Current state of the evidence-base for effective continuous medical education for family medicine and general practice

Bednář J., Buchanan J., Michels NR., Kalda R., Vajer P., Miftode R., Homar V., Ristovska R., Kolesnyk P., Mayer M., Svab I.

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Summary of Principles for Effective CME for GPs/FDs

CME should:
- Be based on learning needs relevant to current practice
- Use methods which involve practitioners actively and encourage reflection
- Include the perspectives of what patients want and need from their healthcare, balance the patients' needs and demands
- Ensure that physicians are encouraged to change practice appropriately
- Be evaluated and adapted to changing needs
- Be free of conflicts of interest
- Encourage social contact with peers through communities of practice.
- Acknowledge the need to support physicians' well-being.

Introduction:

The European Academy of Teachers in General Practice and Family Medicine is the education network of WONCA Europe. The Continuing Medical Education (CME)/Continuous Professional Development (CPD) group has produced this document, following a review of the current literature, to support colleagues who are seeking to improve and develop CME programmes for Family Medicine/General Practice (GP/FM).

Although CPD and CME are frequently used interchangeably, most literature has now defined CME as being an ingredient of CPD; CPD is a broader concept of lifelong personal development and maturation, manifested not only in education and professionalism, but also in ethics, values, attitudes or communication skills of the doctor in relation to the patient. We will use only the term CME for the purposes of this document.

Definition of CME:

CME is defined as 'Any activity which serves to maintain, develop or increase the knowledge skills and the professional performance and relationships that a physician uses to provide services to patients, the public or the profession' [1]. It is an essential part of all doctors'

professional lives, as the old idea that medical school equipped one for a lifetime of practice is no longer acceptable given the rapid pace of change in medical practice.

Impact of CME:

There is good evidence that CME can be effective and has an impact on physician performance and patient health outcomes [2]. There is agreement that this impact is apparently greater on physician performance than on patient health outcomes [2].

How Adults Learn:

An understanding of the theories about how adults learn is important when considering how to plan CME activities. Adults want to learn, they are self-directed, and they need learning to be relevant and applicable in their setting; when these conditions are met, they are highly motivated [3]. In many countries, GP/FM work in small practices and are often geographically isolated. These particular factors are important when considering the CME provision for this group.

Effective Interventions:

Given the recognition that CME is effective, the next question is how to deliver CME interventions that support doctors to change their practice and improve outcomes for patients. The first step is to recognise that learning is dynamic and occurs on a daily basis as the GP/FM encounters difficult problems. Needs assessment has a role and several approaches to this are required. Doctors use self-awareness to identify their learning needs. If this is done well there is some evidence that practice is more likely to change [4]. The best methods for self-assessment are those that support deliberate reflective practice such as logging daily issues where uncertainty occurs, feedback from prescription data, diagnostic test ´behaviour´ and referral data and discussion on these data with peers and medical specialists. CME providers should in addition use some objective assessments of learning needs such as peer review in quality groups, expert opinion, literature review, physician performance data and standardized assessments [1]. There are examples of this 'top down, bottom-up approach' for the development of GP/FM CME programmes [3,5].

Embedding quality improvement approaches within CME activities is an interesting development [6]. A method which incorporates these principles is the Quality Circle where small groups of health professionals meet regularly to reflect on and improve practice [7]. In rural areas this kind of work can be arranged through online communities of learners. These have been shown to have effects on changing behaviour, affirming self-esteem and increasing professional confidence [8].

Needs Assessment:

The identification of needs, together with an assessment of what is to be learnt and why, will lead to some clarity about the objectives and will enable the development of a learning plan. These should be clear, concise and ideally measurable. However there also needs to be the acceptance that training - to resolve the most difficult clinical problems - cannot always be easily summarised within an educational objective.

The identification of objectives can enable educators to provide more effective learning opportunities. It is clear that no single modality of learning works under all circumstances. Effectiveness increases when a variety of methods are used allowing for interaction, multiple exposures, and longer programmes rather than shorter that focus on outcomes considered important by physicians [2]. The opportunity for interaction is essential. This can be done both face to face and electronically. The traditional lecture (often favoured by doctors) and the dissemination of printed material are the least effective methods of CME. These are however commonly used. Lectures, if short, can have an important role in setting the scene and providing knowledge updates, prior to discussion in small groups of e.g. case studies. This discussion allows for an important stage in adult learning: reflection on the relevance of what has been learnt and how it might be applied to practice. Multiple exposures in different formats facilitate behaviour change [2].

The Role of Information Technology:

Widespread access to Information Technology (IT) enables the development of new mechanisms of learning through on-line courses that can be of particular relevance to GP/FM. Online courses need to follow the same principles as face-to-face CME. They need to be easy to use, involve practical exercises, repetition and feedback. Online communities of learners can be formed that further facilitate interaction and these networks are of particular relevance to doctors who work in isolation. In addition, learning can be reinforced within clinical IT systems. This can be done by the integration of guidelines and the ability to search for diagnostic and therapeutic interventions relevant to specific patient presentations. There must be a process for updating these guidelines. There is much still to learn about this area and how best to use in education.

Self-audit and self-assessment:

It is necessary to develop IT tools that allow GP/FMs to audit their work and compare that with the performance of others using quality indicators. This should include information on the monitoring of chronic non-communicable diseases, major surgeries, history of illnesses, vaccinations, allergies, etc. All this data must be easily accessible to the GP/FMs who can gain insight into their own work. This can help to build profession confidence and improve self-esteem.

General Data Protection Regulation (GDPR):

GDPR must be respected. There should be clarity about who has access to the data in Electronic Medical Record (EMR) that is created by GP/FM and in Electronic Personal Records (EPR) created by patients. All CME for GP/FM based on review of patient data has to ensure that this data is not identifiable and complies the regulations.

Evaluation of CME activities or programmes:

CME can be provided by different institutions or organisations. Often it is organised in cooperation with the medical association. To improve and guarantee quality of CME programmes the WONCA World Education Working Party has established a set of standards that can be consulted [9].

It is important that providers of CME evaluate the learning activities that they develop. The Kirkpatrick model for training evaluation has been widely used. It describes four levels at which evaluation can occur: participant satisfaction, knowledge and attitude change, improvement in physician clinical outcomes and improvement in patient outcomes [10]. A more recent model has been proposed by Stevenson and Moore (2018) with seven levels which includes at its peak the impact on community health [11]. Evaluation beyond the lower levels on both models is not common; however, these levels must not be neglected as well as it is important that GP/FM find CME interesting and stimulating. The criteria for determining which levels to measure and how robust an evaluation is required depend on the type of educational programme delivered.

Learning in the workplace:

Workplace based learning fits well with what is known about how adults learn. It is efficient and effective, enabling clinicians to gain knowledge in the setting where this knowledge can be applied. It is of particular relevance in primary care as GP/FM work in units which are dispersed within the community. These communities of practice can be very rich learning environments, provided that everybody has an eye on continuous development.

The Role of Health Care Organisations and Employers:

Employers and Health Care organisations need to understand the important role that CME plays in developing the quality of care and maintaining motivated and engaged professionals. They need to enable GP/FM to participate in CME during their working week. Professional bodies and regulators need to recognise that the accreditation of hours of learning is not a surrogate for improved competence. Doctors need to be allowed flexibility in the type of learning that is recognised, and this should include learning that can be demonstrated to change practice.

There also needs to be an awareness of the effect that industry-sponsored activities may have on influencing doctors' behaviour particularly in relation to prescribing [12,13]. CME providers

need to be able to react promptly to sudden changes in society and in disease prevalence such as rapid mass migration or a pandemic. There needs to be a readiness to review needs and deliver effective learning modules rapidly. This has been recently required during the COVID-19 pandemic which produced and rapid change in the delivery of CME as face-to-face activities were no longer possible.

