

Core continuing professional development (CPD) topics for the European dentist*

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Abstract

Introduction: In the context of free movement, EU-citizens need assurance that dental practitioners providing their care have a degree/license to practice that meets EU-standards and that they maintain their knowledge and skills through ongoing education.

Aim: One aim of the 'DentCPD' project (HYPERLINK '<http://www.dentcpd.org>' www.dentcpd.org) was to identify and agree essential CPD requirements for EU dentists. This paper reports the consensus process and outcomes.

Methods: Agreement on core components of CPD was achieved through a three stage process: an online survey of dental educators' ($n = 143$) views on compulsory topics; a paper-based questionnaire to practitioners ($n = 411$); leading to a proposal discussed at the Association for Dental Education (ADEE) 2011 Lifelong Learning special interest group (SIG).

Results: From the online survey and practitioner questionnaire, high levels of agreement were achieved for medical emergencies (89%), infection control (79%) and the medically compromised patient (71%). The SIG (34 attendees from 16 countries) concluded that these three CPD topics plus radiation protection should be core-compulsory and three CPD topics should be core-recommended (health and safety, pain management, and safeguarding children & vulnerable adults). They also agreed that the teaching of all topics should be underpinned by evidence-based dentistry.

Conclusion: Building four core topics into CPD requirements and making quality-approved education and training available will ensure that all dentists have up-to-date knowledge and skills in topic areas of direct relevance to patient safety. In turn, this will contribute to patients having access to comparably high standards of oral health care across Europe.

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Introduction

Continuing professional development (CPD) is undertaken by dental professionals to update their skills and knowledge and integrate recent developments in dentistry into their practice (1–3). Within the context of a move across Europe towards mandatory CPD for graduate dentists (4), it is important to explore whether CPD requirements should include essential core topics that should be covered by all and if so, seek agreement on what should be included. Europe-wide agreement on core essential and core recommended topics for graduate dentists, coupled with quality-approved CPD programmes, would support the mobilisation of the dental workforce through pan European recognition of their CPD. Ensuring that dentists are regularly trained and updated in key areas would support patient access to comparably high standards of oral healthcare across Europe.

Aims

The 'DentCPD' project, part funded by the European Commission (509961-LLP-1-2010-1-UK-ERASMUS-EMHE), aimed to harmonise CPD for graduate dentists across Europe (5). Led by Cardiff University in the UK and under the auspices of the Association for Dental Education (ADEE), the project was a collaboration of five partner Universities from across Europe (National and Kapodistrian University of Athens in Greece, ACTA in the Netherlands, University of Helsinki in Finland and Riga Stradiņš University in Latvia, in addition to Cardiff University). One of the intentions of the DentCPD project was to seek agreement on core compulsory and core recommended CPD topics for graduate dentists in Europe. This study sets out the agreement process and outcomes.

Methods

Research ethics approval was obtained from Cardiff University (16/10/10). Agreement on core components of CPD was achieved through a three-stage consensus process. Firstly, the *CPD for Graduate Dentists* online survey targeted those working in dental education across Europe. As well as seeking current requirements on CPD and respondents' views on core topics, this survey obtained information on CPD systems, accreditation and provision, regulatory bodies and registration, common methods of CPD delivery, funding for CPD, use of personal development plans, and respondent's opinions about CPD provision. Findings from this questionnaire are reported in a companion paper (6).

The second stage in the process was a paper-based *CPD Core Topics* questionnaire. This was informed by responses to a question in the *CPD for Graduate Dentists* survey which asked which topics, out of a given list of 23, *should* be compulsory. The question included an option for respondents to suggest 'other' topics. Where more than 50% of respondents agreed that a topic should be compulsory, these were included in the paper-based questionnaire, which was administered to groups of dental practitioners in four European countries. These respondents were a convenience sample of dentists attending educational events in four of the five universities in the project

consortium (ACTA, Athens, Cardiff and Riga). Again, the question asked whether or not each topic *should* be compulsory for graduate dentists working in the European Union.

