ACM/MIN/94

MINUTES OF THE NINETY-FOURTH MEETING OF THE ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD (ACMSF) HELD ON 27 JUNE 2019 AT 1.00PM AT THE GRAND WELLINGTON HOTEL, 71/72 VINCENT SQUARE, LONDON SW1P 2PA.

Present

Chair: Prof David McDowell (Acting Chair of ACMSF)

Members:
Dr Gary Barker
Dr Roy Betts
Dr Gauri Godbole
Mr Alec Kyriakides
Miss Heather Lawson
Dr Rohini Manuel
Prof Peter McClure
Mr David Nuttall
Dr Dan Tucker
Mrs Ann Williams
Prof Francis Butler
Dr Jane Gibbens
Dr Wayne Anderson
Dr Edward Fox

Departmental representative: Dr Steve Wyllie (Defra)

Secretariat: Dr Paul Cook
Dr Manisha Upadhyay
Mr Adekunle Adeoye
Ms Azuka Aghadiuno

Presenter: Dr Andrew Day
Ms Gwen Aherne

Members of the public: see Annex 1.

1. Chair's introduction

1.1 The Chair welcomed existing and new members of the committee (Dr Jane Gibbens, Prof Francis Butler, Dr Edward Fox and Dr Wayne Anderson were appointed to the committee on 1 June 2019) and members of the public to the 94th meeting of the ACMSF. He also welcomed Dr Andrew Day from the Food Standards Agency (FSA)'s Microbiological Risk Assessment Team who would be presenting agenda item 14 (Review of alternative interventions in poultry) and Ms Gwen Aherne from the FSA's

Advisory Forum on Food and Feed, Food Policy Division who would be presenting agenda item 15 (FSA and Food Standards Scotland (FSS) Risk Analysis Guidelines). Both items were considered as reserved business. Dr Dan Tucker chaired the discussion for agenda item 15 as Prof McDowell had to leave the meeting for another appointment.

2. Apologies for absence

2.1 Apologies for absence were received from Dr Bob Adak, Mrs Emma Hill, Dr Gwen Lowe and Prof Miren Iturriza-Gómara and Mr Martin Briggs.

3. Declaration of interests

3.1 The Chair asked Members if they wished to declare any potential conflicts of interest associated with the agenda items to be discussed. Drs Betts and Barker declared that they have carried out work on vacuum and modified atmosphere packed chilled foods funded by a variety of industry groups and Mr Kyriakides declared that his employer, Sainsburys, sold a number of products that could be discussed during the meeting. Concerning agenda item 14, the Chair declared that he has carried out work with research colleagues on the efficacy of some of the compounds mentioned in paper ACM/1298.

4. Minutes of the 93rd meeting

4.1 Members approved the minutes of the 93rd meeting as an accurate record and agreed that they should be posted on the ACMSF website.
Action: Secretariat

5. Matters arising

5.1 Paper ACM/1280 provided a summary of actions on matters arising from previous meetings. Dr Cook reported that:

- The committee's work plan has been updated with the members shortlisted horizon scanning topics (ACM/1300 refers)

- Members would be updated on the activities of the subgroup setup to analyse industry's responses to the ACMSF's request for evidence on the subject of "changes to pesticides residues maximum residue levels" under agenda item 10

- Members request for Public Health England (PHE) to consider adding raw pet food in the scope of its enhanced surveillance of listeriosis cases is being considered by PHE's surveillance and gastrointestinal bacterial refence unit

- Members comments on the draft report from the *Ad Hoc* Group on *Campylobacter* were incorporated into the draft final report that was issued for public consultation. Final report to be considered under agenda item 8

6. Proposed working group on non-proteolytic *Clostridium botulinum* and vacuum and modified atmosphere packaged foods

6.1 The Committee at its previous meetings considered the issue of non-proteolytic *Clostridium botulinum* (*C. botulinum)* and vacuum and modified atmosphere packaged (VP/MAP) foods. Dr Paul Cook was invited to introduce paper ACM/1293 that proposed a way forward for the committee to review non-proteolytic *C. botulinum* risks in the context of the FSA's guidance. The paper in its background highlighted the current FSA guidelines in this area which indicates that, unless suitable grounds for extension are proven, the shelf-life of VP and MAP chilled foods, including fresh meat, held at temperatures from 3 to 8°C is a maximum of 10 days.

