

## Report on the Peter Mills Honorary Symposium, *Future of E-Learning in Continuing Professional Development (CPD)* Presented Online in January 2023 by the European Cardiology Section Foundation (ECSF®)

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### ABSTRACT

In a tribute to eminent British cardiologist Dr Peter Mills, and one of its long-serving Board members, the European Cardiology Section Foundation (ECSF) presented this symposium in a virtual format, moderated by independent CME/CPD professional Fabiola de Andrade and Reinhard Griebenow, Chairman of the Board of ECSF. The symposium was designed to consider the ongoing ramifications of the COVID-19 pandemic and its lasting influence on the way that CME/CPD activities are now being delivered. Presenters from Germany and the United States discussed recent developments in the working environment of healthcare professionals, various aspects of the regulatory and legal issues associated with rapidly changing educational formats such as e-learning, and the enforced move towards more self-directed learning. Key design principles of effective e-learning were also presented, and examples of successful micro-e-learning with measured outcomes were provided. In a final discussion period, participants highlighted several concerns such as the integration of this emerging format into different accreditation systems. The main area of concern in this case was that such systems may not yet be fully harmonised. The symposium provided a useful framework for further discussion of how educational activities in CME/CPD could and possibly should, be designed and implemented in the “new normal” of hybrid and e-learning modalities.

### ARTICLE HISTORY

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### KEYWORDS

Honorary; hybrid; micro-e-learning; regulatory; conceptual; reflection

The COVID-19 pandemic has had profound effects on the provision of CME/CPD to healthcare professionals. Although e-learning, using electronic resources to facilitate the delivery of educational activities, has been a feature of CME/CPD for some decades now, the impact of the pandemic has meant that much more scrutiny has been exercised in the design and delivery of e-learning as stand-alone education or incorporated into hybrid formats. Restrictions on travel and the emergence of increasingly sophisticated delivery platforms have influenced the way that both providers and learners have had to adapt to what has come to be known as the “new normal”.

The symposium was presented as a tribute to Dr Peter Mills (Figure 1) who was introduced by Henrik Herrmann, President of the Schleswig-Holstein Physicians' Chamber, and an active member of the Marburger Bund physicians' professional association and union in Germany. He described Peter Mills as one of the fathers of accreditation, especially in substantial equivalency, who had contributed a great deal to the ECSF Council and to the worldwide accreditation community. Reinhard Griebenow commented further on Mills' role as a member of the ECSF Board,

complimenting him on his political vision in developing a core curriculum for cardiology training in Europe as well as his commitment and continuity and ability to be critical and constructive in dealing with controversial matters.

Dr Mills responded to the accolades by suggesting that part of the function of the symposium was to define professionalism for physicians. He noted that this was a difficult concept to pin down but that he had a vision for aspects of the doctor/patient relationship being so important that they transcend national boundaries as well as medical specialities. Although this may be an idealistic theory of attributes that are appropriate for physician professionalism, he felt that ECSF had made a positive contribution in turning some of the ideas into practical applications.

Reinhard Griebenow set the scene for the symposium by asking participants to imagine that one effect of the disruption of CPD by the COVID-19 pandemic might be the instigation of a theoretical study of e-learning in a global cohort of healthcare professionals whose only access to CPD was via an online platform. He also hinted at conclusions that providers and accreditors might be able to draw

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**Figure 1.** Dr Peter Mills formerly a consultant cardiologist at the Royal London and London Chest Hospitals.

from such a study. Furthermore, the integration of CPD into a deteriorating workplace environment had to be considered as well as the characteristics of effective e-learning with examples of point-of-care learning within a framework of statutory administrative procedures. His hope was that the symposium's final discussion period might elucidate a "happy medium" for the "new normal" in CPD.

### Session 1: Current Conditions in the Healthcare Workplace

Henrik Herrmann opened the symposium by describing aspects of the current workplace conditions in healthcare settings and posed the question as to whether a culture of learning exists therein. He provided data from the latest (2022) Marburger Bund Monitor, a triennial survey of members of one of the largest professional trade unions in Germany with a membership of around 130,000. The survey elicited responses to a range of questions dealing with healthcare professionals' perceptions of various aspects of their workplace situation including:

- type of workplace – public or private,
- employment status – full or part-time,
- working hours – actual and preferred,
- overtime and compensation – time off in lieu or extra payment,
- time spent on administrative tasks – an average of more than 3 hours per day,
- staffing levels – understaffing resulting in more overtime requirements,
- desire to change careers – 25% expressed such a desire, up from 21% in 2019,
- digitisation in clinical and administrative areas – perceived as in need of improvement,

- upgrades in IT equipment, software and training – seen as inadequate.

