



## Review Article

## Review article on continuing medical education activities

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## ABSTRACT

Upgradation of knowledge and skills is a continuing lifelong process in medicine. Continuing medical education carries a lot of importance in medical profession. Change is inevitable in life of a human or a pathogen. Upgradation of skills thru continuing medical education (CME) is only way to adapt and percolate thru changing times. Evidence based medicine is major player in today's healthcare system. CME are based on principles of evidence-based health care. Covid-19 lockdown paved a way for medical professional to share knowledge about the pandemic through webinars. Various medical disciplines upgraded their knowledge thru webinars. Webinars are not new in CME culture but Covid- 19 brought surge of webinar platform.

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## 1. Continuing Medical Education

Continuing medical education is the process by which family physicians and other health professional engage in activities designed to support their continuing professional development. Activities are derived from multiple instructional domains, are learner centered, and support the ability of those professionals to provide high-quality, comprehensive, and continuous patient care and service to the public and their profession.<sup>1-3</sup> CME is broad, to encompass continuing educational activities that assist physicians in carrying out their professional responsibilities more effectively and efficiently.<sup>1-3</sup> Continuing medical education is important in any profession. It's more important in medical profession. Every person has a unique way of looking at things. Millions of medical professional's work around world and they have different protocols to deal and treat different diseases. CME act as a path for medical professionals to share knowledge and evolve themselves.<sup>3</sup> Most of the medical professionals always concentrate on more common diseases rather than

rare diseases. CME give an insight of common and rare diseases and disabilities in different parts of world thus making people familiar with different diseases and their management. Skill upgradation is an important part of CME. The Medical Council of India, in 2011, made a mandatory resolution for doctors to attend minimum of 30 hours of CME/5 years to ensure recertification.<sup>4</sup>

1.1. Various modalities of CME activities<sup>4</sup>

1. Conferences
2. Workshops
3. Webinars
4. Publication – journals, books.

## 1.1.1. Conferences

Conferences are conducted periodically by various state and national associations of respective departments. Conferences can also be hosted by recognised multispeciality hospitals, teaching hospitals, special training programmes by ministry of health and family welfare, Indian medical association.<sup>4</sup> Some of the reputed associations are API (association of physicians of India), IOA (Indian orthopaedic association), ASI (Association of

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surgeon of India), IAP (Indian academy of paediatrics). Most of the associations are headed by an organising committee. The organising of committee has various divisions for organising the conferences.<sup>5-7</sup> The divisions of organising committee are

1. Registration Committee
2. Reception Committee
3. Accommodation Committee for Faculty
4. CME And Scientific Committee
5. Transport Committee
6. Food committee/ catering committee
7. Venue committee
8. Trade committee
9. Audio visual committee
10. Souvenir committee
11. Journal and magazine and website committee

Scientific committee takes care of academic activities of the conference.<sup>4,8,9</sup> The scientific committee divides the CME activities based on divisions of department.<sup>9</sup> In particular reference with orthopaedics the CME activities are divided into Trauma, Arthroscopy, Arthroplasty, Paediatric orthopaedics, Foot and ankle, Hand surgery. Every session has a senior most faculty member as moderator and various faculty members both international and national present particular topics of updates or challenging reports so that most of the delegates who attend conferences are shared their knowledge. At end of every session the delegates have opportunity to ask any questions and the faculty has to answer. The moderator oversees the session so that it has a conclusive evidence to conclude.

Registration committee takes care of registration of faculty and delegates to the conference.<sup>8,9</sup> This committee divides registration process into early bird, regular registration and spot registration.<sup>8</sup> The reception committee takes care of facilitating both faculty and delegates to respective halls in the conference venue. The food and catering committee takes care of breaks between conference sessions when the breakfast, lunch, tea and dinner are served. Most of the delegates or faculty interact with each other and old friends meet during this period. Accommodation committee is responsible for providing stay for faculty and delegates.<sup>8</sup> Audio-visual committee is responsible for presentation of faculty aids (PowerPoint presentations, articles) during the conference sessions. Trade committee hosts various stalls to showcase newer implants or instruments or equipment or newer drugs that can be displayed during the conference so that most of delegates can have an overview. Souvenir committee distributes various souvenirs to delegates and faculty as a token of appreciation or gratitude. Some conferences have a magazine committee that takes photos and notes from the conference where they publish a magazine at end of the event and distribute to the faculty and delegates at a later date.

