Biorisk Management Vaccine Field Guide for the Jordanian Veterinary Services

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Introduction
- Occupational health safety for veterinarians, para-vets, and animal care workers is a major concern.
- These workers can be exposed to different types of hazards (biological, chemical, physical, psychological).
- The impact of this hazard depends on:
  - The workplace setting
  - Animal species
  - Tasks performed
- The Jordanian Ministry of Agriculture funds the vaccination for food/hatchery animals as part of the disease control strategy:
  - Goals to ensure the prevention of diseases through the government employs best biocare and biosafety practices.
- Veterinary services comprised of veterinarians and para-professionals:
  - Veterinary: Supervise the vaccination process, may not be present in the farm, commonly speak English.
  - Para-professionals: Administer vaccine, make money, see the goals of the project, especially with the farmers, and usually only speak Arabic.
- Workers can be exposed to significant risks to their health and safety through fieldwork activities involving:
  - Direct contact with animals
  - Unknown pathogens in isolated remote locations
  - Lacks of ready access to emergency services
  - Squalor due to inappropiate administration or handling of the vaccine
- The animal vaccination process is one of the routine work tasks which mostly takes place in the field (farms, barns, pastures).

Primary Gap
- The animal vaccination process in Jordan is generally carried out with minimal understanding of biocare management and personal protection.
- Implementation of an attenuated live vaccinia vaccine highlighted potential concerns about adverse effects on the health and safety of veterinarians, para-professionals, farmers, and animals and the environment.

Project Objectives
- To provide field workers with the required information and knowledge about vaccine biocare management.
- To provide field workers with occupational safety best practice guidelines.
- To minimize the risk of injury that could be associated with use of vaccines on farms.

Tasks
- Drafting the Guide
- Methodology and Resources
- Final Steps
- Conclusions
- Moving Forward
- Acknowledgements

Assembly of Advisory Committee
- Involved 7 members:
  - Comprised of field workers, biosafety, epidemiologist, and biosafety consultant
  - Several Jordanian veterinarians members.
  - Reviewed the committee scope
  - Generated:
    - Knowledge assessment
    - Study group composition
    - Table of contents of the field guide
  - Satisfaction survey
  - Reviewed field draft
  - Completed satisfaction survey

Knowledge Questionnaire
- Designed to measure perceived knowledge of veterinarians and para-professionals.
- Administered to 20 veterinarians and 20 para-professionals.
- Questionnaire contained 14 different questions which represented most of the suggested topics for the tasks of contents.

Results of Knowledge Assessment
- Assessment of field workers perceived knowledge by administration of the questionnaire showed:
  - Differences in the knowledge between veterinarians and para-professionals:
    - Para-professionals are not certified, do not have professional training.
    - Common gaps and strengths:

Drafting the Guide
- The table of contents was updated based on the results of the questionnaire:
  - Based on analysis of gaps and strengths
  - The guide was drafted using the collected resources

Guide Review by Stakeholders
- The drafted guide was administered for review:
  - Electronic copies
  - Committee feedback led to further edits
  - Satisfaction survey was distributed with the guide

Satisfaction Survey
- The purpose of this survey was to assess the comprehensiveness of the guide:
  - Field veterinarians
  - Para-professionals
  - HSCOs
  - Advisory committee
  - 10 survey responses were returned

Final Steps
- Printing of English version [final], Board Review of Arabic version

Conclusions
- Disparity of knowledge suggests that not all field workers have the needed skills and training.
- Jordan Veterinary Services should adopt a biocare policy:
  - Conduct a risk analysis for various field tasks
  - Define the best practices to minimize the risk
  - Guidance will be used for:
    - Written reference
    - Training of professionals and para-professionals

Moving Forward
- Capacity building for veterinarians and para-professionals through training on the field guide
- Developing SCOs related to topics in the guide
- Guide updating and induction of companion animals and poultry vaccines

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