

National Surgical, Obstetric, and Anesthesia Planning Intervention Toolkit

A Resource from the Program in Global Surgery and Social Change, Harvard Medical School

Topic: Continuing medical education (CME) or continuing professional development (CPD) programs in surgical specialties and anesthesia in LMIC

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Brief Synopsis

CME requirements are well-documented and enforced in high-income countries through professional medical organizations such as the Accreditation Council for Continuing Medical Education¹ in the United States, the Royal College of Physicians and Surgeons of Canada,² and the European Union of Medical Specialists³ Clinicians are required to obtain CME to maintain licensure in these regions. While many publications discuss the need for improved access and delivery of CME programs in LMICs, there is a small body of evidence surrounding successful programs in LMICs. The successful programs have notably been created and sustained through long-term partnership with and funding through a high-income university or institute. That being said, most CME programs discussed for LMICs have not included surgery in their published work.⁴⁻⁷

Definitions

CME: Continuing medical education relates to training specifically for medical and dental specialties and focuses on clinical skills and decision making.

CPD: Continuing professional development for healthcare workers includes CME in addition to broader topics such as ethics, law, management and administration, finance, marketing, etc.

Guidelines

1. Regional guidelines for CME/CPD activities – WHO Regional office for South-East Asia
 - a. Includes scope, coverage, fundamental requirements of national CME/CPD systems, accreditation, and benefits of CME/CPD
 - b. Issued in 2010
 - c. <http://apps.who.int/iris/bitstream/10665/205767/1/B4489.pdf>
2. Continuing Professional Development guidelines for health professionals in South Africa
 - a. South African health professionals are required to participate in accredited CPD courses to maintain licensure, this document covers requirements, activities, and non-compliance
 - b. Approved in June 2017
 - c. http://www.hpcsa.co.za/Uploads/editor/UserFiles/downloads/cpd/CPD_Guidelines_2017.pdf

3. The World Federation for Medical Education – Standards for medical schools and other providers of medical education including CPD
 - a. An accreditation body for CME/CPD programs
 - b. Developed in 2003; endorsed by the WHO and the World Medical Association, in 2011 utilized by approximately half of all medical schools worldwide
 - c. <http://wfme.org/standards/>; global standards for CPD for medical doctors (2017 update): <http://wfme.org/publications/wfme-global-standards-cpd-english/>
4. Guidelines for Continuing Medical Education in India
 - a. The National Academy of Medical Sciences implemented CME requirements of 30 hours per five years but it's not mandatory and very few practitioners (approximately 20%) achieve this requirement due to lack of resources and staff, and available courses.
 - b. Most recent course lists from 2013-2014 academic year
 - c. <http://www.nams-india.in/webpages/cme.html>
5. Guidelines for Continuing Professional Development of Medical and Dental practitioners in Ghana
 - a. The Medical and Dental Council of Ghana requires 15 CPD credits per year from three different courses for physicians; physician assistants and anesthetic officers require 10 credits.
 - b. Revised requirements as of December 2015
 - c. <http://mdcghana.org/cpd/>

Interventions

1. Réseau en Afrique Francophone pour la Telemedicine (RAFT) – distance continuing medical education

References:

1. Geissbuhler, A., C.O. Bagayoko, and O. Ly, *The RAFT network: 5 years of distance continuing medical education and tele-consultations over the Internet in French-speaking Africa*. *International Journal of Medical Informatics*, 2007. 76(5): p. 351-356.
2. Bediang, G., et al., *The RAFT Telemedicine Network: Lessons Learnt and Perspectives from a Decade of Educational and Clinical Services in Low- and Middle-Incomes Countries*. *Frontiers in Public Health*, 2014. 2: p. 180.

Weblinks:

<http://ghf.g2hp.net/2011/09/16/raft-telemedicine-in-africa-2/>

<http://raft.unige.ch/dudal/>

Type: Telemedicine and webcasting of interactive courses for physicians and other care professionals.

