

**MINUTES OF THE NINETY-SECOND MEETING OF THE ADVISORY COMMITTEE  
ON THE MICROBIOLOGICAL SAFETY OF FOOD HELD ON 10 MAY 2018 AT  
1.00PM AT THE DE VERE GRAND CONNAUGHT ROOMS, 61-65 GREAT QUEEN  
STREET, LONDON WC2B 5DA**

**Present**

Chair: Prof David McDowell (Acting Chair of ACMSF)

Members: Dr Bob Adak  
Dr Gary Barker  
Dr Roy Betts  
Dr Gauri Godbole  
Mrs Emma Hill  
Prof Miren Iturriza-Gómara  
Mr Alec Kyriakides  
Miss Heather Lawson  
Dr Gwen Lowe  
Dr Rohini Manuel  
Prof Peter McClure  
Mr David Nuttall  
Dr Dan Tucker

Departmental  
representative: Dr Steve Wyllie (Defra)

Secretariat: Dr Paul Cook  
Dr Manisha Upadhyay  
Mr Adekunle Adeoye  
Ms Sarah Butler

Presenters: Dr Mark Bond, Dr Joanne Edge

Members of the public: see Annex 1.

**1. Chair's introduction**

1.1 The Chair welcomed members of the committee and members of the public to the 92<sup>nd</sup> meeting of the ACMSF. He also welcomed Dr Joanne Edge from the FSA's Microbiological Risk Assessment team, Science, Evidence and Research Division, who would be presenting agenda item 6: (Raw drinking milk), and Dr Mark Bond from the FSA's Animal Feed, TSE and Animal By-Product team, who would be presenting item 7 (risks associated with raw pet food) with Dr Manisha Upadhyay.

1.2 Papers for the meeting had been made available on the committee's website, except for Annex C of ACM/1278, the ACMSF fixed-term "task and finish" group's AMR's report, which was for members' use only.

## 2. Apologies for absence

2.1 Apologies for absence were received from Mrs Joy Dobbs and Mrs Ann Williams.

## 3. Declaration of interests

3.1 The Chair reminded Members to declare any interests they might have before each Agenda item, or during the course of the meeting.

## 4. Minutes of the 91<sup>st</sup> meeting (ACM/MIN/91)

4.1 Members requested the following amendments to the minutes:

- Paragraph 8.1. Change the word “significant” to “notable”;
- Paragraph 8.4. Amend the percentages;
- Paragraph 8.7. Insert the word “significant” before the word “contamination” in the second sentence;
- Paragraph 9.7. Secretariat to check if the second sentence could be made clearer;
- Paragraph 9.20. Correct penultimate sentence to read “why do you still wash your chicken”.

Once these amendments had been made, the Secretariat would post the minutes on the website. **Action: Secretariat**

## 5. Matters arising

5.1 Paper ACM/1268 provided a summary of actions on matters arising from previous meetings. Dr Cook reported that:

- members’ comments on the draft report from the *Ad Hoc* Group on *Campylobacter* had been passed to that group who were working on a revised draft.
- A number of comments had been made concerning the AMR paper from the fixed-term “task and finish” group and these had been taken into account in the final version, attached as an information paper (ACM/1278)
- The paper on raw drinking milk had been revised and would be discussed at agenda item 6 (ACM/1269)
- The summary of the horizon scanning workshop would be discussed at agenda item 9 (ACM/1272).

## 6. Raw drinking milk (and certain raw milk products)

6.1 The Chair informed members that comments made by the Committee at their January meeting had been incorporated into a revised version of the paper. A teleconference had also been held with a few members to discuss this further. He invited Dr Jo Edge to introduce the paper (ACM/1269).

