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300L

COMMUNICABLE DISEASE

1. Communicable Diseases

Definition

Communicable diseases are illnesses caused by infectious agents (bacteria, viruses, parasites, fungi) that can be transmitted from one person to another, either directly or indirectly.

Causative Agents

- Bacteria (e.g., \_Mycobacterium tuberculosis\_, \_Vibrio cholerae\_)

- Viruses (e.g., HIV, Influenza virus)

- Parasites (e.g., \_Plasmodium falciparum\_, \_Schistosoma mansoni\_)

- Fungi (e.g., \_Trichophyton\_ spp.)

Modes of Transmission

- \*Direct Transmission\*:

- Person-to-person contact (e.g., HIV, STIs)

- Droplet transmission (e.g., Influenza, Tuberculosis)

- \*Indirect Transmission\*:

- Contaminated food/water (e.g., Cholera, Typhoid)

- Vectors (e.g., Mosquitoes, Ticks)

- Fomites (e.g., contaminated surfaces)

Methods of Prevention and Control

- Vaccination

- Sanitation and hygiene

- Vector control

- Education and awareness

- Isolation/quarantine

- Treatment and prophylaxis

2. Endemic, Epidemic, and Pandemic

- \*Endemic\*: Constant presence of a disease in a population (e.g., Malaria in Nigeria)

- \*Epidemic\*: Sudden increase in disease cases (e.g., Cholera outbreak in a community)

- \*Pandemic\*: Global spread of a disease (e.g., COVID-19, Influenza A/H1N1)

3. Incidence and Prevalence

Definitions

- \*Incidence\*: Number of new cases in a population over a period

- \*Prevalence\*: Total number of cases (new and existing) in a population

Importance

- Incidence helps identify outbreak sources and transmission patterns

- Prevalence informs resource allocation, planning, and evaluation of interventions

Examples

- Incidence: 100 new HIV cases in a year

- Prevalence: 1000 HIV cases in a community

4. Controlling Communicable Diseases at Community Level

- Surveillance and reporting

- Contact tracing

- Vaccination campaigns

- Sanitation and hygiene promotion

- Vector control measures

- Health education and awareness

- Treatment and prophylaxis

5. Short Notes

a. Epidemiological Triangle

The epidemiological triangle consists of:

- Agent (pathogen)

- Host (human)

- Environment (external factors)

These three components interact to cause disease.

b. Vehicle-borne Transmission

Disease transmission through contaminated food, water, or other vehicles (e.g., Cholera, Typhoid).

c. Point Prevalence and Period Prevalence

- \*Point Prevalence\*: Cases at a specific point in time

- \*Period Prevalence\*: Cases over a defined period (e.g., annual prevalence)