WATER BORNE DISEASES

DR NAVEEN KRI SHAN GOEL
PROF. & HEAD
DEPARTMENT OF COMMUNITY MEDICINE
GOVT MEDICAL COLLEGE
CHANDIGARH
WATER BORNE DI SEASE

• Viral:  
  - Hepatitis A & E
  - Rotavirus
  - Poliomyelitis

• Bacterial:  
  - Diarrhoea
  - Dysentery
  - Cholera
  - Typhoid / Paratyphoid
WATER BORNE DISEASE

- Protozoal: Amoebiasis / Giardiasis
- Helminthic: Roundworm
  Threadworm

- WATER RELATED DISEASES:
  Malaria
  Dengue
  Scabies
BURDEN OF DISEASE

A. WORLDWIDE

- Estimated 4 billion episodes of diarrhea
- Estimated 2 million deaths (children)
- 50% morbidity & mortality due to waterborne bacterial infections

B. DEVELOPING COUNTRIES

- 80% illness caused by water-borne diseases
- Diarrhea being the leading cause of childhood death.
CLINICAL FEATURES

Usually patients complain of one or more of following:-

• loose motions
• vomiting
• abdominal pain/ cramps
• jaundice: - yellowness of eyes, passing high colored urine
• dehydration
• fever with chill
Use latrine

If no latrine cover it with mud

Wire netting on the doors & windows

Food in the kitchen to be kept covered
The family eats this food.

The family gets cholera.
1. This man has hepatitis (jaundice).

2. He has a bowel movement near a pond. The germs of the disease get into the water.

3. This woman takes water from the pond to her house.

4. Her family drinks the water.

Do not pass stool near source of drinking water.

Boil the water before drinking.
5. They all get hepatitis.

6. The baby passes stools and dirties his clothes.

7. The mother washes them near an open well.

8. Another woman takes water from this well.
9. Her family drinks this water.

10. Her family also gets hepatitis.
MODE OF TRANSMISSION

Using contaminated water for

• Drinking

• Preparing food

• Purpose of personal hygiene

• For recreation - swimming
WATER CONTROL

- Use of piped water supply only
- No alternative unsafe water source
- Intermittent supply - need to store water
- Storing water in clean buckets and tumblers
- Water containers should be covered
- Overhead tanks should be cleaned periodically and kept covered
WATER CONTROL

• Long handled jug / tumbler to be used for taking out water.

• Tap can be fixed in the bucket

• Boiled water to be used for drinking purpose in rainy season

• Cleaning of filter once in a week
WATER CONTROL

• Chlorine tablets available at Dispensaries - 1 tablet in 1 litre of water for half an hour

• Coolers to be cleaned regularly & weekly

• Avoid drinking water & fruit juices from roadside stalls
HANDWASHING

Wash hands with soap and water

• Before & after
  – preparing food
  – Serving food
  – eating

• Before feeding child

• After cleaning a child who has defecated
PROPER FOOD HANDLING TECHNIQUE

• Minimum handling of ready to eat food with bare hands

• Cover peeled and cooked food

• Use clean water & utensils to prepare food

• Time between preparation of food & consumption should be short (10-12 hrs).
EXCRETA DISPOSAL

• Have a clean and functioning sanitary latrine

• Indiscriminate open defecation must be stopped

• Don’t go to toilet barefoot
PERSONAL HYGIENE & SANITATION

- Take bath daily
- Wear clean clothes
- Keep the surroundings of your house clean and free from houseflies
TO PREVENT DENGUE & MALARIA

• Do not allow water to collect
  – near your house in drain, pits etc.
  – in spare tyres, buckets, pots etc usually found lying on the rooftops of offices and houses.

• Overhead water tanks should be properly covered & cleaned regularly.
TO PREVENT DENGUE & MALARIA

• Water of coolers to be changed every 4-5 days.

• Periodic spraying of insecticides/larvicide should be undertaken in flats/ houses / stagnant water collections by societies/RWA

• Use wire mesh on windows / doors to prevent entry of mosquitoes inside the house.
TO PREVENT DENGUE & MALARIA

• Use of mosquito repellent cream, coils, mats etc to ward off mosquitoes.
• Use of full sleeves clothing during summer & rainy season to reduce the area of exposure to the mosquito.
• In case of fever with chills & rigours - consult your doctor immediately.
THANK YOU