6.2 Paper ACM/1293 outlined the committee's previous discussions where members agreed to review new evidence (via a subgroup) when available. As findings from one of the industry funded studies were now available it was appropriate for the committee to consider establishing a short-life group to review the evidence on key aspects relating to the risk of non-proteolytic *C. botulinum* and VP/MAP foods. The draft terms of reference were:

- Review the risk posed by non-proteolytic *C. botulinum* and the FSA guidelines for the shelf-life of vacuum and modified atmosphere packaged foods.
- Specifically review the industry funded risk assessment of botulism from chilled, VP/MAP (Vacuum Packed/Modified Atmosphere Packed) fresh meat held at 3°C to 8°C (ACM/1304).
- Where appropriate consider other risk-related evidence relevant to this topic made available to the FSA and the ACMSF during the lifetime of the group.

6.3 It was noted that group would be chaired by Professor David McDowell. Members would be drawn from existing membership of the ACMSF together with additional co-opted experts. It is envisaged that this should be a short-term working group and would last for about 7 months. It is expected that the outputs of the group will be in the form of a paper presented to the main committee in early 2020.

6.4 Members were asked to:

- Indicate whether they are content to proceed with establishing a short-term working group as outlined in this paper.
- Identify the priority issues which the working group will need to address.
- Comment on the draft TOR, approach and timescale envisaged for this task

6.5 The following comments were made:

- Members were supportive of this proposal timely to carry out review with the new evidence available.

- Referring to the first bullet of the terms of reference (review the risk posed by non-proteolytic *C. botulinum* and the FSA guidelines for the shelf-life of vacuum and modified atmosphere packaged foods) a member raised that, as the FSA guidance was drawn from a previous ACMSF report (1992 report), whether the subgroup would make reference to previous ACMSF reviews/reports. Dr Paul Cook commented that the FSA was not expecting an extensive report for this task but a paper or series of papers on the particular areas the group considers. It was explained that the group would have to scope out what is manageable to achieve within the confines of its terms of reference and timescale for the delivery of the task. It was added that the group would have to determine whether they have enough time to cover all the issues that may arise during deliberations.

- In terms of the proposed group's terms of reference highlighted above, it was noted that not all of the FSA guidance on this subject had input from ACMSF reports. The response clarified that the terms of reference covers the FSA current guidance and other issues that may come to light in the course of the group's discussion.

- As the terms of reference specifically refers to *C. botulinum*, a member questioned the rationale of just looking at one pathogen as it was felt that the review should cover other pathogens that could make food unsafe in relation to shelf-life extension. The member underlined that the terms of reference should not be restrictive in its phraseology stressing that it should be clear that other relevant pathogens would be considered in the review. Dr Cook explained that although the FSA guidelines focussed on *C. botulinum* in terms of food safety management, other microbiological hazards are covered in the guidance.

- The Chair commented that, as *C. botulinum* appears to be the current key issue in relation to the shelf-life of these foods and considering the proposed subgroup have been given seven months for this task, it would be sensible to focus on *C. botulinum* for now. Other pathogens that are revealed in the course of the group's discussions could be given attention after the delivery of this task.

- It was highlighted (by Dr Paul Cook) that the third bullet in the terms of reference gives the group sufficient flexibility to expand the scope should anything emerge during deliberations.

- Although the second bullet in the terms of reference is to "specifically review the industry funded risk assessment of botulism from chilled, VP/MAP (Vacuum Packed/Modified Atmosphere Packed) fresh meat held at 3°C to 8°C", Dr Cook clarified that the review was not exclusively for meat. It was pointed out that the publication mentioned forms part of the evidence the group would consider.

- Other issues raised for the group to consider include what happens to VP/MAP chilled products not stored properly by consumers and catering practices relating to these products.

