
Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

2. European Monitoring Centre for Drugs and Drug Addiction. *EMCDDA trendspotter briefing. Impact of COVID-19 on drug services and help-seeking in Europe* 2020. Available from: https://www.emcdda.europa.eu/publications/ad-hoc/impact-of-covid-19-on-drug-services-and-help-seeking-in-europe_en. [Accessed 14 December 2020]
3. HSE Social Inclusion. *Guidance on contingency planning for people who use drugs and COVID-19* 2020. Available from: https://www.hse.ie/eng/about/who/primarycare/socialinclusion/other-areas/health-inequalities/contingency-planning-for-people-who-use-drugs.pdf. [Accessed 14 December 2020]
4. Health Protection Surveillance Centre. *Epidemiology of COVID-19 in Ireland*. Report prepared by HPSC on 30/07/2020 for National Public Health Emergency Team 2020. Available from: https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casesinireland/epidemiologyofcovid-19inireland/july2020/COVID-19_Daily_epidemiology_report_(NPHET)_300072020-%20Website.pdf. [Accessed 14 December 2020]
5. Middleton J, Reintjes R, Lopes H. Meat plants—a new front line in the covid-19 pandemic. *BMJ* 2020; **370**: m2716
6. Liang X, Liu R, Chen C, Ji F, Li T. Opioid system modulates the immune function: a review. *Transl Perioper Pain Med* 2016; **1**: 5–13
7. Yamanaka T, Sadikot T. Opioid effect on lungs. *Respirology* 2013; **18**: 255–62
8. Tahamtan A, Tavakoli-Yaraki M, Mokhtari-Azad T, et al. Opioids and viral infections: a double-edged sword. *Front Microbiol* 2016; **7**: 970
9. Franchi S, Moschetti G, Amodeo G, Sacrodate P. Do all opioid drugs share the same immunomodulatory properties? A review from animal and human studies. *Front Immunol* 2019; **10**: 2914
10. Chan YY, Yang SN, Lin JC, Chang JL, Lin JG, Lo WY. Inflammatory response in heroin addicts undergoing methadone maintenance treatment. *Psychiatr Res* 2015; **226**: 230–4
11. Wang TY, Lee SY, Chang YH, et al. Correlation of cytokines, BDNF levels, and memory function in patients with opioid use disorder undergoing methadone maintenance treatment. *Drug Alcohol Depend* 2018; **191**: 6–13
12. Tahamtan A, Tavakoli-Yaraki M, Salimi V. Opioids/cannabinoids as a potential therapeutic approach in COVID-19 patients. *Expert Rev Respir Med* 2020; **14**: 965–7
13. Tsai MC, Huang TL. Brain-derived neurotrophic factor (BDNF) and oxidative stress in heroin dependent male patients undergoing methadone maintenance treatment. *Psychiatr Res* 2017; **249**: 46–50
14. Ye Q, Wang B, Mao J. The pathogenesis and treatment of the 'cytokine storm' in COVID-19. *J Infect* 2020; **80**: 607–13
15. Jain M, Chandel NS. Rethinking antioxidants in the intensive care unit. *Am J Respir Crit Care Med* 2013; **188**: 1283–5

doi: 10.1016/j.bja.2020.11.027
Advance Access Publication Date: 28 November 2020


# Craving togetherness: planning and replanning a national society hybrid conference during the COVID-19 pandemic

Carolyn F. Weiniger* and Idit Matot

Division of Anesthesia, Critical Care and Pain, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