It is in the interest of every society to have doctors providing quality and safe care, and therefore requires them to keep their knowledge and skills up to date. This process of formal claim and evaluation is called recertification. In some European countries this process is mandatory, in some places it is recommended, in some cases it is not formally established at all as such. The first European country to introduce mandatory CME re-certification was Norway (1985), followed by Slovenia (1992). Most other European countries joined after 2000. It can be a necessary precondition for the renewal of a doctor's license or registration, it is usually tied to professional evaluation and bonuses. In some countries it is related to professional or financial sanctions or even to the loss of license.

The Future:

There is still a need to develop CME approaches that support doctors in changing their practice, improving patient outcomes and community health. More work is needed to include the perspective of the patient in a meaningful way to CME. In addition, their needs to be increasing focus on learning with other professionals who are providing primary care in order to ensure patients receive effective coordinated care [14].

This emerging evidence about the most effective ways to deliver CME in Primary Care can be used to establish common standards throughout Europe, which will enable individual countries to develop and improve the health of the community.

Conclusion:

In conclusion all CME providers need to recognise that GP/FM will respond best to programmes which are relevant to their practice and clearly address their needs in an accessible way. Delivery should involve a combination of knowledge updates and interactive learning. CME should lead to quality improvement and better patient outcomes.

This document outlines the principles for the provision of effective CME for GP/FM that are based on the current state of the evidence base. As the evidence base develops there will be a need to review and refine them. The CME committee of EURACT has produced a series of background documents which outline the above principles in more detail.

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# Assessment of the effectiveness of educational interventions

Ruth Kalda

Background:

As in clinical research, the need for an evidence base in the practice of medical education is essential. Therefore, valid and reliable evaluation tools are necessary to demonstrate the effectiveness of CME interventions.

The validity of the evaluation method is "the degree to which the method truly measures what it is intended to measure" [1]. A valid evaluation method accurately measures achievement of the stated objective of the educational intervention, whether it involves knowledge, attitudes, skills, practice behaviours, or clinical outcomes. The reliability of the evaluation method is "the consistency or reproducibility of measurements" [1].

Content:

Best known „four level" model for training course evaluation is described by Donald Kirkpatric [2].
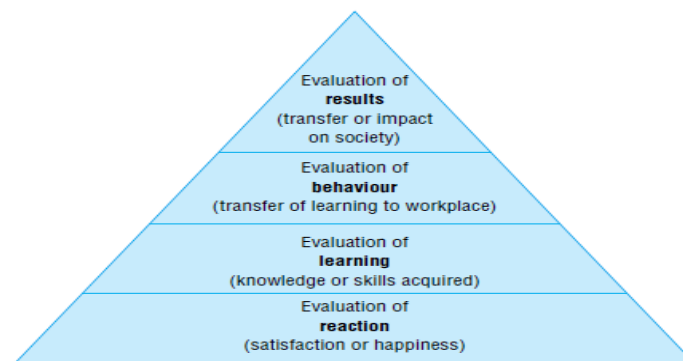
Fig 2 Kirkpatrick's hierarchy of levels of evaluation. Complexity of behavioural change increases as evaluation of intervention ascends the hierarchy

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Curran and Fleet adapted this model for use in a summative evaluation of CME in 2005 [3]. According to the adapted model, evaluation should begin with level 1 (participant satisfaction), then, sequentially assessing levels 2 (knowledge and attitude change), 3 (physician clinical practice change), and 4 (patient outcomes) (Table 1). Each prior level serves as a basis for the next level's evaluation, and each successive level represents a more precise measure of effectiveness and more rigorous, time-consuming analysis.

Table 1. Modified Version of Kirkpatrick's Model for Summative Evaluation[3]

Level	Evaluation focus	Definition
1	Learner satisfaction	Evaluates how well participants liked a programme using data on participants' perceptions, satisfaction with programme objectives, content, instruction, delivery, or instructors
2	Learning outcomes	Assessment of changes in skills, knowledge, or attitudes among learners, using pretesting and post-testing study designs
3	Performance improvement	Information on the extent to which learning has influenced the post-learning behaviour or performance of a learner in his or her practice setting
4	Patient health outcomes	Measures tangible results (e.g., improving patient health or improving efficiencies) that are influenced by the performance of the learner as a result of participation in the continuing education activity

According to the updated systematic review of ACCME (Accreditation Council for Continuing Medical Education) in 2014, the ultimate goal of CME is improvement of physician performance and patient health outcome [4]. However, evaluation at level 4 is challenging because learners encounter a variety of uncontrollable variables after leaving CME programmes.

A complex framework for outcomes assessment in CME was proposed by Moore already in 2003 [5]. In 2009, he and his co-authors expanded the original outcomes framework to 7 levels They inserted the 4 levels of an assessment framework developed by Miller [6] into the middle of their original CME outcomes framework. In that way the authors have developed a conceptual framework of an ideal approach to planning and assessing CME that is focused on achieving desired outcomes (Table 2). They believe that it will help CME planners identify, plan for, and assess desired results or outcomes [7].

Table 2. Expanded Outcomes Framework for Planning and Assessing CME Activities (described by Moore et al. in 2009 [7].

Expanded CME Framework	Description	Source of data
Level 1. Participation	The number of physicians and others who participated in the CME activity	Attendance lists
Level 2. Satisfaction	The degree to which the expectations of the participants about the setting and delivery of the CME activity were met	Questionnaires completed by participants after a CME activity

Level 3A. Declarative knowledge (*Knows*)	The degree to which participants state what the CME activity intended them to know	Objective: Pre- and post-tests of knowledge. Subjective: Self-report of knowledge gain
Level 3B. Procedural knowledge (*Knows how*)	The degree to which participants state how to do what the CME activity intended them to know how to do	Objective: Pre- and post-tests of knowledge Subjective: Self-report of knowledge gain
Level 4. Competence (*Shows how*)	The degree to which participants show in an educational setting how to do what the CME activity intended them to be able to do	Objective: Observation in educational setting Subjective: Self-report of competence; intention to change
Level 5. Performance (*Does*)	The degree to which participants do what the CME activity intended them to be able to do in their practices	Objective: Observation of performance in patient care setting; patient charts; administrative databases Subjective: self-report of performance
Level 6. Patient health	The degree to which the health status of patients improves due to changes in the practice behaviour of participants	Objective: Health status measures recorded in patient charts or administrative databases Subjective: Patient self-report of health status
Level 7. Community health	The degree to which the health status of a community of patients changes due to changes in the practice behaviour of participants	Objective: Epidemiological data and reports Subjective: Community self-report

Moore et al. suggests that planning and assessment will be continuously integrated. It means that needs assessment, formative assessment, and summative assessment (see infra) apply not only to participant learning throughout the learning activity but to planning decisions throughout the implementation of a learning activity as well.

There are three types of assessment.
Needs assessment identifies the gap between *what is* and *what should be*. It occurs before and during the early stages of an educational activity to determine what content the educational activity should address. When planning the educational intervention, it is useful to firstly define the gap using the expanded outcomes framework. CME planners have to decide either to address the gap in „knowledge", „skills", „attitudes", „performance", „patient health status". If the gap is identified, CME organisers can make decisions about the content, learning strategies and assessment strategy.
Formative assessment occurs during an educational activity to determine if the learner is on track to achieve the desired results.
Summative assessment should be designed to determine if desired results were achieved. This should be done at the end of an educational activity.