Intervention Description:

Courses are webcast every week, and the project has grown from only Francophone West Africa to now be offering courses in French, English, Spanish, and Portuguese. The distant CME program targets general health and infectious disease, while the post-graduate medical education

programs address surgery, ophthalmology, and gynecology among others. From 2007-2013, 732 video lectures were broadcast.

Outcome: “Impact evaluation of the RAFT activities remains an unfinished business”⁹ and is listed as a priority for the organization over the next few years.

Organization: Developed by Geneva University Hospitals, has been recognized by the accrediting body in Madagascar for academic merit, and they are working on furthering that type of collaboration.

Cost: Free access to the lectures/video, presumably the participant would pay for internet/data to access the materials which is country/location dependent.

Considerations: No impact/evaluation research. Does require internet-video capable devices and an internet connection.

2. Incision e-health surgical learning platform

References:

1. **Blay, K., *New e-health learning platform for doctors in Ghana*, GNA, Editor. 2016, Ghana Health Nest.**
2. **Vlioger, E. *Incision Academy Picture*. 2016; Available from: <https://www.tfhc.nl/partner-picture/incision-academy-picture/>.**

Web link: <https://www.incision.care>

Type: Web-based e-learning platform with a variety of videos using both simulated and real surgical cases

Intervention Description:

Video-based learning platform developed in the Netherlands that has signed an MOU with the Ghana Health Service to be a platform of choice for Ghanaian surgeons to earn CPD credits as required for licensure and also accredited by the Royal College of Surgeons of the Netherlands. Videos are high quality and available in 3d with appropriate 3d compatible devices. There are currently videos of 120 surgeries available and the aim is to reach 300 in the next year.

Outcome: No evaluation information found.

Organization: Platform created by Incision Academy with support from the Netherlands Embassy, the Ghana Health Service, and Incision Academy-Ghana. One press release indicated it's been made available in Kenya and Indonesia for CPD credits as well[11], but no further information located on these projects.

Cost: Everyone can access one course free of charge; to access all materials, membership is 20euro/month, with custom pricing for organizations larger than 10 users; Participants looking for CPD credit in Ghana would need to pay for those credits with the Ghana Health Service. Participants would also bear the cost of internet/data and need a video/internet capable device.

Considerations: Most videos require online streaming with a steady internet access; there is an Android app (free) with videos and descriptions of 4 essential procedures that can be

downloaded with an internet connection but then viewed in an offline setting. Payments to Incision must be made by credit card. Videos are only available in English.

Additional online video-learning guides – Surgery and Obstetrics

3. Csurgeries

Weblink: www.csurgeries.com

Intervention Description:

A physician owned and operated online surgical video journal dedicated to creating a centralized source of peer-reviewed medical videos that are accessible to a wide audience, including students and professionals in all surgical disciplines.

Content: 350+ online videos in surgical specialties, and subspecialties including obstetrics

Affiliations: Medical institutions across the US including Vanderbilt, NYU, Emory and Harvard.

Cost: Free

4. Medline Plus

Weblink: <https://medlineplus.gov/surgeryvideos.html>

Intervention Description:

Medline, the national library of medicine, posts webcasts of surgeries performed in affiliate hospitals across the United States.

Content: 100+ online videos in surgical specialties and subspecialties, no obstetrics

Cost: free

Affiliations: U.S National Library of Medicine

5. BroadcastMed/ORLive

Weblinks:

<https://www.broadcastmed.com/>

www.orlive.com

Intervention Description:

BroadcastMed was the first company in the world to broadcast live surgeries on the internet, and now provides several hundred videos that includes gastrointestinal surgery, neurosurgery, obstetrics, and urology.

Content: 100+ online videos that include surgical subspecialties and obstetrics as well as other medical fields

Cost: Free

Affiliations: Johns Hopkins medicine and Mayo Clinic

6. Medtube

Weblink: www.medtube.net

Intervention Description:

One of the largest medical multimedia platform, sharing 20,000+ videos, course, images, and documents for ongoing learning and sharing. Mostly medical, anatomy, and physiology education material and dental materials, there is also content available for general, vascular, plastic, thoracic and pediatric surgery and gynecology.

Content: 13,000+ videos, 1200+ images, events, documents, ebooks, and other elearning materials.

