
CASE-STUDY

Qualitative risk assessment of the hazards and risks from wild game

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M. WOOLDRIDGE 2005, *Veterinary Record* 157(11):321-322

THE rules on official controls on wild game meat, currently contained in European Council Directive 92/45/EEC, have been simplified and consolidated into new European Regulations due to come into force on January 1, 2006 (Reg [EC] number 853/2004). In order to inform negotiations on the level of veterinary supervision required at game meat plants, and the postmortem procedures required for the protection of public health, the UK Food Standards Agency (FSA) requested that a qualitative risk assessment be developed to address the following question: 'What is the risk to human health (particularly of human infection with a foodborne pathogen) from the handling/consumption of wild game?'. This short communication describes that risk assessment. The risk was also reassessed for hygiene controls based on hazard analysis critical control points (HACCP) principles, and for veterinary supervision.

□ Identify the different key elements of this qualitative risk assessments

- Reason for conducting RA**
 - Risk question**
 - Hazard identification**
 - Risk pathway**
 - Information collected**
 - Evaluating the risk**
 - Results**
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Key elements

- *Reason for conducting RA:*
to inform negotiations on the level of vet supervision required at game meat plan, and the post-mortem procedures required for the protection of public health

- *Risk question:*
what is the risk to human health (part. of human infection with a foodborne pathogen) from the handling/consumption of wild game?

*Codex Alimentarius
Framework*

Key elements

- Hazard identification:
 - Species: game birds, wild ducks, wild deer, wild lagomorphs.
 - Hazards: bacterial pathogens, parasites, chemicals and foreign bodies.

TABLE 1: Hazards considered for each wild game species

Hazard	Wild game species
<i>Escherichia coli</i> O157	All
<i>Salmonella</i> species	All
<i>Campylobacter jejuni</i>	All
<i>Mycobacterium avium</i>	Gamebirds, wild ducks, wild deer
<i>Chlamydophila psittaci</i>	Gamebirds
<i>Clostridium botulinum</i>	Wild ducks
<i>Mycobacterium bovis</i>	Wild deer
<i>Yersinia pseudotuberculosis</i>	Wild lagomorphs
Lead shot	Gamebirds, wild ducks, wild lagomorphs

- Risk pathway:

