

COMMITTEE ON THE MEDICAL ASPECTS OF RADIATION IN THE ENVIRONMENT

119th meeting, Tuesday 13th March 2018
Skipton House, London

Present

Chairman: Dr Chris Gibson

Members: Dr Paul Darragh
Professor John Harrison
Professor Brenda Howard
Dr Ray Kemp
Professor Stephanie McKeown
Dr Colin Martin
Dr Tom Nunan
Professor Paul Pharoah
Professor Kevin Prise
Dr Peter Riley
Dr David Sutton
Dr Mireille Toledano
Ms Helen Warner

Assessors: BEIS
DoH NI
EA
FSA
HSE
NDA
NHS Scotland - ISD
PHE
SEPA
SG

Secretariat: Dr Simon Mann (PHE)
Dr Emma Petty (PHE)
Ms Kim Stonell (PHE)

COMARE 119

OPENING ANNOUNCEMENTS

The Chairman opened the 119th meeting and welcomed members. He advised members of the private nature of the meeting and that papers should remain confidential. Members were asked to declare any interests during the meeting.

The Chairman advised members that DH is now the Department of Health and Social Care (DHSC). A DHSC assessor was not present at the meeting but would be invited to comment on any relevant changes at the next meeting.

The Chairman welcomed one of the new BEIS assessors to the meeting. The Chairman thanked the previous assessor for his input to the committee's work. The Chairman also welcomed the substitute assessors for SEPA and HSE.

Apologies

Apologies were received from Dr Jane Barratt, Dr Frank de Vocht, Professor Roger Taylor and Professor Peter Warwick. Apologies had also been received from the assessors for SG, SEPA, HSE, ONS, EA, WG, MHCLG, DoF and FSS. The Chairman encouraged departments to provide substitute assessors if possible.

ITEM 1 Minutes of the 118th COMARE meeting

1.1 The minutes of the last meeting were accepted with the two minor amendments.

[ACTION: Secretariat]

ITEM 2 Matters arising

i. COMARE membership

2.1 The Chairman advised members that the current committee vacancies for two nuclear physicists/epidemiologists and one environmental geoscientist with an interest in radiochemistry were being advertised. The closing date for applications was 4th April 2018. Details would be circulated by the secretariat. Members were asked to provide recommendations for these posts.

[ACTION: Secretariat]

[ACTION: Members]

ii. COMARE matters

a. Thyroid Research Proposal

2.2 The Chairman reminded members that following a recommendation from the 17th report, a project proposal was sent to DHSC for funding consideration and a business case was subsequently approved. The secretariat has been advised that the application is currently being peer-reviewed. The Chairman noted that this study would not be published as a COMARE report.

2.3 The Chairman reminded members that, as part of discussions around the project there were concerns about maintaining the CCRG database. It is understood that the data that was held in this database has been incorporated within the national database of cancer incidence. The PHE assessor agreed to provide an update at the next committee meeting.

[ACTION: PHE]

b. Infrasound

- 2.4 The Chairman drew members' attention to the correspondence which was received following the NGO forum in September 2017. The letters relate to the health effects associated with the workings of offshore test wind turbines built onshore at Hunterston. Members were also provided with a briefing note from PHE, which summarises some of the research and publications since the AGNIR report in 2010. The concerns in the letters relate to large wind turbines, around 7 MW size. However, most of the literature relates to small capacity wind turbines, around 3.6 MW.
- 2.5 Members discussed the possible avenues for addressing these concerns. It was noted that most of the limited evidence is relating to less powerful wind turbines than the larger offshore turbines, which are the subject of the concerns. Members discussed the energy levels and power profiles from the turbines and the symptoms described by those affected. It was questioned whether this was a unique case, or if manufacturers were likely to site similar turbines on land elsewhere. Members also discussed people suffering with electrohypersensitivity symptoms and the difficulty with establishing causal relations in situations such as this.
- 2.6 The Chairman thanked members for their comments. This issue has been discussed with DHSC and it is not within COMARE's remit to address. The response to the correspondent will reflect this, while conveying the Committee's appreciation and sympathies.