6.3 Dr Edge explained that additional information had been added on outbreaks, from PHE, and additional surveillance data from statutory monitoring of RDM, information

from Dairy Hygiene Inspectors and testing from Food Business Operators, consumer research and whether the additional of sugar might affect the level of risk. A conclusion and Annex had also been added. She asked members to comment, focusing on the data, the conclusions, and the proposed risk classification in the conclusion and the text in section 7. The following points were made in the ensuing discussion:

6.4 It was suggested that everybody who collects data, reports what the actual pooling volume of the milk sampled was. If a large volume of milk is pooled from multiple sources what you would expect to see would be different when compared to a small volume, from just a few animals. It is crucial to clarify the variance of the sampling to understand if the results are statistically significant.

6.5 Table 2 showed that for 2016 and 2017 – there were 2 and 4 outbreaks respectively. It was queried whether these are anomaly years or part of a trend? Whilst there have been more outbreaks reported it was not possible to identify a trend from 2 points but it is reasonable to point out that we have seen 6 outbreaks in 2 years whereas there had been no outbreaks in several years previously. The situation would have to be revisited, probably annually.

6.6 As the risk assessment was predicated on the prevalence of pathogens in RDM, the statement that “1% of RDM servings are potentially harmful” was queried as it was not clear if this meant per serving, or per 25ml. Dr Edge confirmed that her understanding was that the survey data from PHE was based on 25ml samples, not servings: this would be clarified in the text.

6.7 It would be helpful for the future to have information on what had been done to rectify the situation when a farm fails statutory testing, to find out what actions were useful in reducing further failures and what actions had no effect.

6.8 Was it time to look at a quantitative assessment? Dr Edge said that the information needed had not been recorded routinely until the middle of last year but it should become possible in the future to use more numerical data.

6.9 The information PHE gathers doesn't cover other vulnerable population groups like pregnant women. They were only able to provide a breakdown of the data for children but not for other vulnerable groups.

6.10 It is not just the number of outbreaks but the severity that needs to be considered. Some of the consequences are very severe, including STEC.

6.11 Not all cases of *Campylobacter* are followed up routinely by local authorities, so there will be under-reporting. Campylobacteriosis is not a trivial illness. If the data shows 2 outbreaks that is probably the tip of the iceberg. We do not know how many sporadic cases underpin the outbreaks, or how many other outbreaks there are with other aetiologies that don't get reported.

6.12 Members recognised there was an emerging problem. If raw milk was regarded as a higher risk product it should have a higher level of testing, so it should be stressed that if all raw milk producers new or old, were involved in a standardised sampling system there would be more information on which to base future risk assessments. Dr Edge responded that the risk managers and the Dairy Hygiene Inspectors accept that there are gaps in the sampling. At the moment the DHIs conduct quarterly testing for indicator organisms, but have realised that more needs to be done and will be introducing testing for the FBOs to do themselves, and to strengthen the testing done by the DHIs to include pathogen testing as well as indicator organisms.

6.13 After discussion, Members agreed that they would like the risk classification for the population drinking raw milk to be amended to “medium”. They also agreed that the risk for raw milk products should also be regarded as “medium” but with a higher level of uncertainty.

6.14 Dr Edge expressed thanks to the committee for their comments and Dr Cook said that once their comments on specific points had been addressed, and the risk classification amended it would be helpful to upload a revised version to the ACMSF website for others to see, in advance of the FSA Board discussion in June. Members were content with this.

## **7. Microbiological risks associated with raw pet food**

7.1 Paper ACM/1270 (microbiological risks associated with raw pet food) and annex A (raw pet food) had been circulated to members to comment on the risks to humans associated with the use of raw pet food. The Chair invited Dr Manisha Upadhyay to introduce the scene-setting section and Dr Mark Bond (FSA Food Policy: Animal Feed and by-products branch) to present the issues set out in annex A.

7.2 Dr Upadhyay reported that feeding of raw meat-based diets (RMBDs) to pets has become an increasingly popular trend amongst pet owners and has largely been driven by a movement towards consumption of more raw food by humans. She explained that the perception amongst certain pet owners is that such diets may be beneficial for their companion animals. However, the literature highlights significant concerns that such practices pose a health risk for both pets and their owners, as RMBDs may be contaminated with a wide range of pathogens including *Campylobacter* spp., *E. coli*, *Yersinia* spp., *Salmonella* spp., *Listeria* spp., *Clostridium* spp. and also zoonotic parasites, many capable of causing enteritis and serious illness not only in humans but also in companion animals.

