TRAINING WHEN USING EMERGING INFECTIOUS PATHOGENS IN LABORATORY ANIMALS

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LABORATORY ANIMAL PROFESSIONALS

• TECHNICIANS Animal care, behavioral enrichment, research support
• MANAGERS, SUPERVISORS
• VETERINARY TECHNICIANS (licensed)
• VETERINARIANS (licensed, lab animal specialty ACLAM)
• TRAINERS
• ETC
ROLE OF AALAS

• Professional certifications – Technicians (3 levels), Managers
• AALAS National Meeting
• Journals (2) and Magazine
• Training Manuals and Technical Books
• Online learning platform – AALAS Learning Library
• Webinars

ANIMAL BIOSAFETY AND BIOCONTAINMENT

Online training program
• Co-developed by ABSA and AALAS volunteers
• Expert-reviewed and updated every 3 years
• 11 courses on biosafety/biosecurity concepts
• 5 courses on species in biocontainment
• Certificate for completing program
• Courses recognized by ABSA for credentialing maintenance
TRAINING IN ANIMAL BIOSAFETY

- FESAP Guiding Principles

  - “Training programs ideally consider not only provision of information (e.g., classroom presentations) but hands-on learning, mentorship, and (ideally independent) performance verification.”

  - “Needs should be periodically evaluated to ensure that all biosafety and biosecurity program elements (inspections, training, safety equipment maintenance, facilities performance, etc.) have the necessary resources.”

ADD-ON RISK FACTORS FOR ANIMALS

- Animals are their own risk factor – they can bite, scratch, kick (depending on species), and escape.

- Biocontainment is NOT an exemption of animal welfare standards.

- Training skills must include animal handling, restraint, and procedural skills – in addition to those related to infectious agents.

- Routine animal procedures must be adapted in biocontainment conditions to ensure humane immobilization of animals and the safety of personnel.
EXAMPLE ITEMS FOR PLANNING AND TRAINING

- PPE practices
- Animal monitoring requirements
- Study and humane endpoints
- Animal receiving and transport
- Quarantine
- Special husbandry or handling requirements
- Test procedures for animals, anesthesia?
- Supportive care of sick animals
- Preventing cross-contamination of animals in biocontainment
- Waste handling and decontamination protocols

TRAINING IN ANIMAL BIOSAFETY

- Lab animal trainers and others who are experienced in the biosafety level of interest are training resources.
- Adult learning principles
- Hands-on training, coaching, mentoring
- Train to proficiency, not just competence.
ANIMAL WORK WITH EMERGING PATHOGENS

• Work through training needs and methods for research staff.
• Analyze gaps, identify and implement a solution, facilitate learning, be supportive.
• Break down the tasks into components to train on.
• Identify procedural outcomes that indicate successful training.

ANIMAL WORK WITH EMERGING PATHOGENS

• Proceed in stages: Staff member must be proficient in ABSL-2 first, before starting ABSL-3.
• Recognize language and cultural barriers and work to ensure effective learning (e.g., with translators).
• Trainees should work with a mentor until competent and proficient.
ANIMAL WORK WITH EMERGING PATHOGENS

• Training and mentoring/coaching take time - plan for all the time needed.

ANIMAL WORK WITH EMERGING PATHOGENS

• Monitor and document training outcomes.

• Evaluate non-compliances, incidents, and accidents – assess response, potential improvements in practices, and training/retraining needs.
SUMMARY

• Training and mentoring/coaching on practices in animal studies:
  • As important as using safety equipment
  • An essential component of the culture of responsibility for biosafety and biosecurity

THANK YOU