

Draft FSA/HSE/VMD report on approaches to chronic dietary exposure assessment for chemicals in food

This is a paper for discussion.

This does not represent the views of the Committee and should not be cited.

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Introduction

1. Members may recall that at the February 2021 meeting we informed the COT that work had started between FSA, the Health and Safety Executive (HSE) (pesticides) and Veterinary Medicines Directorate (VMD) to consider the approaches to chronic dietary exposure assessment for chemicals in food, and that the outcome would be a report, the draft of which would be brought to the COT for comment ahead of finalisation. The draft report is also being taken to the UK Expert Committee on Pesticides (ECP) and the Expert Committee on Pesticide Residues in Food (PRiF) for comments.

2. This work was undertaken because there are differences in the current approaches to chronic dietary exposure assessments undertaken by the HSE's Chemicals Regulation Division (CRD) for pesticides, VMD for veterinary medicines and FSA for chemical contaminants and other chemicals in food. Furthermore, there are differences in how these assessments are conducted internationally for pesticides and veterinary medicines, and these differences may increase as methodologies develop at different rates. In addition, following exit from the

European Union (EU), it was timely for UK regulators to consider the approaches they might wish to take in the future.

3. HSE, VMD and FSA exposure and risk assessors agreed that the work should review the current approaches to chronic dietary exposure assessments undertaken by HSE, VMD and FSA. This should account for the principles and aims of the exposure assessments, the reasons why differences in approach might legitimately be taken, the uncertainties associated with different approaches, and the uncertainties that exist with exposure assessments in general and how they might be reduced (if necessary).

4. The agreed terms of reference were:

- To consider approaches to chronic dietary exposure assessment, agree and set out the general principles to be followed by Government departments, and to set out a tiered system of different approaches, from simple and conservative to increasingly complex and refined, recognising that different departments may have different requirements.
- To explain the appropriate criteria for using these approaches at the different tiers and the uncertainties associated with following the different approaches.
- To capture the underlying uncertainty in food consumption and occurrence data.
- To identify potential research that would reduce uncertainties in exposure assessments.

The draft report

5. A group of exposure and risk assessors from FSA, HSE and VMD held a number of meetings and drafted the report, which is Annex A. The draft report discusses the principles of dietary exposure assessments and describes the current approaches to chronic dietary exposure assessments being taken by the FSA and for pesticides and veterinary medicines. It discusses the current differences in approach and the reasons for them, uncertainties in exposure assessments, considers the possibilities for common approaches to be taken in the future and the approaches to substances with multiple uses (e.g. as both pesticides and veterinary medicines). It also includes some considerations on cumulative and aggregate exposure assessment.

6. The draft report draws a number of conclusions on the approaches to chronic dietary exposure assessments and the principles we are aiming to follow,

and the need for uncertainties in exposure assessments to be transparently communicated. It recommends further collaborations between FSA, HSE and VMD, e.g. on exposure assessments for substances with multiple uses, to consider the establishment of common health-based guidance values (HBGVs) and MRLs, and on methodologies for risk assessment of combined exposures to multiple chemicals (cumulative risk assessment). It recommends continuing international collaborations and giving consideration where appropriate to using the same exposure assessment methodologies as international risk assessment committees.

7. The report also recommends that the exposure assessment methodologies should be periodically reviewed for their fitness for purpose and their uncertainties considered, that having up-to-date comprehensive food consumption data is a priority, and that this food consumption data should be contained within a central database to which staff from each of the departments/agencies have access and training on the use of.

8. Following the review by COT, ECP and PRiF the report will be finalised and published online.

Questions on which the views of the Committee are sought

9. Members are invited to comment on the draft report.

Secretariat

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List of Abbreviations and Technical terms

CRD Chemicals Regulation Division

ECP Expert Committee on Pesticides

FSA Food Standards Agency

HBGV Health Based Guidance Value

HSE Health and Safety Executive

MRL Maximum Residue Level (for pesticides) or Maximum Residue Limit (for veterinary medicines)

PRiF Expert Committee on Pesticide Residues in Food

VMD Veterinary Medicines Directorate