[ACTION: The Chairman]

c. EMF concerns

- 2.7 The Chairman drew members' attention to the letter from the UK & Commonwealth EMF Action Group relating to their concerns on EMF and NIR. The letter is for information and consideration by the committee. COMARE has not previously carried out EMF reviews and members were provided with a summary of advice by PHE on its position and on evidence reviews. The WHO is currently undertaking a review in a much more systematic way than the previous narrative reviews. The letter from the Action Group includes recent studies, but little analysis. Some new studies were highlighted in the statement of concern, but their impact may be small. It was noted that double blind studies have been done on electrohypersensitivity and a link has not been found.
- 2.8 Members discussed the recipients of the letter from the Action Group and the balance of evidence provided. The issue of addressing public concerns, engaging with the public and updating them on the work of the committee was also discussed, with reference to similar issues faced by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA). Members were advised that the WHO monograph on radiofrequency electromagnetic fields is the third in a series and the process has changed since the first two were released. The current monograph will include a systemic review, which incorporates the handling of risk of bias. Members welcomed the explanation and noted that the change in process needed to be understood. It was also noted that the WHO has a very exacting conflict of interest process and has moved forward in terms of accountability and transparency. ICNIRP also consults on its guidance. The Chairman acknowledged that the WHO process was slow, but thorough, and may therefore avoid issues of accusation of bias.
- 2.9 The Chairman advised members that, as part of its remit, the concept of a more proactive approach for non-ionising radiation has been prioritised. He reminded members that when AGNIR was disbanded, COMARE was to be a potential vehicle for future requests for advice. A possible option would be to consider establishing a formal working group, who would report to the main committee once a year. Members agreed that it was important to maintain ongoing surveillance and provide reassurance that due diligence is taking place. The Chairman agreed to discuss the option of a working group with DHSC and would draft a response to the letter from the UK & Commonwealth EMF Action Group.

[ACTION: The Chairman]

d. SASHU update

- 2.10 The Chairman reminded members that SASHU was strongly supportive of being able to undertake surveillance work around Sellafield. The committee previously recommended that the proposed work be extended to include the sites listed in the 10th COMARE report. Dr Toledano added that SAHSU had been approached about this work and a protocol had been drafted, which the committee was asked to consider.

Summary

- 2.11 The proposed study looks at incidences around different nuclear installation groups within a 25km radius, and includes statistical tests to determine whether there are any cancer clusters. Members were asked to confirm that the proposed nuclear installations, cancer groups and age groups were acceptable. The study will commence once the protocol has been approved by the committee. There is scope to look in more detail beyond the current proposal, but this would require additional funding. It was noted that there was a double reciprocal in the objectives that needs clarification.

[Action: SAHSU]

Methods – Population and study area (Nuclear installations)

- 2.12 Dr Toledano noted that ideally each site would be considered individually, but this is not feasible. Members discussed the suggested groupings and possible adjustments for active vs decommissioning or decommissioned nuclear power stations. The Chairman acknowledged the importance of analysing decommissioned / decommissioning sites separately, but noted that it was a complex issue. Dr Toledano proposed a sensitivity analysis might be feasible looking separately at those sites, but the initial analysis would include all sites.
- 2.13 The heterogeneity of the nuclear installations list was noted. Members queried whether dividing the groups further would impact on the analysis. It was agreed that the review of environmental records for the sites concerned to determine any breaches in discharges was beyond the original remit for SAHSU. Members noted that the RIFE reports would provide discharge data over time, which could be helpful if further analysis was planned. The Chairman agreed that the nuclear power stations should be treated as a group, but in addition, a sensitivity analysis to be done on decommissioned / decommissioning sites.

[Action: SAHSU]

- 2.14 Dr Toledano confirmed the data would cover the time period 1994-2016.

Methods – Population and study area (Cases)

- 2.15 The cancer groups and age groups were discussed, together with possible additional groupings. The Chairman suggested that the approach should be as comprehensive as is possible within the limits of the data. Separation out of specific cancers would depend on the data counts.

