

**POSTGRADUATE INSTITUTE OF MEDICINE**  
**UNIVERSITY OF COLOMBO**

**MD (VENEREOLOGY) EXAMINATION**

**MAY, 2006**

Date : 24<sup>th</sup> May, 2006

Time : 1.30 p.m. - 4.30 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1. As the newly appointed venereologist to the STD clinic at Matara, you observe that the patient attendance is low and that there is a high defaulter rate. In addition, there are limited resources for the diagnosis and management of sexually transmitted infections (STI).
  - 1.1. List the possible reasons for the low patient attendance and high defaulter rate. (25 marks)
  - 1.2. Discuss what action you would take to improve accessibility and enhance patient retention in your clinic. (75 marks)
  
2. Describe your first line of antiretroviral therapy of an asymptomatic 28 year old female with a CD4 count of 80 ceU-s/!-11 and explain your rationale for this choice including why other agents were not chosen. Assume that all common antiretroviral therapies are available to you. (100 marks)
  
3. Write short notes on :
  - 3.1. Male circumcision and risk of sexually transmitted infections. (25 marks)
  - 3.2. Imaging studies for the diagnosis of pelvic inflammatory disease. (25 marks)
  - 3.3. The role of direct microscopy as a diagnostic tool for sexually transmitted infections (illustrate your answer with examples). (25 marks)
  - 3.4. Programme to reduce maternal morbidity, fetal loss and neonatal mortality and morbidity due to syphilis (list the components) (25 marks)

4. A cohort of HIV infected and non-infected male and female populations are being followed for more than 10 years. The cohort consists of injecting drug users, men having sex with men, bisexuals and heterosexuals. Some of them are on antiretroviral treatment depending on their virological and immunological markers. The following observations were made in this cohort:

**Observation A**

After seroconversion, a few of them progressed to AIDS very rapidly (less than 3 years).

- 4.1. Outline the viral, immune and host factors important for the rapid progression. (50 marks)

**Observation B**

As a result of unprotected sexual relationships some seronegative members in the cohort became HIV positive.

- 4.2. Describe the public health measures that could be used to minimize such outcomes in the future. (50 marks)

5. Discuss briefly:

5.1. Clinical trial (40 marks)

5.2. Meta-analysis (30 marks)

5.3. Parametric tests in statistical analysis (30 marks)

6. A 40 year old married man presents to a STD clinic with a painful perianal lesions. He admits to having several sexual exposures with casual male partners.

6.1. List the conditions you would consider in the differential diagnosis of the above. (20 marks)

6.2. Discuss the factors you would consider in arriving at a diagnosis. (80 marks)

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**MD (VENEREOLOGY) EXAMINATION**

**MAY 2007**

Date: 28<sup>th</sup> May 2007

Time: 1.00 p.m. - 4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1. A 32 year old married female executive complains of an intermittent vaginal discharge of one year's duration. Discuss the possible common causes, their diagnosis and management. (100 marks)
2. Discuss the issues you would consider in deciding the suitability of introducing a human papilloma virus vaccine in Sri Lanka. (100 marks)
3.
  - 3.1 Discuss the role of surveillance in prevention of HIV/AIDS. (40 marks)
  - 3.2 How should HIV surveillance be prioritized depending on the level of the HIV epidemic of a country. (60 marks)
4. A 35 year old woman presented to the central STD clinic with oral thrush and retrosternal discomfort on swallowing. Clinic records show that she had tested HIV positive two years ago but defaulted from care. Discuss your management of this patient. (100 marks)
5. A 28 year old female with a history of pre-term delivery attends your clinic with a 3 months history of amenorrhoea and a positive urinary HCG result. She has asymptomatic HIV infection, is antiretroviral therapy naive and has a recent CD4 count of 340 cells/ $\mu$ L.
  - 5.1 Discuss the risks and benefits of antiretroviral therapy for this patient. (40 marks)
  - 5.2 Describe your management options for this patient. (60 marks)

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**MD (VENEREOLOGY) EXAMINATION**  
**MAY 2008**

Date: 5<sup>th</sup> May 2008

Time : 1.00 p.m. - 4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1. A 30-year-old married man presented to the Central STD Clinic, Colombo with genital ulcers of 4 days duration. He had unprotected sex with 3 casual female partners during the last 3 months whilst in India. Last unprotected sexual exposure with a casual partner was 10 days back. On return he had unprotected sex with his wife.