7.3 It was underlined that while raw pet food is not considered directly to be a food safety issue, it can nonetheless be a potential source of zoonotic infection via unhygienic or inappropriate handling in a domestic kitchen environment through cross-contamination of food.

7.4 Dr Upadhyay highlighted that in addition to the potential to cause human illness, raw pet food also may have the potential to increase animal and human exposure to AMR bacteria. The ACMSF fixed-term task and finish group on AMR recommended that further research is required on the prevalence of pathogens in companion animal feed and their contribution to human AMR.

7.5 Dr Bond in his presentation covered background information on the raw pet food industry, FSA incidents on raw pet food, typical composition of raw pet foods, microbiological profiles of raw pet food antimicrobial resistant bacteria and raw pet foods, commonly identified risks to pets from raw pet food, incidents of morbidity or mortality in pets associated with raw pet food, risks of raw pet food to humans, incidents of morbidity in humans associated with raw pet food and risk recommendations.

7.6 The Committee noted the number of raw pet food incidents from 2013 to date (up to quarter 1 figures for 2018). This data included domestic incidents as well as EU traded goods (i.e. imports into the UK and exports from UK producers). With the raw pet food comprising <5% of the total pet food sector in the UK, the cases reported represent a disproportionately high frequency of incidents for raw pet food. In line with observations from the academic literature, *Salmonella* contamination in raw pet food has generally been the source of incident notifications; although other recognised pathogens have also been reported to the FSA (i.e. *Listeria*, *Brucella suis* and Shiga-toxin producing *Escherichia coli* - STEC).

7.7 On risks of raw pet food to humans it was reported that *Salmonella* and *Listeria* can cause severe and potentially fatal infection in both the animals consuming the pet food, and the humans that handle the pet food. It was explained that there is a risk to humans from handling contaminated pet food products, especially if they have not thoroughly washed their hands after having contact with the products or any surface exposed to these products. Pets can be carriers of the bacteria and infect humans, even if the pets do not appear to be ill.

7.8 From the wider literature, Members were informed that there were incidents of morbidity in humans associated with raw pet food. An illustration was a case (in February 2018 reported by the FDA) of two children in a single household in the USA becoming ill with *Salmonella* Reading; the same serovar was identified in the raw pet food fed to their dog. One child's illness resulted in septicaemia (blood infection) and osteomyelitis, a painful and serious bone infection.

7.9 Dr Bond outlined the risk recommendations/advice for raw pet food issued by the US FDA, the US Centers for Disease Control and Prevention (which does not recommend feeding raw diets to pets), the Canadian Veterinary Medical Association and the UK Pet Food Manufacturers Association (who has published a consumer advice factsheet specifically on feeding raw pet food) and the UK national charity, Pets as Therapy (PAT) who issued a statement in early 2018 urging volunteers not to feed

raw meat-based diets to their therapy dogs; which often attend hospital/clinical and school environments, due to the potential of spreading disease especially to vulnerable groups.

#### **7.10 The Committee was asked:**

- To consider the information in the scene-setting paper and;
- To provide the FSA with any comments or recommendations in relation to microbiological risks to human health.

The following comments were made by members during the discussion.

7.11 A member referred to a large outbreak of *Salmonella* in Canada related to raw pet food, the multi-country outbreak of *Salmonella* Enteritidis (PT8 infection) associated with the handling of feeder mice and the cases of hedgehogs spreading *Salmonella* to humans emphasising that risk of *Salmonella* infection was high when pathogens are brought into the home and has a permanent presence. It was acknowledged that although proper hygiene minimizes the risk of infections from bugs in the home, the fewer pathogens that are brought into the home the better.