Conclusion:

Assessment should be thought of as a continuum that identifies what content should be addressed in an educational activity, examines whether or not the educational activity is contributing to learning that content, and determines if the content was learned.

However, the evaluation of an educational event may have many purposes and each evaluation should be designed for the specific purpose. The metrics involved and outcomes measured can vary based on their ease of measurement, cost to obtain, and most importantly, the ability to use them to assess the way the education is changing practice.

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How to identify/assess your learning needs that are relevant to GP/FM?

Jáchym Bednář

Background:

The most important reason for identifying and assessing your learning needs is that when you have identified/assessed your learning needs, it will be more likely to change your daily practice for the benefit of patients. Personal learning needs assessment is often performed unconsciously, but conscious decision to assess yourself and identify your learning needs is a good way to discover your strengths and limits, which requires a great deal of self-reflection and sincerity.

When was the last time you assessed your learning needs?

Content:

GP/FMs may unconsciously learn from their patient unmet needs and experiences, daily practice issues and errors, from discussing with peers/colleagues and feedback from partners, specialists, nurses, staff, and patients, from lectures, seminars, guidelines and reading literature. To increase the efficiency of this process, it is advantageous to consciously use some proven methods of learning needs assessment.

The *Good CPD Guide* lists over 40 different tools of such an assessment [1].

There are a variety of methods to help you uncover the gaps in your knowledge. Different methods will suit different people. It is best to use more than one method and a combination of subjective and objective methods often gives a better overall picture of your knowledge gaps. There are some examples of most frequently used methods:

- Keeping a personal record (e-portfolio) [2]
- Formalization of thoughts and ideas in written form helps self-reflection and self-assessment
- Assessing your practice risks via Significant Event Analysis (SEA) [3]
- Formal patient satisfaction surveys
- 360° appraisal [4], if you work in a team: a formal 360 appraisal involves asking your colleagues to give feedback on your strengths and weaknesses. The colleagues can be doctors or can be interdisciplinary members of your team. They can give feedback on your knowledge, skills or attitudes or even your abilities as a team player. Those giving feedback should remember that it should be balanced, descriptive, objective and constructive.
- Audit of medical practice: this is a process that has been defined as "a quality improvement process that seeks to improve patient care and outcomes through

systematic review of care against explicit criteria and the implementation of change" [7]. A certain aspect of health care is set against a recognized standard. In this way care providers and patients know where their service is doing well, and where there could be improvements.

- PUNs/DENs [5] :
  - PUNs or Patient Unmet Needs are discovered in consultations simply by asking ourselves at the end, when the patient has gone, 'How could I have done better?
  - DENs or Doctor´s Educational Needs, knowledge gaps, skill deficits and/or attitudinal barriers or sensitivities. When you discover a PUN, a DEN can be constructed. DENs may relate to these levels: skills / knowledge/ attitudes.
- The Position map [5]: This method means mapping the level of functioning in relation to the professional content and competence that is listed in an official document on GP/FM tasks, to find out your personal profile. Also in your professional discipline, there are documents or statements on "basic task and function options" that are officially defined and/or generally accepted. The position map helps you to quote yourself in relation to this. It scores your personal opinion as to your expertise and quality, in relation to each of the defined domains. Where am I as a skilled professional, what are my strong and weak points in this?
- Strength/Weakness analysis - reflection and career analysis: This technique used to help a GP/FM identify strengths, weaknesses, opportunities, and threats. Do not focus only on areas of expertise, but also on areas of deficiency. What areas of work make you anxious? What keeps coming up as a problem? What are you good at (and might enjoy learning more about)? What are the threats and opportunities in your situation?

In general, the whole process of analysis of learning needs takes place in two stages [6] :
1st step is analysis: comprises an appropriate learning needs assessment/PUN assessment and reflection activity. **List of learning needs** should be the endpoint [5].
2nd step is defining goals and objectives, **making a plan** [5]. Written evidence is recommended: learning log, activity record, e-portfolio, individual learning plan, or practice profile analysis.

An outline of how you plan to address your educational needs should result in an **individual learning plan** [5] **,** which should contain a general learning aim and finalization time, specific learning aims you want to achieve and interim time steps, partial elements in your working plan. It is recommended to make your learning plan **S-M-A-R-T** (see Table 3).

Table 3. SMART concept

S-M-A-R-T	
Specific	the plan should only contain specific changes within the context of the practice development

Measurable	the development should be able to be measured in the practice. This may be measured using documents, video, reflection in portfolio, presentation in practice staff meeting
Achievable	identify interim steps and plan them realistically; three priority points is enough for one year
Relevant	not because that what you like, but that what is needed: be honest and open, it will ask for a sustained effort.
Time-bound	steps within a realistic timeframe, set deadlines

Conclusion:

Learning needs analysis (identification and assessment) is a step on the educational journey within CME and Quality improvement (QI) [7]. Such an analysis must result in a concrete individual learning plan.

There is unlikely to be a single best way of identifying/assessing learning needs. It will depend on each person and each practice. However, there are **10 general characteristics**, how to construct an individual learning plan, based on a learning needs analysis: a GP/FM will never be perfect, but always consciously strive to be a better one.

Table 4. 10 general characteristics of identifying learning needs

1. Know your goals,
2. Make them simple,
3. Make them S-M-A-R-T,
4. Keep the goals in front of you,
5. Keep the goals in front of others,
6. Work at the plan regularly,
7. Record evidence of progress,
8. Redirect your actions when they are ineffective,
9. Invite others to set goals with you,
10. Have a mentor [5,6]

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Options for the delivery of educational interventions to meet specific primary healthcare needs reflecting changing society

Vesna Homar

Background:

In the past decade we have encountered changing needs and challenges in GP/FM that are reflecting a fast changing society [1,2,3]. Some examples of challenges that reflect a changing society:

1. Organisational challenges due to changing society – e.g., workload and time pressures are increasing due to increasing healthcare needs of the high needs patients and aging society [2].
2. Clinical challenges – e.g. epidemics and pandemics; re-emergence of "old" diseases are occurring due to globalisation, migration and changing vaccination trends; or multimorbidity and poly-pharmacy are becoming predominant in aging society, in discordance with evidence based medicine [1,3].
3. Political, environmental, and economic challenges – e.g., changing political, environmental, and economic conditions are forcing migrations of large groups of people [4].
4. Technological challenges – e.g. easily accessible low-quality information can be very influential for both physicians and patients and can interfere in doctor-patient relationship.

There are two common features to all different challenges in GP/FM, reflecting a changing society:
- It is usually not possible to anticipate them,
- a prompt and goal-oriented response from GP/FM professionals is needed [2].

There are numerous approaches to tackle the challenges of a changing society, but most of them demand a broad social engagement and global solutions. The inability to resolve them can lead to dissatisfaction and even frustration of established GP/FM physicians on their workplace. On the other hand, with appropriate and timely educational interventions and practices the physicians can develop flexibility, remain clinically up-to-date, embrace positive aspects of a changing society and develop resilience to the negative aspects.

Content:

The objective of CME/CPD committee is to deliver educational interventions to meet specific primary healthcare needs reflecting a changing society by:

1. recognising a rising challenge in society
2. defining best educational interventions in GP/FM,
3. facilitating the information-flow about meeting new challenges in GP/FM,
4. offering educational materials and tools to be adapted to specific regional needs.

Suggested methods:

1. Yearly country reports form EURACT council members on new challenges and educational interventions.
2. Promotion and support of educational courses dealing about a changing society for established GP/FM physicians.
3. An internet-based social platform, placed on EURACT homepage – forum that needs quick response editor or editorial board.