Cost: Free

Affiliations: Endorsed by surgical associations including the society of laparo-endoscopic surgeons and the American society for metabolic and bariatric surgery.

Additional information: content is also available in French, German and Polish

7. SurgeryTheater

Weblink: www.surgerytheater.com

Intervention Description:

Online host of surgical videos that is interactive in nature and welcomes anyone to upload videos. The most recent videos, however, are dated 2013.

Content: 12,000+ videos, not overseen by any quality agency

Affiliations: none found

Additional online video-learning guides – Anesthesia

8. Anesthesiology Online

Weblink: www.anesthesiologyonline.com

Intervention Description:

Subscription-based information and education resource for anesthesia professionals. Provides articles, and livemeetings/videos, and CME credit for practitioners in certain locations.

Content: Articles and Livemeetings/videos

Cost: \$225/two-year subscription, includes 60CME credits

Affiliations: Dannemiller, accredited by ACCME

9. Northeastern Anesthesia Services

Weblink: www.northeasternanesthesia.com/multimedia

Intervention Description:

Educational videos for anesthesia providers including pre-operative process, general, spinal, and regional anesthesia and post-operative care.

Content: 9 educational videos

Cost: Free

Affiliations: None found

10. Yale Anesthesiology

Weblink: <https://medicine.yale.edu/anesthesiology/media/videos.aspx#page2>

Intervention Description:

Yale school of medicine has several short videos for anesthesia providers outlining various procedures, setup of equipment and room, and various tasks expected of anesthesia residents.

Content: 20 videos

Cost: free

Affiliations: Yale School of Medicine

11. Stamford School of Regional Anesthesia

Weblink: www.ssrausa.com

Intervention Description:

8-module online training course that includes videos teaching ultrasound-guided regional anesthesia.

Content: Seminars, online training programs including videos and tutorials.

Cost: \$249, includes 13 CME credits

Affiliations: Halyard and Braun, supported by the ASA

Additional Resources:

- The Sub-Saharan African Medical Schools Study is a portal for information on medical education in sub-Saharan Africa; was funded by the Bill and Melinda Gates Foundation

and housed at George Washington University school of public health. It appears well built and there is quite a bit of relevant information; however it doesn't appear to have had any updates or input since 2010. <http://www.samss.org/?home>

- A USAID CapacityPlus technical brief on continuing professional development for health workers in developing countries – doesn't mention surgery but may be a good resource for developing CPD systems. <https://www.capacityplus.org/technical-brief-6/>
- The Uganda Health Professionals' councils guidelines and standards for accreditation of continuing professional development for health workers – guidelines for accrediting CPD programs created in 2008, but no evidence found of actual functional CPD program.⁸
- Continuing medical education in India (summary - made a requirement, but the system cannot support it.) A WHO Bulletin report, 2004.⁹
- The rise of e-learning and opportunities for Indian family physicians.¹⁰
- Needs and resource assessment of CME in Haiti (summary – they don't have it and they need it).¹¹

References

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3. EUMS. *The European Accreditation Council for CME*. 2017; Available from: <https://www.uems.eu/areas-of-expertise/cme-cpd/eaccme>
4. McQuilkin, P., et al., *A Successful US Academic Collaborative Supporting Medical Education in a Postconflict Setting*. *Global Pediatric Health*, 2014. **1**: p. 2333794X14563383.
5. Sriharan, A., et al., *Global Health Partnerships for Continuing Medical Education: Lessons from Successful Partnerships*. *Health Systems & Reform*, 2016. **2**(3): p. 241-253.
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8. UHP. *Guidelines and Standards for Accreditation of Continuing Professional Development for Health Workers*. 2008; Available from: https://capacityproject.org/images/stories/files/accreditation_cpd_health_workers.pdf.
9. Sarkar, B.D. and S. Kumar, *Continuing medical education in India*. *Bulletin of the World Health Organization*, 2004. **82**(2): p. 82-159.
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11. Nádas, M., et al., *A Needs and Resource Assessment of Continuing Medical Education in Haiti*. *Annals of Global Health*, 2015. **81**(2): p. 248-254.