7.12 Cooking of raw pet food as suggested in some of the available advice/guidance was agreed would not make a difference.

7.13 It was recognised that the subject of feeding pets with raw food was a lifestyle choice (similar to the preference for unpasteurised milk) and an emotional issue which may need consideration from a social science perspective as there may be barriers or resistance to change regardless of advice provided by industry or health professionals.

7.14 It was noted that material that goes into raw pet foods products are from animals that had been passed by food inspectors to be fit for human consumption. They could possibly become a source of infection if handling/preservation standards fell when these ingredients are diverted from the food chain into the pet food chain (becoming animal by-products).

7.15 Although it was acknowledged that ACMSF has an interest in cross contamination in the domestic setting, it was pointed out that as ACAF (Advisory Committee on Animal Feedingstuffs) was also looking at issues relating to raw pet food the Committee should be mindful of straying into ACAF's territory.

7.16 A member while underlining that raw pet foods was clearly a risk to animals welcomed ACAF's role in tackling the issues however he could not see the potential risk it posed to the public as it was accepted that the public were already handling raw meat/raw poultry. He added that because these products are well packaged before they are used he could not see how they presented increased risk to the public/consumers.

7.17 There was discussion on the possible cross-contamination by contaminated pet food brought into the home of food for human consumption as both could be stored

(frozen or refrigerated) in the same location. It was agreed that cross-contamination presented a real issue for domestic food handlers and home-based catering businesses as permanent presence of pathogens in the home presents increased risk of infection. Members accepted that pets (such as dogs and cats) after consuming food contaminated with pathogens and playing in close contact with children may constitute an increased risk especially as the pathogens won't be contained or restricted to a spot.

7.18 A member highlighted that the advice by health agencies to cook raw pet food was contradictory as it goes against the product manufacturers instructions. Members noted that the advice to cook products were mainly from the United States as mitigation against infection as the products are legitimate products that cannot be banned.

7.19 A member referring to an FSA study on domestic kitchen practices (published in July 2013) felt that as raw pet foods were legal products, there was merit for government to make guidance available for those who wish to use this material covering areas such as best way to handle, best way to prepare and present products for consumption, best way to clean and disinfect utensils that have been used for preparing the food explaining that these were important to prevent cross-contamination.

7.20 Reference was made to gastro-intestinal attribution studies in relation to domestic animals with the suggestion that it would be interesting to know the contribution of raw pet foods to GI infections in the home.

7.21 The issue of encouraging vets to be advising pet owners on the potential risks of raw pet foods was flagged. It was recognised that as the use of raw pet food was a lifestyle choice there may be resistance to any advice.

7.22 It was observed that some of the contaminated products mentioned in the paper (which may be a mixture of pork, lamb, beef or poultry) may not have been tested for all potential pathogens. Products from third country sources may not have been tested for pathogens not found in the EU. The antibiotic resistance issues flagged in the paper were noted. It was mentioned that some of the antibiotic-resistant organisms highlighted have not been found in the UK livestock sector.

7.23 As microbiological results for raw pet food in an US FDA study and Utrecht University study (highlighted in paper ACM/1270) revealed significant number of listeriosis isolates, a member asked if PHE's enhanced surveillance covering listeriosis was picking up cases linked to raw pet food. It was confirmed that PHE could be asked to include raw pet food in the scope of its enhanced surveillance of listeriosis cases.

**Action: Secretariat**

7.24 A member raised the omission of feeder mice in the discussion paper emphasising that because of the recent outbreaks associated with handling of feeder

mice together with the variety of issues relating to the ongoing cases it should have been referenced in paper ACM/1270. Dr Bond explained why feeder mice was not discussed in paper. He informed the Committee that there were ongoing deliberations with the European Commission, PHE, APHA/Defra and FSA/ACAF on how to tackle its distinct issues.

7.25 As it was recognised that other government groups were discussing safety issues relating to raw pet food and feeder mice it was suggested to include mitigation of risk to humans in the advice/guidance that these groups will publish.

