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

AALAS LEARNING LIBRARY

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