

# Biorisk Assessment & Management



MCE Consulting's team provides assistance to laboratories in assessing biological risks and identifying practices and procedures to mitigate these risks. All biosafety hazards and biosecurity threats are first identified, and a thorough risk assessment conducted to determine the appropriate work procedures, equipment and laboratory facilities in which the work can be safely and securely carried out. A hazard may be an activity (e.g. working with biological materials) or a situation (e.g. individual who could steal or misuse biological materials). Information available about the biological agents (e.g. Risk Group, pathogenicity, virulence, infectious dose, route of transmission, stability in the environment) is supplemented with factors associated with laboratory activities (e.g. potential for aerosol generation, quantity and concentration of agent, experience of personnel). Mitigation strategies are then recommended following the general hierarchy of controls:

- Eliminating risks by substituting the hazard where possible.
- Controlling the risks at source through good microbiological practices.
- Controlling the risks by providing appropriate facilities, engineering controls and containment equipment (e.g. using a biological safety cabinet).
- Minimizing risks through the use of appropriate biosafety and biosecurity practices.
- Minimizing risks through the implementation of administrative controls (e.g. training and ensuring competence of employees).

MCE's team of experts provides assistance to organizations in establishing, documenting, and implementing a system for the administrative management and control of biosafety and biosecurity risks. Our approach to risk assessment and risk management follows the principles and concepts for organizations managing risks such as outlined in ISO35001 *Laboratory Biorisk Management* and ISO 31000-10 *Risk Management-Principles and Guidelines* (e.g. the systematic application of management policies and procedures for identifying, analysing, evaluating, treating, communicating, monitoring and reviewing risks).

