The Role of Veterinary Services in Food Safety

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The Role of VS in FS Titles

Task of Vet. To reach FS
Biological Hazards
Chemical Hazards
VS activities at farm level
VS activities at abattoir level
OIE objectives
Animal Welfare
The Role of Veterinary Services in Food Safety

What are the most common tasks of Veterinarians? Everybody knows that Veterinarians are people who are responsible for

Animal Health & Welfare

Physical Examination of animals
Surgical operations
Vaccinations
The Role of Veterinary Services in Food Safety

Food safety needs:
Shared responsibility & strong co-ordination among farmers & consumers, Industry & traders and Codex Alimentarius
for risk assessment and management
The Role of Veterinary Services in Food Safety

Veterinary Services and their Vets. have a leading role in the safety of foods of animal origin in many countries of the world.
Food borne diseases affect hundreds of millions of people around the world. The globalization of trade in animals and food has made food safety an international issue.
The world needs an integrated approach from the farm to the final consumer to reach the control of risks in every stage of the food chain.
The Role of Veterinary Services in Food Safety

Codex Standards and Guidelines
objective and transparent
scientific analysis
& assessment of risks from foods
to reach control
Biological Hazards

The factors which contribute to the increase of biological hazards in foods are related to:

- Changes in farm practices
- Intensive rearing of animals
- Increase in consumption of meat
- Globalization of food trade
- Urbanization
- Changes in lifestyles
The factors which contribute to the increase of biological hazards in foods are related to:

- International travel
- Preference for fresh and undercooked foods
- Eating food prepared outside the home
- Demographic changes with increased proportion of old and immunosuppressed people
- Environmental pollution from unsafe disposal of animal manure
Emerging & Re-emerging Biological Hazards

1. Enterohaemorrhagic E.coli 0157:H7
2. Salmonella enteritidis
3. Salmonella typhimurium DT104,
   (which is resistant to five antibiotics for human)
Emerging & Re-emerging Biological Hazards

4. Campylobacter jejuni
5. Listeria monocytogenes
6. Cryptosporidia
7. Cyclospora
8. Trematodes
9. Bovine Spongiform Encephalopathy (BSE)
Chemical Hazards

1. Veterinary drugs residues
2. Persistent organic pollutants (dioxins)
3. Natural toxic substances, cyanogens, solanine
4. Natural toxins: paralytic, diarrhoeic, neurotoxic and amnesic shellfish poisonings
Chemical Hazards

5. Indirect food additives, i.e. detergents, disinfectants, lubricants
6. Heavy metals, i.e. lead, mercury, copper, cadmium, radioactive isotopes
7. Pesticides, insecticides, fungicides, herbicides
8. Direct food additives, i.e. preservatives, flavorings, anticaking agents, vitamins, minerals, etc.
Veterinary activities at the farm level

The presence of a Vet. on the farm is the key to an integrated approach and will ensure that animals and animal products sent to slaughterhouses or dairies are free from disease.
Veterinary activities at the farm level

• Good Hygienic Practices GHP
• Safe use of veterinary drugs, disinfectants, insecticides and herbicides
• Safe waste disposal
• Epidemiological surveillance programmes for zoonotic diseases & food borne pathogens
• Protection of animal health and welfare – 5 Freedoms
Veterinary activities at the farm level

Residue control programmes
Identification & registration of animals
The issue of certificates for animals which will be moved from the farm
Monitoring and reporting of the animal health situation
Veterinary activities at the farm level

Supervision of the record keeping of all the activities at the farm, including:
- name and address of their suppliers
- the feed quality control
- the recording of the batches of feeds received
Veterinary activities at the Abattoir level

Checks and assessments of:
- The effects of the transport on the animals
- The health data from the farm of origin
- The identification of the animals
- Any previous treatments they have received
- or which were given to other animals on the farm of origin
Veterinary activities at the Abattoir level

Checks and assessments of:

- The level of cleanliness at time of arrival
- The clinical examination (Ante-mortem)
  (Post-mortem)
  - inspection detection of macroscopically visible
    pathological changes or other abnormalities
- Veterinary judgments for removal of any lesions, which may be present or total condemnation of carcass
Veterinary activities at the Abattoir level

Checks and assessments of:

- Supervision of the implementation of:
  - (GHP), (GMP), the HACCP
- Samplings for the residues control,
- Microbiological testing of carcasses
- General sanitary condition of the slaughterhouse
Veterinary activities at the Abattoir level

Checks and assessments of:

- Responsibility for record keeping and the communication of PM findings to the farm veterinarian
- Veterinary Services for any necessary actions and to meat processing establishments, cold stores and traders
- as well as any information required for the traceability of the products they will produce or distribute
OIE’s Objectives

Transparency: ensure transparency in the global animal disease situation

• Scientific information: collect, analyse and disseminate veterinary scientific information

• International solidarity: encourage international solidarity in the control of animal diseases
OIE’s Objectives

Sanitary safety: safeguard world trade by publishing health standards for international trade in animals and animals products

Promotion of veterinary services: improve the legal framework and resources of national Veterinary Services

Food safety and animal welfare: to provide a better guarantee of food of animal origin and to promote animal welfare through a science-based approach
Animal Welfare 5 Freedoms

- Freedom from Hunger and Thirst
- Freedom from Discomfort
- Freedom from Pain, Injury or Disease
- Freedom to Express Normal Behaviour
- Freedom from Fear and Distress
ADFCA is going to implement Animal Identification and Registration System in Abu Dhabi.
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Further Readings:
1. OIE website Animal Health Code
2. FAO
3. USDA
4. Review
What Do We Feed to Food-Production Animals?
Amy R. et al. 2007
Environmental Health Perspect. 2007 May; 115(5): 663–670
Thanks 4 Listening