



## Public Health man

Syllabus: 1) Know the modes of transmission of the following diseases; diphtheria, tuberculosis, measles, mumps, whooping cough, chicken pox, typhoid fever, dysentery, diarrhea, small-pox, malaria, ringworm, scabies, plague, cholera, measures adopted by the sanitary authorities to prevent their spread and steps which should be taken by private individuals in cases of infection.

2) Describe how to disinfect a room and its contents and how to eradicate pests such as mosquitoes, rats, bed bugs and flies.

3) Describe mode employed in his locality of disposing garbage.

4) Educate five families in proper disposal of garbage.

Know the modes of transmission of the following diseases;

### Diphtheria:

**MODE OF TRANSMISSION**

- Droplet infections
- Can also be transmitted directly to susceptible persons from infected cutaneous lesions.
- Transmission by objects contaminated by naso-pharyngeal secretions of patients is also possible.

Illustrations: Two people coughing, and a person sneezing into a tissue.


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# Tuberculosis

**Mode of transmission:-**

- Tuberculosis is mainly transmitted by
  - droplet infection
  - droplet nuclei
- Tubercle bacilli from a infected person are excreted as droplet during coughing, sneezing or speaking.
- When inhaled the droplet may reach the respiratory bronchiole & establish an infection.
- Tuberculosis is not spread by the fomites used by the patient .

**Home Remedies For Tuberculosis**



HomeRemedies.org

# Measles

**TRANSMISSION**

- Measles is **highly contagious**; approximately **90%** of susceptible household contacts acquire the disease.
- **Maximal dissemination** of virus occurs by **droplet spray** during the prodromal period (**catarrhal stage**).

# Mumps

## Mode of transmission:-

The virus is spread from human reservoir by **direct contact**, **air-borne droplets** and **fomites** contaminated by saliva and urine.



## whooping cough

### Mode of Transmission

It spreads from one person to another through:

- ☐ Respiratory droplets(coughing,sneezing,saliva etc)
- ☐ Airborne transmission
- ☐ Close contact



## Chicken pox

### Mode of Transmission

- ☐ It is a highly contagious disease infecting up to 90% of non immune people who are exposed to the disease.

**Chickenpox is transmitted by the following routes**

- ☐ Airborne respiratory droplets
- ☐ Direct contact with the vesicle fluid .
- ☐ Indirect contact through clothes /linen freshly soiled by vesicle fluid.
- ☐ Chickenpox can also be spread from people with shingles. A person with shingles can spread the VZV virus to others who have never had chickenpox.



## Typhoid fever

### MODE OF TRANSMISSION

- Typhoid fever is transmitted via the faecal-oral route or urine- oral routes
- This may take place directly through soiled hands **contaminated with faeces or urine of cases or carriers** or indirectly by the ingestion of **contaminated water, milk, food or through flies**



## Dysentery

### Mode of transmission

- The route of transmission of **shigella** is fecal oral route. The bacilli are excreted in feces and through poor sanitation and bad hygiene, **food and water** can then become contaminated. **Flies** also frequently cause **contamination of food** and are prevalent mode of spread of dysentery.

## Diarrhea

### TRANSMISSION

- Most of the diarrheal agents are transmitted by the fecal-oral route
- Cholera: water-borne disease; transmitted through water contaminated with feces.
- Some viruses (such as rotavirus) can be transmitted through air
- Nosocomial transmission is possible
- Shigellosis (blood dysentery) is mainly transmitted person-to-person
- Shigellosis is a water-washed disease; transmitted more when there is scarcity of water



## Small-pox

### Smallpox Disease Transmission

Transmission can happen in one of several ways:

- › Face-to-face contact
- › Direct contact with infected fluids and contaminated objects
- › Through the air
- › The virus can cross the placenta, but the incidence of congenital smallpox is relatively low.
- › Smallpox transmission does not occur through animals or insects.