List the differential diagnosis and discuss the management of this patient.  
(100 marks)

2. Discuss the advantages and disadvantages of initiating antiretroviral therapy for the following scenarios.
  - 2.1. Primary HIV infection (40 marks)
  - 2.2. Chronic HIV infection with CD4+ T-cell lymphocyte count less than 200 cells/ $\mu$ l (20 marks)
  - 2.3. Chronic HIV infection with CD4+ T-cell lymphocyte count between 200 and 400 cells/ $\mu$ l (20 marks)
  - 2.4. Chronic HIV infection with CD4+ T-cell lymphocyte count greater than 400 cells/ $\mu$ l (20 marks)

3.
  - 3.1. Discuss the appropriateness of introducing antenatal screening for *Chlamydia trachomatis* infection in Sri Lanka. (60 marks)
  - 3.2. In a European study on the effect of Chlamydial infection on pregnancy outcome, 800 infected and 3200 uninfected pregnant women were followed up. The numbers of pre term deliveries among infected and uninfected women were 80 and 160 respectively. The results of the significance test was reported as  $P < 0.001$ .
    - 3.2.1. What type of study is this ? (10 marks)
    - 3.2.2. Explain what is meant by  $P < 0.001$  (10 marks)
    - 3.2.3. Calculate and interpret a measure of the strength of association between Chlamydial infection and preterm delivery. (20 marks)
4. Since the mid 1980s, a number of steps have been taken to respond to the HIV epidemic in Sri Lanka.
  - 4.1. List the various stakeholders involved in the national response to the HIV epidemic in Sri Lanka. (20 marks)
  - 4.2. Describe the steps taken in Sri Lanka in response to the HIV epidemic. (40 marks)
  - 4.3. Describe the areas which need further improvement. (40 marks)
5. A 49-year-old married man was admitted to a teaching hospital with a history of non-productive cough, progressive dyspnoea, fatigue and intermittent fever. His HIV screening test was positive.
  - 5.1. Discuss in detail the clinical management of this patient. (70 marks)
  - 5.2. Outline the long term comprehensive care plan. (30 marks)

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**MD (VENEREOLOGY) EXAMINATION**  
**MAY 2009**

Date: 25<sup>th</sup> May 2008

Time : 1.00 p.m. - 4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1. It has been suggested that antenatal VDRL screening in Sri Lanka can be discontinued as the number of positive cases of syphilis found for the year 2006 was less than 50.
  - 1.1. Discuss the advantages and disadvantages of the VDRL test as an antenatal screening test for syphilis. (40 marks)
  - 1.2. How do you justify continuation of current antenatal syphilis screening programme in Sri Lanka ? (60 marks)
  
2. A 44 year old HIV positive woman is on zidovudine, lamivudine and nevirapine for 3 months. She is feeling weak and is found to have a haemoglobin of 8 g/l. Her current CD4 count is 90 cells/mm<sup>3</sup>.
  - 2.1. List the causes of her anaemia. (30 marks)
  - 2.2. Discuss her management. (70 marks)
  
3. A man presents with the first episode of genital herpes. His partner is 30 weeks pregnant. Discuss the management of this couple. (100 marks)

