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**Harmonization & Standardization of European Dental Schools' Programs of
Continuing Professional Development for Graduate Dentists**

Deliverable 3.3 Agreement on Core Components of CPD

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The aim of this deliverable was to identify and agree certain core compulsory CPD topics for graduate dentists in Europe.

1. Method

Agreement on core components of CPD was achieved through a three stage process. Firstly, the online survey (deliverable 3.2), targeting those working in dental education, included a question which asked which topics, out of a given list of 23, *should* be compulsory. The second stage was informed by their responses. Those topics with 50%¹ or more of all respondents agreeing that the topic should be compulsory (n=13) were included on a paper-based questionnaire which was administered to groups of dentists (practitioners) in four EU countries. These respondents were a convenience sample of dentists attending educational events in four of the five co-beneficiary countries (Greece, Latvia, Netherlands and UK). Again, the question asked whether or not each of 13 topics *should* be compulsory for graduate dentists in the EU.

Based on these results, in the final stage a proposal for a set of core, compulsory topics and a set of recommended topics was distributed in advance and discussed by all 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. The small groups provided feedback to all SIG attendees. Participants at the SIG were asked if they agree with this proposal, and to explain any reasons for disagreement. Dissenting voices were heard, and all points considered before a final vote was taken.

2. Results

Responses from the wider survey

One hundred and forty three responses were received from within Europe. The responses to the online survey are reported in full elsewhere (WP3: Survey Results).

Responses from dentists in four countries

Four hundred and eleven responses were received from dentists working in the four countries (n=126 Country A; n=115 Country B; n=72 Country C; n=98 Country D). Results are presented in table 1 which shows, for each CPD topic, the percent of respondents agreeing that the topic should be compulsory. Results are shown by individual country and across the four countries. Also included are the results from the initial online survey (n=143), and a total combined result for all responses (n=554).

The topic of medical emergencies achieved the highest level of agreement (89%), with individual country agreement ranging from 99% in Country A to 72% in Country D. Infection control (disinfection and decontamination) 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 Country A, compared to 58%

¹ The cut off figure was 50% at the time of distribution to the first group of dentists. A small number of returns to the EU survey came in later. As a consequence the revised cut off percentage increased slightly to 52%.

from Country D. The topic of the medically compromised patient achieved 72% agreement overall. For this topic, individual country responses ranged from 60% (country A) to 88% (country C).

The topic of radiation protection had an overall agreement of 63%; whilst country A had 87% agreement for this topic, the other three countries surveyed had between 40% and 49% agreement. The topics of health and safety, pain management, child protection and evidence based dentistry achieved overall agreement of 51-53%; this masked some considerable differences between countries. For example, the consensus on child protection as compulsory CPD topic was just 25% amongst the sample of dentists in Country B compared to 64% in Country B.

The percentage of respondents agreeing that the remaining topics should be compulsory was lower and rarely reached 50%, except in Country D. It is notable that in this country, for 11 of the topics, at least 50% of the respondents indicated that they should be compulsory. This compares with six topics in Country A, four in Country C and three in Country B. The respondents in Country D seemed generally more enthusiastic about recommending compulsory CPD topics.

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

Responses at Educational Research Workshop IADR, San Diego, 2011

A workshop on 'Delivery of Dental CPD', chaired by Professor Bullock, with presentations from Professors Cowpe (UK), Aldenhoven (Australia), Novak (American Dental Education Association) and Bullock (UK) was followed by group discussion amongst the work shop attendees. Annex 1 displays the questionnaire and includes a summary of the results obtained. In addition, Annex 2 provides a brief summary of the feedback from 5 discussion groups including a variety of the different countries represented from across the world. This information along with that referred to above was used to promote further debate and consensus on core topics of dental CPD at the SIG meeting at ADEE 2011.

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 1 shows the number of attendees from each country.

EU Country	n	non-EU Country	n
Croatia	1	Norway	3
Czech Republic	2	Switzerland	1
Denmark	1	TOTAL	4
Finland	1		
Germany	2		
Greece	3		
Italy	2		
Latvia	3		
Netherlands	2		
Poland	1		
Slovenia	1		
Spain	2		
Turkey	2		
United Kingdom	7		
TOTAL	30		

The proposal presented at the SIG was:

- There will be three core compulsory CPD topics: medical emergencies, infection control (disinfection & decontamination), and the medically compromised patient.
- There will be five recommended CPD topics: radiation protection, health and safety, pain management, child protection, and evidence based dentistry.