Some conferences have a theme based on which the entire academic sessions take part. WIROC 2019 (western Indian regional orthopaedic conference) had its theme as “get it right the first time”.<sup>10</sup> Karnataka orthopaedic conference (KOACON) had its theme as “To achieve optimal orthopaedic standards in rural Karnataka.”<sup>6</sup>

### 1.1.2. Workshops

A specialized conference in which experts in a particular area of science train others or share knowledge with others.<sup>11</sup> Workshops are most sought after CME activity. The delegates who attend a workshop are limited and there is more interaction between the speaker and delegate who attends to the workshop. As mentioned, the definition of a workshop, workshops mostly focus on particular skill in a surgery or introducing a new equipment that has the ability to change the way we deal with patients or betterment of clinical skills. Many universities conduct ACLS, BCLS training workshops every year and make critical care personnel familiar with life saving techniques.<sup>12</sup> Most of the surgical workshops focus on a game changing skill that can be introduced in day to day practice for betterment of clinical results. Even single day workshops focussing on a particular skill or protocol have good results in clinical practice.<sup>13,14</sup> Most of the knowledge on covid-19 management and ventilator setting was conveyed to healthcare system thru single day workshops conducted thru out the world in many hospitals.<sup>12,15</sup> The idea is to make every healthcare worker familiar with ventilator usage as patient numbers were in lakhs. USA, Italy, Spain, UK, China had a total of more than 10 lakh cases which the doctors were unable to handle and healthcare workers were trained as fast as possible to meet demands of rising covid-19 infected patients.<sup>16</sup>

### 1.2. Webinars / online training courses

Webinar (web seminar) is an activity that brings people corresponding to one discipline from various places meeting thru online interface and sharing knowledge.<sup>17-19</sup> Webinars is a mode of most economical way of sharing knowledge. Webinars can be hosted from any place in world, faculty and delegates can participate from different parts of world (Figures 1, 2 and 3). Direct interaction is always the best mode of education, but logistics and economics are demanding.

Covid-19 and its mode of transmission has made isolation as mode of preventive management. Webinars were the main mode of CME in these pandemic times. Moreover, webinar has made it easy to reach millions of healthcare professionals.<sup>20-22</sup> Most of the international and national conferences were cancelled to prevent gatherings in Covid-19 situation.<sup>23,24</sup> (Figures 4 and 5)

Many universities like Mayo, John Hopkins conducted webinars to educate healthcare workers about Covid-19

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**Current Concepts In Management of Spine Trauma- Case Based Interactive Focused Learning of Tips and Tricks**

**13-04-2020 Monday 11 - 1 PM – We Support Lock Down– Attend from Home**

Thanks to All for Overwhelming Participation in GOA Webinar Series

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Fig. 1: Information brochure about Gujarat orthopaedic association webinar