Timelines

- 2.16 SASHU has available data for England and Wales, but not for Scotland. It is expected that the study will take approximately six months to complete and it is hoped that the final results would be available at the end of the year. SASHU is expecting to produce a report for COMARE as well as a peer reviewed publication. The Chairman requested that the summary is amended to reflect that this is an analysis for COMARE to consider, rather than a report by COMARE.

[Action: SAHSU]

e. Cancer incidence analysis request

- 2.17 The Chairman reminded members that SEPA had formally requested that COMARE consider updating its analysis of cancer incidence in the area around Dalgety Bay in line with Recommendation 5 of the 15th report. The ISD assessor acknowledged the committee's request and informed members that work has been commissioned based on previous analyses. The new analysis will cover 2007 to 2016. An update will be

given at the July committee meeting. The Chairman was pleased that ISD is able to undertake this work and with the timescale for completion.

[ACTION: ISD]

- 2.18 The Chairman reminded members that this action was triggered by recent correspondence. Members discussed the inclusion of cancer cases in the analysis and noted that additional research would be needed to consider cases who had previously lived in the area, but were registered elsewhere. This is beyond the capabilities of the current analysis and would require commissioning as a separate piece of work. The Chairman would reply to the correspondent advising that further work is now being undertaken to pursue cancer incidence around Dalgety Bay.

[ACTION: The Chairman]

- 2.19 The SEPA assessor thanked the committee on behalf of SEPA for responding to the request to update the study.

iii. COMARE work programme

- 2.20 The Chairman drew members' attention to the proposed work programme for 2018-2019, which has been discussed and agreed with DHSC. The committee will maintain a watching brief on EMF, but will discuss with DHSC on developing this area further. The committee will also potentially consider the association of cardiovascular disease with low level radiation exposure.

- 2.21 Members noted that data on genetic variation and radiation sensitivity is lacking. The Chairman acknowledged that there is a potential area of interest, but nothing currently to point to a particular area of concern. Members suggested that the work on cardiovascular disease be widened to circulatory disease in general. Members also noted that there are some publications from the US describing increased risk with intravenous contrast. The Chairman would take comments back to DHSC and would arrange to circulate relevant publications regarding intravenous contrast.

[ACTION: The Chairman & DHSC]

[Action: Secretariat]

- 2.22 Members suggested that consideration should be given as to whether or not risks from internal emitters are being underestimated. Professor Harrison noted that this was not a topic being covered by ICRP. The Chairman would review the recommendations from the 9th COMARE report and determine whether there is scope for follow up.

[ACTION: The Chairman]

- 2.23 Members debated how the work of the committee could be made more accessible to third parties. The possibility of a public element to committee meetings, or holding meetings near sites of interest was discussed. The Chairman noted that some other advisory committees allow the members of the public to apply to attend meetings, although such attendees are not able to contribute to the meeting. The Chairman will investigate this further and discuss possible options with DHSC. Dr Kemp agreed to assist in this work.

[ACTION: The Chairman & Dr Kemp]

- 2.24 The BEIS assessor agreed to confirm BEIS' expectations in relation to future interactions.

[ACTION: BEIS]

ITEM 3 Working group reports

i. Contaminations Working Group

- 3.1 The Chairman advised members that the CWG met yesterday and drew members' attention to the update on particle finds considered by the group.

Sellafield

- 3.2 The EA assessor advised members that Sellafield Limited (SL) completed its monitoring programme for 2017 in line with the target of 150 hectares. The total number of finds was 226, which is comparable with previous years. Members were reminded of the unusual large object at Allonby Beach discussed at the last committee meeting. One particle found on Sellafield Beach in October 2017 triggered the characterisation protocol for further analysis. Detailed analysis is due to complete in March 2018. SL has commenced the 2018 programme and is currently on track.
- 3.3 Work is continuing to establish an optimised routine monitoring programme in 2020. PHE has been contracted to review and update the public risk assessment for the use of the beach and consumption of shellfish. A detailed discussion took place at yesterday's meeting on the assumptions likely to be made by PHE in the risk assessment. A draft report is anticipated at the next CWG meeting in November.
- 3.4 EA is undertaking an ecological risk assessment to ensure there is no likely impact on the local habitat sites. The conceptual site model has also been reviewed and updated. The CWG also discussed the particle that CORE found in the Ravenglass Estuary. The EA assessor confirmed that the SL website is archived in the national archives.