There were two further discussion points:

- Should the topic of radiation protection (63% agreement) be included as a core compulsory topic, or a recommended topic?
- How frequently should the core compulsory topics be undertaken: every 1, 3 or 5 years²?

There were several points arising from the group discussion. Firstly, it was agreed that the CPD topics needed to be clearly defined, so it is known exactly what areas are covered by each, especially as there are cultural differences in topic definitions. In line with this, the topic of child protection was renamed as safeguarding children and vulnerable adults. In exploring the exact nature of each topic, it became clear that evidence based dentistry should underpin the delivery of all CPD topics, rather than be presented as a standalone topic.

A vote was held regarding the proposal for three core compulsory CPD topics; the result was unanimous 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

² The intervals of 1, 3 or 5 years were suggested, as these were the most commonly reported time frames for compulsory CPD topics in the CPD for Graduate Dentists online survey.

compulsory topics (67%) than it was to the cut off point for recommended topics (52%), 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 are too diverse for the topic to be included as compulsory. A final vote was held on the position of radiation protection. The majority voted in favour of radiation protection being a compulsory topic (for all those taking x-rays, using scanners). The distribution of votes was 12 in favour of the topic being compulsory; four against; four abstentions.

Regarding the frequency of CPD activities, the most common view was that medical emergencies updates should be undertaken every year; as such events occur relatively rarely so skills are not practised. 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 the two other core topics, infection control (disinfection & decontamination) and the medically compromised patient, should be completed every five years. The need to find a balance between time dedicated to CPD activities and effectiveness of those activities was discussed. 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. There are practical issues associated with complying with frequent CPD updates, particularly in large practices or hospitals where it is difficult to organise time off for staff to complete CPD activities.

3. Conclusions and next steps

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

- There will be four core compulsory CPD topics: medical emergencies, infection control (disinfection & decontamination), the medically compromised patient, and radiation protection (for those taking x-rays, using scanners).
- There will be three recommended CPD topics: health and safety, pain management, and safeguarding children & vulnerable adults.
- Evidence based dentistry should underpin the delivery of all CPD activities.

The following descriptors are provided for each of the core compulsory and core recommended topics:

Core compulsory topics:

Medical emergencies

To provide training in adult and paediatric basic life support as specified by EU countries' Resuscitation Standards, for the whole dental team, on an annual basis. A practitioner should be capable of undertaking immediate life support including control of the airway by:

- ◆ 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 which might present in a dental practice. There are now excellent examples of medical emergency simulation equipment which can address this requirement extremely well.

Infection control (disinfection & 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 practitioner, for patients whose medical/systemic condition(s) may influence the final treatment plan. 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 over a five year period.

Radiation protection

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

- 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 and be able 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

Core recommended topics

Health and safety

A course should provide information concerning the fundamental aspects of Health & Safety 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 Health & Safety 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 & 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 or non-dental 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 which address areas of concern, abuse and exploitation of children and vulnerable adults.

TABLE 1: CORE TOPICS SURVEY RESULTS - 554 responses Topic	Should be compulsory						
	Country A % of 126 (n)	Country B % of 115 (n)	Country C % of 72 (n)	Country D % of 98 (n)	Across countries % of 411 (n)	EU DentCPD % (n yes/n responses)	Total % (n)
Medical emergencies (including cardiopulmonary resuscitation)	99 (125)	81 (93)	96 (69)	72 (71)	87 (358)	94 (118/125)	89 (476)
Infection control (disinfection & decontamination)	96 (121)	68 (78)	76 (55)	58 (57)	76 (311)	91 (111/122)	79 (422)
The medically compromised patient	60 (75)	72 (83)	88 (63)	76 (74)	72 (295)	71 (79/112)	72 (374)
Radiation protection	87 (109)	41 (47)	49 (35)	40 (39)	56 (230)	86 (102/119)	63 (332)
Health & safety	55 (69)	38 (44)	49 (35)	50 (49)	48 (197)	71 (77/109)	53 (274)
Pain management	38 (48)	42 (48)	69 (50)	69 (68)	52 (214)	57 (60/106)	53 (274)
Child protection	64 (81)	25 (29)	44 (32)	56 (55)	48 (197)	65 (73/113)	52 (270)
Evidence-based dentistry	33 (42)	49 (56)	36 (26)	72 (71)	47 (195)	66 (74/113)	51 (269)
Legal issues	48 (61)	19 (22)	47 (34)	66 (65)	44 (182)	60 (69/115)	48 (251)
Health education and prevention	25 (31)	31 (36)	39 (28)	61 (60)	38 (155)	63 (68/108)	43 (223)
Risk management	37 (46)	39 (45)	49 (35)	46 (45)	42 (171)	48 (51/106)	43 (222)
Communication skills	25 (31)	27 (31)	36 (26)	59 (58)	36 (146)	61 (70/114)	41 (216)
Record keeping	45 (57)	25 (29)	39 (28)	50 (49)	40 (163)	50 (52/105)	42 (215)