A general sense of dissatisfaction with working conditions could be gleaned from the data elicited by the survey with approximately 40% of respondents indicating that they had difficulty staying current with advances in their clinical field. Herrmann pointed out that similar expressions of discontent have been mirrored by healthcare professionals in the United Kingdom, as described in recent articles in the *British Medical Journal* [1,2] and [3] and in the USA, as indicated by Vivek Murthy writing in the *New England Journal of Medicine* [4].

Recognising that this situation requires serious discussion and political action, Herrmann provided a summary of the conclusions gleaned from the 2022 Marburger Bund Monitor and some potential solutions linked to the theme of the symposium, as outlined in [Figure 2](#).

### Session 2: Effective Use of E-Learning

Stephanie Herbstreit of the University of Duisburg-Essen continued the proceedings by providing a very comprehensive overview of the development of e-learning and lessons learned to promote effective implementation. She couched this in terms of the challenges that have been faced by those involved in the delivery of CME/CPD through the explosive growth of technology and the sheer volume of medical knowledge being derived from research and translated to practice applications. She described the evolving role of educators in the field to become content curators, content creators and content moderators as illustrated in [Figure 3](#).

Herbstreit went on to describe various design aspects of e-learning that attempt to tackle the issues related to the heterogeneous nature of health professional groups and their range of learning behaviours, with a transition from passive to active learning as shown in [Figure 4](#).

Some advantages to participants, associated with e-learning were proposed, including:

- flexibility to access
- self-direction and pacing
- a collaborative learning environment
- just-in-time learning

and to balance, certain disadvantages were noted such as:

- absence of face-to-face interaction

## Summary

### Analysis:

Increasing dissatisfaction in the practice of medicine  
 Increasing desire to leave the practice of medicine  
 Serious shortage of healthcare professionals  
 Increasing lack of time for continuing education and training

### Solutions:

Flexible and better working conditions  
 More appropriate deployment of healthcare professionals  
 Less bureaucracy  
 Relief through sensible digitalization  
 More time for patient care and education  
 New didactic formats in continuing education: **eLearning**



Figure 2. Summary of conclusions and possible solutions from Marburger Bund Monitor 2022 [5].

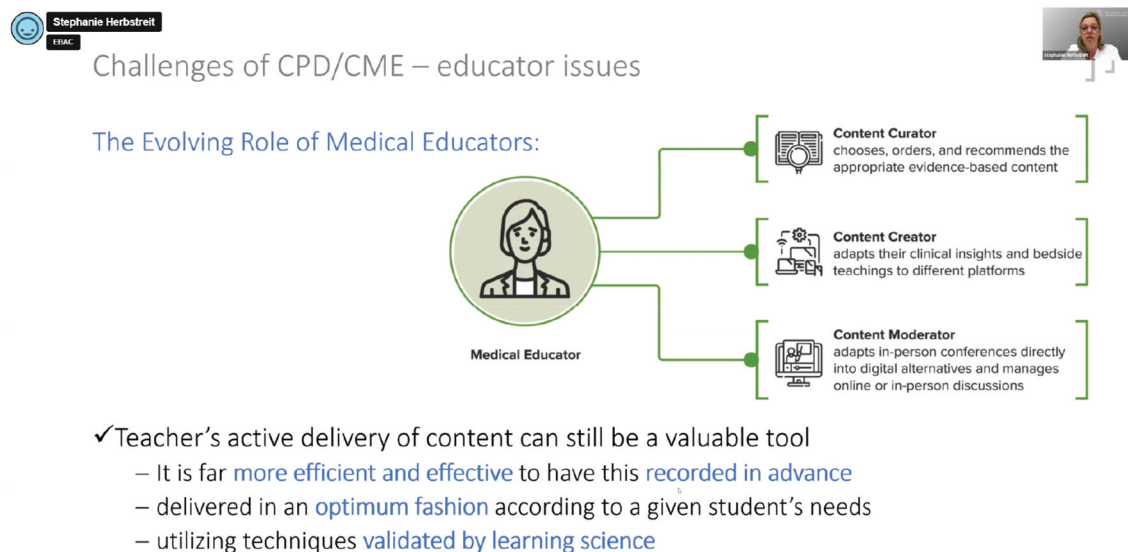


Figure 3. The role of CME/CPD providers in the implementation of e-learning.