Finally, a proposal for core compulsory and core recommended topics was developed based on the responses to these two surveys. The proposal was distributed in advance and discussed by those attending the ADEE 2011 Lifelong Learning special interest group (SIG). The intention was to reach an agreement within the group on the proposal. Discussion groups were held to give members an opportunity to debate the proposal. These small groups provided feedback to all SIG attendees. Participants at the SIG were asked whether they agreed with this proposal, and to explain any reasons for disagreement. Dissenting voices were heard, and all points considered before a final vote on the proposal was taken. The outcomes of the SIG discussion were verbally reported to the main ADEE meeting.

Results

CPD for graduate dentists survey

One hundred and forty-three responses were received from 30 countries within Europe. Not all respondents chose to indicate whether the topics in the list should or should not be compulsory: we note that item response varied between 105 and 125. For 13 of the 23 suggested topics, over 50% of respondents indicated that they thought the topic should be compulsory. These topics are presented in Table 1 (see column headed EU CPD survey).

CPD core topics questionnaire

Four hundred and eleven responses were received from the convenience sample of dentists working in four European countries ($n = 126$ UK; $n = 115$ the Netherlands; $n = 72$ Greece; $n = 98$ Latvia). Results are presented in Table 1 which shows, for each of the 13 CPD topics, the percentage of respondents agreeing that the topic should be compulsory. Results are shown by individual country and across the four countries ($n = 411$). Also included is a total combined result for all responses ($515 < n < 537$).

From the combined, total responses, the topic of medical emergencies achieved the highest level of agreement (89%), with individual country agreement ranging from 99% in the UK sample to 72% in Latvia. Infection control also achieved a high level of agreement overall (79%), but there was a wider range in response from different countries, the highest level of agreement being 96% from the UK sample, compared to 58% from Latvia. The topic of the medically compromised patient achieved 71% agreement overall. For this topic, individual country responses ranged from 60% (UK) to 88% (Greece).

For the topic of radiation protection, the overall agreement was 63%, whilst amongst the UK sample, the agreement was 87%. Level of agreement in the other countries surveyed ranged between 40% and 49%. The topics of health and safety, pain management, child protection and evidence-based dentistry achieved between 51% and 53% agreement overall and although the combined country responses ranged between 47%

TABLE 1. Core topics survey results

Topic	Should be compulsory						
	EU CPD survey% (<i>n</i> yes/ <i>n</i> responses)	UK % of 126 (<i>n</i>)	the Netherlands % of 115 (<i>n</i>)	Greece % of 72 (<i>n</i>)	Latvia % of 98 (<i>n</i>)	Across countries % of 411 (<i>n</i>)	Total % (<i>n</i>)
Medical emergencies (inc cardiopulmonary resuscitation)	94 (118/125)	99 (125)	81 (93)	96 (69)	72 (71)	87 (358)	89 (476)
Infection control/disinfection & decontamination	91 (111/122)	96 (121)	68 (78)	76 (55)	58 (57)	76 (311)	79 (422)
The medically compromised patient	71 (79/112)	60 (75)	72 (83)	88 (63)	76 (74)	72 (295)	71 (373)
Radiation protection	86 (102/119)	87 (109)	41 (47)	49 (35)	40 (39)	56 (230)	63 (332)
Health & safety	71 (77/109)	55 (69)	38 (44)	49 (35)	50 (49)	48 (197)	53 (274)
Pain management	57 (60/106)	38 (48)	42 (48)	69 (50)	69 (68)	52 (214)	53 (274)
Child protection	65 (73/113)	64 (81)	25 (29)	44 (32)	56 (55)	48 (197)	52 (270)
Evidence-based dentistry	66 (74/113)	33 (42)	49 (56)	36 (26)	72 (71)	47 (195)	51 (269)
Legal issues	60 (69/115)	48 (61)	19 (22)	47 (34)	66 (65)	44 (182)	48 (251)
Health education and prevention	63 (68/108)	25 (31)	31 (36)	39 (28)	61 (60)	38 (155)	43 (223)
Risk management	48 (51/106)	37 (46)	39 (45)	49 (35)	46 (45)	42 (171)	43 (222)
Communication skills	61 (70/114)	25 (31)	27 (31)	36 (26)	59 (58)	36 (146)	41 (216)
Record keeping	50 (52/105)	45 (57)	25 (29)	39 (28)	50 (49)	40 (163)	42 (215)

