

Biosafety and Security

Lecture 1

1-Important terms

Laboratory biosafety: containment principles, technologies, and practices implemented to prevent unintentional exposure to pathogens and toxins, or their unintentional release.

Laboratory biosecurity: protection, control and accountability for valuable biological materials within laboratories, in order to prevent their unauthorized access, loss, theft, misuse, diversion, or intentional release.

Laboratory Biorisk Management: System or process to control safety and security risks associated with the handling or storage and disposal of biological agents and toxins in laboratories and facilities.

2-Biorisk

The risk associated with biological materials in the laboratory has a safety and a security component. Biorisk encompasses risks from the biosafety and laboratory biosecurity perspective, associated with biological materials.

3- Key Components of Biorisk Management

1-Biorisk Assessment:

2-Biorisk Mitigation:

3-Performance:

Biorisk Management = Assessment, Mitigation, Performance

4- Key Element of Effective Management Systems

5-International Biosafety and Biosecurity Laboratory Standard

6-Key Element/OUTCOMES

A-Management

B-Activities

C-Risks are identified,

D-Roles, responsibilities and authorities

7-Risk Assessment processes

A- Risk assessment

B-Risk Evaluation

8-Biosafety risk assessment