*Corresponding author. E-mail: carolynw@tlvmc.gov.il

**Keywords:** annual meeting; conference; COVID-19; medical society; virtual conference

Editor—On a positive note, the year 2020 will be known as the year of conference creativity. As the far-reaching consequences of the coronavirus disease 2019 (COVID-19) global pandemic became clear, conference organisers cancelled, postponed, or reconstructed long-planned conferences. Early in 2019, the Israel Society of Anesthesiologists (ISA) began planning the 2020 International Congress of the Israel Society of Anesthesiologists (ICISA). Every 3 yr, ICISA hosts a large prestigious international faculty in a Tel Aviv beachfront conference hotel. In intervening years, the ISA holds its annual conference comprising mostly Israeli faculty. With the emergence of COVID-19 in Israel in March 2020, the ISA began tracking the rising number of cases. By May 2020, ISA board members voted to postpone ICISA, and instead hold an in-person annual conference. Here, we will describe the challenges associated with transforming our conference in a rapidly changing environment. The ISA conference was named 'Anaesthesia—the Forefront of Medicine' to reflect our work during the COVID-19 pandemic. New COVID-19 panels were created in addition to other scientific updates.

By June 2020, it was clear that an in-person conference was likely impossible. However, we wished to maintain a sense of community, which is difficult in virtual conferences, such as those presented by the ASA and the European Society of Anaesthesiology and Intensive Care amongst others.[1–3] Although virtual conferences are the current norm, attendees yearn for in-person conferences.[4] We surmised that a communal conference experience would entice and engage attendees, and help with professional isolation and burnout,

as physicians are already overwhelmed with virtual conferences and webinars.[5] Thus, we conceived a hybrid programme. We started with the scientific programme on Day 1 and continued with workshops/simulations and abstract presentations on Day 2, adhering to COVID-19 regulations (social distancing and limited attendance gathered in an enclosed space). Our guiding principles included engendering a feeling of togetherness, retaining a broad novel scientific programme, in-person workshops/simulations, and high exposure to industry.

Each medical centre became a viewing hub, enabling unified viewing. Anaesthetists working in that centre could gather in the hub, or view from work or home if preferred. Since July 2020, maximum room occupancy was limited; thus, some centres required several communal viewing hubs.

We created a programme with four scientific broadcast channels, one live and three pre-recorded, plus a fifth industry channel. The live channel was broadcast from two hubs, in Tel Aviv and in Jerusalem, and presenters attended these in person. The viewing platform had a community chat system, where attendees could interact with others around the country. We provided earphones for personal devices that enabled attendees to view their chosen channel, and the live channel was broadcast on the hub auditorium screen. We provided a luxury finger food dinner box (to avoid food handling) sent to each hub for a post-conference COVID-19 appropriate social experience.

To maintain consciousness of communal attendance, a live-broadcast plenary session was held after each multiple viewing channel session; thus, attendees were regularly returned to the live experience milieu. Figure 1 shows plenary panellists, holding individual microphones and wearing surgical face masks.

To retain the broad scientific content intended for a 2 day programme, in the shortened 4 h programme, lectures were allocated 10 min time limits and speakers were asked to present the topic highlights. Live speaker timings were controlled by a moderator, and speakers unable to attend a live broadcast hub in person were sent pre-recorded lectures slotted into the live sessions. This facilitated synchronised concurrent broadcast from the live and pre-recorded channels. During the pre-recorded lectures, speakers received questions *via* the chat function, and for live lectures, speakers received questions following their lecture.

On September 18, 2020, Israel entered a second lockdown, closing hotels and conference centres. Not willing to give up on in-person workshops/simulations and abstract presentations, these were relocated to the Tel Aviv Medical Center. On October 14, 2020 (9 days before the workshops), we intended to reassess the situation, given the enforced 1000 m travel restriction that continued until October 18, 2020. As workshops were held inside the Tel Aviv Medical Center, this facilitated delaying the 'go' decision until October 18, 2020.

The seven workshops/simulations parallel tracks were constructed in 60 min blocks, with a 10 min transfer time to minimise mingling. Each workshop was limited to five to eight attendees to allow two instructors and remain at or below the maximum of 10 people allowed per room. Airway workshops were held in operating theatres, largely available on Friday. We split the simulation programme between the Medical


Fig 1. Moderated plenary panel with coronavirus disease 2019 restrictions, including panellists wearing surgical face masks and holding individual microphones.

