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**THE FIRST FIVE YEARS –
THIRD EDITION (INTERIM) 2008**

GENERAL DENTAL COUNCIL



General Dental Council
December 2008

Foreword

This interim guidance replaces 'The First Five Years – second edition' published in 2004. It will stay in force until 2010, when the General Dental Council (GDC) will publish a document to replace 'The First Five Years' (TFFY), setting out what it requires of the undergraduate dental education process.

In 2007, the Education Committee commissioned a Strategic Review of the GDC's education-related functions. The full report of the Strategic Review was published in May 2008 and can be found on the GDC website at:

<http://www.gdc-uk.org/Our+work/Education+and+quality+assurance/>.

The Strategic Review recommended that:

- the GDC's responsibility should be to define the outcomes required of undergraduate dental education (i.e. the knowledge, skills and attitudes that a dental school graduate must demonstrate in order to join the Dentists Register);
- the GDC should develop a new, risk-based quality assurance (QA) system for dental schools, focusing on how the required outcomes are assessed.

In practice, this will mean a change from the GDC's former focus on detailed prescription of the specific topics and subjects which should feature in dental school curricula, and how these should be taught to students, to an emphasis on the *learning outcomes* which form the profile of the newly-qualified dentist. This approach acknowledges that expertise in developing and implementing comprehensive and innovative curricula and programmes, which will deliver the outcomes the GDC requires in ways that do not necessarily rely on the traditional dental hospital model, lies with dental schools.

Development and implementation of new outcomes-based guidance and a new QA system will take around two years, and will require extensive consultation with stakeholders, including the dental schools. In the meantime, our current guidance to dental schools set out in TFFY 2002, and reprinted in 2004, has become dated. Were we not to produce this revised TFFY, dental schools would potentially be hamstrung into following requirements to pursue out-of-date practices. This interim guidance:

- does not alter the learning outcomes required of dentists, which will remain the same until the new outcomes guidance to replace TFFY has been developed;
- contains revisions to the accompanying guidance to reflect our new focus;
- will remain effective until our new guidance on outcomes and new QA system is in place; and
- explains how we will approach the QA of undergraduate dental programmes from now until the new QA system is developed.

If you have any questions about the revised guidance, please contact the Quality Assurance team at the GDC (Tel: 020 7887 3746; email: QualityAssurance@gdc-uk.org), who will be happy to help you.

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The purpose of undergraduate dental education

1. The purpose of undergraduate dental education is to produce a dentist who has demonstrated, on graduation, that he or she has met the outcomes required for registration with the GDC.

Responsibilities of the GDC

2. The GDC's role in relation to education is to ensure that dentists who join our registers are fit to practise at the point of registration and remain so throughout their working lives. The GDC's interest in undergraduate dental education therefore lies in the outcomes of the educational process i.e. the knowledge, skills and attitudes that an applicant for registration must demonstrate in order to join our registers.
3. The GDC's responsibility is therefore to define the outcomes required, and to make sure they are met, through the educational process, by would-be registrants.
4. The GDC has agreed that it will abide by the following principles in its role in relation to undergraduate education:
 - In defining outcomes required for registration, the GDC will promote good practice in equality and diversity
 - Outcomes should reflect the full range of knowledge, skill and attitudes that a student must demonstrate to the level appropriate for registration i.e. professionalism, communication, clinical and management and leadership skills
 - There must be a relationship between the outcomes required at the pre-registration stage of education, and the outcomes a fully registered practitioner must meet to revalidate their registration.
 - Regulation of educational provision should be fair, that is, it is impartial, consistent and evidence-based in its judgements
 - The burden of regulation on the providers of education and training should be kept to the necessary minimum, through an approach that is targeted, proportionate, and informed by risk
 - An outcomes approach should encourage innovation, particularly in the development of new approaches to teaching and learning
 - The GDC should recognise diversity in the delivery of education e.g. of oral health needs, service structures, learning and teaching styles, 'schools' of dentistry and forms of team working
 - An outcomes approach should be responsive to changes in public expectations and evolve in the light of such changes

Responsibilities of the dental schools

5. It is the responsibility of dental schools to devise curricula that will produce graduates who meet the outcomes the GDC requires. In doing so, dental schools should make sure that they take account of, and cover, the following issues.
 - Developments in oral health need and the role of dentists in promoting the health and well-being of the public
 - The fact that the primary dental degree or diploma represents only the first stage and curricula must prepare students to carry out self-directed learning to keep their knowledge and skills up-to-date throughout their professional lives
 - The importance of dental team working, with opportunities for student dentists to train and work with other dental professionals

- Students should develop an understanding of audit and clinical governance, and their roles in ensuring a commitment by organisations and individuals in promoting the continuous development of quality in the delivery of patient care, including primary dental care and routine clinical practice. Students should be involved in the audit cycle and should understand the importance of evidence-based dentistry and how this relates to clinical practice. They should be able to evaluate the evidence and critically assess its relevance to treatment planning, advice and treatment provision.
- The requirements of European Directives on dental training.
- The need to ensure that patient feedback is incorporated into the curriculum – and acted upon.