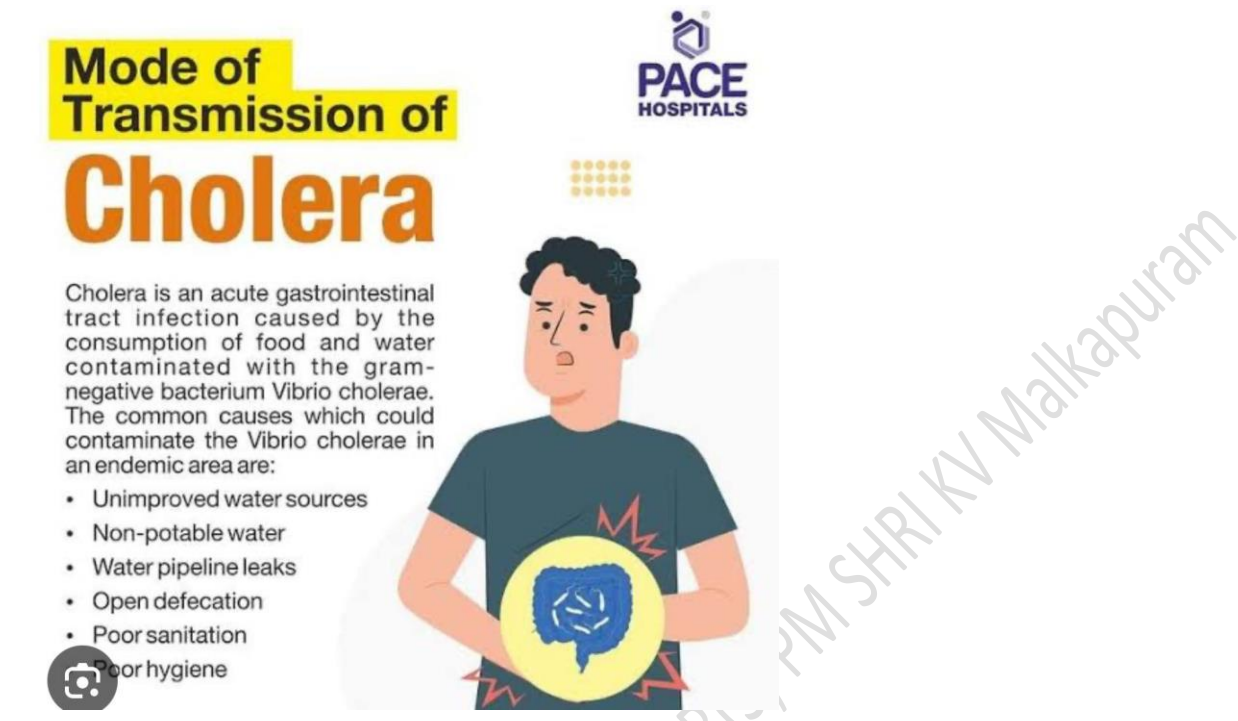
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## Malaria

### Mode of transmission

1. **Vector transmission** - Malaria is transmitted by the bite of certain species of infected, female, anopheline mosquitoes.
  2. **Direct transmission** - Malaria may be induced accidentally by hypodermic intramuscular and intravenous injections of blood or plasma, e.g., blood transfusion, malaria in drug addicts .
  3. **Congenital** - rare
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# Cholera



## 2) Describe how to disinfect a room and its contents and how to eradicate pests such as mosquitoes, rats, bed bugs and flies.

### Eradicating Common Pests

#### Mosquitoes

1. **Eliminate Standing Water:** Mosquitoes breed in standing water. Remove or empty containers that collect water.
2. **Use Repellents:** Apply insect repellent containing DEET or other recommended ingredients.
3. **Install Screens:** Ensure windows and doors have screens to keep mosquitoes out.
4. **Insecticides:** Use mosquito-specific insecticides if needed, and follow the product instructions carefully.

#### Rats

1. **Seal Entry Points:** Inspect your home for gaps or cracks and seal them.
2. **Keep Clean:** Maintain a clean environment; store food in airtight containers and dispose of trash regularly.
3. **Set Traps:** Use snap traps or live traps with bait (peanut butter, cheese). Place traps along walls and in areas where you've noticed activity.

4. **Rodenticides:** Use rodenticides if necessary, but follow the safety instructions carefully and consider professional assistance if needed.

### **Bed Bugs**

1. **Wash and Heat Treat:** Wash bedding, clothing, and other infested items in hot water and dry them on high heat.
2. **Vacuum:** Vacuum the bed, mattress, and surrounding areas thoroughly. Dispose of the vacuum bag immediately.
3. **Bed Bug Mattress Covers:** Use protective covers designed to trap and kill bed bugs.
4. **Insecticides:** Apply bed bug-specific insecticides to infested areas. Follow product instructions and consider professional pest control services for severe infestations.

### **Flies**

1. **Eliminate Food Sources:** Keep food sealed and dispose of waste properly.
2. **Clean Drains:** Flies can breed in drains. Clean them regularly with a drain cleaner or a mixture of baking soda and vinegar.
3. **Use Traps:** Place fly traps or fly paper in areas where flies are active.
4. **Insecticides:** Use fly sprays or insecticides as needed, and follow the safety instructions.

## **3) Describe mode employed in his locality of disposing garbage.**

- **Drop-off Centers:** Some areas have centralized drop-off points where residents can bring their waste, recyclables, and compostables. These centers are often used for items that aren't collected curbside, like large appliances or hazardous materials.
- **Waste-to-Energy Plants:** In some regions, waste is burned in facilities designed to convert it into energy. This method reduces the volume of waste and can generate electricity or heat.
- **Landfills:** Although less environmentally friendly, landfills are still common. Waste is buried in designated areas, though modern landfills are managed with efforts to control leachate and methane emissions.
- **Composting:** Organic waste, such as food scraps and yard trimmings, is collected separately and processed into compost. This can either be done at home or through municipal composting programs.
- **Recycling Programs:** Many localities have structured recycling programs where materials like paper, glass, metal, and certain plastics are sorted and processed for reuse.
- **Hazardous Waste Collection:** Special collection days or facilities are designated for hazardous materials such as chemicals, batteries, and electronics, ensuring they are disposed of safely.