Announcing the first AoP webinar: ‘Can evidence-based medicine survive in a pandemic?’

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The COVID-19 pandemic emerged in January 2020 and consumed almost a million lives within 9 months. There has been an unprecedented response from the medical research community, but the dissemination of data has often occurred via media announcements and preprints without the usual checks and balances of the peer-review process. The volume of publications on COVID-19 is unprecedented for any disease—as of September 2020 PubMed recorded more than 53 000 publications on this subject. Both researchers and practicing clinicians have been challenged by the vast amount of information and almost daily change in evidence and presumed evidence and subsequently, changes to clinical practice. Has this served us well under the circumstances? Or should we do things differently in the future?

The Association of Physicians of Great Britain and Ireland (AoP) was founded by William Osler in 1907 to advance Medicine ‘in a manner that promotes friendship amongst Physicians’. Over the years, it has evolved into a premier learned society promoting translational clinical research. It has recently further strengthened its base by opening membership to the wider medical community and by reaching out to early career researchers in the UK, Ireland and beyond [1].

Against the background of the COVID-19 pandemic, the AoP hosted a webinar to discuss some of the most burning questions around the dissemination of breakthrough research discoveries in COVID-19 and their translation into clinical practice. Given some ‘webinar fatigue’, related to travel restrictions and a multitude of online events, for this series, we adopted a different approach compared to other webinars. Instead of lengthy presentations that may not attract the audience to actively engage, we developed a program of short statements of world-leading experts followed by ample time for panel discussion and audience participation.

The webinar ‘Can evidence-based medicine survive in a pandemic?’ took place on 2nd August 2020 and was the beginning of a series of events on emerging topics in translational medicine that the AoP will organize in 2020 and 2021. This webinar was chaired by Profs. Alan Irvine and Christian Delles and is available to view on the AoP’s website [https://aopgbi.org/] and the AoP’s YouTube channel [https://www.youtube.com/chan nel/UCfPPd3cjyfXqiocvF34aw_A].

The first statement was presented by Dr Ida Milne, Pandemic Social Historian, Carlow College, Ireland. Dr Milne compared the response to COVID-19 with the response to the 1918–19 influenza epidemic that killed more than 50 million people worldwide [2]. She drew parallels between the two pandemics including the absence of a vaccine, the devastating consequences for families and societies and the emotional response of physicians who felt compelled to respond to human suffering buy doing what could be done in the absence of good evidence-based interventions.

Dr Milne's presentation set the scene for a statement by Dr Haider Warraich, Department of Medicine, VA Boston Healthcare System, Boston, Massachusetts. Dr Warraich investigated the immediate response of the medical community to evidence and guidance by studying prescription patterns in the USA [3]. Looking specifically into chloroquine and hydroxychloroquine prescriptions he found parallels to historical patterns seen in 1918, driven by presidential press conferences rather than by sound scientific evidence. The significant increase in the prescription of these drugs, more than 500 000 excess prescriptions for chloroquine and hydroxychloroquine were filled in the USA in March and April 2020, without evidence, caused a national shortage for patients with conditions who require treatment with chloroquine or hydroxychloroquine. This shortage eventually led to reductions in prescriptions for these drugs for COVID-19.

In view of the rapidly evolving and often confusing evidence, several initiatives have been developed to help medical practitioners and decision-makers to find and correctly interpret the literature. Professor Awen Gallimore, Cardiff University School of Medicine, and Mr Felix Richter, Kennedy Institute of Rheumatology, University of Oxford, reported experience from a joint collaborative initiative in Oxford (together with Prof. Katja Simon) and Cardiff to screen the literature and provide short summaries of papers both published in peer-reviewed journals and on preprint servers. This program is based on a student and postdoc initiative and continues to be led by early career researchers [4].

The next speaker was Prof. Peter Horby, Nuffield Department of Medicine, University of Oxford. Prof. Horby is the lead author of the RECOVERY trial [5]; he reported on his experience with clinical trials during a pandemic. Whilst Prof. Horby acknowledged that generating evidence during a rapidly evolving clinical and societal situation is extremely difficult, he focused on the positive aspects of recent developments. In paricular, Prof. Horby referred to the 11 randomized controlled clinical trials on COVID-19 that were all designed, conducted, analyzed and published within the last few months—an unprecedented effort compared to previous infections disease threats where trials often have not been completed.

Presentations concluded with a statement by Mr Jonathan Schultz, Director, Journal Operations, American Heart Association. Mr Schultz explained that the concept of preprints that is still relatively new to the medical community but has already been widely adopted in other areas of scientific research. During the COVID-19 pandemic, the advantages of rapid information sharing became evident although such material, which is not peer reviewed, has not always been interpreted correctly particularly by media, the public and decision makers. Mr Schultz reminded the audience that peer review per se does, however, not always guarantee a higher quality of evidence as recent prominent examples related to COVID-19 have demonstrated. The American Heart Association has already in 2018 developed guidance on depositing articles on preprint servers prior to submission to any of their journals [6].

In the following panel discussion, speakers agreed that the COVID-19 pandemic has not only highlighted weaknesses in the generation and sharing of information but also opened opportunities for new approaches with regard to trial design, collaborative research and development of clinical guidance. The panel further agreed those countries who see the pandemic as a national emergency and who made research into the condition a national priority, generated more and higher quality research outputs than countries with disjointed research agendas. It has been acknowledged that most of the published randomized controlled trial evidence on COVID-19 to date has been led by researchers from the UK.

References

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