Student fitness to practise

6. The GDC puts professionalism at the heart of its agenda. The scope of what Council requires of undergraduates goes beyond academic achievement, and incorporates the attitudes, values and behaviours needed for registration. These are articulated in the Council's guidance *Standards for dental professionals*, which sets out six key principles dental professionals are expected to follow. These are:
 - putting patients' interests first and acting to protect them
 - respecting patients' dignity and choices
 - protecting the confidentiality of patients' information
 - co-operating with other members of the dental team and other healthcare colleagues in the interests of patients
 - maintaining professional knowledge and competence
 - being trustworthy
7. The Council expects professionalism to be embedded throughout undergraduate dental education programmes. All dental students must have knowledge of our ethical guidance *Standards for dental professionals*, and its associated guidance, and demonstrate their professionalism, which must be continuously measured against the principles set out in *Standards for dental professionals*.
8. For the protection of the public it is important that dental schools ensure that appropriate checks, including disclosure of any criminal convictions, are made before prospective students are admitted to the programme.
9. If a student's behaviour falls below the standards the GDC expects, the dental school must consider whether this amounts to a fitness to practise concern, and therefore warrants consideration through its formal procedures. Students must be aware that unprofessional behaviour during their dental training can affect their ability to register with the GDC.
10. If there is a concern regarding the likelihood of a student being refused registration, the GDC may be able to advise on the basis on facts disclosed to it at the time. However, while it may be able to indicate the likelihood of the student being able to register in the future, any advice it gives will not bind the GDC to a particular decision at the point of application to the register.

11. Technical skills should be tested before students are allowed to treat patients. These tests must show that students can work safely before they treat patients under supervision.
12. Certain infectious diseases are a risk to patients. In conformity with Departments of Health guidelines, all dental students must be immunised against blood-borne viruses, where appropriate vaccines exist, before commencing care of patients which involves exposure-prone procedures.
13. Reasonable adjustments are expected to be made for disabled students in enabling them to achieve the outcomes required, for example, to methods of teaching and learning and to the assessments through which a student demonstrates these outcomes.

Assessment

14. Dental schools should design assessments so that they assess students against all the required learning outcomes. Professionalism should be assessed throughout the programme. The GDC, when it monitors and inspects institutions, will be concerned with how students are assessed against the outcomes.
15. Each dental school is required to keep records of the academic and clinical performance of each dental student. The records should be arranged so that inspectors can assess the extent and quality of clinical work completed by the student across all clinical environments.

Quality assurance

16. The GDC will operate an interim system of QA which has the achievement of the TFFY learning outcomes and the embedding of dental team teaching and working, of communication skills, and of ethics and professionalism in dental curricula at its core. Internal quality control mechanisms and student fitness to practise procedures will also be probed. The intention is to implement a light-touch, risk-based approach which will reduce the burden on dental schools.
17. If the GDC considers that the programme of study or the assessments to qualify for a degree do not ensure that graduates possess the requisite knowledge, skills or attitudes necessary for registration with us, it may make representations to the Privy Council to order that a degree ceases to confer the right to apply to be registered in the Dentists Register.

Learning outcomes required for registration

18. Generic and specific learning outcomes required for registration are listed in the table. Outcomes in non-coloured boxes are generic learning outcomes. Specific learning outcomes are expressed at three levels:

Be competent at:	students should have a sound theoretical knowledge and understanding of the subject together with an adequate clinical experience to be able to resolve clinical problems encountered, independently, or without assistance.
Have knowledge of:	students should have a sound theoretical knowledge of the subject, but need have only a limited clinical/practical experience.
Be familiar with:	students should have a basic understanding of the subject, but need not have direct clinical experience or be expected to carry out procedures independently.