- requirement for self-discipline
- lack of hands-on activities
- technophobia
- screen fatigue

Drawing on the results of a review by Regmi and Jones [6], Herbstreit summarised some of the ways that e-learning may be facilitated whilst acknowledging the challenges associated with the “new normal” delivery of CME/CPD activities. The inclusion of certain design principles such as intuitive interfaces,

opportunities for interaction, short learning units (<5 minutes), storytelling and playful elements was suggested as a framework for successful learning. This framework is conceptualised in the flowchart depicted in Figure 5.

### Session 3: The Impact of Micro-E-Learning

Joining the symposium from Boston in the USA, Wendy Walsh provided an overview and recent data from UpToDate, part of the Wolters Kluwer



Background E-Learning in practice

Digital transformation of (traditional) teaching formats:

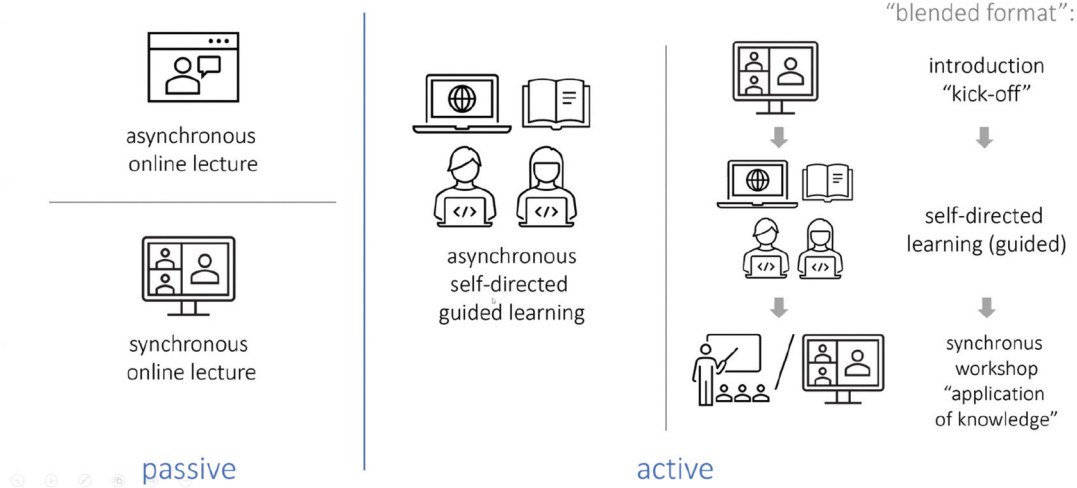


Figure 4. Transition from passive to active modes of e-learning.