7.26 ACMSF was reassured that ACAF was involved in tackling the issues of concern relating to raw pet food and feeder mice and agreed that ACAF not ACMSF should be the lead Scientific Advisory Committee advising the FSA on this matter. However, ACMSF had no objection to working with ACAF and was happy to receive updates on developments on raw pet food.

7.27 A member corrected the worth of the pet food industry as indicated in the paper from £2.7bn to £52m. Dr Bond subsequently provided a corrigendum stating: Latest figures collated by the PFMA indicate that the size of the UK raw pet food market has grown significantly over recent years and is now estimated to be in excess of £100m annually, within a total pet food market of £2.8bn per annum.

7.28 Dr Bond welcomed ACMSF's comments on paper ACM/1270 and the Committee's position that issues are more appropriate for ACAF in accordance with their remit.

## **8. Epidemiology of Foodborne Infections Group**

8.1 The Chair invited Dr Paul Cook to present paper ACM/ 1271 which summarised the main items from the FIG meeting which was held on 17 January 2018. The update covered the trends in animal and human data for quarters 1-3 in 2017. Animal data (provisional) between January – September 2017 the number of reports of *Salmonella* in livestock increased by 20% in comparison to January – September 2016, by 8% compared with January – September 2015 and by 4% compared with January – September 2014. There were 10 reports of *S. Enteritidis* compared with 4 during the equivalent period of 2016 and 13 during the equivalent period of 2015. Reports of *S. Typhimurium* during January – September 2017 increased by 5% compared with January – September 2016 (85 vs. 81 reports). There was also an increase (46%) in reports of the monophasic strain *Salmonella* 4,12:i:-. Reports of the monophasic strain *Salmonella* 4,5,12:i:- however, decreased by 19% compared with January – September 2016. The most common phage types of *S. Typhimurium* and the two monophasic strains during January – September 2017 were DT104 and DT 193. There were 21 x DT104, 20 x U288 and 68 x DT193; DT104 and DT193 are the most common. For *S. Typhimurium* alone, DT104 and U288 are the most common.



8.2 *Salmonella* National Control Programme results 2017 showed that the overall the total number of regulated and non-regulated serovars in poultry flocks is higher in 2017 compared to 2016. For chicken and turkey breeders no regulated serovars were identified in 2017 compared to 1 chicken breeder in 2016. The number of flocks with non-regulated serovars has increased slightly for turkey breeders and decreased slightly for chicken breeders.

8.3 The number of layer flocks with regulated serovars in this sector in 2017 (n=6) is higher than in 2016 and the highest since 2011. All incidents involved *Salmonella* Enteritidis and not *Salmonella* Typhimurium (or the monophasic strains). The number of flocks with non-regulated serovars is slightly higher than 2016. For broilers there was a small reduction in the number of regulated serovars in this sector in 2017 compared to 2016 although there was a large increase (approx. 28%) in the number of non-regulated serovars, related to feed and hatchery contamination. The top four serovars in 2017 were the same as 2016 (*S. Mbandaka*, *S. Kedougou*, *S. 13,23:i:-* and *S. Senftenberg*). For turkey fatteners there were 7 flocks identified with regulated serovars in 2017, four with *S. Enteritidis* and three with monophasic *Salmonella* Typhimurium.

8.4 Human infection data (key pathogens for quarters 1-3): trend in laboratory reports revealed: 7722 reports of non-typhoidal *Salmonella* reported in the first three quarters of 2017, an increase from the 7063 reported in quarters 1-3 2016. An increase in the reporting rate was seen in England and Wales while a decrease was seen in Scotland and Northern Ireland. Compared to the previous year, the overall number of reported infections increased in the UK by 659.

8.5 Reports of *S. Enteritidis* increased in the UK overall in the first three quarters of 2017 compared to the same period in 2016, predominately due to an increase in England (reporting rate 4.1 per 100,000 population compared to 3.6 in 2016). Decreases were seen in Scotland and Northern Ireland and the reporting rate was approximately the same in Wales compared to the previous year.

