

COMMITTEE ON CARCINOGENICITY OF CHEMICALS IN FOOD, CONSUMER PRODUCTS AND THE ENVIRONMENT

Horizon scanning 2018

Introduction

1. The Committee's Terms of Reference indicate that the primary role of the Committee is to advise on the carcinogenic risk of substances to humans at the request of Government departments and agencies.
2. Since 2001, the Committee has undertaken a regular Horizon Scanning exercise, in line with the Code of Practice for Scientific Advisory Committees, in which the Secretariat and/or Members have suggested areas/topics that may need consideration in the light of new and emerging evidence relating to cancer risk assessment.
3. This paper presents a brief update on work agreed at previous meetings and presents some new suggestions for discussion provided by the Secretariat and Assessors. In addition it includes an update on topics being considered by IARC and the EU Scientific Committees.

Topics from horizon scanning 2017

4. Below are the topics agreed at the horizon scan in 2017, though in no specific order of priority:
 - Immunological and stromal cell modulations relevant to cancer risk
 - Nanomaterials
 - Mechanisms incorporating genomics and the Cancer Genome Atlas
 - E-cigarettes (if referred from COT), and effect of early life exposure to cigarettes
 - *In vitro* systems - to be undertaken when resource allows

Immunological and stromal cell modulations relevant to cancer risk

5. A presentation on this topic will be given at the present meeting and the Committee will then discuss how to take this forward.

Nanomaterials

6. This has not progressed since the last horizon scanning exercise. The Committee has previously indicated an interest in possible asbestos-like effects and

the potential inhalation risks from nanomaterials. Depending on priorities and scope, the Secretariat is anticipating that this topic could be covered in 2019.

Mechanisms incorporating genomics and the Cancer Genome Atlas

7. Depending on priorities, the Secretariat is anticipating that this topic could be covered in 2019, however Members views on the scope of this topic and how best to approach it would be welcome.

E-cigarettes (if referred from COT), and effect of early life exposure to cigarettes

8. The Committee considered the potential effects of e-cigarettes on cancer risk at the July 2018 meeting. This discussion will be summarised to the COT at its December meeting.

9. The COT is going to consider a paper on the developmental effects of nicotine and the Secretariat proposes to consider the outcome of the COT deliberation before investigating the COC considering the effect of early life exposure to cigarettes.

In vitro systems – to be undertaken when resource allows

10. This has not progressed since the last horizon scanning exercise.

New topics

Synthesis of epidemiological and toxicological evidence

11. The Committees on Toxicity and Carcinogenicity (COT and COC) have recently published a joint report on synthesising epidemiological evidence¹. During their meetings the subgroup also discussed the possibility of quantitative synthesis of epidemiological and toxicological evidence. Guidance on this, following evaluation of the literature, would most likely be the work of another joint subgroup who would aim to deliver a report within 2-3 years from initiation.

12. Current approaches usually consider epidemiological evidence separately from toxicological evidence, and then combine information at the end, because a common dose response is often difficult to establish. There are a number of methods available for quantitative synthesis of epidemiological studies, which were reviewed in the SEES report. However, there are very few methods for combining epidemiological and toxicological studies, or for toxicological studies alone. Those that have been published should be reviewed. There is some work underway at the

¹ Report of the Synthesising Epidemiological Evidence Subgroup (SEES) of the Committee on Toxicity and the Committee on Carcinogenicity. Available at:
<https://cot.food.gov.uk/cotreports/cotjointreps/synthesising-epidemiology-evidence-subgroup-sees-report>

International level at providing guidance on how to integrate toxicological and epidemiological evidence and was briefly mentioned in the SEES report^{2,3}. A brief search has shown that not a great deal has been published since the SEES report.

13. There are a number of International bodies that have considered the weight of evidence approach and issued guidance, including EFSA⁴, who have also issued guidance on biological relevance⁵. However, within these documents there seems to be a lack of clear guidance for how to perform weight of evidence evaluation or systematic review¹.

14. It would be useful for the Committees to have clear and sufficient guidance on how to integrate epidemiological and toxicological data, for use by the Secretariats and Members.

Guidance Statement “Interpretation of Evidence of Carcinogenicity in Humans: Epidemiology and Case reports” G02

15. Members agreed at the March 2017 meeting that the SEES report when published would be sufficient to form this guidance statement. Members are invited to comment on whether any cover page is required, or if the current text in the Introduction to the series, given below, is sufficient, following any amendments.

“This Statement will provide guidance on how studies of health effects in human populations (human epidemiological studies) can be used to help to assess the extent to which a chemical or substance causes cancer.”