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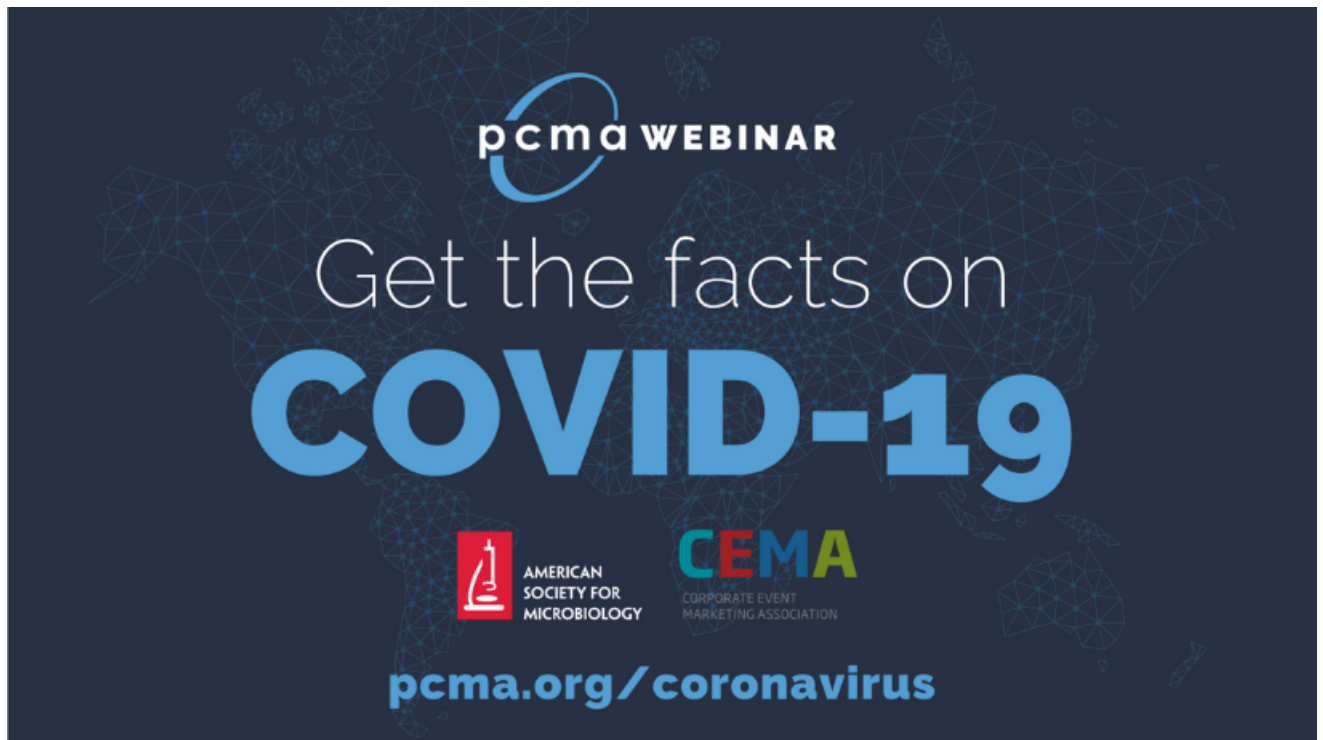
**Prof Alessandro Rambaldi**  
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**Prof Jose M Ribera**  
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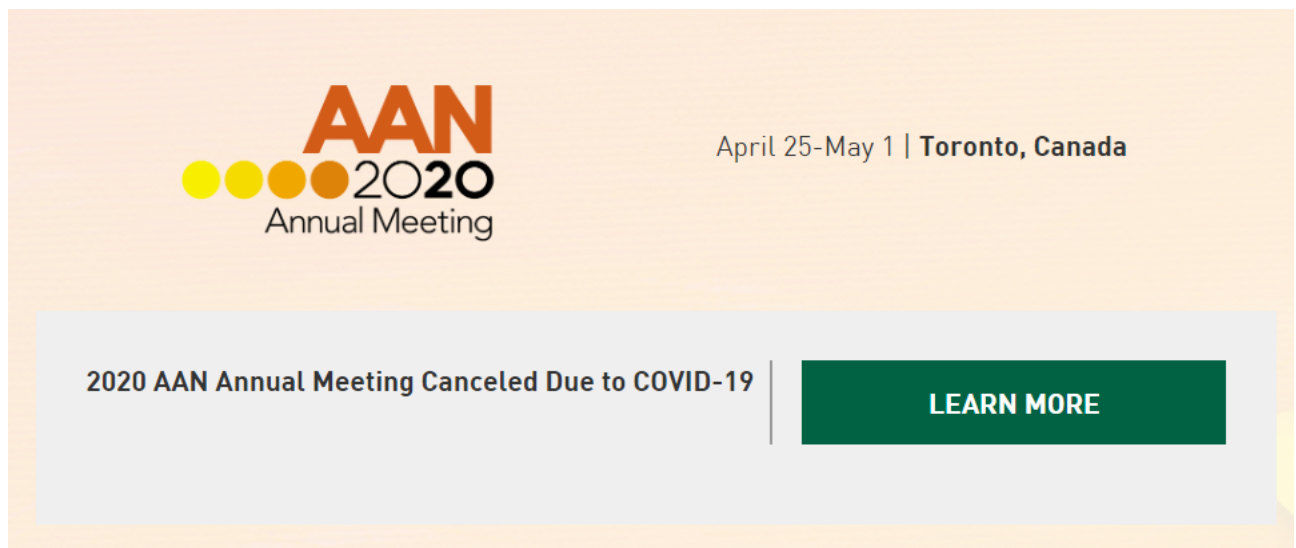
**Prof Dr Marie von Lilienfeld-Toal**  
 Universitätsklinikum Jena, Germany

