Answers

Recommendations on the Management of Human Immunodeficiency Virus and Tuberculosis Coinfection (SCAS, CHP, DH March 2015)

Expiration Date: 21 April 2016

CME point **#** ***/ CNE point: 1 / PEM point: 0*** *(Healthcare related which contributes to the enhancement of professionalism of midwives/nurses)*

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

Accreditors	CME Point
Department of Health *(for practising doctors who are not taking CME programme for specialists)*	1
Anaesthesiologists	1
Community Medicine	1
Dental Surgeons	1
Emergency Medicine	pending
Family Physicians	1
Obstetricians and Gynaecologists	pending
Ophthalmologists	0.5
Orthopaedic Surgeons	1
Otorhinolaryngologists	1
Paediatricians	pending
Pathologists	1
Psychiatrists	pending
Radiologists	1
Surgeons	pending

1. Which of the following is not true about the initiation of HIV antiretrovirals in coinfected patients already on TB treatment?
   (a). As a general principle, earlier antiretroviral therapy is associated with a lower new AIDS or death outcome and hence recommended
   (b). In patients with CD4 >200/ul and not severe TB disease, antiretroviral therapy should generally be started after 8 weeks but not earlier of TB treatment
   (c). **TB meningitis patients with low CD4 count should have antiretroviral therapy started as soon as possible and not later than 2 weeks of TB treatment** ✓
   (d). Greater caution for side effects, e.g. hepatotoxicity of antiretrovirals is necessary
   (e). None of the above

2. Which of the following is not true regarding the interaction between HIV and TB in coinfection?
   (a). HIV increases the life-time risk of TB disease by up to 100-fold
   (b). TB increases HIV viral load
   (c). It is characterized by atypical presentation of TB disease
   (d). Globally, the emergence of multi-drug resistant and extensively drug resistance TB was linked to HIV epidemics
   (e). **None of the above** ✓

3. Which of the following is not true regarding laboratory diagnosis of TB in HIV/AIDS patients?
   (a). **Sputum examination for AFB is usually positive** ✓
   (b). GeneXpert MTB/RIF™ is an automated molecular test that detects the presence of rifampicin resistance which is often associated with isoniazid resistance
   (c). AFB smear in sputum can be non-tuberculosis Mycobacterium
   (d). Drug susceptibility test has to be done as a routine in culture positive case
   (e). None of the above

4. Which of the following is not true regarding drug-drug interactions of anti-TB and antiretroviral treatment?
   (a). Drug-drug interactions can lead to both increase in drug toxicities and decrease in drug effectiveness
   (b). Efavirenz-based regimen is preferred in combination with rifampicin-containing TB treatment
   (c). **If used together, raltegravir dose has to be increased to 800mg twice daily and rifampicin reduced to 450mg daily** ✓
   (d). The dose of rifabutin has to be reduced if used together with protease inhibitors
   (e). Monitoring of adherence of both TB and HIV drugs is important as selective non-adherence may render the adjusted dosages inappropriate

5. Which of the following is not true about the epidemiology of TB-HIV coinfection in Hong Kong and its implications?
   (a). **TB is the second commonest primary AIDS-defining illness** ✓
   (b). Screening for HIV is indicated for patients diagnosed with TB but not vice-versa
   (c). Because of the higher background TB epidemiology, a lower proportion of HIV/AIDS patients in Hong Kong had TB disease compared with that in US
   (d). Not uncommonly, coinfected patients present with a low CD4 count (<200/ul) and extrapulmonary TB
   (e). None of the above

6. Which of the following is not true about immune reconstitution inflammatory syndrome (IRIS) in TB-HIV coinfection?
   (a). IRIS is more common in patients with advanced HIV or low CD4
   (b). Paradoxical reaction and unmasking of TB disease are common manifestations of IRIS
   (c). A fall in HIV viral load and rise in CD4 supports IRIS
   (d). TB treatment failure and non-adherence have to be excluded before making the diagnosis of IRIS
   (e). **Steroid but not interruption of antiretroviral treatment may be indicated to manage IRIS** ✓

7. Which of the following is not true in general about treatment of TB-HIV coinfection?
   (a). Rifamycins should be included as far as possible
   (b). Duration of anti-TB treatment should be longer than in HIV negative subjects to minimize relapse
   (c). Directly observed therapy is the gold standard and even more important in coinfected patients than monoinfected patients as they run higher risk of TB treatment failure and resistance development
   (d). **Highly intermittent TB therapy is an alternative** ✓
   (e). None of the above

8. Which of the following is not true about treatment of latent TB infection in HIV patients?
   (a). 9-month daily isoniazid remains the standard, with addition of 10-50mg daily pyridoxine
   (b). **2-month pyrazinamide and rifampicin is not recommended as this regimen is ineffective** ✓
   (c). Once-weekly isoniazid plus rifapentine per directly observed therapy for 12 doses is an useful alternative regimen
   (d). Exclusion of active disease is a must before institution of latent TB treatment
   (e). Regardless of tuberculin skin test result, a significant recent exposure to an infectious source of TB warrants treatment after proper evaluation

9. Which of the following is not true about the screening of latent TB in HIV patients?
   (a). Treatment of HIV patients with positive tuberculin skin test was found to reduce subsequent TB disease occurrence
   (b). Dual testing with interferon-γ release assay (IGRA) and tuberculin skin test is recommended locally in patients with CD4 <100/uL
   (c). The role of interferon-γ release assay (IGRA) in low income and endemic TB settings is limited
   (d). Interferon-γ release assay (IGRA) is more patient-friendly than tuberculin skin test as return in 48-72 hours for reading result is not necessary for IGRA
   (e). **None of the above** ✓

10. The diagnosis of TB-HIV coinfection is important for the following reasons, except?
   (a). Evaluation and management of HIV disease status and other opportunistic complications
   (b). The choice of TB treatment regimen and drugs dosage adjustment
   (c). The relative timing of antiretroviral therapy and TB treatment for the best benefit of the patient
   (d). Monitoring of drug-drug interactions, toxicities and efficacy
   (e). **None of the above** ✓