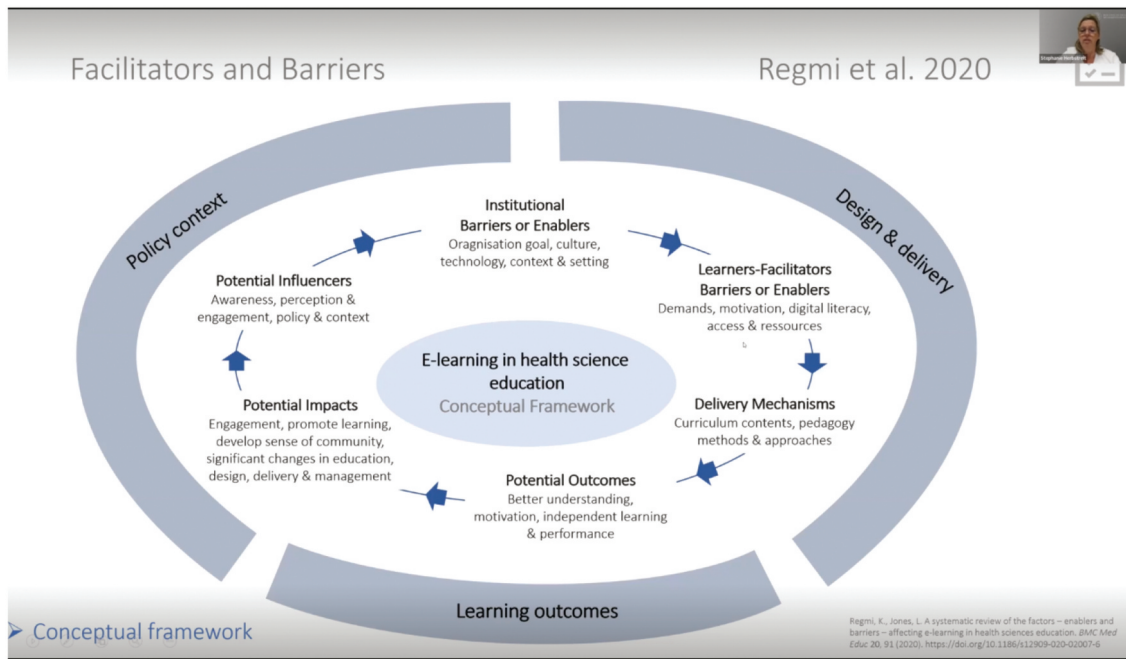


Figure 5. Criteria for consideration in the design and implementation of successful e-learning [7].

organisation. This is a subscription-based software resource designed to provide current clinical information to physicians by means of topic reviews, currently numbering over 12,000 in 25 speciality areas. The topic reviews are provided by physician experts who have conducted literature searches, then analysed and synthesised findings to provide specific recommendations for clinical diagnosis and treatment. She traced the history of the resource from being accredited as an

enduring material in 2000 to being integrated as a CME resource into the clinical practice of physicians after the approval for credit of Internet Point of Care (PoC) learning activities by the American Medical Association in 2005. Walsh described PoC learning as *“an activity in which a physician engages in self-directed online learning on topics relevant to their clinical practice from a database whose content has been vetted”*. The process for earning credit for this micro-e-learning

**Micro e-Learning metric for earning credit**

**AMA 3-step cycle:** Earn 0.5 credit for each cycle completed:

- Document the clinical question or search
- Search the evidence for information (12,000+ evidence-based topic reviews covering 25 specialties)
- Reflect on how information was implemented in practice

Search term	Topic(s) reviewed	Credits	Date	Time (GMT -5)
diabetes prev...	Prevention of type 2 diabetes mellitus	0.5	Jan 26, 2023	7:39 AM

**My search goal (select one):**

Clinical manifestations     Diagnosis  
 Treatment     Prognosis  
 Prevention     Other

**Application to practice (select one):**

This modified my plan  
 This reinforced my plan  
 I need more information

**OR**

**Time-based:** Earn up to 10 minutes of credit per topic per visit. 1 credit per 60 minutes of reading. (Recognized by EBAC, Federation of Royal Colleges of the UK, and other global regulatory bodies)

Wolters Kluwer

**Figure 6.** Mechanisms for obtaining credit for participation in micro-e-learning.

modality varies according to the accrediting body that oversees a particular physician group's CME/CPD activities as outlined in Figure 6.

Walsh saw the value of PoC micro-e-learning as allowing physicians to confirm an approach to care or adopt a change of strategy, but ultimately to reward them for recognising a professional practice gap and becoming learners who are both self-aware and self-directed.

She shared some data on search trends within the platform in the United States with aspects of the COVID-19 pandemic being reflected in a surge in searches as COVID-19 information was sought initially, followed by a decline as healthcare systems reduced in-patient care to limit the spread of the virus.

Analysis of search trends has shown a peak in the number of searches around mid-afternoon with a dip in numbers of searches from 3 to 6 pm on weekdays, whilst weekend patterns were similar but lower in number. The patterns of timings for searches also seem to hold true for other countries based on data from a comparison of USA and European Union countries.

Analysis of the search data also indicated that, although the platform was created to provide physicians with access to information during the patient encounter, it seems that more use is made of the facility before and after meeting with patients and even outside the workplace.