**Prof Malgorzata Mikulska**  
 University of Genova, Italy

Fig. 2: Information brochure about webinar about Covid- 19 updates



**Fig. 3:** Facts about Covid- 19 webinar being conducted by PCMA accredited by American society for microbiology.



**Fig. 4:** American association of neurology conference cancelled due to Covid-19



We regret to inform that the TKR 2020 on March 15th has been postponed we will keep you posted on the next event dates. Thank you

**Fig. 5:** TKR 2020 conference cancelled due to Covid-19 lockdown<sup>24</sup>

management.<sup>25–27</sup> The MOHFW (ministry of health and family welfare) of India also conducted webinars to spread awareness about management protocols about covid-19.

Advantages with web-based learning<sup>19</sup>

1. Affordable
2. The overall expenditure is less
3. The man power usage is less compared to a conference or workshop
4. Convenience of time – can be recorded and initiated at convenient times.
5. Multiple delegates can interact with faculty depending on interface of software.
6. A computer or a mobile phone or a tablet is all what is needed but with an internet access.

Disadvantages –

1. No face to face interaction
2. Infrastructure for web-based learning and internet facilities and software efficiency.
3. Feeling of being isolated
4. Information can vary in quality.

### 1.2.1. Publications

Largest resources of CME are published material.<sup>4</sup> Their recognition and accreditation are questionable. Journals and published material are largest an accessible and ready to reckon sources of continuing medical education. Most of the international and national associations have a journal which is upgraded and updated continuously. Journals acts as a bridge between healthcare professionals across world.<sup>28,29</sup> These journals publish original articles, research articles, care reports, case series, review articles, symposiums. The published material is accessible thru click of a mouse and thru offline print addition as booklet. This is a documented and copyright-oriented mode of CME. All the reputed journals have editorial team, reviewer team. Most of the journals are indexed with popular indexing agencies like Scopus, PubMed, index Copernicus, index medicus.

Indexing of a journal improves journals reliability and accessibility.<sup>30</sup> Most of the publications undergo plagiarism check to maintain authenticity of published material. Publications encourage medical fraternity to continue the idea of research and quest for finding answers to many medical conditions.<sup>31</sup> Open accessing publishing concept has demolished barriers of sharing knowledge among healthcare professionals.<sup>30</sup>

## 2. Certification or Accreditation of CME activities

The MCI and State Medical Councils are the major CME regulators in India. They also accredit the CME events and allocate credits to the events conducted by healthcare professionals.<sup>4</sup> Other CME regulators include the Indian Medical Association (IMA), Association of Physicians of India and individual certification programmes.<sup>4</sup> There are different credit hours that are allotted to CME's depending whether it is International conferences or national conference, workshop, webinar, type of publication, role of healthcare profession in a textbook (editor, author, co-author, author of a chapter). Guest lecture by a foreign expert is also allotted CME credit hours.

Some of the International accreditation agencies include-

### 2.1. United states<sup>4</sup>

1. Accreditation Council for Continuing Medical Education.
2. American Osteopathic Association.
3. ACOG (American college of obstetrician and gynaecologists).