Summary:

EURACT CPD/CME group should provide a platform to conduct and share best educational interventions and practices to meet specific primary healthcare needs of a changing society.

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Options for the delivery of educational interventions. The advantages and disadvantages of these options

Pavlo Kolesnyk

Background:

Different teaching methods are used in GP/FM education. What education methodology can be used in teaching different medical topics?

EURACT and other medical organizations recommend **interactive** teaching techniques; also, in most European countries they are a mandatory part of the combination (blending) of different teaching models for GP/FDs [1]. Optimal combination of teaching methods in medical professionals' education like study in the classroom, in the practice or at home, as well as use of appropriate IT concise the system of blended learning which can give the best result [1-3].

- Interactive training seminars combine various methods which draw participants' attention and involve them in practical interactions [4-6].
- Traditional lectures and seminars are less effective than interactive teaching, but passive learning with minimal trainee's participation is still often used in the medical-education curriculum of many countries as well as in Eastern European countries [7-10].
- **Innovative** training techniques may improve GP/FDs' training and be an effective means to induce changes in medical practice [5].

Content:

For GP/FM CME, interactive education is recommended. It helps to increase GP/FDs' knowledge, improve practical skills and readiness to implement them in the practice [5]. Active teaching/learning techniques can be used to develop creative thinking, and to establish practical skills and competencies among not only undergraduates or residents but also during CME [2,5,11]. Interactive pedagogic methods include "brainstorming" (group activity that encourages learners to focus on a topic and contribute to the free flow of ideas), work in small groups, demonstrations, presentation of clinical cases, role-play and feedback, etc.

Successful combination of interactive methods usually depends on the topic, aim and the audience and may vary according to the circumstances. Each education method can have its advantages and limitations and must be used according to the aim of the trainer/training. Some often-used interactive methods are listed below (Table 5).

Table 5. Educational methods: their advantages, disadvantages, and tips

"Open" questions teaching method	
Advantages	The system of open questions may be used in any form of education (i.e., lectures, small groups sessions, case presentations, etc.). It encourages trainees to think actively about the

	topic and to express their knowledge, thoughts, and ideas. The success of this method mostly depends on the teachers' ability to ask questions to achieve a certain goal.
Disadvantages	Too often, listeners may say that they understand the content, however, the assessment of knowledge and skills may show quite the opposite results.
Tips	Open questions force effective discussions. Open-ended questions usually begin with the words "what, when, how, why, which ..." and do not lead to a simple answer "yes" or "no". To maintain the interest of listeners and to avoid repetitive style, several question methods can be used: 1) Asking questions to the whole group, 2) Asking a question to an individual listener, addressing someone by name, 3) Asking a question to a certain listener after a pause.

Lecture
- ex cathedra, a traditional teaching method, mostly used for a big audience -

Advantages	Teaching a big group of learners. One trainer/presenter can attract the attention of a big group. Different ways of demonstration can be used during the lecture.
Disadvantages	Method requires a high educational quality of the presenter to be effective. Some education methods are not appropriate during lecture. Passive participation of the audience is often. Communication with the audience is limited.
Tips	Different specific methods can be used to activate the audience's attention during the lecture: "Buzz group": during the lecture you ask the participants to discuss a topic in groups of 2-4 for 3-10 minutes. The results of their discussion can be reported by some groups' representatives at the end of discussion. "Joker session": a "blind" lecture listed in the programme/curriculum; participants do not know the topic, but they know who will present the lecture. Usually, a famous or popular lecturer is invited to increase (the attention of the) participants.

Discussion

Advantages	This teaching method is purposeful to exchange ideas, judgments, points of view in a group to form a point of view by each participant.
Disadvantages	It can be used in a special audience with a limited number of participants. It requires special skills of the trainer. It requires more time. It may cause division of the audience with active participants on the one hand and passive listeners at the other hand.
Tips	Different types of discussions can be used - A group discussion is aimed to present a possible solution of the problem or discussing opposing views on controversial issues. The group discussion is attended by 3 to 8 participants, not including the moderator - General discussion that revolves around one listener's question, which relates to a certain (research) topic - Discussion with the jury: the teacher, acting as an arbitrator, conducts a "question-answer" between the jury and other participants. How teachers respond to questions and comments is crucial in creating a constructive atmosphere. Do not forget to thank them for their questions and comments and provide equal opportunities for everyone. Encourage fewer active participants, maintaining their confidence, offer to give additional comments. Stop dominant (talkative) participants by asking what others think about it.

Brainstorming
- one of the easiest but most effective learning methods that stimulates learners' thinking and creativity and is often used in conjunction with group discussions. The main purpose to generate ideas, opinions and alternative solutions related to a particular topic or problem by all participants in a short period of time. The group is given a specific task. The expressed ideas are to be written down on a sheet or flipchart. The next stages of brainstorming are discussion, classification, selection of promising proposals -

Advantages	Can be used at the beginning of the lesson to find out how learners understand the topic. Increases the degree of involvement of learners in the learning process. Has an "energy impact" at the beginning of the lesson.
Disadvantages	In the absence of a close connection with the topic of the lesson, brainstorming may seem like a waste of time. Rejection of the opinion expressed by the listeners may discourage them from participating in further discussions.
Tips	Use different steps: 1) Formulation of the problem, 2) Generating ideas, 3) Grouping, analysis and evaluation of ideas.

Work in small groups
- allows to increase the degree of involvement of learners and allows them to learn from each other -

Advantages	Gives participants a great opportunity to share their views and opinions. Small-group discussions allow participants to make a variety of judgments that they are less able to make in a large group. Participants can share experiences and ideas that help to expand knowledge and change existing approaches, they get the opportunity to learn from each other. The focus is shifted from the teacher to the participants. Helps to create a sense of team in the group.
Disadvantages	Requires a lot of time and extra space. One of the participants can begin to dominate and, if the group does not object, takes control of it. The group may deviate from their task, vaguely follow instructions, or misunderstand the task.
Tips	Tasks for small groups should be relevant to the topic of the lesson, do not require too much time to complete, meet the level of knowledge of learners and promote the assimilation of educational material. All groups can perform the same task or each group can consider their own problem, case or role play. After each group completes their task, the teacher brings all the groups together to discuss the work done. Discussion can be organized in the following forms: 1) Report from each group, 2) Answers to the question, 3) Demonstration of role play, 4) Recommendations from each group on the proposed topic. Special methods for small groups' interactions- 1. Uncertainty vignette: a small group exercise. You prepare a vignette on a case that has an element of uncertainty. It should be a complex case; the participants might prepare their own if you ask them in advance. Then you ask them to discuss what they were uncertain about. After that the group is facilitated to recognize different types of uncertainty (diagnostic, therapeutic, patient, ethic...). The conclusion of the session is that we always can meet uncertainty in our work, that we should recognize it as something positive, but we should learn to make decisions, nevertheless. 2. Appropriate prescription of medications: The session can be used in a small group of learners. Facilitator asks them in advance (as homework) to bring a case of a patient whose condition requires prescription of many medications (more than 6). One participant presents the patient with comorbidities and medications needed. Then group participants decide if there is any more needed (under-prescribing) or if there are any medications that are not necessary (over-prescribing). Then drug-drug interactions are checked (e.g. on www.drugs.com). The result of the group work is a revised list of medications for the patient (patient centeredness). 3. Family genogram: It is usually done in small groups to demonstrate the importance of drawing a family tree for patients that might have a genetically transmittable disease (like hemophilia). However, it can be done also as a psychotherapeutic tool - sometimes an important psychologic issue to one family member influences other members, especially for anxiety behaviour of the whole family or somatoform disorders. You prepare a vignette, in the group you draw a family tree, mark on the

