The Academy of Medical Sciences

From the President
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Via email: rwe@mhra.gov.uk

To whom it may concern,

I am writing to you as the President of the Academy of Medical Sciences with regard to the open consultation on the MHRA *Draft guidance on randomised controlled trials generating real-world evidence to support regulatory decisions*.[1]

The Academy of Medical Sciences promotes advances in biomedical science, and works to ensure that these are translated into healthcare benefits for society. Our elected Fellowship includes the UK's foremost medical science experts drawn from academia, industry, and the health and care system. We have produced a number of reports relevant to this consultation, one of which is cited in your consultation document.[2,3,4]

The Academy of Medical Sciences supports the MHRA in producing this timely guidance and its innovative stance on regulatory decision-making. The COVID-19 pandemic has demonstrated the value of utilising real world evidence generation in responding rapidly and efficiently while producing clinically-relevant results, for example through world leading trials such as PRINCIPLE.[5]

We were pleased to contribute to the MHRA's thinking in this area through our partnership on our 2018 workshop, *Next steps for using real world evidence*, which is referenced in the consultation.[6] This workshop and the resulting report highlighted a number of challenges for real world evidence that we are glad to see that this new guidance is attempting to address. Firstly, a lack of clarity around definitions for real world data and evidence was cited as a major hurdle to their use and application. This guidance therefore will come as a welcome clarification of the definitions of real world data and evidence in the context of randomised controlled trials, around which researchers can operate with confidence. We also welcome the intention to produce further such guidance for other applications of real world evidence in the future, which will provide further clarity to the research community, and also the clear messaging that the MHRA is willing to support the use of real world evidence by directly engaging with trial sponsors and researchers. Finally, we agree that

[1] https://www.gov.uk/government/consultations/mhra-draft-guidance-on-randomised-controlled-trials-generating-real-world-evidence-to-support-regulatory-decisions
[2] Academy of Medical Sciences (2018). *Next steps for using real world evidence.* https://acmedsci.ac.uk/file-download/7021031
[3] Academy of Medical Sciences (2015). *Real world evidence.* https://acmedsci.ac.uk/file-download/38667-573d8796ceb99.pdf
[4] Academy of Medical Sciences (2017). *Enhancing the use of scientific evidence to judge the benefits and harms of medicines.* https://acmedsci.ac.uk/file-download/44970096
[5] https://www.principletrial.org/
[6] Academy of Medical Sciences (2018). *Next steps for using real world evidence.* https://acmedsci.ac.uk/file-download/7021031

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the use and acceptability of real world evidence is context dependent, and welcome the MHRA's approach to producing separate guidance for different use cases for real world evidence.

A number of other key messages emerged from the workshop and are outlined in the resulting report.[7] Firstly, we would encourage the MHRA to continue to support the sharing of best practice exemplars of using real world evidence as these emerge, as there continues to be few exemplars to inform further use of this type of evidence in clinical trials. As outlined at the meeting, a repository of evaluated case studies, including the practical considerations, limitations and where further research is necessary, would be a highly valuable resource for the research community.

Secondly, we would encourage the MHRA to continue to consider the future applications of real world evidence. Although the draft guidance is specifically focused on the use of real world evidence for randomised controlled trials, in the future there may be further opportunities to utilise real world evidence approaches to inform regulatory decision-making where the robustness of real world data and rigour of the evidence derived from such data can be proven. The MHRA is well placed to help identify and seize these opportunities.

Finally, there are a number of issues around the use of real world data that we would encourage the MHRA to be mindful of as it develops new guidance for real world evidence. These include the need for building capacity in data collection, management and handling to ensure data is accurate and robust at the source; ongoing challenges for data interoperability and standardisation to enable effective linkage of datasets; and the need for robust methodologies to allow real world data to be transformed into real world evidence to inform regulatory decision-making with confidence.

We would be happy to expand on these points or provide further evidence as requested. We look forward to remaining engaged with the MHRA's work in this area.

Yours sincerely,

Dame Anne Johnson DBE PMedSci

[7] Academy of Medical Sciences (2018). *Next steps for using real world evidence.* https://acmedsci.ac.uk/file-download/7021031

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