CPD, Core continuing professional development.

and 52%, this masked some considerable differences between countries. For example, the consensus on child protection as a compulsory CPD topic was just 25% amongst the sample of dentists in the Netherlands compared to 64% in the UK sample.

On the basis of these results, a proposal was developed for core compulsory and core recommended CPD topics for graduate dentists in Europe and presented to the ADEE 2011 Lifelong Learning SIG.

SIG discussion and outcome

There were 34 attendees at the ADEE 2011 Lifelong Learning SIG, representing 16 countries (14 EU and 2 non-EU). Table 2 shows the number of attendees from each country.

The proposal presented at the SIG was the following:

- There should be three core compulsory CPD topics: medical emergencies, infection control and the medically compromised patient (all achieved at least 71% agreement).
- There should be five recommended CPD topics: radiation protection, health and safety, pain management, child protection and evidence-based dentistry (radiation protection achieved 63% agreement, 51–53% agreement for the other four topics).

There were two further discussion points:

- Should the topic of radiation protection (63% agreement) be included as a core compulsory topic, or a core recommended topic, given its level of agreement?
- How frequently should core compulsory topics be undertaken: every 1, 3 or 5 years? These intervals were chosen as they were the most commonly reported time frames for compulsory CPD topics in the *CPD for Graduate Dentists* survey.

TABLE 2. Countries represented at the Association for Dental Education (ADEE) 2011 lifelong learning special interest group (SIG)

EU Country	<i>n</i>
Croatia	1
Czech Republic	2
Denmark	1
Finland	1
Germany	2
Greece	3
Italy	2
Latvia	3
the Netherlands	2
Poland	1
Slovenia	1
Spain	2
Turkey	2
United Kingdom	7
Total	30
Non-EU Country	
Norway	3
Switzerland	1
Total	4

A vote was held regarding the proposal for three core compulsory CPD topics; the result was unanimously in favour of the inclusion of these three topics. There was some difference in opinion within the group on the position of radiation protection. As the overall level of agreement for this topic (63%) was closer to the cut off point for core compulsory topics (71%) than it was to the cut off point for core recommended topics (53–51%), there was a case for including it as

a compulsory topic. However, some members of the group thought that the three core compulsory topics were more important than radiation protection and that cultural differences in attitudes to radiation protection training were too diverse for the topic to be included as compulsory. However, after further discussion, a final vote was held on the position of radiation protection. The majority voted in favour of radiation protection being a core compulsory topic (for all those taking X-rays and using scanners). The distribution of votes (including abstentions) was 3:1 in favour of the topic being compulsory.

Regarding the frequency of CPD activities, the most common view was that updates on medical emergencies should be undertaken every year. The main argument for this was that skills are not practised routinely in the workplace as such emergency events occur relatively infrequently. It was suggested that a comprehensive medical emergencies course could be completed every five years, supplemented by yearly refresher courses. The majority of the group agreed that updates on the two other core topics, infection control and the medically compromised patient, should be completed every five years. The need to find a balance between time dedicated to CPD activities and the effectiveness of those activities was discussed. The group thought that updating course material in line with emerging evidence may be time-consuming and inefficient if required every year. New evidence may not emerge rapidly enough to justify yearly course updates. Practical issues associated with complying with frequent CPD updates were noted, particularly in large practices or hospitals where it could be difficult to organise time off for staff to complete CPD activities.

