

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD
DISCUSSION PAPER

***Mycobacterium bovis* – DRAFT risk assessment in relation to meat and meat products**

Issue

The Agency has prepared a draft risk assessment in relation to *M. bovis* transmission via meat and meat products using a risk assessment framework and risk ranking approach that has previously been agreed by the Committee in 2012. The Committee is asked to review this draft assessment and provide comments on the overall risk and uncertainty.

Background

1. The Committee reviewed the risk of *M. bovis* transmission via meat in 2001, 2003 and 2010 considering new information at each point and agreed a risk level classification of very low on each occasion. In 2012, the Committee agreed that the most appropriate risk level classification system and means to assess uncertainty for future risk assessments should be the approach agreed by the European Food Safety Authority (EFSA) in 2006.
2. In October 2013, the Agency requested that the Committee reviews the risk of *M. bovis* infection via meat incorporating the risk level classification system it had agreed in 2012 in order to provide consistency in terminology for the purposes of risk communication. At the October meeting, the Agency asked the Committee to carry out this risk assessment and paper ACM/1122 introduced the issue. Members agreed that it would be worthwhile for the Agency to restructure paper ACM/1122 using a risk assessment framework and to document the associated uncertainties before the Committee reconsidered the risk classification.
3. A draft qualitative risk assessment has now been prepared for the Committee's consideration following a risk assessment framework similar to the assessments presented to the Committee on several occasions in recent years. The assessment is not an exhaustive review but rather focusses on key aspects.
4. Given that *M. bovis* prevalence is markedly higher in UK cattle than other food producing animals which tend to function as spillover hosts for *M. bovis*, the assessment focusses on bovine meat, though there is mention of other meat producing animals.

5. The risk assessment uses EFSA’s approach to risk ranking (agreed by the Committee in 2012) as below in order to classify the level of risk:

Risk Level Classification

| Probability Category | Interpretation |
|----------------------|---|
| Negligible | So rare that it does not merit to be considered |
| Very Low | Very rare but cannot be excluded |
| Low | Rare, but does occur |
| Medium | Occurs regularly |
| High | Occurs very often |
| Very High | Events occur almost certainly |

Table from EFSA (2006) modified from OIE (2004)

6. Based on this approach, the Agency’s estimation of the microbiological health risk related to *M. bovis* via exposure to meat and meat products is **negligible**. A medium level of uncertainty has been assigned to this assessment, based largely on two key uncertainties¹:

- Although a small amount of *M. bovis* contaminated meat may enter the food chain, despite rigorous *ante-mortem* and *post-mortem* inspection of animals and carcasses, the actual level of consumer exposure to *M. bovis* from eating less than thoroughly cooked or cured meat remains an **uncertainty (medium)**. Thorough cooking of meat and meat products such as sausages etc. will effectively destroy any viable *M. bovis*.
- The possibility of cross-contamination from meat infected with *M. bovis* via unhygienic or inappropriate handling either in the slaughterhouse or in a domestic or catering environment cannot be excluded and the impact of cross-contamination on *M. bovis* transmission can be flagged as an **uncertainty (medium)**.

7. It is apparent that the risk estimation derived from this assessment using EFSA’s risk level classification approach appears to be lower than that agreed by the Committee over the years. This does not imply a change in risk level, but reflects that a different approach has been used to estimate the risk; an approach that has been agreed and adopted by the Committee in more recent years.

¹ Uncertainties have been identified as medium level on the basis of limited information relating to level of exposure to *M. bovis* from eating contaminated rare, raw or cured meat and the inability to exclude potential cross-contamination from *M. bovis* infected meat as a route of transmission. This information was balanced against relatively robust information to suggest that meat borne transmission of *M.bovis* is not significant

The Committee is asked:

- To comment on the attached draft risk assessment
- To advise whether it is in agreement with the Agency's conclusion that the health risk related *M. bovis* via meat is **negligible**
- To provide comments on uncertainty if it wishes to do so.

**Secretariat
January 2017**