6.6 The committee approved the setting up of the group and agreed the proposed terms of reference. The secretariat will work with the Chair in the practicalities of setting up the group. **Action: Secretariat**

7. Update from the ACMSF subgroup on representation of risks

7.1 The ACMSF subgroup on representation of risks was established in November 2018. Dr Manisha Upadhyay was invited to give a short introduction about the group. She reported that at a committee's horizon scanning workshop early in 2018 the committee identified the need to develop a multi-dimensional risk assessment framework for microbiological risks associated with food. Dr Upadhyay highlighted that the committee felt the current one-dimensional approach to risk assessment based on the probability of an adverse effect occurring (to estimate the level of risk) did not always support clear decision making and communication.

7.2 Dr Upadhyay provided background information on the composition of the group including their terms of reference then invited Dr Gary Barker to update members on the subgroup's proposed new risk assessment framework.

7.3 Dr Barker gave an overview of the committee's current approach to risk and uncertainty assessment which was adopted from EFSA and is used by reputable organisations. This approach assigns risk based on the appreciation of the available evidence using standard probability and uncertainty categories. Dr Barker defined multi-dimensional representation of risk highlighting that the aim of the group was to address the limitations of the current approach revise it and have an improved system that will effectively support decision making. He outlined the features of two-dimensional risk assessment and talked through the group's proposed assessment of risk which had 5 steps.

- Assessment of frequency of occurrence of an adverse event using the established ACMSF (EFSA) categorisation of risk
- Assessment of detriment of an adverse event using a descriptive four category scale used by International Commission on Microbiological Specifications for Foods (ICMSF)
- Assessment of uncertainty associated with the frequency of occurrence of an adverse event using a three-category scale used by EFSA
- Assessment of the uncertainty in detriment
- Assessment of confidence in evidence

7.4 It was noted that the group will meet in the coming weeks to conclude deliberations on the report which is expected to be compatible with other risk assessment tools. Members welcomed the draft framework and made the following comments.

- If this framework is adopted how will it interface with previous ACMSF risk assessments or FSA risk assessments approved by ACMSF. Dr Barker explained that the framework will show the validity of previous risk assessments but will underline how risk assessments could be improved as additional variables will be taken into account. It was noted that the new framework won't necessarily mean reopening previous risk assessments that have been published.

- How would circumstances where there are irreconcilable differences in evidence and certainty levels be addressed. It was acknowledged that in the event of deep levels of uncertainty complicating the evidence, risk assessors may have to give a remark on the situation to the best of their ability such as indicating what they think about the science on the issue they have considered.
- Reference was made to the National Institute for Health and Care Excellence (NICE) risk assessment framework as NICE's approach is known to be robust. It was mentioned that NICE's system was noted in the group's deliberations.
- A member mentioned that it would be good have examples of where multi-dimensional approach have been used in risk assessment and include these in the final report that the group is drafting.

7.5 The Chair thanked Dr Barker for his presentation highlighting that the group is working towards presenting its final report at the committee's next meeting.

8. Ad Hoc Group on *Campylobacter* Report

8.1 The Ad Hoc Group's draft report underwent a 10-week public consultation between March and May 2019. Members were provided with a copy of the report (that reflected stakeholders comments), summary of consultation responses and a cover paper that outlined why the committee was considering the report. In the absence of the group's Chair (Prof Sarah O'Brien), Prof David McDowell introduced paper ACM/1295 and its annexes. He reported that few amendments have been made to the report following the public consultation, but no substantive changes have been made to the report since the last time the committee considered it. He went through the comments submitted by the industry responders. It was noted that industry responses to the report were positive. The committee was asked to indicate whether it was content for the final draft (subject to some minor editorial amends) to be published and whether it had any further comments to include.

8.2 The following comments were made:

- A member drew attention to a comment by the Ad Hoc Group where it acknowledged improvements made by the UK poultry industry in reducing the use of antibiotics (ACM/1295a, page 2 column 3 last sentence). The member suggested underpinning this statement with an appropriate reference. Members noted that as the ACMSF task and finish group on AMR's report (published in March 2018) highlighted the advances made by the poultry industry in the usage of antibiotics, this could be used to address the queried statement. **Action: Secretariat**

- A member pointed out that a measuring unit was missing in one of the group's responses to the British Retail Consortium's comments (page 3 column 3 last sentence). The secretariat noted this point and will insert the appropriate measuring unit. **Action: Secretariat**