Technology and Simulation Center (MTS) and the operating theatre, providing an *in situ* operating theatre simulation track using an advanced medical simulator.[6] Equipment workshops were held in the MTS. Problem-based learning was held in conference rooms and ultrasound (regional and point-of-care tracks) in the admission area and in conference rooms. Abstracts were presented using the hybrid format through in-person attendance or virtually.

The ISA conferences are strongly supported by the industry. As it became clear that in-person interaction with the industry was impossible, our supporters nimbly switched to an online platform. We offered promotional opportunities, including a digital magazine published before the conference. This allowed the industry to present videos and podcasts of their advances and technology. In addition, during the streaming of the hybrid conference, a viewing channel offered industry-sponsored content, with links to video on demand and chat with company representatives. We achieved industry support that was only 17% lower than the level achieved in the 2019 in-person conference.

Amongst the 800 Israeli anaesthetists, more than 500 attended, plus 78 industry delegates. Considering the hybrid format, this compares well with in-person attendee numbers for 2018 and 2019: 559 (2018) and 638 (2019) for the scientific programme, and 196 (2018) and 275 (2019) for the workshops.

In conclusion, our colleagues supported the communal learning platform, reflected by registration that exceeded our expectations. The hybrid format satisfied our guiding principles, enabling a community experience, with a broad high-quality scientific programme, well-attended workshops, and substantial support from our industry partners who were extremely satisfied with their visibility and interaction with the attendees. As many attendees shared, 'we really missed this'.

## Declarations of interest

The authors declare that they have no conflicts of interest.

## References


1. Society of Critical Care Medicine. In: *Annual congress: 50th critical care congress virtual event, January 31–February 12, 2021*; 2020. Available from: https://www.sccm.org/Education-Center/Annual-Congress. [Accessed 26 October 2020]
2. American Society of Anesthesiologists. *Anesthesiology* 2020; **2020**. Available from: https://www.asahq.org/meetings/anesthesiology-2020. [Accessed 26 October 2020]
3. European Society of Anaesthesiology and Intensive Care. *Euroanaesthesia* 2020; **2020**. Available from: https://euroanaesthesia2020.org/. [Accessed 26 October 2020]
4. Fulcher MR, Bolton ML, Millican MD, et al. Broadening participation in scientific conferences during the era of social distancing. *Trends Microbiol* 2020; **28**: 949–52
5. Sarani B, Shiroff A, Pieracci FM, et al. Use of the internet to facilitate an annual scientific meeting: a report of the First Virtual Chest Wall Injury Society summit. *J Surg Educ* September 29 2020. https://doi.org/10.1016/j.jsurg.2020.09.004
6. Levy N, Matot I, Weiniger CF. Low-budget in situ multidisciplinary operating room simulation programme: just add a mock patient. *BMJ Simul Technol Enhanc Learn* 2020; **6**: 243–4


doi: 10.1016/j.bja.2020.11.029
Advance Access Publication Date: 28 November 2020


# Effects of the COVID-19 pandemic on environmental sustainability in anaesthesia. Comment on Br J Anaesth 2020; 125: 680-92

Stuart M. White[1,*] and Clifford L. Shelton[2]

[1]Department of Anaesthesia, Royal Sussex County Hospital, Brighton, UK and [2]Department of Anaesthesia, Wythenshawe Hospital, Manchester, UK

*Corresponding author. E-mail: stuart.white6@nhs.net

**Keywords:** COVID-19; environmental impact; general anaesthesia; life-cycle assessment; regional anaesthesia; resource management

Editor—The timely and comprehensive review of the environmental impacts of anaesthesia by McGain and colleagues[1] highlights the urgency of the changes that need to be made, both by individual practitioners and by the profession worldwide. The authors are correct in stressing the need for further research into life-cycle assessment and for innovation in waste and resource management. But, might the coronavirus disease 2019 (COVID-19) pandemic affect this important transition towards a carbon-neutral profession?

For example, understandable concerns about nosocomial COVID-19 transmission have resulted in significant per-case increases in plastic use and incineration and decreases in non-plastic recycling. These are in line with non-medical national and international trends,[2] and are often sanctioned by governments, but could be reversible