4. HIV epidemic in Sri Lanka
- 4.1. List the gaps in the national response to HIV epidemic in Sri Lanka which were identified in the external review carried out in 2006. (20 marks)
- 4.2. Explain the effective measures that can be taken to improve the situation. (80 marks)
5. A 40 year old man with fever for 2 months was admitted to National Hospital of Sri Lanka. His HIV antibody test was positive and AST and ALT showed a five-fold rise with CD4 count of 22 cells/mm<sup>3</sup>. Investigations revealed HBsAg and HCV-Ab tests negative.
- 5.1. What differential diagnosis would you consider in this case ? (30 marks)
- 5.2. Discuss the management of this patient. (70 marks)

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**MD (VENEREOLOGY) EXAMINATION**

**MAY 2010**

Date :- 10<sup>th</sup> May 2010

Time : 1.00 p.m. – 4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1. Discuss the rationale for using targeted interventions approach in prevention and control of HIV / AIDS in Sri Lanka ? (60 marks)
  - 1.2. Briefly describe the components of the essential prevention package used in targeted interventions for prevention of sexual transmission. (40 marks)
  
2. In May 2007 a 46 year old man presented with ano-genital ulcers at the Central STD clinic. He also complained of fever, sore throat and maculopapular rash of one week duration. He admitted receptive and insertive anal intercourse with a man two weeks prior to appearance of these symptoms. His VDRL, TPP A and HIV antibody tests were negative. He was treated clinically for genital herpes.  
  
After two months, his HIV screening test was positive and confirmed with Western blot test.  
  
He was lost to follow up for three years and presented again in May 2010 with fever, fatigue, non-productive cough, loss of appetite, oral thrush, and difficulty in swallowing.
  - 2.1. Discuss the differential diagnosis for his fever and other symptoms at the initial presentation. (50 marks)
  - 2.2. Outline the management of his current clinical presentation. (50 marks)



3. A 30 year old homosexual man complained of diarrhoea of 2 weeks duration following commencing treatment for his HIV infection with tenofovir, lamivudine and Kaletra (lopinavir/ritonavir). His CD4 count is 40 cells/mm<sup>3</sup> and the HIV viral load is 200,000 copies/ml.

Discuss the causes and management of his diarrhea. (100 marks)

4. Discuss critically the effects of socio-demographic changes on the prevalence of HIV / AIDS and STIs in Sri Lanka. (100 marks)

5. A 35 year old married woman with a period of amenorrhoea of 10 weeks presented to the STD clinic with genital ulcers of 8 days duration. She has returned from Middle East two weeks back. She admitted having sexual exposures with casual partners while working there.

5.1. List the differential diagnosis of genital ulcers in this patient ? (20 marks)

5.2. How would you manage her ? (80 marks)

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**MD (VENEREOLOGY) EXAMINATION**  
**DECEMBER 2010**

Date : 13<sup>th</sup> December 2010

Time : 1.00 p.m. -4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1. A 30 year old HIV positive woman complained of acute abdominal pain.  
  
Discuss the management of this patient. (100 marks)
  
2. You are appointed as the Venereologist in charge of a district STD clinic. During the initial assessment, you found that the-clinic services are not adequately utilized by the most at-risk populations (MARPs) living in the area.  
  
Describe the steps you would take to improve this situation. (100 marks)
  
3.
  - 3.1 Describe the impact of STIs (excluding HIV) and bacterial vaginosis on pregnancy and neonate. (50 marks)
  - 3.2 Outline the steps that can be taken to reduce transmission of STIs (excluding HIV) to baby during pregnancy and neonatal period. (50 marks)
  
4. Discuss the strengths, weaknesses, opportunities and threats of using the already available services in a Health Unit (MOH unit), in preventing sexually transmitted infections (STIs) and promoting sexual health of a community. (100 marks)
  
5. A 40 year old man recently diagnosed with HIV infection was admitted to National Hospital with fever, headache, numbness and weakness of left leg and seizures affecting the left side of the body for one week. His CD4 count was 90 cells/cu mm.  
  