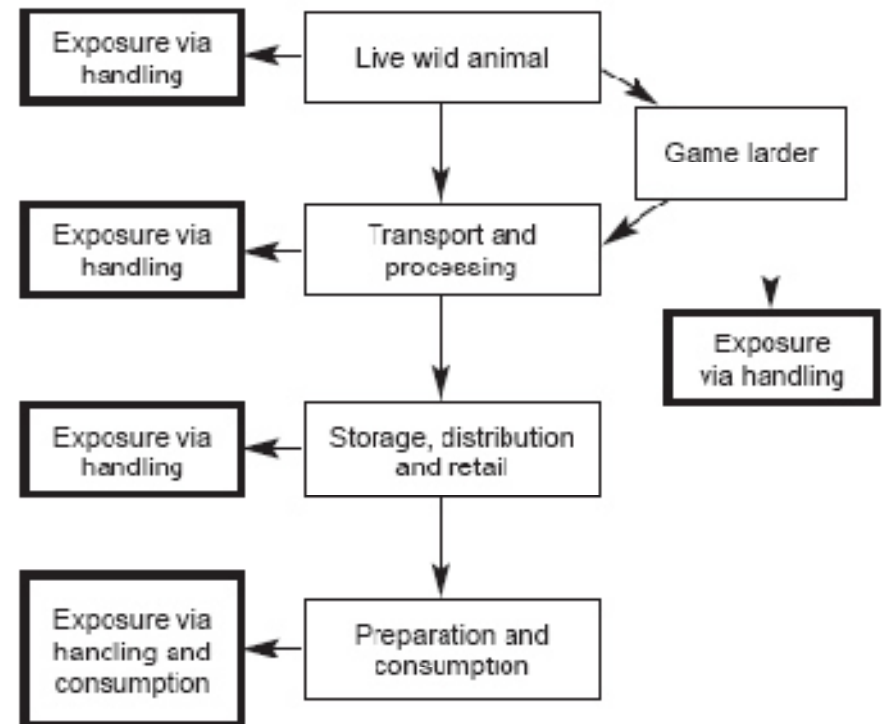


FIG 1: Generic human exposure pathway for hazards from wild game animals

Key elements

- Collect the information:
 - Prevalence of pathogen or other hazard in live animal; survival, gross and cross-contamination during storage in game ladders and then during storage, distribution and retail
 - Data on the number of organisms required to cause adverse effect on human health
 - Source of information:
 - Published and unpublished data
 - Expert opinion when lack of data
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Key elements

□ Assess the risk:

- For each combination of species and hazard
- Risk categories (increasing): negligible, very low, low, non-negligible.

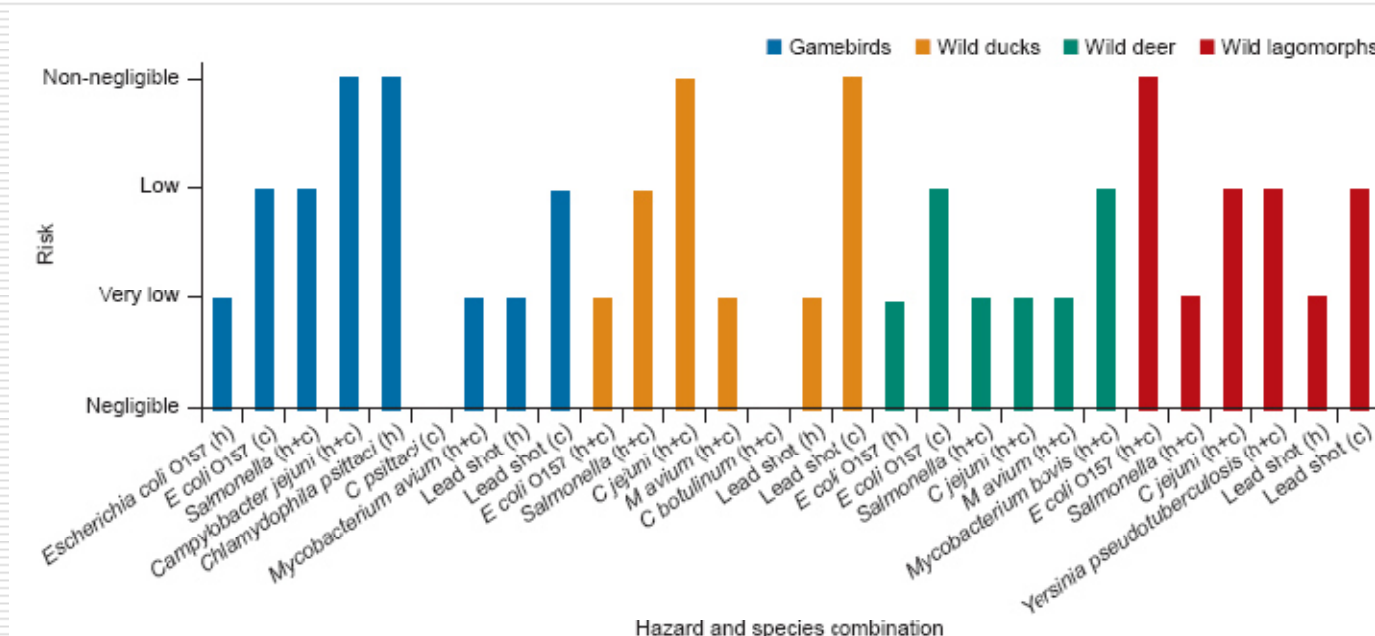


FIG 2: Assessed risk to human health from handling (h) and consumption (c) from the identified hazards in wild game species

Key elements

□ Results:

- Hazards identified, assessment of risk posed to public health;
 - Discussion of hazards where risk could be reduced (HACCP procedures, post mortem inspection).
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