Upcoming IARC meetings

16. IARC have three upcoming meetings on their website with respect to the Monograph series (<http://monographs.iarc.fr/ENG/Meetings/index.php>) :

- Meeting of Advisory Group to Recommend an Update to the Preamble (12-14 November 2018)
- Meeting of Advisory Group to Recommend Priorities for the IARC Monographs during 2020–2024 (25-27 March 2019)
- Meeting 124 (4-11 June 2019) is on:
 - Shift work that involves circadian disruption

² <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-016-0156-6>

³ <http://www.wcrf.org/int/research-we-fund/continuous-update-project-cup/mechanisms-research>

⁴ Guidance on the use of the weight of evidence approach in scientific assessments. Available at: <https://www.efsa.europa.eu/en/efsajournal/pub/4971>

⁵ Guidance on the assessment of the biological relevance of data in scientific assessments. Available at: <https://www.efsa.europa.eu/en/efsajournal/pub/4970>

Upcoming EU Scientific Committee topics

17. The agenda and minutes of EU Scientific Committee on Consumer Safety (SCCS) Plenary meetings in 2018 are attached in Annex A. In addition the SCCS has working groups on:

- Cosmetic Ingredients
- Nanomaterials in Cosmetic Products, and
- Methodologies.

18. The agenda and minutes of the EU Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) Plenary meetings in 2018 are attached in Annex B. In addition the SCHEER has working groups on:

- Aluminium in toys (last meeting 27/09/2017)
- Emerging environmental risks (latest meeting 23/04/2018)
- Fuel marker (last meeting 09/02/2018)
- Guidelines on the benefit-risk assessment of the presence of phthalates in certain medical devices (latest meeting 17/09/2018)
- Guidance on the structure and contents of SCHEER opinions (last meeting 17/06/2016)
- Potential risks to human health of light emitting diodes (last meeting 02/03/2018)
- Non-human primates testing (last meeting 02/05/2017)
- Onshore hydrocarbon exploration and production in the EU (last meeting 24/09/2018)
- Safety of PIP silicone breast implants (last meeting 10/10/2017)
- Rapid risk assessment (latest meeting 04/07/2018)
- Sunbeds (last meeting 24-25/10/2016)
- Tobacco additives (last meeting 24/06/2016)
- UVC lamps (last meeting 18/01/2017)
- Weight of evidence and uncertainties (last meeting 08/02/2018)
- Water Framework Directive (last meeting 01/06/2017), and
- Water reuse (last meeting 12/05/2017).

19. The European Food Safety Authority has a substantial body of work across its Scientific Committee and Panels. More detail is available here:

<https://www.efsa.europa.eu/en/science/scientific-committee-and-panels>. EFSA

currently has open consultations on a number of substances, and also on methodological questions. The full list of open consultations is here:

<https://www.efsa.europa.eu/en/calls/consultations><https://www.efsa.europa.eu/en/calls/consultations>. Expected upcoming consultations are here:

<https://www.efsa.europa.eu/en/consultations/consultationsplanner>, and include a revised opinion on the TTC.

Balance of expertise on the Committee

20. The Committee last actively considered its balance of expertise in 2012, when the template provided in Annex C was agreed.

21. Members are invited to comment on whether this template is still appropriate and if there are important gaps amongst the current membership or in light of possible future developments.

22. It is not anticipated that individual members are required for each aspect of expertise as some people would have a combination of the required skills. Additional key experts can also be invited to attend meetings for specific topics to supplement missing knowledge within the Committee.

Questions for the Committee

23. Members are asked to consider the list of topics from 2017 and other aspects summarised and in particular:

- a. Are there any additional topics of interest or importance which the COC should consider?
- b. Could the Committee to prioritise the topic areas for consideration?

Secretariat

November 2018

This is a background paper for discussion.
It does not reflect the views of the Committee and should not be cited.

CC/2018/10 Annex A

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Agendas and minutes of Scientific Committee on Consumer Safety Plenary Sessions 2016-2021 6th, 7th and 8th (agenda only) meetings

Available:

https://ec.europa.eu/health/scientific_committees/consumer_safety/minutes_plenary_en

This paper is attached. It is not being made publicly available for copyright reasons

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CC/2018/10 Annex B

**COMMITTEE ON CARCINOGENICITY OF CHEMICALS IN FOOD, CONSUMER
PRODUCTS AND THE ENVIRONMENT**

Horizon scanning 2018

Agenda and minutes of the Scientific Committee on Health, Environmental and Emerging Risks Plenary meetings 2016-2021 8th, 9th and 10th (agenda only) meetings.

Available:

https://ec.europa.eu/health/scientific_committees/scheer/minutes_plenary_en

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CC/2018/10 Annex C

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Template for COC

**Secretariat
November 2018**

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TEMPLATE FOR COC 2012

The template is designed to show the skills and expertise required to deliver the business of the committee. The complement of the COC is 11 members (9 specialists and 2 lay members), a chairman and the COM chairman (ex-officio capacity). The committee aims to follow the guiding principles underpinning the humane use of animals in scientific research i.e. replacement, reduction and refinement ('the 3Rs').

