

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD
DISCUSSION PAPER

Literature review on botulism in cattle, sheep and goats: 2006 to 2021

Issue

1. A literature review (ACM/1311¹) on botulism in cattle, sheep and goats was completed at the request of risk managers to revisit and identify any new information since the committee's 2006 and 2009 reports on this topic; this review was presented to the ACMSF in October 2019. The committee raised numerous comments relating to this paper, these comments have been addressed in this version of the review (Annex1).
2. The Committee is invited to consider if they are content that the comments have been addressed in this version of the review or if they have any additional comments.

Background

3. In 2006 the ACMSF produced a comprehensive report which assessed the risk to human health posed by botulism in cattle. This was produced in response to an increase in the number of suspected botulism cases in cattle in England, Wales and Northern Ireland. This report concluded that good practice of poultry litter management and disposal be extended to cattle, the report also concluded that the main botulism toxin types that affect cattle are a low risk to human health and that the voluntary restrictions on meat and milk from affected animals should be maintained.
4. In 2007 the subgroup met three times to discuss botulism in cattle, sheep and goats after the emergence of botulism in sheep and produced a report published in 2009. This report concluded that botulism outbreaks in sheep and goats in the UK are uncommon in comparison to cattle, but the number of animals affected by each outbreak could potentially be higher and that poultry litter was also found to be a contributing factor to botulism in sheep and goats. It was concluded that the management of poultry litter on farms should be extended to sheep and goat farmers with the same restrictions as those used for cattle.
5. In 2009 the FSA amended advice on botulism to follow the recommendation of the committee, the voluntary restriction of meat and milk from clinically affected cattle was unchanged but the voluntary restriction on cattle from farms with clinically suspected botulism was no longer necessary.

¹ <https://acmsf.food.gov.uk/sites/default/files/2020-08/ACM-1311%20Botulism%20in%20cattle%20sheep%20and%20goat.pdf>

2. A literature review on botulism in cattle, sheep and goats was presented to the Committee in October 2019 with the aim of establishing whether there had been any updates in the literature since the 2006 and 2009 committee reports. Numerous comments were made by members which have now been addressed in this version (annex 1). An update of the literature search up to the 31st March 2021 raised one paper² of interest that used Endopep-mass spectrometry to detect botulinum neurotoxin in three cattle liver samples. The corrections and this paper have not affected the outcome of the report as it was presented in 2019.

The Committee is asked:

- Whether it is content that its comments from the October 2019 meeting have been addressed, and this review can be signed off or,
- If it has any further comments to be addressed.

**Secretariat
April 2021**

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7806574/>