	tree every family member that has a pathology and you try to find the reason for that kind of family behaviour.
Role-play	
- participants play different roles based on situations related to the topic -	
Advantages	Participants test themselves as in real life situations, without exposing themselves to real risk (safe environment). Role-playing helps participants better understand how the patient feels in this situation. The teacher can demonstrate effective techniques and techniques that should be avoided.
Disadvantages	Role-playing games take time. Training is most effective for those who 'play' the role-playing games. While being in the role of the audience can be tedious, especially if the presentation is not very successful.
Tips	Best used in the following situations: - Training communication skills - Training of skills or clinical procedures on a simulation/anatomic model - Training of teaching skills A variation of the role play is the "Fishbowl" technique (also called "aquarium"): demonstration of "how it should be done". You have a group of teachers that sit in the middle of the room, while the audience sit in circle around them (they watch the teachers as we watch fish in the fishbowl). The audience is quiet all the time. The teachers (demonstrators) demonstrate a meeting (like debriefing, family meeting, feedback or similar). The audience observes how it is done. There is no discussion at the end, everyone just leaves the room.
Discussion	
Advantages	This teaching method is purposeful to exchange ideas, judgments, points of view in a group to form a point of view by each participant.
Disadvantages	It can be used in a special audience with a limited number of participants. It requires special skills of the trainer. It requires more time. It may cause division of the audience with active participants on the one hand and passive listeners at the other hand.
Tips	Different types of discussions can be used - A group discussion is aimed to present a possible solution of the problem or discussing opposing views on controversial issues. The group discussion is attended by 3 to 8 participants, not including the moderator - General discussion that revolves around one listener's question, which relates to a certain (research) topic - Discussion with the jury: the teacher, acting as an arbitrator, conducts a "question-answer" between the jury and other participants. How teachers respond to questions and comments is crucial in creating a constructive atmosphere. Do not forget to thank them for their questions and comments and provide equal opportunities for everyone. Encourage fewer active participants, maintaining their confidence, offer to give additional comments. Stop dominant (talkative) participants by asking what others think about it.
Situational tasks analysis	
- based on the use of real situations related to a specific topic or problem. When considering situational tasks, participants can work both individually and in small groups -	
Advantages	The main advantage of analysing situational tasks is that the listeners' attention is focused on real situations. The study of cases from practice makes theoretical learning more meaningful and closer to real life. Participants express their opinion on real cases related to the topic. Analysis of situational tasks helps participants to develop the ability to solve various problems.

Disadvantages	Too realistic examples can also cause a feeling of discomfort if such cases have occurred in the practice of participants. It takes a lot of time to study cases from practice.

Demonstration
- a method to show learners the right way of performing specific actions -

Advantages	Gives learners the opportunity to focus on practice and receive information in the form of practical actions. When participants are involved in a demonstration, this method allows them to learn through actions and movements.
Disadvantages	It takes more time and attention for location and placing the audience is needed.
Tips	Clinical skill can be demonstrated in a variety of ways: - Slide show or video - Demonstration of a clinical procedure or skills on an anatomical model - Conducting a game lesson - Demonstration on a real patient. Despite the way of demonstration, it must be conducted in accordance with the scheme "whole-part-whole" 1. First you need to demonstrate the whole procedure from start to finish so that the listener can visually imagine it 2. Then divide the procedure into stages and give participants the opportunity to practice on a certain stage 3. Demonstrate the entire procedure again and then allow participants to practice the entire procedure from start to finish.

Home visit with other learners
- Home visit with a group of students/trainees/residents (N ≤ 5) to one of your patients (senior, disabled, end of life care...) -

Advantages	Emotionally strong teaching method. Role model way of teaching. Perception of the patient needed. Patient-centered method.
Disadvantages	Limited number of participants. Time limitation. Participants should be prepared.
Tips	The patient must agree for this kind of visit. One of the students/trainees (or the teacher-learner) asks all the questions. The others have other tasks: observing the non-verbal communication, social status, talking with relatives... If a physical examination is needed, it should be done in a private condition in presence of just one person, the other group participants can wait outside. The important part is after the home visit: group members discuss the house visit from different perspectives of the members of the group and can report their observations to other groups.

Feedback
- important in order to assess the learning and emotional reactions of participants – mostly at the end of a training session -

Advantages	Increases the level of involvement of the listener. Helps the trainer to formulate specific proposals to meet the needs/requests of the audience. Evaluates the level of moods and the knowledge acquired by the learners.
Disadvantages	Sufficient attention must be given to feedback, and it must also be properly framed. At the end of a session (participants are tired), this may be compromised.
Tips	Many different methods of summary/giving feedback are available, including the following: - Ask learners to ask questions that will give them the opportunity to demonstrate their understanding of the material that was covered during the lesson. - Ask learners questions that will stress their attention on the main points of the topic. - Conduct practical exercises or surveys, which will also allow learners to show their understanding of the studied material.

Summary:

Interactive training is an effective way to increase both the level of knowledge and the motivation of GP/FDs with respect to their knowledge/skills implementation into their real practice.

It is feasible for EURACT to create a new electronic teaching platform on the website where participants can share information about the use of different teaching methods in GP/FM education, with their strengths and barriers, their use for specific teaching topics, and for various audiences.

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Professionalism in GP/FM

Jáchym Bednář

Introduction:

"A professional is someone who can do his best work when he doesn't feel like it" - Alistair Cooke, American journalist (1908-2004) [1].

"To err is human, to cover up is unforgivable, and to fail to learn is inexcusable" - Sir Liam Donaldson.

Professionalism is the physician´s engagement in his/her profession which is demonstrated by his/her methods of establishing and maintaining relationships with the people whom s/he encounters at work. These methods enable individuals and the society to believe that physicians will do their job properly, i.e., in accordance with the contemporary scientific body of knowledge [2].

Background:

Professionalism is a general concept, but it plays a classical, crucial and exceptional role in medicine. Doctors are regarded as "professionals" both by the public and by their peers. They remain the most trusted profession among the public. It is a privileged position in many aspects. In exchange for this special position in the society, public and peers expect professional competence and behaviour, i.e. professionalism. Professionalism in medicine also involves confidentiality, integrity, responsibility, striving for continuous improvement and perfection (not achieving it), trust, honesty, altruism, respect, ability to relate and communicate to people, compassion for profession, ability to work in partnership with members of the wider healthcare team. Professionalism is a set of values, that underpins the trust the public has in their GP/FD. Modern medical professionalism is something that can, and indeed should, be learnt. Professional qualities are not automatically inherited upon qualifying. Being aware of the expectations of a professional can help to improve patient care. It is important to continually develop communication skills, clinical knowledge and team-working skills in order to help improve standards.

The above qualities could belong to perfect beings. Perfectionism is a common trait amongst doctors, but even doctors are flawed people, and no one can even ask them to be perfect. Mistakes will be made, and sometimes doctors will fall short of the high ideals that the public, and they themselves, expect. True professionalism comes into play when mistakes are made. Knowing what to do when things go wrong and how to react appropriately can make all the difference in ensuring high standards of patient care are maintained and a speedy resolution is reached [1].

Changes and development of society and modern medicine strongly affect the work of a medical professional. Physicians are exposed to **increasing pressure from patient organizations and associations, guidelines, evidence-based medicine, patient safety requirements, requirement for financial discipline, health insurance rules, legal frames, financial restrictions, patient´s personal interests and priorities, lawsuits against doctors, different sorts of conflicts of interests, ethical dilemmas** [2]**.**

Regardless of the changing society and medicine, principles of professionalism remain unchanged. A medical professional is someone with competencies and knowledge in the field of medicine, who is committed to using them primarily for the benefit of patients and communities, while respecting the moral standards of the medical profession.

