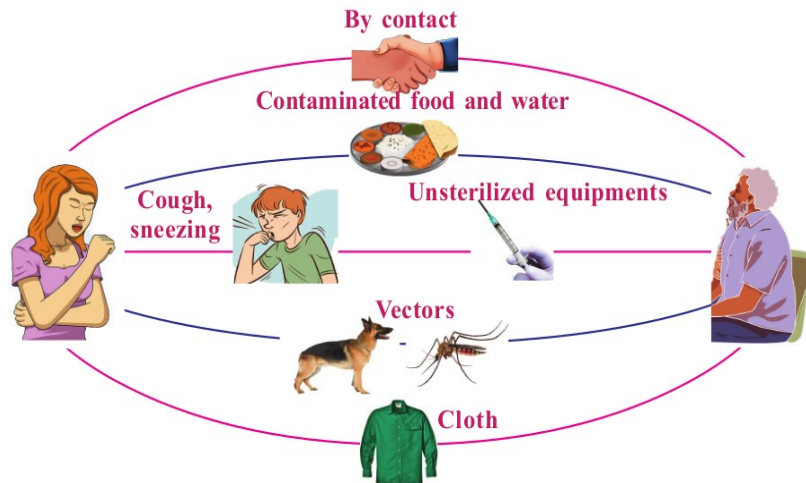


STD :X FIRST BELL ONLINE CLASS DATE:07/10/2020
SUBJECT :BIOLOGY
CHAPTER 4 KEEPING DISEASES AWAY

- What are the reasons for the spread of diseases after the flood situations?
 - Lack of hygiene
 - Unclean surroundings
 - Pollution
 - Stagnant water
 - Decaying organic wastes etc
- During flood situations conditions suitable for the multiplication and transmission of pathogens exist in abundance and this may cause the spread of various communicable diseases.
- **communicable diseases** are caused by the invasion of pathogens into the body and are transmitted from one person to another.
- Most of the pathogens are microorganisms.
- There are many microorganisms that are useful to humans. But some of them are pathogens that causes dreadful diseases.
- **Uses of bacteria**
 - Fermentation during the curding of milk .
 - Process behind batter becoming soft and puffy.
 - Helps in digestion etc...
- **Pathogenic microorganisms that are responsible for spreading diseases are:**
 - Bacteria
 - Virus
 - Fungus
 - Protozoa
- Not only humans, but other animals and plants are also affected by these pathogens.
- **Modes of transmission of diseases**
 - By contact
 - Contaminated food and water
 - Cough,
 - sneezing, Unsterilised equipments
 - Vectors
 - Clothes



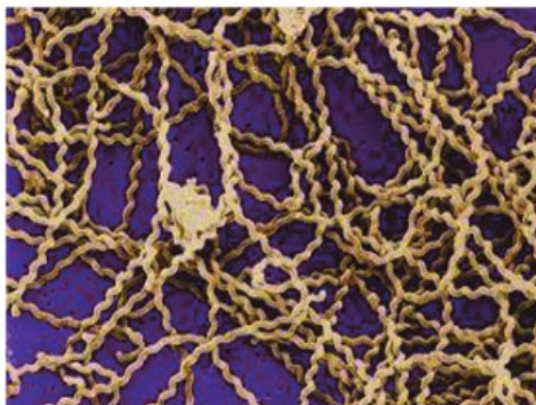
- **Various methods for the prevention of communicable disease**

- Use boiled water for drinking
- Purify the water bodies using chlorine
- Adopt proper precautions to destroy mosquitoes and other vectors.

Rat fever (Leptospirosis)

- Rat fever is a bacterial disease.
- Bacteria is a prokaryote.(without definite nucleus).
- They enter the body and multiply through binary fission.
- The toxins produced by them destroy cells and cause disease.

Leptospira is the bacteria that causes rat fever.



- The bacteria that comes out through the urine of rat, dog and certain other animals remain alive in stagnant water and moisture.
- When bacteria reach blood through wounds ,they affect body cells and produce certain toxins.
- They cause damage to blood capillaries which in turn leads to internal bleeding.

Major symptoms of Rat fever

- Severe fever,
 - Headache,
 - Muscle pain,
 - Redness in eyes,
-
- Rat fever can be completely cured through early diagnosis and treatment
 - The realization that immunization is better than treatment is very important to stop the spread of disease.
-
- What are the measures to be taken to prevent the transmission of rat fever?
 - For controlling rat fever eliminate vectors and take preventive medicines as per the directions of the experts.
 - Disease affected persons should undergo diagnostic tests to confirm their illness and should take proper medicines.
 - People living in unsafe places should shift to safe places.
 - Ensure personal hygiene and environmental hygiene at the rehabilitation centres.
-
- **Different types of bacteria:**
 - **Cocci -spherical in shape**
 - **Bacilli - rod shaped**
 - **Spirilla -spiral shaped**
 - **Vibrios -comma shaped**

Evaluation:

- **Write a note on the cause, mode of transmission and preventive measures of rat fever .**
- **Name the type of bacteria to which leptospira belongs .**

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