

139th COMARE MEETING, Wednesday 13th November 2024.
COMMITTEE ON MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT
Hybrid meeting – 12 Bloomsbury Square, London and online

Present

Chair: Professor John Harrison

Members: Professor Amy Berrington de Gonzalez
Professor Russell Foster
Dr Geoff Heyes
Dr Mark Hill
Dr Ray Kemp
Dr Mark Little
Dr Colin Martin
Dr Susan McCready-Shea
Dr Richard McNally
Professor David Read
Professor Lesley Rhodes
Professor Graham Smith
Professor James Smith
Professor Malcolm Sperrin
Professor David Sutton
Dr Samantha Terry
Dr Chris Westcott

Assessors: DESNZ
DHSC
EA
FSA (online)
HSE
ONR
NDA
PHS (online)
SEPA (online)
SG (online)
UKHSA
WG

Secretariat: Dr Simon Mann (UKHSA)
Dr Emma Petty (UKHSA)
Mrs Samantha Watson (UKHSA)

Open Session

1. Welcome & declarations

- 1.1 The Chair welcomed members and assessors to the final meeting of 2024, advising that the meeting is using a hybrid format, and that the agenda is split into open and closed sections for minuting purposes.
- 1.2 The Chair welcomed five new members to the committee (Professor Amy Berrington de Gonzalez, Professor Russell Foster, Dr Samantha Terry, Dr Mark Little and Dr Geoff Heyes).

- 1.3 The Chair also welcomed the new Public Health Scotland (PHS) assessor and a new assessor for Scottish Government (SG) to their first meeting.
- 1.4 The Chair reminded members that they should adhere to CoPSAC¹ in their role as committee members. In particular, with declaring / considering conflicts of interest; keeping COMARE documents confidential as appropriate; and not addressing the media or others with reference to COMARE without direct agreement from the Chair and the knowledge of the secretariat.
- 1.5 Apologies were received from Professor Mireille Toledano and assessors from DESNZ, SEPA, HSE and NHS Scotland.

2. Minutes of the 138th COMARE meeting

i. Minutes, actions & matters arising

- 2.1 The Chair asked for comments or corrections to the minutes from the 138th meeting. No comments were raised. The Chair noted that the minutes of the open session will be posted on the COMARE webpage. The minutes of the closed session will remain confidential.

[Action: Secretariat]

- 2.2 The Chair reviewed the actions from the last meeting, asking Dr McNally for an update on the status of the National Registry of Childhood Tumours (NRCT) database. Dr McNally reported that there had been a tentative agreement with Oxford to take this on. However, resources are not available and funding will be needed. More clarity is needed on what is required to take this forward and the action remains ongoing. Dr Hill updated members on the status of the Oxford Survey of Childhood Cancers (OSCC) database.

- 2.3 The Chair noted that the paper on information on what constitutes a low dose of ionising radiation in different situations has been published in the Journal of Radiological Protection². A statement and a link to the paper will be posted on the COMARE webpage.

[Action: The Chair & Secretariat]

- 2.4 The Chair noted that EA arranged an online 'Meet the regulator' meeting on 16th September, which was attended by Professor G Smith and Professor Sutton on behalf of the CWG and AWG, respectively. Members were informed that it had been an interesting meeting, covering a range of topics. The meeting included information about planning regulations and some issues not directly relevant to COMARE. There was interest in work on explaining low dose, low dose rate, and low dose effects. The responsibility of advising on these risks falls to UKHSA rather than EA. The EA assessor added that the aim of the meeting was to cover generic issues for stakeholders and EA would be reviewing feedback from the meeting.

3. Committee matters

i. Correspondence

- 3.1 The Chair brought members' attention to the briefing note on correspondence. One FOI request has been received since the last meeting. There has been no mention of COMARE in Parliamentary Questions since the last meeting.
- 3.2 Two email enquiries were handled by the secretariat. One requested a missing page from the online copy of the 4th COMARE report. The second regarded investigation of the targeting of individuals using electromagnetic weapons.

