

POSTGRADUATE INSTITUTE OF MEDICINE
UNIVERSITY OF COLOMBO

MD (VENEREOLOGY) EXAMINATION – FEBRUARY 2023

Date: 13th February 2023

Time: 1.00 p.m. – 4.00 p.m.

STRUCTURED ESSAY QUESTIONS

PAPER I

Answer all five (05) questions.

Each question to be answered in a separate book.

1. HIV viral load monitoring.
 - 1.1. Describe the natural history of HIV viral load without treatment from the time of first infection noting the relevance to disease progression and transmission risk. (50 marks)
 - 1.2. Choosing your preferred antiretroviral combination, describe the expected response according to the literature during the first six months of therapy, particularly noting decay rates and time to undetectable. (35 marks)
 - 1.3. When measuring HIV viral load in the first six months describe your goals and how these can best be achieved when resources are constrained. (15 marks)
2. As per the Sustainable Development Goals, Sri Lanka is committed to end AIDS epidemic by year 2030. To reach this goal, the country needs to achieve 95-95-95 targets by the year 2025.
 - 2.1. Outline the 95-95-95 targets by giving their numerators and denominators. (15 marks)
 - 2.2. Describe the method of calculating the first 95% in Sri Lanka. (35 marks)
 - 2.3. Discuss the opportunities and challenges to achieve 95-95-95 targets by 2025 in Sri Lanka. (50 marks)
3. Sexually transmitted infections (STI) can adversely affect pregnancy and pregnancy outcomes.
 - 3.1. List seven (07) STI which can adversely affect pregnancy and pregnancy outcomes. (21 marks)
 - 3.2. Describe the effects of each STI mentioned above on pregnancy and pregnancy outcomes. (79 marks)

4. Given below is an abstract published in a medical journal.

Objective: To describe the risky sexual behaviour among men who have sex with men (MSM) and its relationship with knowledge on HIV/AIDS in the military.

Methods: An institution-based study was conducted among soldiers attached to military camps. Study participants were identified using snow balling technique. An interviewer-administered questionnaire was used to assess their risky sexual behaviour. Their knowledge on HIV/AIDs was rated based on a score 0-100%.

Results: Response rate was 60% (N=181). Three months prior to the study, 46.3% of the study participants had engaged in at least one risky sexual activity. The average score obtained for participants' knowledge on HIV/AIDS was 48.7% (95% CI: 38.9, 58.4%). A significant relationship was shown between poorer knowledge on HIV/AIDS and engaging in at least one risky sexual activity ($p = 0.001$). Economic issues, stigma and discrimination, and usage of substances were also identified as contributing factors to risky sexual activity among them.

Conclusions: The relatively high prevalence of risky sexual behaviour highlights the need for additional educational interventions in the military to shape their sexual behaviour.

4.1. Comment on the strengths and limitations in adopting the following methods in this study.

- Sampling method used to identify study participants.
- Study instrument used to assess risky sexual behaviour.

(35 marks)

4.2. Name an alternative research method that could have improved the quality of data collected on risky sexual behaviour. (10 marks)

4.3. Describe two (02) strategies that could have been used for improving the response rate in this study. (20 marks)

4.4. Interpret the statistics given in the underlined statement. (15 marks)

4.5. Comment on the results obtained on the relationship between knowledge on HIV/AIDS and engaging in at least one risky sexual activity. (20 marks)

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5. According to the available statistics, the number of reported HIV cases in Sri Lanka shows a steady rise from 2011 to 2022 with a slight decrease in 2020. There is a remarkable increase in the number of reported cases in 2022 compared to 2021. Throughout the years, the rise was mostly among males. As a result, the male: female ratio has gone up from 2:1 in 2011 to 7:1 in 2022. The increasing number of new diagnoses among 15–24 year-old population, especially among males, is also noted during the same period.
- 5.1. Outline the possible reasons for five (05) main changes mentioned above. (30 marks)
- 5.2. Describe how the national STD/AIDS control programme should respond to these changes. (40 marks)
- 5.3. Describe five (05) different HIV testing approaches currently available in Sri Lanka for the key populations. (30 marks)