It was noted in the group discussion that the CPD topic headings need to be clearly defined so it is known exactly what areas are covered by each topic, particularly as there was thought to be cultural differences in interpretation. In line with this, it was suggested that the topic of child protection should be renamed 'safeguarding children and vulnerable adults'. In discussing the exact nature of each topic, the group determined that evidence-based dentistry should underpin the delivery of all CPD topics rather than be presented as a standalone topic. Although evidence-based dentistry can be offered as a core topic, it was felt that the proposal for all CPD courses to be informed by the evidence base was a powerful way of endorsing evidence-based dentistry throughout Europe.

Discussions in the Lifelong Learning SIG concluded with the following revised proposal:

- There should be four core compulsory CPD topics: medical emergencies, infection control (disinfection and decontamination), the medically compromised patient and radiation protection (for those taking X-rays, using scanners).
- There should be three core recommended CPD topics: health and safety, pain management, and safeguarding children and vulnerable adults.
- The teaching of all topics should be underpinned by evidence-based dentistry.

Descriptors of each of the core essential and core recommended topics were developed and described as follows.

Medical emergencies

Training in adult and paediatric basic life support should be provided as specified by EU countries' Resuscitation Standards, for the whole dental team. A practitioner should be capable of undertaking immediate life support including control of the airway by the following:

- Performing a rapid risk assessment and implement measures to ensure safety of staff and patient.
- Undertaking initial assessment of a collapsed patient using a recognised structured approach.
- Performing adult and paediatric cardio-pulmonary resuscitation.
- Using simple airway adjuncts, pocket mask and supplementary oxygen. Use a self-inflating bag and valve mask, if available.
- Managing the patient who is choking.
- Maintaining appropriate resuscitation until the arrival of the emergency services.

In addition to annual basic training in immediate life support, over a 5-year period, the practitioner should undertake course(s) which cover the breadth of medical emergency and collapse situations that might present in a dental practice. There are excellent examples of medical emergency simulation equipment which can address this requirement well.

Infection control (disinfection and decontamination)

Training should address the issues of decontamination and disinfection as they apply to the statutory regulations relating to the dental treatment of patients. This should be undertaken every 5 years and preferably there should be a mechanism in place to allow dentists to update on this topic during that period of time.

The medically compromised patient

This training should address a variety of situations where a patient's medical history and medically related issues impact on the dental management of a patient. The learning outcomes should support the delivery of routine dental care, by a primary care practitioner, for patients whose medical/systemic condition(s) may influence the final treatment plan. This should, in turn, facilitate the appropriate referral of patients when there is a need for a specialist input to patients' treatment. This should be updated every 5 years and may involve a series of courses covering the variety of issues relevant to the management of the medically compromised patient.

Radiation protection

This training should address the following learning outcomes, relating to ionising radiation regulations in relation to dentistry, including the following:

An understanding of

- Radiation physics
- Quality assurance application to general dental practice
- Factors affecting diagnostic yield

Knowledge of

- Risks of ionising radiation
- Radiation doses in dental radiography
- Factors affecting doses in dental radiography
- Principles of radiation protection
- Statutory requirements relating to dental practice
- Importance of and ability to use selection criteria
- Principles of digital imaging and the advantages and disadvantages of digital imaging in dental practice

This should be undertaken every 5 years and preferably there should be a mechanism in place to allow dentists to update on this topic during that period of time.

Health and safety (H&S)

A course should provide information concerning the fundamental aspects of H&S relating to the General Dental Practice premises and work activities undertaken on a daily basis. In addition, this should raise awareness enabling individuals to take steps to improve H&S performance and comply with statutory legislation.

The following aspects should be covered:

- The purpose of H&S legislation and the consequences of non-compliance.
- The main cause of accidents and the factors affecting H&S.
- The most important pieces of legislation in relation to H&S and risk assessment.
- Meaning of terms (hazard, risk and control) and the basic principles of the risk assessment process.
- The main issues relating to H&S in the dental environment and how to measure the practice's performance in meeting legal standards.
- Control of infection and how to develop current practices in the dental environment.

Pain management

Learning opportunities should cover aspects of pain affecting the head and neck region which may be attributable to either dental (odontogenic) or non-dental (non-odontogenic) origin.