### 2.2. Canada

1. Royal College of Physicians and Surgeons of Canada.
2. College of Family Physicians Canada.



### 2.3. United Kingdom<sup>32</sup>

1. European Accreditation Council for CME (EACCME)
2. European Board for Accreditation in Cardiology (EABC)
3. European Board for Accreditation Urology (EBU)

#### Criticism about CME-

Recently there has been great criticism about CME events. Criticism has been on

1. Funding of CME events
2. Biased CME events based on funding
3. Productivity of CME events<sup>33</sup>
4. Unregulated accreditation of CME events
5. The presence of predatory journals<sup>30,31,33,34</sup>
6. Ghost writing publications<sup>33,34</sup>
7. The learning environment in an CME event<sup>34</sup>
8. The registration charges of conferences are very high.<sup>4</sup>
9. Selection of faculty to conferences and workshops is decided by pharmaceutical and device firms that sponsor CME rather than academic achievement of faculty.<sup>4</sup>

### 3. Conclusion

CME are a part and parcel of health care professionals' career. Many medical councils thru out the world have made attending CME a mandatory. Publications were made compulsory by MCI (medical council of India) for academic promotion of faculty in medical colleges. Its duty of medical professional to upgrade himself in terms of knowledge and skill. Whether the CME is accredited or unaccredited has to be taken into consideration by medial professional. The regulating agencies and accreditation agencies must have a keen observation about various CME events and their credibility. Covid-19 has made webinars the most sought out CME modality. Webinars made easier for healthcare workers to learn faster in pandemic covid-19 times.

### 4. Source of Funding

None.

### 5. Conflicts of Interest

Nil.