Our attitudes towards professionalism determine our daily work and actions in practice. Physicians' attitudes towards professionalism differ from each other, they mature, develop, and change with age [3,4].

Content:
How does the **professionalism of a GP/FM** differ from the professionalism of other physicians?

A professional person is expected to have the ability and dedication to achieving a **set of standards** in their duties that their peers find acceptable.
The **European definition of GP/FM** describes the profession of a GP/FD [5]. This definition directly leads the core competencies of the GP/FD. Core means essential to the discipline, irrespective of the health care system in which they are applied (see WONCA tree [6]).

GPs/FDs are personal doctors, primarily responsible for the provision of comprehensive and continuing care to every individual seeking medical care irrespective of age, sex, and illness. They care for individuals in the context of their family, their community, and their culture, always respecting the autonomy of their patients. They recognize to have a professional responsibility to their community. In negotiating management plans with their patients they integrate physical, psychological, social, cultural and existential factors, utilizing the knowledge and trust engendered by repeated contacts. GP/FDs exercise their professional role by promoting health, preventing disease, and providing cure, care, or palliation and promoting patient empowerment and self-management. This is done either directly or through the services of others according to health needs and the resources available within the community they serve, assisting patients where necessary in accessing these services. They must take the responsibility for developing and maintaining their skills, personal balance and values as a basis for effective and safe patient care. They must take responsibility for continuously monitoring, maintaining and if necessary, improving clinical aspects, services and organization, patient safety and patient satisfaction of the care they provide.

There are also expectations that a GP/FD will work and behave in a manner that is appropriate to the nature of their profession. These expectations are unique: good standards of personal appearance and dress, appropriate standards of speech and personal conduct – such attributes will confirm to a patient an acceptable standard of **respectability.**

The GP/FD is generally more exposed in society and acts as a role model and is expected to show moral conduct and integrity both at work and in public life 24 hours a day. This is especially evident if he lives in the community in which he also works. They often become the target of projections and unfulfilled expectations; patients often judge doctor´s personal lives. As promoting well-being is an important part of GP/FD´s role according to the definition, it is important, that they do not smoke, do not get drunk, eat healthy, exercise regularly, not just to preach water and drink wine, to be more convincing [2].

The relationship between the patient and GP/FD should always be professional. GP/FDs must always focus their care on the individual patient and respond to their concerns [2]. Always start by listening to the patient, we hold invaluable knowledge about their own condition. It is unacceptable for any professional, sensitive information to be leaked from the doctor-patient relationship.

The presence of unceasing efforts to make changes that will lead to better patient outcomes and better professional development is obvious with GPs/FDs. The society expects that GP/FDs will permanently maintain and improve their competence, knowledge, and skills [4]. This will have been acquired through **learning, knowledge, training and practice** of the relevant skills and, in most cases, this can be demonstrated by **qualifications or accreditation** of some kind. The validity of this **expertise** is maintained by ongoing training throughout the course of a medical career.

What can EURACT and the EURACT CPD/CME Committee do to achieve a higher level of professionalism among established GP/FM specialists?

The overall aim of EURACT is "to foster and maintain high standards of care in European GP/FM by promoting GP/FM as a discipline by learning and teaching". CPD/CME Committee contributes to raising the level of professionalism in Europe in this way:
1. giving an overview/comparison of CME systems in Europe
2. identifying the learning needs of teachers in CME
3. providing appropriate tools and methods that teachers could use to teach themes existing in CME on our website
4. These tools/methods are presented as live courses (peer to peer) or as written publications, guidelines, online programmes, e-lectures

We implement these aims using the expertise of EURACT teachers.

Conclusion:

Ideal professionalism sometimes seems an unattainable and unrealistic goal. It is not our job to become perfect, but to be constantly on the path of self-improvement and in accordance with our conscience and limits to do the best we can for the benefit of our patients. The path is the goal. The professional relationship between the patient and the physician should be based on partnership, on explaining and achieving consensus. The physician has to subordinate his/her own interests to patients´ interest as s/he is under the Hippocratic oath since graduation at Medical School. It is important to know that the society does not expect the physicians to reach the ideal standard of professionalism, however it does require that we try to reach it. Insistence on professionalism is the guideline which releases the physician from difficulties [2].

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Recertification for GP/FDs

Jo Buchanan

Background and Content:

The purpose of recertification is to ensure the provision of high quality and safe healthcare. The process requires health professionals to demonstrate periodically that their knowledge is up to date and that they remain fit to practice. The increased movement of professionals across borders has enhanced the demand for these processes. This is of particular importance across the European Union (EU) due to EU wide recognition of medical qualifications [1]. Currently there is no agreed international standard for physician recertification.

The American Board of Specialty Medicine in the US has required periodic recertification for many years. The American Board of Family Physicians was the first to implement this in 1972 and other boards followed suit over the next few decades [2,3]. By 2002 all of the Specialty Boards agreed on comparable standards. The system in the US is comprehensive and requires a combination of formal knowledge assessment, self-assessment and review of performance in practice.

In Europe many countries have introduced systems for recertification, which vary significantly in their content [1]. A review of recertification processes for Family Medicine in 2018 identified that of 38 responding countries 23 had formal processes, 17 of which were mandatory and 6 were voluntary. The requirements for recertification largely required the collection of credit points for CME. These credits were also required in those countries that did not have a recertification process. Only 6 countries required performance-based indicators such as audit, prescription review and self-directed learning.

A study in 2017 of recertification for all medical specialties in Europe describes the system in 10 representative countries from across the EU [1]. All had systems of recertification, 7 were compulsory and three voluntary. Most systems relied on the collection of a minimum number of credits of learning. In one country, Hungary, doctors have to take a course followed by an examination. Five countries evaluated practice performance through audit, appraisal and multi-source feedback. Only 1 country, the UK included feedback from patients.

The variation in recertification systems can in part be attributed to cultural factors within a country. Denmark has consistently reported high levels of trust in others [4] and this may be reflected by the fact that recertification has a voluntary element. In the UK a series of high-profile medical scandals about 20 years ago [5] resulted in a demand for a rigorous process for recertification or revalidation of doctors in the UK. The result was a mandatory process for all doctors every 5 years. In the five yearly cycle, doctors have to submit evidence of their fitness to practice annually at appraisal. This covers a series of categories and the required evidence

includes quality improvement activity, review of significant events and patient and colleague feedback.

It is important to consider what is the experience of doctors participating in recertification. In the US some boards introduced Practice Improvement Modules [PIM] as part of the recertification system [3]. These facilitate a review of the doctor's chart data against national guidelines and provide feedback specific to that doctor. Most doctors report making a change in their practice after participating in a PIM. A review of doctor's views of a revised recertification process found that those who had already participated in it were more positive about it than those that had not.

A review of the impact of the UK system found that most doctors participated and were able to provide the required information [6]. Doctors found significant event review, patient and colleague feedback most helpful in informing the reflective discussions at appraisal. A significant minority reported changing an aspect of their practice as a result of their most recent appraisal. Some doctors identified potentially negative impacts on practice. One of the report's conclusions was that this system provides a means to document practice but may not necessarily improve professional practice. The quality of the annual appraisal was seen as key to the effectiveness of this system.

