

INVITED EDITORIAL

ANESTHESIA EDUCATION

From classroom to zoom: anesthesia education through online lecture series

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ABSTRACT

An online lecture series has been launched by Pakistan Society of Anesthesiologists (PSA) since June 2022, to promote evidence-based learning in anesthesia, critical care, and pain management. For eight successful seasons spread over three years, the series has featured both national and international faculty, significantly expanding its reach across South Asia, the Middle East, Africa, and Europe. This editorial explains the evolution, structure, and academic impact of the initiative, highlighting its role in bridging educational disparities and fostering global collaboration in perioperative medicine.

Abbreviations: CME: Continuing Medical Education, LMIC: lower-middle-income countries, PSA: Pakistan Society of Anesthesiologists

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Postgraduate medical education in anesthesia and critical care faces considerable disparities, particularly in the lower-middle-income countries (LMICs). As highlighted by the World Federation of Societies of Anesthesiologists (WFSA) and Ahmad et al. (2021), access to standardized training remains inconsistent.^{1,2} Traditional in-person academic events, though beneficial, are often limited by financial, geographical, or institutional barriers. The COVID-19 pandemic served as a catalyst, exposing vulnerabilities in existing educational models, underscoring the need for flexible, scalable alternatives.³⁻⁵

Recognizing this gap, the Pakistan Society of Anesthesiologists (PSA) developed and implemented an online lecture series designed to deliver current,

evidence-based knowledge to anesthesia professionals across diverse settings.

The PSA online lecture series was launched on June 6, 2022, on Zoom, following promotion through institutional channels and social media platforms. Initially, the series featured randomly selected but important topics related to perioperative anesthesia, critical care, and pain management. Over time, it evolved into a structured, modular format spanning approximately six months and focusing on clinically relevant, system-based topics.

This initiative was specifically designed to provide anesthesia trainees, consultants, intensivists, and allied healthcare professionals with free-of-cost access to educational content, aimed at maximizing participation and enhancing knowledge dissemination.

The content is delivered through bi-weekly live lectures via Zoom, enabling real-time interaction followed by a dedicated question-and-answer session. Initially launched with speakers affiliated with PSA Karachi, the series gradually expanded to include a diverse panel of senior national faculty and international experts from Pakistan, the United States, the United Kingdom, Ireland, and Saudi Arabia, promoting a rich academic exchange. The sessions have been strategically scheduled from 8:00 pm to 9:00 pm on Mondays to maximize attendance not only from participants in Pakistan but also from those in other time zones around the world.

Initial challenges included low participation despite being a free-of-cost model, along with logistical limitations such as reliance on a personal Zoom account with restricted features. However, the program gained momentum soon after the first module. Support from senior faculty encouraged active trainee involvement in session coordination, while technical staff were brought on board to assist with operations. Additionally, sponsorship facilitated access to a professional Zoom account, significantly enhancing the platform's stability and participant capacity.

To evaluate the effectiveness of the lecture series, structured feedback forms were provided at the end of each session. This approach enabled continuous quality improvement and facilitated outcome tracking. E-certificates were issued to participants who attended for more than thirty minutes and submitted their feedback. Over time, attendance increased significantly from an average of 30 to 35 participants per session to over 100, within a year. It also provided trainees with valuable opportunities to interact directly with examiners and subject experts in their respective fields.

It experienced remarkable geographic expansion, drawing participants not only from remote regions across Pakistan but also from countries such as India, Bangladesh, Saudi Arabia, Nepal, Myanmar, Ireland, Nigeria, and Kenya. Faculty diversity expanded significantly as well, with over 60 speakers contributing to the series, including more than 20 international experts.

In response to frequent participant requests, recorded sessions have been made available on the PSA YouTube channel. This initiative not only allowed attendees to revisit the scientific content at their convenience but also facilitated the wider dissemination of knowledge to individuals unable to attend the live sessions.

PSA online lecture series initially received official accreditation for two years from Dow University of Health Sciences, validating the quality and educational value of its academic content for 1.00 CME credit hour.

Subsequently, accreditation responsibilities were taken over by the PSA itself.

By July 2025, the series had completed eight successful seasons, comprising over 80 lectures. Feedback indicated a strong educational impact, where 92% of participants reported improved conceptual understanding and enhanced clinical confidence. Satisfaction ratings remained consistently high across modules, highlighting the program's relevance, effective delivery, and engaging interactivity.

PSA's online lecture series exemplifies how technology-enabled, low-cost educational interventions can effectively bridge the training gaps in anesthesia, critical care, and pain management. By overcoming traditional barriers to postgraduate learning, the series not only addresses educational disparities but also facilitates the integration of global perspectives into local clinical practice.

This ongoing initiative has fostered a mutually enriching environment for both residents and faculty, promoting continuous learning and professional development throughout the country. The response by the senior as well as junior anesthesiologists has been overwhelming. It represents a significant advancement in academic dialogue and the dissemination of up-to-date, evidence-based practices. Its success underscores the critical role of innovation, collaboration, and adaptability in modern medical education. Sustained efforts in this direction can contribute meaningfully to the global standardization of clinical practice and capacity building, particularly in LMICs.

This model can be followed by our friends in other specialties for the continued development of the academic basis of healthcare physicians in their specialties.

Conflict of interest

All authors declare that there was no conflict of interests.

Authors' contribution

All authors participated in intellectual input, literature search, and manuscript preparation.

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