Systemic Viral Infections:
Mumps, Measles, Rubella and Parvovirus B19

DATE: Wednesday, April 3, 2019 – 9:30 am

READING ASSIGNMENT:

Murray Medical Microbiology, 7th Ed., Chps 56 (Mumps and Measles), 60 (Rubella) and 53 (Parvoviruses).

EDUCATIONAL GOAL:

You will be able to identify the diseases associated with mumps, measles, rubella and parvovirus infection, how these viruses are transmitted, and the role of vaccination in controlling the spread of mumps, measles and rubella.

KEY CONCEPTS AND LEARNING OBJECTIVES:

To attain the goal of this lecture you will be able to:

- Describe how mumps virus is transmitted, the typical presentation of the disease and how this disease can be controlled by vaccination.

- Describe how measles virus is transmitted and when infected individuals are most likely to transmit the virus.

- State the virus associated with the development of SSPE and describe the type of virus isolated from the CNS of SSPE patients.

- Describe how rubella virus is transmitted and the disease manifestations after infection.

- Describe congenital rubella syndrome and how vaccination is used to prevent the spread of rubella virus.

- List the vaccines that are available to control viruses of the Paramyxoviridae family.

- Describe how parvoviruses are transmitted and the sites of viral replication.

- Name the virus that causes Erythema infectiosum (fifth disease).

- List 5 clinical consequences of parvovirus B19 infection and describe specific situations when the difference clinical presentations are likely to occur.
CONTENT SUMMARY

Mumps

Measles
   Subacute Sclerosing Panencephalitis (SSPE)

Rubella
   Congenital Rubella Syndrome

MMR Vaccine

Parvovirus B19 and Erythema infectiosum

KEY WORDS

- measles virus
- mumps virus
- rubella virus
- negative strand RNA
- persistent viral infection
- SSPE
- syncytia
- congenital rubella syndrome
- CCCK
- Parvovirus B19
- Fifth disease
- Erythema infectiosum
- Chronic hemolytic anemia and B19