- It was noted that data in the Epidemiology section of the report (Epidemiology of *Campylobacter* infection in humans) was dated (2016 data) for a report that

will be published in 2019. As it was pointed out that 2018 data was available in the report of on the activities of the Epidemiology of Food Infections Group (EFIG), members welcomed the suggestion to cross-reference the Third *Campylobacter* Report to the EFIG paper (ACM/1296) via an addendum. **Action: Secretariat**

- A member queried recommendation 8.88 in the report highlighting that the sentence concerning the preparing parfait and pâté needed rephrasing as it was not clear which of the two methods **mentioned** was effective in eliminating *Campylobacter*. **Action: Secretariat**

- Members agreed for the report to be published once the suggested amendments had been reflected on the report. **Action: Secretariat**

8.3 In conclusion, the Chair thanked Prof Sarah O'Brien and members of the Ad Hoc Group for all their work in drafting the report.

8.4 On a separate matter relating to the above report, the Chair informed the committee that the FSA has asked for the Ad Hoc Group's assistance in the prioritisation of the above report's recommendations (the FSA appreciated the prioritisation of recommendations carried out by the ACMSF task and finish group on AMR on their recent report). He explained that the group, mindful of the committee's remit had agreed to assist the FSA in carrying out this exercise. He added that the outcome of the task will be reported to the committee at a future meeting. **Action: Secretariat/Chair**

9. Epidemiology of Foodborne Infections Group

9.1 The Chair invited Dr Paul Cook to present ACM/1296 which summarised the main items from the EFIG meetings held on 18 January and 14 June 2019. The update covered trends in animal and human data in 2018 and 2019 (animal data only). Highlights of the report include:

- Between January and December 2018 there were 1,090 reports of *Salmonella* from livestock which is 2% lower than during January – December 2017 (1,116 reports). Between January to March 2019 there were 276 reports of *Salmonella* from livestock which is 42% higher than during January – March 2018 (194 reports).
- There were 10,299 reports of non-typhoidal *Salmonella* in the UK in 2018, a small increase on the 10,089 reported in 2017, increasing the overall UK reporting rate from 15.3 in 2017 to 15.6 in 2018. An increase in the reporting rate was seen in England and Northern Ireland, and a decrease in Scotland and Wales.
- *S.* Enteritidis was the most commonly reported serovar across all constituent countries, comprising 30% of all reported *Salmonella* cases in the UK.

- The serovars with the highest proportion of cases reporting travel prior to infection are *S.* Kentucky (44% of cases reported foreign travel) and *S.* Virchow (41% of cases reported foreign travel).
- The reporting rate for *Campylobacter* has increased in the UK from 96.8 per 100,000 population in 2017 to 101.6 per 100,000 in 2018. The rate of reported *Campylobacter* infections in England has increased from 2016 after a steady decline in the reporting rate since 2012. The reporting rate has also increased across all other countries for the second year in a row. Northern Ireland continues to report rates lower than the rest of the United Kingdom (79.2 cases per 100,000 population).
- Reports of STEC O157 in the UK increased from a rate of 1.2 cases per 100,000 population in 2017 to 1.3 cases per 100,000 population in 2018. Increases were reported in England and Northern Ireland, while decreases were reported in Wales and Scotland. Despite the increase in reporting rate in England in 2018 compared to 2017, the trend of a lower reporting rate since 2015 has continued.
- In 2018, 46 foodborne outbreaks were reported to national surveillance systems in England, Wales, Scotland and Northern Ireland compared to 40 reported in 2017.

9.2 Other items EFIG considered include: Epidemiology of *Cryptosporidium spp* in England and Wales, Burden of gastroinstestinal disease in Scotland: *Campylobacter* data linkage, Food Surveillance in England, Scotland and Wales and Update on the FSA's AMR activities.

9.3 Referring to the report on *Campylobacter* cases (human data), a member asked if the FSA had any concerns on the continuing increase in the trend of *Campylobacter* cases bearing in mind the Agency's interventions. Dr Cook stated that the FSA is exploring what was driving these increases but noted that first quarter figures for 2019 indicate that numbers of laboratory reports may have fallen.