¹ [Code of Practice for Scientific Advisory Committees and Councils: CoPSAC 2021 - GOV.UK](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/364842/Code_of_Practice_for_Scientific_Advisory_Committees_and_Councils_CoPSAC_2021.pdf)

² <https://iopscience.iop.org/article/10.1088/1361-6498/ad83dd>

3.3 COMARE also received an email from the Ministry of Justice Science Office regarding independent scientific advice on radon exposure legislation and how it applies to prisons. The request was forwarded to colleagues in UKHSA and HSE.

ii **Membership**

3.4 Dr Mann formally introduced the five new members and welcomed them to the committee.

3.5 The Chair informed members that the DoH NI assessor retired at the end of 2023. There is support from the Permanent Secretary (DoH NI) for continued representation on COMARE and a nominee will be offered when the Chief Environmental Health Officer is in post.

iii **Scoping exercise on the effects of light on human health**

3.6 The Chair noted that DHSC have agreed to a scoping exercise of the available evidence on the health issues associated with light pollution.

3.7 Professor Foster noted that the role of light in the circadian rhythm is not currently clear, with some information commonly shared that may not be true. Many factors influence circadian rhythm, including the intensity and duration of light exposure during the day, and a person's age and sex. It is important to determine what is known and to prioritise research in order to generate an evidence base on which guidelines can be based.

3.8 Members questioned what part of the electromagnetic spectrum would be considered in the scoping exercise. Professor Foster indicated that the effect of the visible spectrum on sleep and circadian rhythms would be considered, but that the remit could be expanded if required. A suggestion was made that infrared radiation might also be included.

3.9 A subcommittee, headed by Professor Foster, will be established. The Chair asked for volunteers from the committee and noted that external expertise may also be recruited. It is hoped that work can commence on the scoping exercise ahead of the next meeting in March. Professor Foster will give a presentation to provide further details at the next meeting.

[Action: Professor Foster + members]

4. Updates to the Committee:

i. **Thyroid cancer incidence study**

4.1 The Chair advised members that the thyroid cancer incidence study was published in August 2024 in Radiation and Environmental Biophysics, and a statement was posted on the COMARE webpage welcoming the publication. The results of the study will be presented to the Environmental Health Working Group at the West Cumbria Sites Stakeholder Group meeting on 28th November 2024 by Professor Richard Wakeford, an author of the study.

4.2 Dr McNally summarised the background to the study and the differences between this and previous studies. No evidence was found for an increased risk of thyroid cancer in the population studied. Members welcomed the reassurance provided by the study.

ii. **Environmental UV radiation and health**

4.3 The Chair asked Professor Rhodes to give her update on environmental effects of UV radiation, which had been postponed from the last meeting. Professor Rhodes noted that she was a member of the United Nations Environmental Effects Assessment Panel and can report on the publications. The panel was initiated to assess the impact of the Montreal Protocol of 1987. A health work group within the panel assesses the impacts on health, including for the skin and the eyes and the potential systemic effects of ambient UVR. The Montreal Protocol has reduced the projected increase in melanoma incidence, but the burden of disease is still increasing.