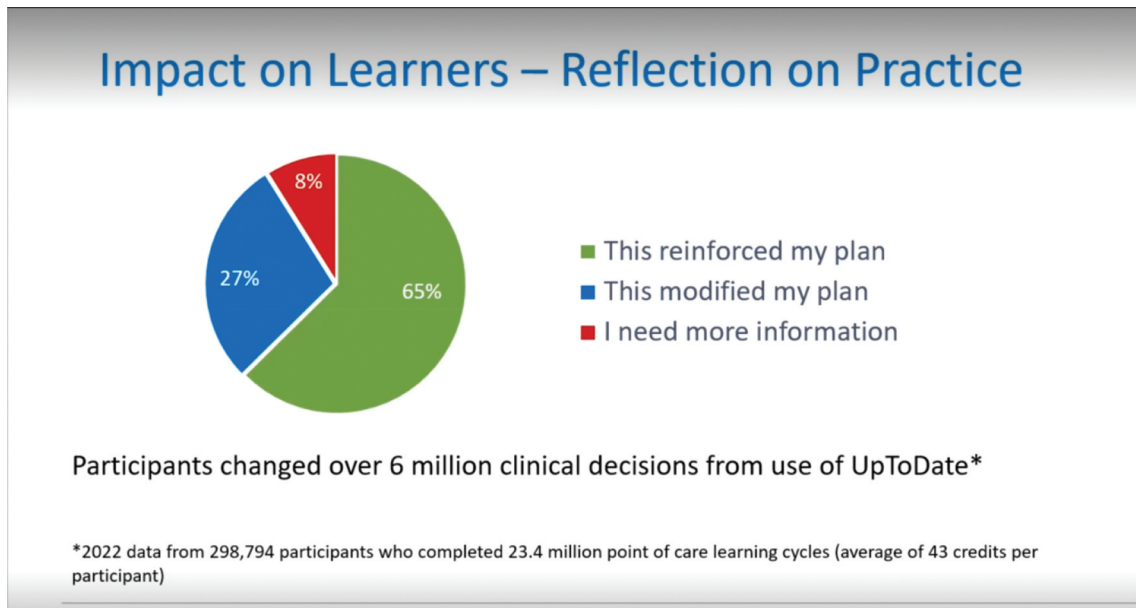
With the goal of CME/CPD being a step towards making a positive difference in physician performance,

Walsh was happy to share results from the reflection phase of the 3-step cycle (see Figure 6) which showed that most of the system's users felt that their practice decisions were reinforced making them more confident in their approach. Impact on practice as summarised in Figure 7 has been reinforced by a subscriber survey, and the hope is to expand the acceptance of micro-e-learning through substantial equivalency among accrediting bodies.

#### Session 4: Administrative Issues in Statutory Accreditation Systems

In his introduction to this session Reinhard Griebenow alluded to the "elephant in the room" which he identified as administrative and statutory issues that have a great deal of influence on the delivery of CME/CPD activities and particularly so for e-learning that can have a global reach. This session of the symposium was presented by Dr Nico Herbst of CBH Rechtsanwälte (Lawyers) in Cologne. He began by defining "administrative law" as that sector of law that governs the activities of the executive branches of governments. In its simplest form it is law relating to the control of government power. This branch of law is predicated on the principle of the fundamental human rights of individuals to participate in society and the protection of these rights against encroachment by the state.

Herbst first posed the question as to why and when administrative law is needed and cited examples of



**Figure 7.** Reported effects of micro-e-learning procedures that average 2 minutes search time [8].

these human rights in the field of education in the medical sector. He mentioned the right to live and physical integrity, and the fundamental right of freedom of profession as paramount to the theme of the symposium. It was further explained that the state also has the duty to protect individuals against the harmful actions of others, which may be the basis for a state's ability to regulate the education of healthcare professionals. A summary of these points is shown in Figure 8.

Accepting the premise that the state has an interest in ensuring that the educational activities provided to healthcare professionals meet appropriate standards, Herbst noted that the state must rely on the expertise of professionals in the field to set the quality standards for learning events, including e-learning. This poses problems in demonstrating that this newer form of education meets standards set for older traditional forms of learning. Thus, CME providers and e-learning content developers


ADMINISTRATIVE ISSUES

FUTURE OF E-LEARNING IN CONTINUING PROFESSIONAL DEVELOPMENT

## Administrative issues in statutory accreditation systems

**Why and when is administrative law needed?**

- Regulation of the legal relations of the state to its citizens.
- State has the duty to protect individuals against actions of other individuals.
- Administrative law is determined by fundamental rights.
- Impact on medical sector:
  - state has the duty to secure the right to life and physical integrity and human dignity of its citizens.




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**Figure 8.** Overview of the role of administrative law in CME/CPD.

