

Textbook - Warren Levinson et al. Review of Medical Microbiology and Immunology. 14th edition

Faculty of Medicine

MODULE 15.

Thematic Plan of Lectures and Practical Classes

N	Lectures	hours
1.	Basic virology - structure, replication of viruses. Antiviral drugs – classification, mode of action.	1
2.	RNA nonenveloped viruses – Picornaviruses, caliciviruses, Reoviruses	1
3.	Arboviruses	1
4.	RNA enveloped viruses – Filoviruses (Ebola, Marburg viruses). Togaviruses – rubella virus. Rhabdoviruses - rabies virus. Minor viral pathogens - Japanese encephalitis virus, Lassa fever virus, lymphocytic choriomeningitis virus, Tacaribe Complex of Viruses (Sabia virus, Junin virus, Machupo virus), Whitewater Arroyo Virus.	1
5.	RNA enveloped viruses – Orthomyxoviruses (influenzaviruses - A, B, C types)	1
6.	RNA enveloped viruses – Paramyxoviruses (measles virus, mumps virus, respiratory syncytial virus, parainfluenza virus). Coronaviruses.	1
7.	Retroviruses. Human T-cell lymphotropic Virus (HTLV), Human immunodeficiency virus (HIV)	1
8.	Hepatitis viruses.	1

N	Content of practical classes and seminars (15 classes, each of 2h.)	Study Materials
1.	Basic virology - structure, replication of viruses. Antiviral drugs – classification, mode of action.	Chapters 28,29,35
2.	RNA nonenveloped viruses – Picornaviruses, caliciviruses, Reoviruses – diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention.	Chapter 40
3.	Arboviruses (eastern equine encephalitis virus, western equine encephalitis virus, St. Louis encephalitis virus, California encephalitis virus, Colorado tick fever virus, west Nile virus, yellow fever virus, Dengue virus, Chikungunya virus) - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention.	Chapter 42
4.	RNA enveloped viruses - Filoviruses (Ebola, Marburg viruses). Minor viral pathogens - Japanese encephalitis virus, Lassa fever virus, lymphocytic choriomeningitis virus, Tacaribe Complex of Viruses (Sabia virus, Junin virus, Machupo virus), Whitewater disease, Arroyo Virus - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention;	Chapter 39 Chapter 46 (particular viruses, according to the study plan)

	Togaviruses – rubella virus - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention; Rhabdoviruses - rabies virus - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention;	
5.	RNA enveloped viruses – Orthomyxoviruses (influenza viruses - A, B, C types) - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention.	Chapter 39
6.	RNA enveloped viruses – Paramyxoviruses (measles virus, mumps virus, respiratory syncytial virus, parainfluenza virus). Coronaviruses - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention.	Chapter 39
7.	Retroviruses. Human T-cell lymphotropic Virus (HTLV), Human immunodeficiency virus (HIV) - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention.	Chapters 40,45
8.	Hepatitis viruses (A, B, C, D, E, G hepatitis viruses) - diseases, transmission, pathogenesis, clinical signs, laboratory diagnosis, treatment, and prevention.	Chapter 41