

Lessons learnt transitioning to a digital conference during the COVID-19 pandemic

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The King's John Price Paediatric Respiratory Conference¹ is one of the largest annual gatherings of paediatric respiratory professionals in Europe, attracting over 550 participants. The COVID-19 pandemic forced the conference to transition to a digital model at short notice. We believe that the lessons learnt from this experience have wide relevance for the future of medical education.

Advancing medical knowledge is a global endeavour, and collaboration between clinicians and scientists in different countries is increasingly common. Paediatric centres are often smaller than their adult equivalents, necessitating cooperation for development of consensus statements, and to achieve significant patient numbers in research trials. International conferences remain a vital space for sharing and appraisal of new research, especially at a subspecialty level. Attending these conferences can be prohibitively expensive, disproportionately affecting early career researchers, allied health professionals and junior doctors as well as delegates from low-income and middle-income countries who may also be hindered by visa requirements. Digital conferences solve these problems by delivering cost-effective and highly customisable learning experiences. Here, we explore the steps taken to convert an international paediatric respiratory conference to a digital format.

The planning for the 2020 conference was nearly complete when COVID-19 entered public awareness in the UK. It was uncertain what measures the Government would introduce, but there were reports that the size of public gatherings may be restricted. We were concerned that our patient population—mostly

young people with chronic respiratory problems like poorly controlled asthma, cystic fibrosis and long-term ventilation—could be particularly vulnerable. Other major conferences such as that of the American Academy of Allergy, Asthma & Immunology were cancelled, and the American Thoracic Society conference was cancelled with a view to 'providing select elements of the conference content in a web-based format' at a later date.² Instead, we decided to proceed with as much of our programme as could be converted to a digital conference, running over the same dates as originally planned.

There are several logistical considerations unique to digital conferences. Certain elements of traditional conferences such as practical workshops cannot readily be converted to a digital format. Poster presentations—where audience participation is a key component of the

experience—also do not translate to an off-the-shelf digital alternative. Posters were displayed on our website and mobile phone application, where participants could leave comments and questions to the authors. Seminars and panel-discussions are easier to reproduce digitally, but careful timetabling should account for the different time-zones from which individuals are now speaking.

Participant experience at a digital conference should be carefully managed to keep the audience engaged (box 1). Our original conference had multiple parallel tracks that allowed participants to structure their experience around key themes such as asthma and cystic fibrosis. Due to the logistical complexity of managing multiple video streams at short notice, we decided to simplify the conference into a single stream. In future years, we will be running a parallel digital conference and intend to provide multiple streams so that participants retain control over their session choice.

We were keen that technical glitches should not become a distraction for the organisers, speakers or participants, so we outsourced production and technical support to a digital events company. Our presenters were trained to use the software ahead of the conference and were able to rehearse presenting to a digital audience beforehand. Outsourcing allowed our organising team to focus on chairing panels, running a live Twitter feed, supporting faculty and responding to questions raised via our companion mobile phone application.

We identified several financial advantages to this year's conference. We removed travel-cost barriers for many participants, and the conference was cheaper to run with no venue hire or catering fees. There was also a much smaller environmental impact, chiefly due to reduced air travel and elimination of consumable items. At the time of writing it is reasonable to presume that international travel for medical conferences will not return to prepandemic levels for some time, but the need for the continuing exchanging of ideas and scientific collaboration has not diminished. We will therefore need to optimise our use of innovative conferencing solutions in the future. Perhaps hybrid events—with some participants in the same geographical space and some participating digitally around the globe—will be a useful model for the future.

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Box 1 Key considerations when planning a digital conference

1. Timetabling of speakers should be optimised to account for the different time-zones in which speakers and participants are located.
2. Presenters should be taught how to use the software prior to the conference, including advice on how to optimise their environment, lighting, positioning and clothing for digital broadcast.
3. Audience participation via asking questions and voting in polls is essential to keep the audience engaged and allow scrutiny of presented material.
4. Technological failures are distracting and time-consuming. There should be a dedicated team assigned to troubleshooting as well as contingency plans for when the issue cannot be resolved.
5. Decide how recorded content will be made available and whether this will be restricted to registered participants or available to a wider audience.

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digital conference. The authors would also like to thank Professor Paul Brand and Dr Jonny Weale for their valuable advice and constructive suggestions on the draft version of this manuscript.

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