9.4 A member questioned why *Campylobacter* cases in Northern Ireland were now going up as they have consistently had a lower incidence rate than other parts of the UK. Dr Cook replied that reason for the difference in *Campylobacter* figures between Northern Ireland and the rest of the UK is unclear but it is perhaps timely to look at this again.

9.5 It was mentioned that the committee should continue to closely monitor the trend in the number of *Campylobacter* cases in relation to changing the current advice if necessary. A member stressed the need to clearly understand the analyses on *Campylobacter* understanding the sources of infections before decisions are made on changing of advice.

9.6 A member questioned how the data in paper ACM/1296 was presented pointing out that this could be presented in a more informative way, in particular clarifying whether the changes reported matter and their likely or actual impact on human disease rates. Changes in absolute numbers may be small and so could have happened by chance or could be large enough to suggest a true change that may need action (i.e. preference was a statistical approach). The member suggested a simple traffic light approach, highlighting in amber or red the changes that could be significant and might need action; this would enable ACMSF members to focus their

time on the more concerning changes presented in the report. Reporting longer time trends than just comparison with the previous year, and an indication of rates in other countries, would also help members to assess whether changes were of concern. The member also stated that it would be good for the paper to show actions being taken on the trends being highlighted together with relevant points from EFIG members discussions. Secretariat to relay these to the EFIG secretariat to consider. **Action: Secretariat**

10. Committee updates

Ad Hoc Group on QACs and Biocides used in food processing

10.1 Dr Gary Barker (Chair of the above group) updated members on the activities of his group which was setup in October 2018 following the responses sent by industry to the committee's request seeking evidence on Food Business Operators concerns on the implications of changes to the maximum residue levels for quarternary ammonium compounds (QACs), chlorate and biocidal actives. He reported that the group has a cross Scientific Advisory Committee (SAC) membership and recognised industry's concern on this subject from the responses sent to the consultation. However, he explained that the group's discussions identified areas where it was felt additional information was needed as they were unable to quantify the level of impact on microbiological food safety due to these changes. The group felt that having information on the efficacy of the products to which FBOs have switched would be helpful. It was noted that the group (through the secretariat) has been liaising with industry on the issue of additional evidence. The group is of the view that case studies on the alternative chemicals to which FBOs have switched would be the appropriate means of delivering this request for additional information.

10.2 It was highlighted that the group responded to the European Commission's request seeking comments on its proposal to amend Annex III to Regulation (EC) No 396/2005 of the European Parliament and of the Council as regards maximum residue levels for chlorate in or on certain products.

Working Group on Antimicrobial Resistance

10.3 It was reported that the above group had a face to face meeting in November 2018, a teleconference in February 2019 and considered the two FSA survey (monitoring AMR in the food chain) reports via correspondence in May 2019. The subjects they have considered in the above period include:

- FSA funded surveys for AMR in UK retail meat samples
- FSA Board paper on AMR including the report of the ACMSF Task and Finish Group and new research
- UK Veterinary Antibiotic Resistance and Sales Surveillance Report (UK-VARSS 2017)

- Update on recent activities relating to AMR (UK AMR Strategy and update on the activities of Defra Antimicrobial Resistance Coordination covering January to September 2018)
- *E.coli* ST131-H22 as a foodborne Uropathogen
- A draft literature review on alternative interventions in poultry processing**.**
- The issue of burden of AMR genes in selected ready-to-eat Foods (AMR genes of interest).
- FSA AMR survey reports: EU Harmonised Surveillance of Antimicrobial Resistance in *E. coli* from Retail Meats in UK (2018 - Year 4, chicken) and AMR in *Campylobacter jejuni* and *Campylobacter coli* from retail chilled chicken in the UK (Year 4: 2017 – 18). Forming part of the project: A microbiological survey of *Campylobacter* contamination in fresh whole UK produced chilled chickens at retail sale (2015-18)

Newly Emerging Pathogens group

10.4 It was reported that at the request of the FSA, the group considered the risks associated with the consumption of human placenta - considering microbiological, clinical and food safety issues. The group met in January 2019 and a paper summarising the group's discussions has been circulated electronically to the main committee for information and final comments to be submitted by mid-July 2019.

11. Dates of future meetings

11.1 Members were reminded of the future meeting dates in 2019 and 2020. 17 October 2019 and 30 January, 25 June and 22 October 2020.