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## Administrative issues in statutory accreditation systems

**What are the legal principles in administrative law?**

- Principle of supremacy of the law: no action against the law
- Principle of reservation of the law: no action without the law.
- Principle of proportionality: an administrative measure must not lead to a disadvantage disproportionate to the purpose pursued.
- Principle of equality.
- Fundamental rights.
- Impact on medical sector:
  - State has to balance the different principles and rights.
  - Especially right to life and physical integrity and the right of freedom of profession

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**Figure 9.** The effect of legal principles of administrative law in CME/CPD.

need to provide evidence and attestation of the quality of their educational offerings.

Herbst moved on to discuss the disparity between the state and its citizens and their relationship being based on one of superiority and subordination that requires some basic legal principles in administrative law. These principles, as shown in [Figure 9](#), aim to limit interference by the state in the personal freedom

of its citizens and to protect individuals from being harmed by others.

The final area of discussion of administrative law as it affects e-learning activities was to consider whether local national laws or international laws should govern the delivery of e-learning activities and the subsequent economic factors that might affect how a provider might seek accreditation. Organisers of e-learning

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## Administrative issues in statutory accreditation systems

**Is there a pull toward the strictest regulatory regime?**

- Is there an international rule, which determines, which national law is applicable?
- If yes:
  - What does the international rule say? Harmonisation or application of one national law?
- If no:
  - From a legal perspective: No pull-factor
  - From an economic perspective: Pull-factor

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**Figure 10.** The spectrum of applicable administrative law as it affects the delivery of e-learning [9].

activities must decide whether they comply with multiple national legal systems or only with local law requirements. Such decisions might affect the choice of target audience for e-learning activities and potentially limit the potential reach of the educational content. A summary of these points is provided in Figure 10.


### Session 5: Recent Developments in Self-Directed Learning

Reinhard Griebenow rounded off the symposium presentations by discussing recent developments in self-directed learning as they relate to the practice of accreditation. His agenda, as laid out in Figure 11, considered three main aspects of how CPD has been altered by the COVID-19 pandemic.

His first area for consideration was, in his words, “a quantitative dimension” that the COVID-19 pandemic has added to the realm of CPD. He referred to increases in the numbers of participants when activities moved from live to virtual, then somewhat modified by attendance fees charged, the time spent engaged in educational activities and the speed of dissemination and extended geographic reach of activities designed to combat the restrictions imposed by the pandemic. To illustrate these points, Griebenow cited articles by Fox et al. [10], Ball et al. [11] and Kawczak et al. [12] from the Journal of European CME’s 2021 Special Collection on Digitization of Continuing Education in the Health


Professions see: <https://www.jcme.org/collection2021-articles>. Participants were further guided towards research on digitisation and the impacts of self-directed learning in studies by Janice Bain Sibley [13] and Stoevelaar et al. [14], published in the same journal that has now been renamed the *Journal of CME*. Griebenow’s main conclusion, drawn from all these sources, was that most learners, particularly specialists, tend to access and use an educational unit to meet selective needs, not necessarily foreseen by the educational provider. He also posited the idea that online learning activities had the potential to widen inclusivity and democratise participation by power of the format to reach wider audiences and provide timely, topical information.

Griebenow moved on to acknowledge that, during the pandemic, there has been a growing awareness of how e-learning can address professional practice gaps in the PoC setting as demonstrated by Wendy Walsh in her presentation. The achievement of desired outcomes in this setting can only really be done by means of e-learning. He advocated for more workplace-based learning of this type which might also assist in achieving the desired work-life balance that has become the subject of much discussion. Furthermore, he commented on the likelihood of such learning being sustainable in providing the opportunity for multiple exposures to the education on demand which has been proven to reinforce learning and performance in practice.