- 4.4 Professor Rhodes updated members on the health effects of UV, including skin cancer (melanoma and keratinocyte cancer), which continues to increase despite reductions in the projected incidence rates caused by the Montreal protocol; sunburn and other skin inflammatory disorders attributable to sunlight; eye disease (cataract formation and possibly certain types of ocular melanoma); and systemic health effects that include both benefits and risks. Human behaviour is a key regulator in exposure to solar UV, with the time spent outdoors being a major factor. In temperate areas such as the UK, increases in temperature due to climate change are predicted to increase the time people spend outdoors with a higher instance of UV-induced skin and eye disorders. Links between UV and COVID, and UV and breakdown of nano-plastics were also discussed. Professor Rhodes noted there was concern about the lack of a coherent strategy in the UK for excess solar UV exposure.
- 4.5 The Chair asked members for comments on the update, with subsequent discussion including the link between UV exposure and myopia, whether an association exists between UV exposure, vitamin D levels and cancer incidence, and the approaches taken in Australia to reduce harmful exposures.
- 4.6 The Chair asked the Scottish Government assessor to update the committee regarding their briefing note on sunbeds and to specify if there is a request for advice from COMARE. The Scottish Government assessor reported on a review of the effectiveness of the 2009 sunbed regulations in Scotland. The increase in malignant melanoma cases over the past 16 years was noted, as well as technological changes in the manufacture of sunbeds and their level of compliance with EU recommended exposure limits. Members were informed that the marketing of sunbeds can be aggressive, with advertising targeted at younger people via social media and with the use of discounts and packages of sunbed sessions. There is promotion of sunbeds as a way of increasing vitamin D levels and serotonin levels, but little information is available on the risks of sunbed use, despite requirements in legislation to provide information.
- 4.7 Members were asked for comments. It was noted that the 13th COMARE report made many recommendations, but that the level of implementation has varied. Although sunbed use in the under 18s has reduced following the ban, there is still evidence of use at younger ages in some areas. Changes in the types of sunbeds were discussed. It was questioned whether sunbed use could be considered as a cosmetic procedure. A complete ban of commercial sunbeds was also discussed.
- 4.8 It was suggested that COMARE could form a subgroup to undertake a scoping exercise, which would consider options for further review of the science, the extent of implementation of recommendations from the 13th Report and whether further guidance might be provided. This suggestion was welcomed by the DHSC assessor. Professor Rhodes agreed to take this forward.

[Action: Professor Rhodes]

iii. Contaminations Working Group

- 4.9 The Chair informed members that the CWG met yesterday and he asked the Chair of CWG, Professor Read, to present a summary of the meeting.
- 4.10 Professor Read reported that up to 18th October, 94 hectares out of an annual target of 105 hectares had been monitored at Sellafield, with 28 particles and 8 larger objects recovered. The CWG members were informed of the analysis on a large object recovered from Sellafield beach. Updates were provided on the defects at a secondary ion exchange plant and a presentation was given on the Magnox Swarf Storage Silo (MSSS), including the management of the leak.
- 4.11 Professor Read reported that there were three finds on the foreshore at Dounreay and one on Sandside beach since the last CWG meeting. SEPA is reviewing a planning application

which includes cabling through the offshore Food and Environment Protection Act (FEPA) ban zone.

- 4.12 It was reported that remediation work at Dalgety Bay is now complete and verification monitoring of the site continues. SEPA are preparing a closure report.
- 4.13 The Chair thanked SEPA for their presentation to the CWG on Existing vs Planned Exposures in Scotland.
- 4.14 Members discussed the approach taken for the MSSS, noting that the regulators are working together on this issue.

iv. Authorisations Working Group

- 4.15 Professor Sutton, the Chair of the AWG, updated the committee on consultations considered by the group since the last meeting. One consultation from SEPA was reviewed regarding the building of a new facility at the Rosyth Royal dockyard with a subsequent variation to the existing permit. The AWG had no objections to the permit variation.

v. EMF and Health Subgroup

- 4.16 The Chair informed members that the EMF and Health Subgroup (EAHS) held its seventh meeting on 15th October 2024. The new Chair of EAHS, Dr Kemp, provided an update on the work of the subgroup.
- 4.17 Members were informed that the EAHS considered a large number of papers at their meeting, which were categorised into focus areas. One observation from the EAHS was that the approach used by the WHO for systematic reviews is being followed for other papers. The EAHS also noted exchanges of views on papers through letters to journals by critics and authors. Several information papers were highlighted by the EAHS for the attention of the committee.