Discuss the management of this patient. (100 marks)

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**MD (VENEREOLOGY) EXAMINATION**  
**DECEMBER 2011**

Date : 12<sup>th</sup> December 2011

Time : 1.00 p.m. -4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1. Discuss the causes and management of virological failure in a HIV infected patient on first line antiretroviral treatment (ART). (100 marks)
  
2. A 30 year old married man presented to the central STD clinic, Colombo with anal ulcers of one week duration. He admitted to having unprotected sex with multiple male partners since the age of 20 years. Last unprotected sexual exposure with a male partner was three weeks back.
  - 2.1. List the differential diagnoses and outline the investigations you would carry out to arrive at a diagnosis. (40 marks)
  - 2.2. Discuss the management of this patient. (60 marks)
  
3. You are appointed to a newly created venereologist post in a STD clinic of a coastal town whose main economy is based on tourism.
  - 3.1. Outline how you would assess the extent of the STIs and identify the high risk groups in the catchment area of the clinic. (40 marks)
  - 3.2. Describe briefly the steps in planning of a suitable prevention program for an identified high risk group. (60 marks)

4.
  - 4.1. Outline the clinical presentations of active tuberculosis among HIV infected patients giving examples. (20 marks)
  - 4.2. Write short notes on immune reconstitution inflammatory syndrome and tuberculosis. (30 marks)
  - 4.3. Discuss the ARV treatment for a HIV infected patient with pulmonary TB who has a CD4 count of 170 cells/mm<sup>3</sup>. (50 marks)
  
5. The theme for the world AIDS day 2011 is “ Zero new infections, Zero AIDS related deaths and Zero discrimination “. Discuss the steps to reach the goal of “ Zero AIDS related deaths “ in Sri Lanka. (100 marks)

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**MD (VENEREOLOGY) EXAMINATION**  
**DECEMBER 2012**

Date : 17<sup>th</sup> December 2012

Time : 1.00 p.m. -4.00 p.m.

**PAPER I**

**Answer all questions.**

**Each question to be answered in a separate book.**

1.
  - 1.1. Discuss briefly the impact of prevention of mother to child transmission of HIV on Millennium Development Goals. (40 marks)
  - 1.2. Discuss the effectiveness of using the existing services of Public Health Midwives in prevention of mother to child transmission of HIV in Sri Lanka. (60 marks)
  
2. A 28 year old homosexual man has been followed up for HIV infection. His clinic attendance has been poor and he has had number of casual sex partners over the years. His CD4 lymphocyte count dropped to 250 cells/ $\mu$ l and his viral load at that time was 125,000 copies/ml. He was commenced on Tenofovir 300mg, Emtricitabine 200mg and Efavirenz 600mg daily. Four weeks after initiating anti retroviral treatment (ART) his CD4 count was 290 cells/ $\mu$ l and viral load was 45,000 copies/ml. Eight weeks later his CD4 count was 230 cells/ $\mu$ l and viral load was 130,000 copies/ml.  
  
Discuss the causes of virological failure and explain the likely mutations as evidenced from his history. (100 marks)
  
3. In a south Asian country , ART coverage is 30% of the estimated target. According to WHO estimates, the number of people living with HIV who are eligible for ART in this country is 1500 by end of 2011.
  - 3.1. Explain the factors that have contributed to the low coverage of ART. (40 marks)
  - 3.2. Describe the plan of action you would recommend to improve this situation. (60 marks)

4. Discuss the role of the Venereologist in-charge of a provincial STD clinic, in achieving the objectives of the National STD/AIDS Control Programme.

(100 marks)

5. A 40 year old married female sex worker presented to the central STD clinic with a maculopapular skin rash of one week duration. Her VDRL test result was R(256) and TPPA was positive.

5.1. How will you manage this patient ?

(50 marks)

5.2. Interpret the follow up VDRL test result of this patient giving reasons.

(25 marks)

Time Test	3 months	6 months	9 months	12 months	15 months	18 months	24 months
VDRL	R(64)	R(64)	R(128)	R(128)	R(64)	R(32)	R(32)

5.3. How will you manage this patient at 24 months ?

(25 marks)