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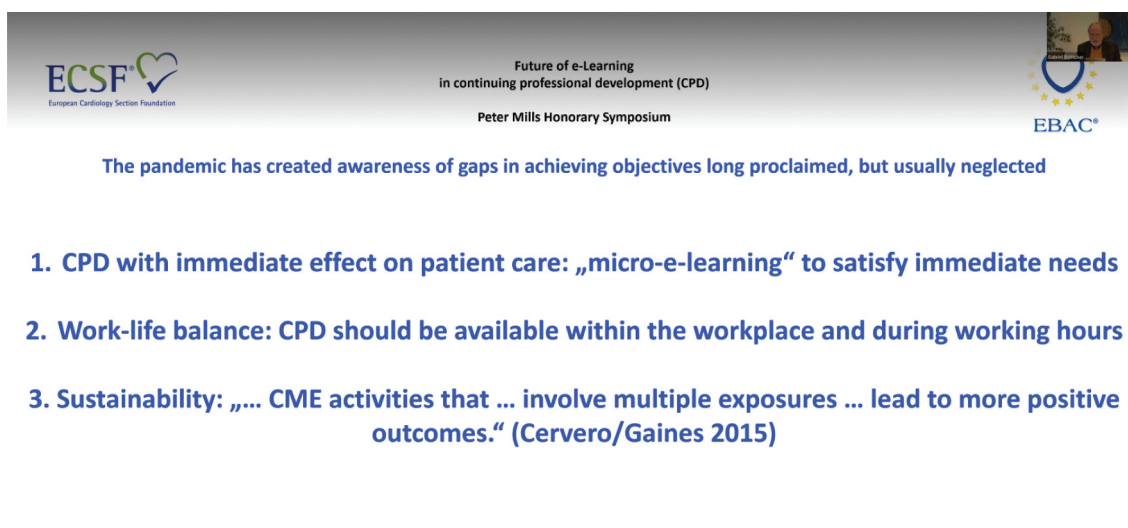


**EBAC**

- 1. CPD in times of the pandemic has added a quantitative dimension to what has already been known before**
- 2. CPD in times of the pandemic has created awareness of gaps in achieving objectives long proclaimed, but also long neglected**
- 3. Design of post-pandemic CPD activities poses administrative challenges, to accrediting bodies (regulators) and providers**

Figure 11. Some effects of the Covid-19 pandemic on CPD activities.





**Figure 12.** Issues arising from the growth of e-learning [15].

He urged accrediting bodies to take further steps to underpin the explosion in the use of micro-e-learning by providing accreditation frameworks for this, and indeed all forms of independent CME/CPD. The main points of this second area of discussion are shown in [Figure 12](#).

The third point of discussion in this final session concerned the administrative challenges faced by providers and accreditors in coming to terms with the transition to the developing situation where e-learning activities constitute a growing segment of the CME/CPD milieu. Griebenow suggested that progress could only be made in striving towards harmonisation of the regulatory framework for e-learning if accreditors and providers coordinated their efforts to improve the previously mentioned areas of potential of e-learning to address:

- accessibility,
- inclusivity,
- interactivity,
- sustainability,
- work-life balance and,
- accountability.

This could mean more trust in providers and less emphasis on credits, such as the slowly growing movement towards provider rather than activity accreditation in some areas of Europe. This approach could encourage the implementation of hybrid formats, create a framework for on-demand access and allow for the design of tracking and credit calculation for learners.

Griebenow called on all stakeholders to commit to a coordinated approach that would see the inclusion of online and hybrid educational activities as the “new normal” and a focus on the quality of the educational content rather than the calculation of credits.

Fabiola de Andrade moderated the final discussion with participants.

Discussion points that arose from presentations included:

- Concerns on how to measure engagement in e-learning activities with comments being made on the parallels with large live congresses where time spent on site may not necessarily be time spent in learning. One suggested approach alluded to Stephanie Herbstreit’s session where the inclusion of polls, quizzes and other interactive features might mitigate some of these concerns, although a unifying concept of equivalence in measuring levels of participation across all CPD modalities is currently lacking.
- Disquiet around the mechanisms for awarding credit for micro-learning activities. Reference was made back to Wendy Walsh’s presentation where methods were described, leading to further discussion on the current progress towards harmonisation among accrediting systems.
- Whether the impact of e-learning on healthcare professionals’ practice and therefore patient care is more important than the formal procedures needed to develop the educational activities.
- Elements of CME/CPD delivered via social media platforms such as Twitter and how a framework of accreditation might be applied. There was no definitive conclusion to these points although the

existence of *tweetorials* was mentioned and some level of agreement occurred in differentiating planned and defined activities from free-flowing conversations on such platforms.

The Peter Mills Honorary Symposium provided a great deal of thought-provoking material on how educational activities in CME/CPD might be designed and delivered in the “new normal” of hybrid and e-learning modalities and a solid basis for further discussion and collaboration among stakeholders.

A recording of the symposium is available at the European Cardiology Section Foundation

website: <http://e-cs-f.org/en/symposium-future-of-e-learning-in-cpd-27-01-202327January2023/>

### Disclosure Statement

No potential conflict of interest was reported by the author.

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