum can be non-tuberculosis Mycobacterium
   d. Antibiotic sensitivity testing has to be done as a routine in culture positive case
   e. None of the above

2. Which of the following is not true regarding treatment in HIV/TB disease?

   a. Use of Biktarvy (BIC) is contraindicated with rifampicin as it has been shown to reduce the AUC of Biktarvy (BIC)
   b. A standard dose of Dolutegravir (DTG) is recommended in rifabutin-based regimen
   c. Efavirenz (EFV) should be doubled from 600mg daily to 1200mg daily when given with rifampicin✓
   d. The once daily dosing of Raltegravir (RAL) 1200mg daily is not recommended for HIV patients requiring TB treatment
   e. None of the above

3. Which of the following is not true about the drug-drug interaction of anti-TB and antiretroviral treatment?

   a. Rifabutin should be used instead of rifampicin if a ritonavir-boosted protease inhibitor (PI) is considered
   b. Tenofovir alafenamide (TAF) has been shown to have minimal drug-drug interaction with rifampicin and thus is recommended as a first-line option of antiretrovirals for HIV/TB coinfected patients✓
   c. The dosage of Dolutegravir(DTG) has to be doubled from 50mg daily to 50mg BD with a rifampicin containing regimen
   d. Rifampicin is contraindicated in patients on protease-inhibitor (PI) based regimen as it can significantly decrease the PI concentration
   e. None of the above

4. Which of the following(s) is/are true about the initiation of antiretrovirals in patients coinfected with TB?

   I. For patients with CD4 count ≥ 50 cells/μL, antiretrovirals should be started as soon as possible but can be deferred up to 8 weeks
   II. For patients with CD4 count ≤ 50 cells/μL and in the presence of TB meningitis, antiretrovirals should be started as soon as possible within 2 weeks
   III. In patients who are already started on antiretrovirals when TB is diagnosed, ART should be continued without the need of modification
   IV. Adverse effects and IRIS were more common in patients with deferred initiation of ART
   V. The optimal timing of ART initiation relative to TB treatment is based on both CD4 count and the HIV viral load.

   a. I only✓
   b. I and III
   c. II and III
   d. I, III and IV
   e. I, III and V

5. Which of the following is not true about the epidemiology of TB-HIV coinfection?

   a. In Hong Kong, extrapulmonary TB and, at CD4 count <200/μL, pulmonary TB and TB of cervical lymph nodes are AIDS-defining conditions
   b. Hong Kong is regarded to have low TB disease incidence according to the World Health Organization (WHO) definition
   c. It is estimated that 1% of all TB disease in Hong Kong is associated with HIV
   d. Worldwide, TB is a leading cause of death in people living with HIV
   e. None of the above✓

6. Which of the following is not true about immune reconstitution inflammatory syndrome (IRIS) in TB-HIV coinfection?

   a. Antiretrovirals should be continued without interruption during IRIS unless life-threatening
   b. IRIS in TB-HIV coinfected patients are frequently associated with mortality✓
   c. Most IRIS in HIV/TB disease occurs within 3 months of ART initiation
   d. IRIS is more commonly seen in patient with low baseline CD4 count that has risen at a fast rate with antiretroviral treatment
   e. Prednisolone has been shown to lower the incidence of tuberculosis-associated IRIS when given to patients with a very low CD4 count

7. Which of the following(s) is/are true about the treatment of TB-HIV coinfection?

   I. More prolonged anti-TB treatment e.g. up to twelve months is recommended for patients with CNS involvement
   II. Rifamycin should be included in the anti-TB regimen as far as possible
   III. 4-months fluoroquinolone- containing regimens is an acceptable treatment option for HIV/TB disease
   IV. Daily dosing remains the recommended dosing frequency in coinfected patients
   V. Directly observed treatment (DOT) is not recommended for the treatment of TB in those who are HIV co-infected

   a. I and II
   b. I and III
   c. I, II and IV✓
   d. II, IV and V
   e. I, II and IV and V

8. Which of the following(s) is/are true about the screening of latent TB infection (LTBI) in PLWH?

   I. A positive tuberculin skin test result should be confirmed by interferon-ɣ release assay (IGRA)
   II. A baseline LTBI testing should be offered to all PLWH
   III. A cut-off at 10mm of induration is diagnostic of LTBI in PLWH
   IV. Testing should be repeated for those who have achieved immune reconstitution and virological suppression with antiretroviral treatment and be offered again for those with potential ongoing exposure
   V. There is no ground for regular screening of LTBI for PLWH

   a. I and II
   b. II and III
   c. II, III and IV
   d. II and IV✓
   e. II, IV and V

9. Which of the following is not true about the interaction between HIV and TB in coinfection?

    a. Active TB disease is associated with an increased risk of opportunistic infections in PLWH
    b. In HIV, TB may present atypically
    c. HIV increases the life-time risk of TB disease by up to 100-fold
    d. Globally, the emergence of multi-drug resistant (MDR-TB) and extensively drug resistant TB (XDR-TB) has been linked to HIV epidemics
    e. None of the above ✓

10. Which of the following is not true regarding the treatment of latent TB infection (LTBI) in HIV patients?

    a. Nine months of isoniazid 300mg daily with pyridoxine supplementation remains the standard treatment
    b. Twelve doses of once-weekly isoniazid and rifapentine for three months (3HP) is an alternative option for those requiring shorter course of treatment
    c. Treatment is not required for PLWH with a negative LTBI test result despite a significant recent exposure to an infectious source of TB ✓
    d. Active TB disease should be excluded before initiation of LTBI treatment
    e. None of the above