Clinical Skills	Practical Procedures	Patient Investigation
obtain and record a comprehensive history, perform an appropriate physical examination, interpret the findings and organise appropriate further investigations	undertake a range of clinical procedures which are within a dentist's area of competence, including techniques for preventing and treating oral and dental diseases and disorders	be competent at using laboratory and imaging facilities appropriately and efficiently
be competent at obtaining a detailed history of the patient's dental state	be competent at carrying out resuscitation techniques and immediate management of cardiac arrest, anaphylactic reaction, upper respiratory obstruction, collapse, vasovagal attack, haemorrhage, inhalation or ingestion of foreign bodies and diabetic coma	be competent at the principles of radiographic interpretation and be able to write an accurate radiographic report
be competent at obtaining a relevant medical history	be competent at obtaining informed consent	have knowledge of appropriate special investigations and the interpretation of their results
be competent at clinical examination and treatment planning	be competent at oral hygiene instruction, dietary analysis, topical fluoride therapy and fissure sealings	have knowledge of the role of laboratory tests in diagnosis
be competent at maintaining an aseptic technique throughout surgical procedures	be competent at knowing when and how to prescribe appropriate anti-microbial therapy in the management of plaque-related diseases	be familiar with the principles which underlie dental radiographic techniques
be competent at diagnosing and planning preventative nonoperative care for the	be competent at supragingival and subgingival scaling and root debridement,	

individual patient who presents with dental caries, periodontal diseases and tooth wear	using both powered and manual instrumentation and in stain removal and prophylaxis	
be competent at completing a periodontal examination and charting, diagnosis and treatment plan	be competent at completing a range of procedures in restorative dentistry, including amalgam and tooth-coloured restorations, endodontic treatments of single- and multi-rooted teeth, anterior and posterior crowns, post crowns, simple bridges and partial and complete dentures	
be competent at designing effective indirect restorations and complete and partial dentures	be competent at designing effective indirect restorations and complete and partial dentures	
be competent at diagnosing active caries and planning appropriate non-operative care	be competent at fissure sealing, preventative resin restorations, and pit and fissure restoration	
be competent at carrying out an orthodontic assessment including an indication of treatment need	be competent in undertaking approximal and incisal tip restorations	
be competent at managing fear and anxiety with behavioural techniques (and empathising with patients in stressful situations)	be competent at managing appropriately all forms of orthodontic emergency including referral when necessary	

have knowledge of diagnosing medical emergencies and delivering suitable emergency drugs using, where appropriate, intravenous techniques	be competent at undertaking the extraction of teeth and the removal of roots where necessary	
be familiar with the diagnosis and management of temporomandibular joint disorders	be competent at undertaking minor soft tissue surgery	
be familiar with contemporary treatment technique in orthodontics	be competent at taking and processing the various film views used in general dental practice	
	be competent at infiltration and block local anaesthesia in the oral cavity	
	have knowledge of the design and laboratory procedures used in the production of crowns, bridges, partial and complete dentures and be able to make appropriate chair-side adjustment to these restorations	
	have knowledge of preformed stainless steel crown and pulp therapy in primary molar teeth	
	have knowledge of the management of trauma in both dentitions	
	have the knowledge to be able to design, insert and adjust space maintainers	

	have the knowledge to design, insert and adjust active removable appliances to move a single tooth or correct a crossbite	
	have knowledge of matters relating to infection control	
	have knowledge of inhalational and intravenous conscious sedation techniques	
	have knowledge of conscious sedation techniques in clinical practice	

Patient Management	Health Promotion and Disease Prevention	Communication
share with patients provisional assessment of their problems and formulate plans for their further investigation and management	understand the principles of health promotion and disease prevention	have knowledge of behavioural sciences and communication
be competent in when, how and where to refer a patient for general anaesthesia	have knowledge of the organisation and provision of healthcare in the community and in hospital	communicate effectively with patients, their families and associates, and with other health professionals involved in their care
be competent at obtaining informed consent	be familiar with the complex interactions between oral health, nutrition, general health, drugs and diseases that can have an impact on dental care and disease	be competent at communication with patients, other members of the dental team and other health professionals
be competent at making appropriate referrals based on assessment	be familiar with the prevalence of certain dental conditions in the UK	be competent at working with other members of the dental team

have knowledge of managing patients from different social and ethnic backgrounds	be familiar with the importance of community-based preventive measures	have knowledge to be able to explain and discuss treatments with patients and their parents
have knowledge of the pharmacological properties of those drugs used in general practice including their unwanted effects	be familiar with the social, cultural and environmental factors which contribute to health or illness	
have knowledge of the role of sedation in the management of young patients		
have knowledge of management of acute infection		
have knowledge of the drugs commonly used in oral medicine and their side effects and drug interactions		
have knowledge of the role of conscious sedation in dentistry		
have knowledge of dental problems that may manifest themselves in older patients and of the principles involving the management of such problems		
have knowledge of the pathogenesis of common oral medical disorders and their treatment		
be familiar with the role of therapeutics in the management of patients receiving dental treatment		
be familiar with the general aspects of medicine and surgery		
be familiar with the main medical disorders		

that may impinge on dental treatment		
be familiar with the principles of treatment of dento-facial anomalies including the common orthodontic/maxillofacial procedures involved		
be familiar with the pathogenesis and classification of oral diseases		
be familiar with the principles of assessment and management of maxillofacial trauma		
be familiar with the diagnosis of oral cancer and the principle of tumour management		