8.6 An increase in the reporting rate of *S. Typhimurium* in the UK overall was seen in Q1 – Q3 compared to the same period in 2016. This increase was due to an increase in England (reporting rate 3.4 per 100,000 population compared to 2.9 in 2016) while the reporting rate in Scotland and Northern Ireland decreased and the reporting rate was approximately the same in Wales compared to the previous year.

8.7 The reporting rate for *Campylobacter* increased in the UK from 89.1 per 100,000 population in quarters 1-3 of 2016 to 93.3 per 100,000 in quarters 1-3 in 2017. Every country reported more cases in Q1 – 3 of 2017 than in the same period for 2016, with the largest increase in reporting rate in Scotland. Wales still reports the highest rate of all UK countries (114.2 per 100,000 population in 2017). Northern Ireland continues to report rates lower than the rest of the United Kingdom.

8.8 The number of cases in the UK has remained relatively stable since 2008. There was a decrease in the number of reported *Listeria* cases for quarters 1-3 of 2017 compared to the same period in 2016.

8.9 Compared to the same period in previous years (quarters 1-3), STEC O157 incidence decreased in England and Northern Ireland in 2017, although this decrease was not observed in Wales or Scotland.

8.10 In quarters 1-3 2017, 25 foodborne outbreaks were reported to eFOSS in England and Wales and to Health Protection Scotland. There were no foodborne outbreaks reported from Northern Ireland during this period. *Campylobacter* was the most frequently implicated or suspected causative agent in reported foodborne outbreaks (5/25, 20%). It was reported that Public Health Wales was introducing molecular diagnostics for GI pathogens sequentially from May 2018. This will eventually cover all PH Wales laboratories. It was explained that the benefits of this would be timely availability of data and improved sensitivity.

8.11 Other items EFIG considered include: PHE's report on excess burger consumption amongst STEC cases in England, 2014-2017, raw drinking milk (incidents and outbreaks), FSA's regulating our future programme, FSA's surveillance strategy, reflections on collaboration between APHA and PHA and food surveillance. It was suggested that the Committee may wish to receive a presentation on the FSA's surveillance strategy to consider how this may enhance its risk assessment functions.

**Action: Secretariat**

8.12 The following comments were made by members after the update. The relationship between STEC and other foods was noted. It was observed that STEC (known to be a burger bug) is now moving to other foods such as food produce (salad leaves, sprout etc.). Members attention was drawn to a recent publication that discussed AMR in STEC surviving in the environment in *E.coli* phages.

8.13 Referring to the point made on PH Wales introducing molecular diagnostic for GI pathogens from Spring 2018, the question of whether PHE (who already use molecular diagnosis) has noticed an increase in the number of cases was raised. ACMSF members linked to PHE confirmed that there has been an increase in detection rate in the PHE labs that have embraced molecular diagnostics (some NHS labs use it). It was added that a survey has been carried out by PHE on the number of diagnostic labs that have moved to molecular technique.

8.14 A member referring to PHE's burger watch (excess burger consumption amongst STEC cases) update pointed out it that significant proportion of members of the public still believe eating burger rare was safe. He mentioned that a recent survey carried out by Sainsburys early in 2018 revealed that out 1200 people, 18% believed eating burgers rare was safe.

## 9. Outcomes from 25 January 2018 horizon scanning workshop

9.1 The Secretariat had prepared paper ACM/1272, a summary of the discussion that had taken place at the horizon scanning workshop in January 2018. Mr Adeoye introduced the paper.

9.2 There had been 2 presentations at the workshop, one from the Chief Scientific Adviser and the other from a member of the FSA team working on EU exit. Members had identified topics in the following categories:

- Emerging issues resulting from real changes in behaviour
- Information that needs to be brought to the FSA's attention to help consumers make choices based on current evidence
- Risks/opportunities associated with emerging technologies not already considered by the ACMSF
- The main issues, risks and opportunities following UK exit from the EU
- Anything else to bring to the FSA's attention.