vi. ICRP Recommendations Subgroup

- 4.18 The Chair advised members that the seventh meeting of the ICRP Recommendations Subgroup (IRS) was held on 16th October 2024. The IRS Chair, Dr McCready-Shea provided an update for the committee.
- 4.19 Members were informed of the background to the IRS and the work carried out by the subgroup. A response was submitted to the ICRP consultation on radiation protection in areas contaminated by past activities³. Four further consultations are expected from the ICRP next year. The IRS selected two of the information papers for this meeting.
- 4.20 It was noted that the NEA have set up a task group on radiological protection in armed conflicts NEA TGRPAC. This follows recommendations from an international workshop organised by the DSA and NEA, hosted in Oslo in November 2023. A report of that workshop has been drafted and fully reviewed by participants by August 2024, but publication has been delayed despite promises to the opposite by NEA. Progress with the TGRPAC will be provided to the IRS at the next meeting.

[Action: IRS]

vii. UKHSA update – EMF and health

- 4.21 The Chair asked the UKHSA assessor to present an update from UKHSA on EMF and health issues. The UKHSA assessor reported on the key points from the briefing note, including the progress with WHO work on radiofrequency EMF. The main systematic review of cancer was published in September and concluded that there is moderate certainty of

³ [Comments on ICRP Radiological Protection in Areas Contaminated by Past Activities](#)

evidence that RF exposure does not increase the risk of brain tumours or childhood leukaemia.

- 4.22 Members were updated on recent documents from the European Commission's Scientific Committee on Health, Environmental and Emerging Risks (SCHEER) and on four EU Horizon Europe 5G projects (GOLIAT; SEAWAVE; NextGEM; and ETAIN). UK research activities on EMF and health were also mentioned, including the Airwave Health Monitoring Study Tissue Bank, the COSMOS Cohort Study of Mobile Phone Use and Health, and the SCAMP Study of Cognition, Adolescents and Mobile Phones. Areas of public and occupational concern were also considered, particularly EMF sources near to homes, use of wi-fi equipment, concerns about 5G technologies, concerns about high voltage power lines, and occupational exposure.
- 4.23 The EAHS Chair, Dr Kemp, advised that the briefing note on EMF and health had been considered by EAHS and that the update made references back to SAGE, the UK Stakeholder Advisory Group on Extremely Low Frequency Electromagnetic fields, and its assessment in 2007. It was questioned whether this work could be updated. It was noted that although the exposure situation may not have changed much since 2007, the report can get overlooked. The EAHS would investigate options to highlight available evidence on health effects of EMF exposures.

[Action: EAHS]

viii. UKHSA update – Radon

- 4.24 The Chair agreed that, due to time constraints, the UKHSA assessor's update on radon would be deferred to the next meeting. Members had been provided with the briefing note to review.

5. Information papers.

- 5.1 The Chair referred members to the selection of information papers for this meeting, some of which had been highlighted under previous items in the meeting. Members noted that a summary presented in one paper, which gave a short accessible summary of what had been done and its implications, was very useful. Members noted that there is an increasing trend for journals to require such summaries.

6. AOB

- 6.1 The EA assessor informed the committee that the EA had launched a consultation on guidance on requirements for authorization of radioactive waste disposal facilities. Associated with that is guidance on the staged regulation of a geological disposal facility. The consultation will run until the end of February. A link will be provided to the secretariat to share with the committee.

[Action: EA]

Closed session

7. Studies in progress

i. SAHSU update

- 7.1 The minutes for this item was considered as reserved business as it concerns pre-publication material.

8. COMARE Subcommittee reports

i. Cardio-/cerebrovascular effects

8.1 The minutes for this item was considered as reserved business as it concerns pre-publication material.

Close of meeting

The Chair thanked members for their attendance and contributions to the meeting. The next COMARE meeting will be held online on 6th March 2025. The start time of the meeting may be moved to the afternoon to allow for attendance of overseas members.