Dounreay

- 3.5 The SEPA assessor advised members that during 2017 15 particles were found either on the Dounreay foreshore or at Sandside beach. No particles were found on the two sentinel beaches to the east and west. Current monitoring is continuing in the same areas and on the same frequency throughout 2018 and six particles have been found to date. The site has concluded its non-destructive analysis on the particle of the unusual americium-rich particle recovered in December 2016, and is now proceeding to the destructive phase.
- 3.6 The Dounreay site has initiated a BPEO study looking at the monitoring. The report will go to the Particles Retrieval Advisory Group (PRAG(D)) initially, and to COMARE in due course. The Chairman noted the current media interest in americium.

Dalgety Bay

- 3.7 The SEPA assessor reminded members that the MoD undertook a site investigation to provide information to inform remediation options, which was observed by SEPA. A similar population of particles was still being recovered from excavations from across site, confirming the need for continued monitoring and protection measures. SEPA believes remediation will commence in Spring 2019. As the plans are being developed, public protection measures are still in place, the contractor is undertaking monitoring and SEPA is undertaking check monitoring. Existing signs for beach access remain in place. The Chairman agreed to pursue MoD assessor representation at meetings to provide updates.

[ACTION: The Chairman]

- 3.8 The Chairman advised members that the CWG discussed the consideration of contaminated land in the Basic Safety Standards Directive (BSSD). The BEIS assessor informed members that the RCL statutory guidance is in the process of being updated in light of the BSSD. PHE guidance on how to designate land as radioactive contaminated land (RCL) is being produced and a version has been sent to local authorities for comment. The BEIS assessor would check whether COMARE can have access to this.

[ACTION: BEIS]

ii. **Authorisation working Group**

- 3.9 The Chairman noted that the AWG has not considered any further consultations since the last meeting. Documentation on the final decision regarding the permit variation requested by SL for the Calder Landfill

Segregated Areas (CLESA) site landfill had been provided to members. The Chairman advised members that a new Chair of the working group would be appointed in due course.

ITEM 4 COMARE publications in progress:

i. COMARE – Interventional Radiology issues

- 4.1 The Chairman drew members' attention to the project brief. The Chairman noted that information has been sought from a range of stakeholders with little success and consideration is now being given to producing a revised version of the report. The Chairman did note that access may be available to useful data in the Diagnostic Imaging Dataset. Members discussed the brief and offered comments.
- 4.2 The Chairman suggested a meeting of the subcommittee was required to refocus the work. A timescale for the next meeting has not yet been agreed. The secretariat would follow this up with the Chair of the subcommittee.

[ACTION: Secretariat]

ii. COMARE – DXA scanning issues

- 4.3 The Chairman advised members that the report has been updated following comments at the last meeting and is hopefully close to being a final draft. Dr Martin took members through the updates. He noted that the remit for the report was primarily to look at DXA scans for sports performance assessments and not to specifically consider other similar procedures. The remit included not only elite athletes, but the general use of DXA scans and body composition assessment in relation to sporting performance. The report has been updated to reference the new IR(ME)R.
- 4.4 Members offered comments on the report. The issue of consent was discussed, together with the benefits and risks, and the justification of the procedure. It was agreed that caution should be exercised in the distinction of risk at different ages. Members also felt that the societal benefit was difficult to capture. The committee needed to decide whether there is a net benefit which allows this to be a justifiable procedure.
- 4.5 The Chairman thanked members for their comments and suggested that the committee move forwards with the current draft, with further discussion about appropriate protection of children in this setting. Dr Martin and the secretariat would consider comments from members and circulate a further draft electronically for approval by the committee.

[ACTION: Dr Martin & Secretariat]

ITEM 5 Any other business

- 5.1 No items were raised.
- 5.2 The Chairman reminded members that the next meeting will be held on Tuesday 3rd July 2018 at Skipton House. He thanked members for attending and closed the meeting at 2.40pm.