9.3 Members were asked to consider ranking the shortlisted topics in each of these categories with a view to deciding which should be added to the ACMSF workplan.

9.4 The workshop had also discussed the need to consider introducing a 2-dimensional approach to risk assessment which took into account severity in addition to probability. Members were asked if the time was right to set up a subgroup to explore this in greater depth. They agreed that it was. Dr Gary Barker agreed to chair the new group and the Chair would consult the secretariat on which other members should be involved, and whether any additional experts should be co-opted. **Action: Chair/Secretariat**

9.5 A member queried whether another emerging topic was the use of bee pollen particularly for children in school and whether this should be added to the list. It was suggested that this had been discussed by the Advisory Committee on Novel Foods and Processes (ACNFP). **Action: Secretariat to check if ACNFP have discussed bee pollen.** Dr Cook commented that there may be a need to find a way of capturing issues that arise between the Committee's horizon scanning exercises.

9.6 It was pointed out that there were a number of items on the list that were already being addressed (e.g. raw pet food) and there were a number of related issues that could be grouped together (e.g. EU-related issues). The Secretariat agreed to condense the list before sending it out for members to rank.

**Action: Secretariat**

## **10. Committee updates**

### **ACMSF fixed-term task and finish group's report on AMR "AMR in the food chain; research questions and potential approaches"**

10.1 The Chair, who also chaired the ACMSF fixed-term task and finish group on AMR, updated the Committee that the group's report "AMR in the food chain; research questions and potential approaches" that members considered at the January 2018 plenary meeting had been finalised (ACM/1278 refers). Members noted that it will be formally presented to the FSA Board in September 2018.

### **Changes to pesticides residues maximum residue levels: potential impact on food safety**

10.2 The Chair updated members on the above subject referring to information provided in information paper ACM/1273. Members noted that the Chair had a teleconference with the Chair of the expert committee on Pesticides Residues in Food in April 2018 and they both recognised the need to work with industry in order to have a clear picture of all the issues of concern relating to microbiological food safety. The proposed questions to industry were included in the above-mentioned paper. A member commented that this was a difficult and complex area because of the competition between microbiological risk and chemical risk.

### **FSA's guidance on vacuum and modified atmosphere packed chilled foods**

10.3 The Chair provided background information on the reason why he and the FSA Chief Scientific Adviser had issued a joint statement on the above subject. He reported that the statement was as a result of the discussions the FSA and Food Standard Scotland had with the meat industry over meat hygiene compliance concerns. The Chair explained that industry has queried the FSA's current guidance on vacuum and modified atmosphere packed chilled foods. As the guidance is based on the Committee's report on vacuum packaging and associated processes and other scientific material from industry, members were informed that the Committee will be asked in due course to consider new evidence on this subject when this is available.

10.4 Although it was mentioned that Professor Mike Peck of the Quadram Institute and his team were working on a project in this area, a member indicated that he was aware of relevant new evidence on this subject.

10.5 Following discussion on the availability of new evidence and on the question of at what point should the Committee refresh the scientific reports it publishes, the Chair asked the secretariat to seek from literature new material in the last 10 years and obtain relevant information from the ongoing work and report back to the Committee.

**Action: Secretariat**

## **11. Dates of future meetings**

The next meeting will be held on 18 October at a venue to be confirmed.