There are clear standards for assessment, it should be valid, reproducible, have an educational purpose and be feasible and acceptable. To this has been added the need to include the perspectives of patients and the public and to ensure there is a relationship between the assessment that offers feedback and continual learning [7]. Any system for recertification should therefore should include review of performance in practice and capture in some way the patient's perspective.

Conclusion:

This short review demonstrates that there are differences in recertification systems across Europe and we are a long way from being able to confirm that a doctor recertified in one country meets the requirements for practice in another country with a very different health system.

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Research in CME

Razvan Miftode

Background:

The role of GP/FM in all national health systems is crucial, its high degree of performance guaranteeing the efficiency and soundness of the entire health care system [1].

The development process of GP/FM must follow the same roadmap as the other specialties: the development of university and postgraduate education, improving academic representation, developing research in the primary care field, improving the training of trained doctors, developing specific medical publications. Last but not least, all these efforts must be combined, focused on improving the health of the population and increasing the quality of medical services. At the same time, one cannot speak of quality without circumventing the process that leads to qualitative improvements and advances, namely scientific research.

Content:

1. Identifying **errors, deficiencies, biases** in the activity of training and professional education
2. Development of a new particular field of professional education: **Competency-based Continuing Professional Development** (CB – CPD)

Although their main goal is to improve the knowledge and skills of medical workers through educational and training processes, the concepts of CME differ in some important issues. Both if CME is determined by the external supply of topics or themes, and if it is dictated by individual wants and needs, it should be crystallized after a process of critical reflection, analysis, and identification of additional deficiencies and needs for professional self-training [2]. The two educational processes run in parallel, the current offer of training and information programmes experiencing a remarkable development, along with an easier access to them through modern technology (online conferences, webinars).

Today, CME, including CME for GP/FM, faces new challenges: the very large number of scientific events, the diversified offer of education topics, some topics addressed still not scientifically clarified (COVID-19 pandemic is an example of this), the huge amount of scientific information. Against this polymorphic background, the notion of quality of educational performance (curriculum, accuracy and importance of information, absence of commercial influences, etc.) returns strongly today.

It can be stated that the field of scientific research is the cornerstone of the development of GP/FM [3], providing answers to practical questions, identifying new areas of activity but also arguments in support of strengthening primary care and improving public health.

In the domain of CME, several studies show some limits of the educational process on the training of doctors [2]. Thus, the limited influence of classical group education (learning group) was identified both on the attitudes of the professional performance and on the expectations of the patient or public health institutions [4], while Choudhry [5] shows that, in some cases, the educational individual options (topics) are not congruent with the real learning needs of the physician. Other elements that lead to a faulty self-learning process are the limits and barriers of self-assessment of learning needs [6], difficulties in receiving feedback correctly and honestly, but also the lack of correspondence and connection between the level of individual competence and what the doctor performs concretely [7].

It is obvious that the educational process, regardless of who it is addressed to (junior or senior GP/FD), can be burdened by a series of deficiencies that must be discovered and analysed. At the same time, the increased health care needs of patients are harmonized with the growing demands from government institutions to improve key public health indicators, to increase economic and social efficiency, reduce morbidity from chronic diseases, preventive actions accessible to a large group of population. These imperatives require a paradigm shift in the approach to CME activities, in the sense of harmonizing the expectations of patients and officials with the content of university annd vocational training programmes or with the continuous training of practicing physicians.

Identification of errors & biases in the CME activity

Mainly, the concerns regarding the risk of errors and biases in the activity of CME are related to the possible influences of the pharma industry in the educational process [8]. Consequently, some professional bodies have adopted preventive and warning attitudes (e.g., American Association of Medical Colleges or Josiah Macy Jr Foundation) [9], which is why some institutions/providers of educational activities have adjusted their policy of evaluation and approval of training projects [10], with an emphasis on the nature of relations with pharma sponsors.

Although these concerns are justified, other elements must be addressed in the process of identifying errors and biases; it is possible that substantive errors or the techniques approached may be the cause of failures in professional training in some doctors. Also, the approach and promotion of secondary topics, with low importance or insufficiently scientifically verified, or controversial topics can be the source of some errors and biases and threaten the credibility of the educational programme.

There are authors who recommend that organizations promoting CME activities be strongly involved in planning, developing, and evaluating the content of educational programmes, in order to optimize and update the topics and information contained but also to identify and eliminate potential errors or biases [10].

In the last decade, there have been initiatives to create working models for this purpose. Dixon et al. (2008) [11] describe **the Bias Management Process**: a 4-step work system that includes:

1. Collecting data about the presentation and educational programme
2. Review process of the written material (by an expert in the respective subject or topic)
3. Review of the presentation or workshop held live (by a competent but "non-expert" person)
4. Evaluation of the event by the participant

The proposed **evaluation grid** covered several topics, namely [10]:

- Declaring the commercial interest or the conflict of interests of the author of the educational programme
- Existence of a peer-review based on Evidence-Based Medicine
- Use of scientifically validated and highly reliable information
- Balanced way of presenting information
- Use of generic names for medicines
- Clear and honest presentation of the side effects or contraindications of drugs
- Sincere presentation of the existing therapeutic alternatives on the market
- The educational programme contributes to the improvement of the professional knowledge of the students
- The educational programme promotes the principles of patient safety
- Presence or non-existence of biased presentations alongside

With a few exceptions, all points in this grid should be the result of a research by the auditors or at least, the answers should be based on the previous results of some studies. Undoubtedly, the threat of biases on the scientific integrity of an educational programme has been and remains relevant. In addition to the "commercial" aspect of the problem, the risk that the existence of educational events held under the umbrella of the pharmaceutical industry may be a source of errors, misdirection of individual education, distorted perception of the messages broadcast by CME providers must also be considered. The community of trainers and institutions responsible for educating future doctors but also for ensuring the environment conducive to CME must identify tools for qualitative evaluation of educational events, both in terms of scientific content, but also in terms of management and professional ethics.

Competency-based Continuing Professional Development (CB-CPD)

Inevitably, the metamorphosis of the educational process, from the level of CME (based on the offer of training providers), to the qualitative leap represented by CPD (process based on self-assessment of deficiencies and identification of opportunities for personal professional development), was forced to continue a new concept, CB-CPD.

CB-CPD represents a new stage in the educational process, in which the health requirements of the population, the public health indicators imposed by government institutions and,

finally, the need for qualitative results of each patient, as a result of medical care, dictates both the topics to be addressed in educational projects and the ways of training and evaluating the results obtained. Franck et al. (2010) defines CB-CPD as follows: "an approach to preparing physicians for practice that is fundamentally oriented to graduate outcome abilities and organized around competencies derived from an analysis of societal and patient needs" [12]. CB-CPD requires, in addition to CPD, a process of external evaluation of performance, patient care outcomes, and public health indicators [13]. In other words, the CB-CPD process must be based on the identification of public health requirements - as part of learning needs - and its results must also be analysed to improve public health indicators [14].

Filipe et al. (2018) states that the CB-CPD process is based on the following five long life learning key competencies, which can be measurable [14]:
1. Identifying one's own learning priorities
2. Analysis of public health data to discover their own shortcomings and look for evidence and information that can be integrated into practice
3. Development, based on the data from stage 2., of a personal learning plan
4. Forming clinical questions and finding answers to them, based on the evidence found
5. Evaluation of the practice and its improvement through the analysis of the obtained performances.

The expected result of the CB-CPD process must be found in improving the quality of medical services, increasing the safety of medical and patient performance, and improving the main indicators of public health.