Core CPD topics for graduate dentists: Results summary

26 respondents

1. For the following list of CPD topics, please indicate (by ticking the box) which you think should be compulsory, regardless of whether or not they are currently compulsory topics.

Topic	Should be compulsory?	
	Yes?	Your colleagues' views: % 'Yes'
Cardiopulmonary resuscitation, medical emergencies	<input type="checkbox"/>	100%
Cross infection control/decontamination & disinfection	<input type="checkbox"/>	100%
Health education and prevention	<input type="checkbox"/>	96%
Radiation protection	<input type="checkbox"/>	96%
Child protection	<input type="checkbox"/>	92%
Risk management	<input type="checkbox"/>	92%
Legal issues	<input type="checkbox"/>	92%
Pain management	<input type="checkbox"/>	89%
Evidence-based dentistry	<input type="checkbox"/>	88%
Health & safety	<input type="checkbox"/>	88%
Record keeping	<input type="checkbox"/>	88%
The medically compromised patient	<input type="checkbox"/>	88%
Communication skills	<input type="checkbox"/>	81%
Other topic, please specify... Interprofessional education Oncology, molecular therapy, complication of treatment Oral-systemic relation	<input type="checkbox"/>	

2. Are you a graduate dentist? 20% No 80% Yes, year graduated:

3 1970s
5 1980s
5 1990s
8 2000s

3. Your main role(s) 7 Student 17 Teaching faculty 4 Practitioner, salaried 4 Practitioner, self employed
Tick all that apply
Numbers reported
6 Other, please specify: educator, educator researcher, resident and PhD student, oral pathologist/PhD student/teaching faculty

4. Your workplace 5 Private practice 0 Non-private, state funded practice 21 Dental School/ Hospital 3 Specialist practice
Tick all that apply
Numbers reported
4 Other, please specify: _____

5. Your country

Brazil x5; Canada x1; China x2; Syria x1; Germany x1; Iran x1; KSA x1; Malaysia x1; NL x1; Portugal x1; Taiwan x1; UK x2; US x6

IADR 2011



Discussion Groups – Feedback 17th march 2011

Approximately 25 attendees/5 groups

Group	Countries represented	Main comment
1	Japan, UK, Hong Kong	<ul style="list-style-type: none">• Variation in CPD activity/delivery between countries• Interesting to measure whether a dentist from a regulated country any better at completing CPD than from an unregulated country
2	Norway, Sweden, USA, UK	<ul style="list-style-type: none">• Does undertaking CPD improve patient care and safety – difficult to measure
3	Korea, USA, UK	<ul style="list-style-type: none">• Dentists should be professionals therefore if they are why would there be a need for them to undertake mandatory CPD – they should be responsible enough to undertake it without checking up by regulatory body
4	USA, UK, Canada	<ul style="list-style-type: none">• Suggest that 2 yearly cycle appropriate• Should engender/bring in the ethos of CPD at undergraduate level
5	Portugal, Netherlands, Germany, UK	<ul style="list-style-type: none">• Need to measure the value of CPD on patient care – use practice inspections to QA
	Additional comments	<ul style="list-style-type: none">• Suggest mandatory medical emergencies above and beyond just CPD• Engage with the regulator at an early stage

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