12. Any Other Business

12.1 The Chair drew members attention to the information papers sent to them which included the committee's workplan (ACM/1300), update from other committees (ACM/1301), items of interest from the literature (ACM/1302), Food and You surveys (ACM/1303), Industry's risk assessment of botulism from chilled, VP/MAP atmosphere packed fresh meat (ACM/1304) and ACAF's paper on raw pet food (ACM/1305).

12.2 A member mentioned (for information) that the FSA had issued a food alert: product recall and withdrawal notification on frozen raw beef, tripe and turkey pet food due to the presence of *Salmonella*. This was for members to note as the food alert was issued as the committee was meeting.

12.3 Dr Paul Cook informed members that the FSA and PHE were carrying out an investigation of cases of listeriosis linked to sandwiches.

13. Public Questions and Answers

13.1 Kaarin Goodburn, Chilled Food Association, welcomed the committee's decision to review non-proteolytic *Clostridium botulinum* risks in the context of the FSA's guidance on vacuum and modified atmosphere packed chilled foods via a subgroup. She asked if the FSA will suspend the use of the 2017 guidance that Environmental Health Officers use for enforcement while carrying out its review. Kaarin Goodburn

also asked for details on the group (membership) that will carry out the review. The Chair confirmed that membership of the group is yet to be settled but it will include experts outside of ACMSF. On the suggestion to suspend the use of the 2017 guidance, Dr Cook confirmed that this won't happen while the group is conducting its review adding that the FSA will reflect on the outcome of the review before any change of advice is made.

13.2 On the issue of biocides and chlorate Kaarin Goodburn provided clarification on how chlorates should be associated with residues. She welcomed the involvement of the subgroup on this subject and asked for advice on what was their next line of action stating that industry has produced a raft of documents that the group may find useful in its deliberations. Dr Gary Barker (Chair of the subgroup) welcomed any material that will assist the group's work but cautioned that the group could only assess microbiological issues which is missing in the majority of the material the group have received. Ms Goodburn was asked to send the group material she feels the group would find useful.

13.3 Peter Littleton (Christeyns Food Hygiene) referring to the comprehensive response he provided in response to the biocides subgroup's letter of 24 May to industry reiterated the role QACs and biocides play in ensuring safe food for the consumers and the difficulties regarding the alternative to QACs products. He encouraged the group to quicken the pace of its work and not wait for food poisoning outbreaks to occur before providing its opinion.

13.4 Karen Job (Marks and Spencer) referring to the reductions in *Campylobacter* in chicken sold at retail outlets asked if the FSA have analysed these recent human cases of *Campylobacter* to see if these are linked to particular food sources. Although it was mentioned that the ACMSF report on *Campylobacter* has a chapter on source attribution on human campylobacteriosis, Dr Cook confirmed that the FSA has ongoing research that may address the question raised on the sources of human cases of campylobacteriosis.

13.4 Fiona Brooks requested that it would be helpful if the update provided on the activities of AMR Working is provided in written form.

14. Review of alternative interventions in poultry processing

14.1 Dr Andrew Day (FSA) was invited to introduce the FSA's literature review of alternative interventions in poultry processing.

14.4 This item was discussed as reserved business.

15. Food Standards Agency and Food Standards Scotland Risk Analysis Guidelines

15.1 The Committee was updated (by Ms Gwen Aherne, FSA) on the work being undertaken on risk analysis by Food Standards Agency and Food Standards Scotland in preparation for the UK's Exit from the EU. The risk analysis process, risk analysis

guidelines and other documents circulated to members provided context to the future work of the Scientific Advisory Committees.

15.4 This item was discussed as reserved business.

Annex 1

Observers to ACMSF meeting, 27 June 2019

Fiona Brookes	Fiona Brookes (Microbiology) Ltd
Diana Axby	Provision Trade Federation
Kaarin Goodburn	Chilled Food Association
Marianne James	Food Standards Scotland
Karen Job	Marks & Spencer
Peter Littleton	Christeyns Food Hygiene UK
Gary McMahon	Moy Park
Rick Pendrous	Technology Writers
Amie Adkin	FSA Risk Assessment Unit