الأسبوع الرابع :

Sterilization (in Microbiology) :

1. To completely remove all kinds of microbes (bacteria, mycobacteria, viruses, & fungi) by physical or chemical methods.

2. Effective to kill bacterium spores

3. Sterilant: material or method used to remove or kill all microbes.

DISINFECTION:

Reducing the number of pathogenic microorganisms to the point where they no longer cause diseases.

Bacteriostatic Agent: An agent that ***inhibits*** the growth of bacteria, but does not necessarily kill them.

Bactericide: An agent that kills bacteria. Most do not kill Endospores.

Methods of Sterilisation

RADIATION:

Two types of radiation are used, ionizing and non-ionizing. Non-ionizing rays are low energy rays with poor penetrative power while ionizing rays are high-energy rays with good penetrative power. Since radiation does not generate heat, it is termed "cold

CHEMICAL METHODS OF DISINFECTION:

Disinfectants are those chemicals that destroy pathogenic bacteria from inanimate surfaces. Some chemical have very narrow spectrum of activity and some have very wide. Those chemicals that can sterilize are called chemisterilants. Those chemicals that can be safely applied over skin and mucus membranes are called antiseptics.

الأســـبوع الخامس :-

Medical bacteria :

General Characteristics of the Staphylococci:-

- Common inhabitant of the skin and mucous membranes
- Spherical cells arranged in irregular clusters
- Gram-positive
- Lack spores and flagella
- May have capsules
- 31 species

Staphylococcus aureus : produce golden yellow colonies on nutrient agar and it is pathogenic .

- Grows in large, round, opaque colonies
- Optimum temperature of 37°C
- Facultative anaerobe
- Withstands high salt, extremes in pH, and high temperatures
- Produces many virulence factors

Thank You

Questions?

Comments and opinions would be appreciated.