### References

1. Bhullar D. Continued Medical Education (CME) programmes some observations. *J Punjab Acad Forensic Med Toxicol.* 2006;6(1):31–3.
2. Continuing Medical Education (CME), Definition [Internet]. Aafp.org. 2020 [cited 14 April 2020]. Available from: <https://www.aafp.org/about/policies/all/cme-definition.html>.
3. Nieuwenborg LV, Goossens M, Lepelire JD, Schoenmakers B. Continuing medical education for general practitioners: a practice format. *Postgrad Med J.* 1086;92:217–22.
4. Das S, Shah M, Mane A, Goyal V, Singh V, Lele J. Accreditation in India: Pathways and Mechanisms. *J Eur CME.* 2018;7(1). doi:10.1080/21614083.2018.1454251.
5. OSSAPCON2020.com [Internet]. Ossapcon2020.com. 2020 [cited 12 April 2020]. Available from: <http://ossapcon2020.com/committee>.
6. Committee | KOACON 2020 [Internet]. Koacon2020.in. 2020 [cited 12 April 2020]. Available from: <https://koacon2020.in/committee/>.
7. 2020 I. IOACON 2020 [Internet]. Ioacon2020mumbai.com. 2020 [cited 12 April 2020]. Available from: <http://www.ioacon2020mumbai.com/local-committee.html>.
8. Rai R. Tips to organize a conference: Experiences from DERMACON Coimbatore. *Indian Dermatol Online J.* 2016;7(5):424.
9. Srinivas C. Scientific chairman: DERMACON 2016; let us make it meaningful and delightful. *Indian Dermatology Online Journal.* 2016;7(5):428.
10. WIROC 2019 [Internet]. Wiroc.in. 2020 [cited 14 April 2020]. Available from: <http://www.wiroc.in/>.
11. Workshop [Internet]. TheFreeDictionary.com. 2020 [cited 12 April 2020]. Available from: <https://medical-dictionary.thefreedictionary.com/workshop>.
12. Sodhi K, Shrivastava A, Singla MK. Impact of advanced cardiac life support training program on the outcome of cardiopulmonary resuscitation in a tertiary care hospital. *Indian J Crit Care Med.* 2011;15(4):209–12.
13. Asano T. Assessing the impact of a 2-day laparoscopic intestinal workshop. *Can J Surg.* 2011;54(4):223–6.
14. Allen D, Abourbih J, Maar M, Boesch L, Goertzen J, Cervin C. Does a one-day workshop improve clinical faculty's comfort and behaviour in practising and teaching evidence-based medicine? A Canadian mixed methods study. *BMJ Open.* 2017;7(7):e015174.
15. Ventilator Workshop (no limit) | Mayo Clinic School of Continuous Professional Development [Internet]. Ce.mayo.edu. 2020 [cited 12 April 2020]. Available from: <https://ce.mayo.edu/neurology-and-neurologic-surgery/content/ventilator-workshop-no-limit>.
16. Health Ministry organizes a national level training workshop for all the states on COVID-19 management [Internet]. Newsonair.nic.in. 2020 [cited 12 April 2020].
17. WEBINAR | meaning in the Cambridge English Dictionary [Internet]. Dictionary.cambridge.org. 2020 [cited 13 April 2020]. Available from: <https://dictionary.cambridge.org/dictionary/english/webinar>.
18. Teaching & learning materials & the Internet / Ian Forsyth | National Library of Australia [Internet]. Catalogue.nla.gov.au. 2020 [cited 13 April 2020]. Available from: <https://catalogue.nla.gov.au/Record/2287002>.
19. McKimm J. ABC of learning and teaching: Web based learning. *BMJ.* 2003;326(7394):870–3.
20. AIIMS C. Information Related to COVID-19 [Internet]. AIIMS NEW. 2020 [cited 13 April 2020]. Available from: <https://www.aiims.edu/en/component/content/article/79-about-aiims/10405-information-related-to-covid-19.html>.
21. Webinar - Staff Management during the Covid-19 crisis [Internet]. UITP. 2020 [cited 13 April 2020]. Available from: <https://www.uitp.org/events/webinar-staff-management-during-covid-19-crisis>.
22. Webinar: Get the Facts on COVID-19 [Internet]. PCMA. 2020 [cited 13 April 2020]. Available from: <https://www.pcma.org/event/webinar-get-the-facts-on-covid-19/>.
23. Annual Meeting and COVID-19 [Internet]. Aan.com. 2020 [cited 14 April 2020]. Available from: <https://www.aan.com/conferences-community/annual-meeting/general-info/covid-19/>.
24. TKR-2020 | Newer Technologies, Techniques and Challenges [Internet]. Yashoda Hospitals. 2020 [cited 14 April 2020]. Available from: <https://www.yashodahospitals.com/event/TKR-2020/>.
25. Mayo Clinic Q&A podcast: Pregnancy during the COVID-19 pandemic [Internet]. YouTube. 2020 [cited 13 April 2020]. Available from: <https://www.youtube.com/watch?v=Mkwj4qmO4vA>.
26. Coronavirus COVID-19 Webinar Video | Hopkins expert Dr. Auwaerter [Internet]. Hopkinsguides.com. 2020 [cited 13 April 2020]. Available from: [https://www.hopkinsguides.com/hopkins/view/Message\\_Center\\_-\\_Hopkins\\_Guides/2015003/all/Coronavirus\\_Webinar](https://www.hopkinsguides.com/hopkins/view/Message_Center_-_Hopkins_Guides/2015003/all/Coronavirus_Webinar).

27. Webinar: COVID-19 Update and Its Impact on Events [Internet]. PCMA. 2020 [cited 13 April 2020]. Available from: <https://www.pcma.org/event/webinar-covid-19-update-and-its-impact-on-events/>.
28. Joseph A. The role of a general medical journal. *BMJ*. 2004;328(7439):591.
29. Asnake M. A importância da publicação científica para o desenvolvimento da saúde pública. *Ciência Saúde Coletiva*. 2015;20(7):1972.
30. Loscalzo J. The Future of Medical Journal Publishing. *Circ*. 2016;133(16):1621–4.
31. Marusic M. Why physicians should publish, how easy it is, and how important it is in clinical work. *Arch Oncol*. 2003;11(2):59–64.
32. [Internet]. iapco.org. 2020 [cited 13 April 2020]. Available from: <https://www.iapco.org/app/uploads/2013/08/Euro-CME-White-Paper.pdf>.
33. Ghost writing cme funding- Lo B, Field M. Conflict of interest in medical research, education, and practice. Washington, DC: National Academies Press; 2009.
34. Demir S. Predatory journals: Who publishes in them and why? *J Inform*. 2018;12(4):1296–1311.

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