Conclusions:
1. The effectiveness of the educational process represented by CME is negatively influenced by the limits and errors related to the external character of the training topics offer respectively by the individual capacities of self-analysis and evaluation of their own education needs
2. The content of an educational programme can be engraved by the existence of errors in its design, by commercial biases or generated by the subjective character of the self-evaluation or reception of the received information
3. The field of **scientific research** in medical education and personal professional development finds new directions of intervention: analysis of the quality of the educational programme as a whole, accuracy of content and information transmitted and received, identification of errors, deficiencies, and biases in scientific material
4. The concept of CB-CPD can be a way to improve the educational process for GP/FDs, provided that the research activity is calibrated on the real needs of the population for quality medical services but also on the high requirements of public health as a whole

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The ethical challenges intrinsic to CME activities in GP/FM

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Background:

In our complex and challenging healthcare environment with regular scientific and technical innovations, aging populations, increasing spread of acute and chronic diseases and major cost constraints, medical doctors are required to keep up-to-date with new data and advances in the field in order to ensure optimal up to date patient care. This is one of the main pillars of professionalism [1] and involves the sensitive relationship between the medical profession and all stakeholders in health care including the pharmaceutical and other health technology industry. It aims to continuously foster and improve the competence and performance of clinicians and involves timely transfer of new knowledge and skills required.

This process of continuous medical education or professional development is required by law and by professional codes of ethics [1] and is driven by different models, various providers and different national regulations, and is, therefore, very fragmented [2]. In most European countries, CME is provided by medical universities, physician associations or professional societies, medical education, or communication companies and the pharmaceutical or health care industry [2]. In many countries, a system for accreditation of CME programmes and accrediting bodies is in place. Since CME activities are required for a renewal or even recertification of the licence to practice medicine, many countries have introduced some form of required documentation and minimal hours of CME to be attended. Some contries have also introduced incentives for participation such as direct financial support or tax deduction for the costs of CME activities.

Traditional CME activities include international conferences, national meetings and smaller events. Recently, however, they have been complemented by a broad range of innovative formats such as online education, quality circles and personal learning plans [3,4]. Almost all of these formats require a budget and personnel for organizing and financing such as the premises, technical equipment and materials, food and drinks, announcement or marketing, verification and certification of attendance and travel and accomodation or honoraria.

Given these high costs for CME and given the declining support for CME from public and academic institutions it is not surprising that organizers and physicians have sought financial support from private industry. According to a survey among physicians about half of the financial support for CME comes from industry [5]. This fact is, among others, one of the major reasons for ethical challenges and conflicts of interest of various degrees for doctors attending and medical associations/colleges providing CME activities. In this context we refer to the ethical principles and responsibilities of medical professionalism as published in the charter on medical professionalism [1]. The principles are the primacy of patients`welfare, patients`autonomy and social justice; the set of professional responsibilities includes the

commitments to professional competence, to honesty with patients, to patients' confidentiality, to maintaining appropriate relationships with patients, to improving quality of care, to improving access to care, to a just distribution of finite resources, to scientific knowledge, to maintaining trust by managing conflicts of interest and to professional responsibilities.The aim of this chapter is to give examples of some important ethical dilemmas intrinsic to CME activities in GP/FM together with some suggestions and recommendations for how to deal with them.

Content:

Ethical challenges in the field of primary health care fall into three main categories: 1) those for the participants, 2) the organizers, and 3) for presenters at events:

1) **PARTICIPANTS**

    i. The usefulness of the programme: participants tend to choose CME programmes where their knowledge and professional integrity is not going to be challenged. Such a selection is understandable: attending events in an area the doctor is familiar with is easier, strengthens self- confidence and is more pleasant. However, it also gives less benefit for improvement of patient care. This is not in line with the principle of primacy for patients' welfare.

    ii. The attractiveness of the location and of social events: CME-programmes are frequently organized at an attractive location and tend to motivate participants to attend with an attractive social programme. It is logical that one prefers to attend an event in a nice location, but the scientific content offered, and the individual educational needs of the participants must remain a priority.

    iii. Financial support for participation: CME-activities have to be paid for and the costs for registration and attendance may be considerable. Financial support from the industry is therefore helpful and motivating. However, events that are heavily sponsored or even organized by the industry often lack relevance for the participants. At such CME-activities one often encounters a specialist colleague who gives a presentation to GP/FDs without knowing how important and frequent the topic of presentation is in the field of GP/FM and without being familiar with the circumstances of their daily work.

    iv. Monitoring attendance: one almost invariably gets a certificate of attendance, which is usually handed out already at the start of the conference and after the registration fee has been paid for. Serious events go a step further and require from the participants to register their attendance at a given session of the conference or fill in a test after attending it.

    v. Active versus passive educational methods: despite it is well known that active methods of education have greater benefit for participants than passive listening to a frontal lecture they are also less popular [6]. Methods that involve

person-to-person communication, portfolio-based learning etc. are more efficient in terms of outcome although more challenging.

Suggestions: In selecting which event to attend, the potential benefit for patient care should be more important than the benefit for the doctor's feeling well. To support their members and to facilitate their decisions, respectively, most professional organizations have developed codes of conduct which usually contain a set of recommendations for attending CME-activities [7-9]. Among them are critical assessment of personal needs for education, selection of programmes which meet (international) standards for accreditation, selection of programmes which offer efficient educational and didactic methods. It is recommended for the potential participants to adhere to them to optimize educational benefit and to avoid ethical dilemmas.

2) ORGANISERS

   i.   Financial profit: planning and managing a successful CME event may be an important source of income for the organizing body. Therefore, many medical associations and colleges themselves take over the role of provider and organizer of CME events and are able to thereby support their association with the money they earn. The challenge for the organizers is to raise the money necessary for running an attractive and successful event that would benefit the educational needs rather than the simple well-being and happiness of participants or the financial expectations of the organizing college. In practice, however, some very successful CME events actually do not create a financial profit and nevertheless involve a lot of work [10].

   ii.   Influence of the sponsor on CME content and/or selection of speakers: most conferences cannot be organized without sponsorship, usually by the pharmaceutical or health care industry, but also by the health insurance sector. Sponsors almost invariably tend to make requests regarding specific topics or experts and organizers are often challenged to allocate time and space for a topic of a presentation or symposium on a theme selected by the sponsor and/or to invite certain speakers of their choice for a presentation on this topic.

        Suggestion: Most of these challenges can be avoided or at least simplified if the college or the respective organization has a clear and transparent policy on how to deal with sponsors in an ethically sound and professional way [11-15]. Similarly, also the pharmaceutical industry has developed and published a framework for engagement and quality criteria for industry sponsored CME [16]. However, this framework has not universally been accepted [17].

3) PRESENTERS

   i. To present the keynote at an event upon invitation is usually a paid activity. In some cases, the presenter is paid a considerable fee, but even if he/she is not, the costs of accommodation, travel and social events are usually covered by the organizers. The challenge arises when the sponsor of the event asks the lecturer for a favourable notion about one of their (new) products.

   Solution: For transparency at conferences or meetings it should be common practice that invited speakers at the beginning of their presentation disclose a potential conflict of interest. In addition, the rules of "Good scientific Practice (GSP)", which usually include the presentation at a scientific or educational event should be paramount [14].

Summary:

The ethical challenges of participating in, organizing of, or presenting at CME events are shortly outlined above. Because these challenges are known for some time, consensual strategies for their minimization and their management have been developed from many disciplines and all stakeholders. Since ethical challenges in the field of GP/FM arise regularly in daily clinical practice, education, and research both medical universities as well as teachers in GP/FM should commit to their responsibility and agree on a minimum content of an obligatory ethics curriculum. They should allocate adequate time for teaching professional attitudes and medical ethics throughout basic, vocational and CME and training.

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