## 12. Any other business

12.1 There was none.

## 13. Public Questions and Answers

13.1 Kaarin Goodburn from the Chilled Food Association raised several points about the FSA's vacuum packing guidance. A proposal to amend the guidance had come out of the blue to the industry and a detailed set of comments from 7 different industry organisations had been put together in response, updating the FSA on the project work that had been carried out, including the Sustainable Shelf Life (SUSSE) project and a related paper that had been published. She added that several members of the committee were aware of this research and the FSA had been briefed on the scientific approach. She was therefore surprised that it had been stated that there was no new evidence. The Chair interjected that he understood that there was some research that would become available later in the year and that the committee would be happy to look at this when available. Ms Goodburn said that this was only in relation to fresh meat and some of the work had not yet started. She said there was information available from a large piece of work done including a risk assessment that had been available for 10 years and was published on the FSA website and a peer reviewed paper had been published. This related to chilled food in general, not just meat. She claimed that a lot of information had been provided to the FSA but this had not been acknowledged. She was also aware of work being done on nitrite, and a forthcoming guidance document on challenge testing. She ended by saying that it was unfair to say that there was no new evidence. The Chair replied that he would be asking the FSA what further information was available and that if there was further evidence in the FSA's possession he expected it would be provided to the committee. He reiterated the statement that he had made jointly with the Chief Scientific Officer on 22 February that "as new science is generated it is appropriate and standard practice to revisit the evidence base". **Action: Chair and Secretariat to ascertain what information was available on shelf life of vacuum packed foods that could be considered by the committee.**

13.2 On the topic of biocides, Ms Goodburn commented that she was glad to hear that something would be happening on this as other Member States were dominating the discussions in Europe. She also said that she was aware of proposed EU MRLs on chlorates, without knowing the detail, and that HSE were in the lead for the UK. She informed the committee that the Drinking Water Directive was being reviewed with a proposed MRL for chlorate and chlorite which would be voted on by October. The Drinking Water Inspectorate were considering how to ensure the safety of tap water against various pathogens and there was concern in the food industry that a risk assessment had not been carried out, and it was unclear whether it would still be possible to use chlorinated water. The Chair thanked Ms Goodburn for her comments.

13.3 Luisa Candido from Dairy UK commented about processing water, asking if in the questions that will be sent to industry (outlined in ACM/1273) the wording of the second question could be amended to “In what food contexts are chlorine-based *sources* used and what alternatives exist?” which would then cover processing water as well. The Chair thanked Ms Candido for her comment which would be considered.

**Action: Secretariat**

13.4 Liz Andoh-Kesson from the British Retail Consortium supported Kaarin Goodburn’s comments on the changes to the vacuum packing guidance. The BRC had made similar comments on behalf of industry during the consultation process. She also asked if there were any plans to review the contributory factors to human illness from *Campylobacter* on the basis that the reduction of illness in 2016 has not been sustained and human illness was going up. She commented that the FSA’s risk management had been directed at particular parts of industry where levels of *Campylobacter* continue to decline. She asked if the Committee would be considering other sources of *Campylobacter* that were contributing to human illness. The Chair replied that the *Ad Hoc* Group on *Campylobacter* had not based their advice on the reported reduction of illness because they would have wanted to see a longer sequence of information before being certain of a significant change. The group had considered all the risk factors that they had information about at the time the report was finalised. Dr Cook commented that it was probably too early to draw any firm conclusions about the initial decrease because numbers always fluctuated to some extent, but that EFIG were going to look at the data for the whole of 2017 at their next meeting. He also pointed out that PHE had indicated they would be considering *Campylobacter* in greater detail to look at the complexity of factors that might be driving levels of human illness. A member of the *Ad Hoc* Group added that the report made the point that the Group were not happy there was enough data to demonstrate that the FSA’s target had been met.

13.5 The Chair thanked the members of the committee for their contributions, and the members of the public for their comments, and closed the meeting.

**Observers to ACMSF meeting, 10 May 2018**

Elizabeth Andoh-Kesson	British Retail Consortium
Fiona Brookes	Fiona Brookes (Microbiology) Ltd
Luisa Candido	Dairy UK
Kaarin Goodburn	Chilled Food Association
Richard Maragh	Consultant Environmental Health Officer
Gary McMahon	Moy Park
Kathryn Robinson	Independent Consultant
Hera Yanikian	Food and Drink Federation