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Animal Production Food Safety: priority pathogens for standard setting by the OIE



Animal production food safety: priority pathogens for standard setting by the World Organisation for Animal Health

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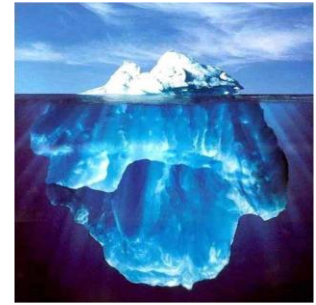
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http://web.oie.int/boutique/index.php?page=ficprod&id_prec=813&id_produit=1011&lang=en&fichrech=1

Background

- APFSWG recommended this paper be developed to provide guidance for future OIE standard setting work in APFS.
- Theo Knight-Jones, UK veterinarian, OIE intern, undertook this work.
- **Aim: identify priority pathogens for OIE standard setting in pre-harvest control of food safety**
- Focus: Developing and in-transition countries
- Qualitative study, not in-depth/quantitative assessment because of time constraint & limited data available.

Foodborne Disease



- Diarrhoeal diseases, many of which are FBD, kill 2.2 million people/yr
- Mortality – may be low but represents ‘tip of the iceberg’
- Many cases produce only mild clinical signs but require treatment and affect ability to work
- Animals: a major source of foodborne pathogens
- Control: target ‘farm to fork’



OIE – Codex Coordination



OIE

- ✓ **Primary production level**
 - ✓ **Develop measures relating to animal health + food safety**
- = for any events that can have an impact on the subsequent safety of food products**



CAC

Production conditions & quality of products during and more especially after the primary processing stage.

Methods

Pathogen prioritisation based on:

1. pathogen's impact on human health
2. is effective on-farm control possible?
3. coverage by *Terrestrial Code*
4. Trade & other concerns.

Pathogens considered:

- OIE listed
- Non-OIE listed
- Not pathogenic to animals

(Non-infectious disease agents excluded)

Methods

Expert opinion and literature review

- **one or two experts from each OIE region**
 - Eastern Europe
 - Asia
 - The Middle East
 - Africa
 - South America
- **questionnaire**
- **also wider informal consultation with around 20 experts**
- excluded Salmonella in poultry/ Anthrax/ BSE – already covered in OIE *Terrestrial Code*.



Results

Top priority pathogens:

- *Salmonella* (from spp. other than poultry)- (4/5 regions)
- Pathogenic *Escherichia coli* - (3/5 regions)

Other pathogens prioritised:

- *Echinococcus granulosus*
- *S. aureus*
- *Brucella* spp.
- *Campylobacter* spp.
- *Trichinellosis*
- *Taenia solium*
- *Taenia saginata*

Recommendations

Salmonella (from spp. other than poultry) and pathogenic *Escherichia coli*:

- can be controlled by on-farm measures; therefore, should be considered for future standard setting work

Brucella spp.

- to be addressed in OIE AHG (2011)

Echinococcus granulosus, *Trichinellosis* and *Taenia solium*

- *OIE-listed diseases*;
- can be controlled by on-farm measures; therefore, consider including control measures wrto human health in *Code* chapters

Campylobacter

- *is on-farm control possible?*

Limitations



Bias

- different experts have different backgrounds and interests that influence their opinions;
- limited number of experts consulted

However:

- was a starting point to stimulate discussion amongst OIE Members;
- OIE work is driven by OIE Members

What has happened since?

- Paper reviewed and endorsed by the APFSWG (Nov. 2009);
- Paper reviewed by Terrestrial Code Commission (Feb 2010) and circulated to Members for comment;
- Terrestrial Code Commission reviewed Members' comments (Sept 2010) and recommended a new *ad hoc* Group on Zoonotic parasitic diseases be convened ...because the zoonotic parasites for 3 OIE-listed diseases, echinococcus/hydatidosis, trichinellosis and porcine cysticercosis were identified as pathogens with a significant impact on human health, particularly in Africa, South America and the Middle East.

What has happened since?

- AHG (met August 2010) to update *Terrestrial Code* chapters on the listed diseases:
 - (i) echinococcus/hydatidosis,
 - (ii) trichinellosis and
 - (iii) porcine cysticercosis,and to include recommendations on measures at the animal/farm level to prevent human infection with these zoonotic pathogens.
- Revised chapters for echinococcus/hydatidosis (8.4.) and trichinellosis (8.13.) were circulated for Member comment in TCC report (Feb 2011)
- **Deadline for comments is May 31 2011.**

<http://www.oie.int/en/international-standard-setting/specialists-commissions-groups/code-commission-reports/meetings-reports/>

What has happened since?

Salmonella (spp. other than poultry) and pathogenic E.coli:

- Study considered these top priority pathogens;
- APFSWG (Nov 2010 meeting):
 - discussed the need for and feasibility of developing OIE advice on the control of *Salmonella* spp. in food producing animals other than poultry (i.e. pigs, cattle, small ruminants) and Verotoxigenic *E.coli* (VTEC) in food-producing animals with the purpose of reducing foodborne illness.
 - APFSWG requested that the OIE undertake a review of the scientific literature on these pathogens;
 - APFSWG will examine the review at its meeting in 2011 and decide whether OIE should develop standards for these pathogens.

Important points

- Deadline for comments on revised *Code* chapters for echinococcus/hydatidosis (8.4.) and trichinellosis (8.13.) is May 31 2011.
- The Code Commission and the APFSWG recommended that each OIE National Focal Point for APFS should *communicate with the Codex Contact Point and other relevant contact points in food safety and SPS domains* in their country in order to better co-ordinate the standard setting activities of the OIE and CAC at the national level.

Thank you for your attention



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