

## **Foods Standards Agency consultation: Reducing the Risk from *E. coli* O157- Controlling Cross-Contamination**

### **EVIDENCE SUBMITTED BY THE SOCIETY FOR GENERAL MICROBIOLOGY**

#### **Introduction**

The Society for General Microbiology (SGM), founded in 1945, is an independent learned and professional scientific body dedicated to promoting modern microbial science. It has established itself as one of the two major societies in its field globally, with some 5,000 members in the UK and abroad. Further information about SGM is provided in Appendix 1.

#### **General comments**

*E. coli* O157 is responsible for a relatively low proportion of the total number of cases of food-borne illness, compared to other organisms such as *Campylobacter*. It is highly likely, however, that any action taken to reduce *E. coli* O157 cross-contamination will have significant benefits on reducing instances of contamination by other pathogens. This should be recognised in the document.

#### **Response to consultation questions:**

**Q1:** *Do you agree that the underpinning principle for the guidance should be that every consumer needs to be protected from the risk of an isolated instance of low level contamination of food by E. coli O157? If not, what alternative would you suggest?*

The principle as it stands is unworkable. Protecting consumers from risk is a high ideal, but one which will be almost impossible to meet. Most consumers will be aware that there is 'risk' associated from the consumption of many foods, although current legislation keeps this risk low. The only way to protect consumers from risk associated with isolated instances of low-level contamination with *E. coli* O157 is to prevent them buying the 'hazardous' food in the first place, which is unreasonable. The principle should perhaps be qualified with a phrase such as 'by taking reasonable safeguards against known risks'.

**Q2:** *Do you agree that the elements described in paragraph 9 a)-c) are an effective and proportionate approach for FBOs to controlling the risk of E. coli O157 contamination?*

9a) The wording, 'highest degree physically possible,' is open to interpretation. For example does this mean separate buildings in distant towns, or separation as much as possible within the physical and financial restraints of the FBO's premises? 'Raw' and 'Ready-To-Eat' (RTE) must also be defined. Does RTE include foods such as sandwiches that include non-meat materials such as salad? These elements seem to presume that raw meat or meat products are the only prominent source of *E. coli* O157, yet other foods such as salads are also significant sources.

9b) This element is reasonable, although the two-stage cleaning and disinfection process needs to be clearly defined.

9c) The guidelines outlined in this paragraph are unreasonable. Certainly in a busy retail organisation it cannot be considered viable for staff to decontaminate their hands after every use of a cash register. This effectively would impose hygiene standards equal to, or in excess of, those recommended for hospital staff.

**Q3:** *In particular, is achieving separation to the highest degree physically possible, including dedicated (single purpose) use of complex, hard to clean, equipment such as vacuum packers, mincers and slicers a proportionate response to the risk? If not, what alternative would you suggest?*

These measures in the context of meat-derived infection seem appropriate and potentially effective. It would be advisable for training sessions to be provided to FBOs to demonstrate the most effective way to clean equipment. Training could be provided by either Environmental Health Officers or equipment manufacturers.

**Q4:** *Is the approach for authorised officers proportionate, effective and clear? If not, what alternatives would you suggest?*

The approach described does not seem to say more than what is the current role of 'authorised officers'. It is difficult to see how the approach will be implemented if only a guideline - especially at extra cost to the FBO.

**Q5:** *We would intend to issue guidance based on these principles to provide clarity to FBOs and authorised officers, so that both can be clear about how to comply and how to address non-compliance. Do you agree that such guidance would be useful for FBOs and/or for authorised officers?*

Guidance would not only be useful but essential. As noted in Q4, it is difficult to see how non-compliance could be addressed effectively. Presumably a range of potential 'sanctions' of increasing severity could be listed, but if this was guidance only, the FBO would only need to demonstrate that they were complying with existing regulations.

**Q6:** *Do you have any views on the form or format that the proposed guidance should take? In particular, what would help in relation to the suitability and use of cleaning and disinfection materials?*

Emphasis on separation of the two steps of cleaning and disinfection is very important. Advice should be accompanied by a strong and clear explanation of the dangers of inactivation of disinfectants by soiling of either the surfaces being cleaned, or the water or cloths used for cleaning. Reasonable advice/instructions should also be provided on the frequency and methods of equipment cleaning. This should include a list of suitable cleaning solutions and materials, including possible sources, the dilutions that should be used and the length of time that cleaning solutions should be left in contact with equipment. Potential dirt traps in commonly used equipment should be highlighted, as should the importance of hand washing. It would also be useful to have an effective and simple means of validating the cleaning of equipment available. If this is not already available, then perhaps the FSA should seek external interest in the development of these.

## **Sources**

This evidence was prepared from written evidence supplied by Dr Jonathan Fletcher, University of Bradford, Professor Charles Penn, University of Birmingham and Dr Kathryn Whitehead, Manchester Metropolitan University.

## Appendix 1

The Society for General Microbiology (SGM) was founded in 1944/1945 and is now the largest microbiological society in Europe. It has over 4500 individual members of whom 75% are resident in the UK. The remainder are located in more than 60 countries throughout the world. Almost all full members are qualified to doctoral or higher level; there are 1000 postgraduate student members. More than 700 schools and a number of companies are corporate members.

The Society provides a common meeting ground for scientists working in academic centres and in a number of fields with applications in microbiology (medicine, dentistry, veterinary medicine, pharmaceuticals, numerous industries, agriculture, food and beverages, the environment and education). The majority of Society members are employees of universities, research institutes, health services, government agencies and small to multinational companies.

The science of microbiology covers a great diversity of life forms: disease-related molecular structures such as prions and viruses, archaea, bacteria, fungi, protozoa and algae. Microbes are of crucial importance in a number of processes affecting all life on Earth: the cause and control of disease, fertility of soils and aquatic environments, fermentation, biodegradation of waste materials and dead biomass, bioprocessing steps in drug and antibiotic production, and molecular biotechnology.

The Society's objective is to advance the art and science of microbiology. It does this by:

- Organizing regular scientific meetings at centres throughout the UK and abroad, where microbiologists meet to hear and discuss the latest research findings. The largest meetings last 4 days and involve up to 1400 participants.
- Publishing four major international learned journals: *Microbiology*, *Journal of General Virology*, *Journal of Medical Microbiology* and *International Journal of Systematic and Evolutionary Microbiology*. The journals are available on-line through HighWire Press (<http://www.sgmjournals.org>).
- Representing the science and profession of microbiology to government and the media. The Society is represented on a number of biological and biomedical committees and organizations, in the UK and internationally, thereby exerting influence on science policy and education, regulatory affairs and international collaboration.
- Promoting microbiology as a career for young people, by increasing awareness of microbiology in schools and aiding the development of teaching

resources. The Society also provides grants for young scientists to attend scientific meetings and training courses.

- Keeping members informed of current developments in professional and scientific matters in microbiology, through publication of the magazine *Microbiology Today* and other means.

The Society is a Charity registered in England and Wales (No. 264017) and in Scotland (No. SC039250) and a Company Limited by Guarantee, registered in England and Wales (No. 1039582). It is governed by a Council drawn and elected from the membership. The Society employs a staff of over 30 at its headquarters.

Marlborough House  
Basingstoke Road  
Spencers Wood  
Reading RG7 1AG, UK

Telephone: +44 (0) 118-988 1800  
Fax: +44 (0) 118-988 5656  
Web: <http://www.sgm.ac.uk>

Contact: Dr R S S Fraser, Chief Executive, e-mail: [r.fraser@sgm.ac.uk](mailto:r.fraser@sgm.ac.uk)