CONCEPT OF LABORATORY BIORISK MANAGEMENT

S. HIETALA (1) & F. DIAZ (2)

(1) University of California, Davis, USA
(2) Scientific and Technical Department, World Organisation for Animal Health (OIE), Paris, France

It is a critical responsibility of laboratories to ensure that handling, storage, and transport of biological materials are performed in a safe and secure manner. This commitment to laboratory biosafety and biosecurity protects workers from inadvertent infections, and is vital for protecting local and regional animal populations, human populations, and the environment from accidental or intentional spread of biological agents from laboratories.

In 2011, the Biological Standards Commission appointed an ad hoc Group on Biosafety and Biosecurity in Veterinary Laboratories. A key objective was evaluation, in light of current standards, the need to update in the Manual of Diagnostic Tests and Vaccines for Terrestrial Animals the current Chapter 1.1.3. (Biosafety and Biosecurity in the Veterinary Microbiology Laboratory and Animal Facilities).

The Group met four times between 2011 and 2013 and drafted a new chapter, ‘Standard for Managing Biorisk in Veterinary Laboratory and Animal Facilities’ to replace Chapter 1.1.3. The draft chapter proposed transition from a prescriptive biosafety level classification of laboratories to a comprehensive biorisk management approach. Biorisk management focuses on four control strategies that are complementary and used in combination for appropriate risk reduction. The strategies include defining laboratory policies and responsibilities (Administrative Controls), appropriate training and operating procedures (Operational Controls), selecting from a range of engineering features for containment of agents based on their risk profile (Engineering Controls), and adequate protective clothing for workers (PPE). Biorisk management offers a structured means for identifying, implementing, monitoring and communicating control of laboratory biorisks. This new draft chapter was adopted by the World Assembly of Delegates during the May 2014 OIE General Session as Chapter 1.1.3a.

At the May 2015 General Session, the Biological Standards Commission will propose adopting a merged version of Chapter 1.1.3 and 1.1.3a, that additionally responds to comments received from OIE Member Countries.