Data & Information Handling Skills	Understanding of Basic & Clinical Sciences and Underlying Principles	Appropriate Attitudes, Ethical Understanding and Legal Responsibilities
use contemporary methods of electronic communication and information management	understand the scientific basis of dentistry, including the relevant biomedical sciences, the mechanisms of knowledge acquisition, scientific method and evaluation of evidence	understand the broader issues of dental practice, including ethics, medicolegal considerations, management, and the maintenance of a safe working environment
be competent at maintaining full and accurate clinical records	understand disease processes such as infection, inflammation, disorders of the immune system, degeneration, neoplasia, metabolic disturbances and genetic disorders	an understanding of patients' rights, particularly with regard to confidentiality and informed consent, and of patients' obligations
be competent at using information technology	have knowledge of anatomy, physiology and biomedical sciences relevant to dentistry	an awareness of moral and ethical responsibilities involved in the provision of care to individual patients and to

		populations
be familiar with the principles of recording oral conditions and evaluating data	have knowledge of the aetiology and processes of oral diseases	an understanding of audit and clinical governance
	have knowledge of the scientific principles of sterilisation, disinfection and antisepsis	an awareness that dentists should strive to provide the highest possible quality of patient care at all times
	have knowledge of the science that underpins the use of dental biomaterials	an awareness of the importance of his or her own health and its impact on the ability to practise as a dentist
	have knowledge of the limitations of dental materials	be familiar with the legal and ethical obligations of registered dental practitioners
	have knowledge and understanding of biomedical sciences, of oral physiology and craniofacial, oral and dental anatomy in the management of patients	be familiar with the law as it applies to records
	have knowledge of the causes and effects of oral disease needed for their prevention, diagnosis and management	be familiar with social and psychological issues relevant to the care of patients
	have knowledge of the hazards of ionising radiation and regulations relating to them, including radiation protection and dose reduction	
	be familiar with the pathological features and dental relevance of common disorders of the major organ systems	
	be familiar with those aspects of biomaterial safety that relate to dentistry	

Appropriate Decision Making, Clinical Reasoning and Judgement	Professional Development	Personal Development
apply evidence-based treatment	possess a wide range of skills, including research, investigative, analytical, problem-solving, planning, communication, presentation and team skills	approaches to teaching and learning that are based on curiosity and exploration of knowledge rather than its passive acquisition
an awareness of the need to limit interventions to the minimum necessary to achieve the desired outcomes	respect for patients and colleagues that encompasses, without prejudice, diversity of background and opportunity, language and culture	a desire for intellectual rigour, a capacity for self-audit and an appreciation of the need to participate in peer review
be competent at deciding whether severely broken down teeth are restorable and how missing teeth should be replaced, choosing between the alternatives of no replacements, bridges, dentures or implants	integrity, honesty and trustworthiness	an awareness of personal limitations, a willingness to seek help as necessary, and an ability to work effectively as a member of a team
be competent at knowing when and how to prescribe appropriate anti-microbial therapy in the management of plaque-related disease	an awareness of the need for continuing professional development allied to the process of their continuing education, in order to ensure that high levels of clinical competence and knowledge are maintained	be competent at working with members of the dental team
have knowledge of how missing teeth should be replaced, choosing between the alternatives of no replacements, bridges, dentures or implants	have knowledge of the scope of practice of DCPs	have knowledge of working as part of the dental team
have knowledge of providing a comprehensive approach to oral care	have knowledge of the regulatory functions of the General Dental Council	be familiar with the need for lifelong learning and professional development
have knowledge of when periodontal	be familiar with the work of healthcare	be familiar with the obligation to practise

surgery might be advised	workers	in the best interest of the patient at all times
be familiar with dental implants as an option in replacing missing teeth	be familiar with the place of dentistry in the provision of healthcare	
be familiar with the limitations of orthodontic treatment		
be familiar with an evidence-based approach to treatment		