Safeguarding children and vulnerable adults

Dental practitioners, like all healthcare workers, have a duty of care to all adults and children with whom they come into contact. Training should cover policies and procedures that address areas of concern, abuse and exploitation of children and vulnerable adults.

Discussion

In developing core compulsory and core recommended topics, we sought opinions and feedback from both dental educators and dental practitioners in a three-stage process. Responses were received from all EU member and candidate countries (except Luxembourg). Seeking opinions from as many countries as possible was essential; outcomes needed the best chance of being acceptable and appropriate for practitioners in a wide range of countries.

Our data have limitations. As part of the consensus development process, we used a convenience sample of dentists for the *CPD Core Topics* questionnaire. Dentists attending CPD courses in only four countries were asked to complete the questionnaire; their responses may not have reflected the views of all dentists in their country, and those who did not attend the course had no opportunity to voice their opinion. Although the *CPD for Graduate Dentists* questionnaire received responses from almost all EU countries, the sample size was small relative to the number of dental educators in Europe. Not all countries were represented at the SIG and so did not contribute to the consensus discussions. However, it can be said that the proposal debated at the SIG was developed on the basis of wider input.

The extent to which practitioners agree or disagree with a certain topic being compulsory may be linked to whether or not their country currently has mandatory CPD requirements, what the compulsory topics are, and cultural differences in the responsibilities of the dentist. For example, some respondents commented that child protection was not a responsibility of the dentist in their country and therefore training was not required. In including only the four topics with the greatest levels of agreement as core compulsory topics, we have selected topics which should be acceptable and relevant to the large majority of dental practitioners. It was noted in the SIG discussions that these four topics were patient-focused, centred on minimising immediate patient risk. The core recommended topics related to patient protection, care and safety. Dentist-focused and wider practice issues were less frequently identified, such as legal protection or record keeping.

Establishing agreement on core compulsory topics for graduate dentists is a step towards EU-wide recognition of CPD activities and enhances the mobility prospects of the workforce. CPD activity is increasingly associated with revalidation. In the future, dentists practicing in the UK will be required to demonstrate to the UK General Dental Council (GDC) that they are keeping up to date with the GDC's *Standards for Dental Professionals* through their CPD activities, to remain registered (7). With changes in the age of retirement across Europe, dentists are likely to be practicing for longer. Regular updates in knowledge and best practice are even more vital in the context of increased duration of registration. Compulsory requirements for dentists to update their knowledge and skills in key topic areas regularly coupled with the provision of quality-approved education, and training is a means of addressing patient safety concerns. The introduction of core topics into dental CPD requirements across EU countries will contribute to improving the odds that patients receive comparably high standards of oral healthcare across Europe. This work complements the on-going review of CPD for dental professionals which, at the time of writing, was being undertaken in the UK by the GDC. Information relating to this review is available on the GDC website (8).

Dental regulatory bodies and other relevant stakeholders may wish to respond to the willingness of the dental profession to establish more widely accepted core CPD topics. These developments could be included in the ongoing debate on revalidation and recertification within the dental profession.

Conclusion

This study has described a multi-stage development and consensus process undertaken within the DentCPD project to agree core compulsory and core recommended topics for graduate dentists in the EU. The outcome of this process was a three-part recommendation that:

(i) There should be four core compulsory CPD topics: medical emergencies, infection control (disinfection and decontamination), the medically compromised patient and radiation protection (for those taking X-rays, using scanners); (ii) There should be three recommended CPD topics: health and safety, pain management and safeguarding children and vulnerable adults; (iii) The teaching of all topics should be underpinned by evidence-based dentistry.

The acceptance of these core topics as part of CPD requirements for dentists, along with the provision of quality-approved CPD education and training opportunities, will ensure that all dentists have up-to-date knowledge and skills in topic areas of direct relevance patient safety. In turn, this will contribute to patients having access to comparably high standards of oral health care in across Europe.

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Conflicts of interest (added after original publication)

The authors have no conflicts of interest to declare.

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