



National unit specification

General information

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Unit code: HK5P 46

Superclass: PF

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Version: 01

Unit purpose

This unit is designed to introduce learners to the major groups of micro-organisms significant to dentistry and risks of infectious diseases caused by these micro-organisms. Learners will also develop knowledge and understanding of the routes of transmission of infectious diseases. Learners will explore methods of infection prevention and control and methods of decontamination of dental devices and dental materials relevant to work safely in a dental laboratory environment. Learners will explore the importance of risk assessment, and relevant legislation, regulation and professional guidance as outlined by the dental regulatory body the General Dental Council (GDC) that informs the best practice.

Outcomes

On successful completion of the unit the learner will be able to:

- 1 Outline the key aspects of current legislation, regulation and professional guidance and professional responsibilities of the Dental Technician in relation to infection prevention and control in the dental laboratory environment.
- 2 Explain the significance of micro-organisms and infective proteins in the dental laboratory environment.
- 3 Describe the methods of infection prevention and control and decontamination within the dental laboratory environment.
- 4 Apply the principles of decontamination process to appropriate methods of decontamination in a dental laboratory environment.

Credit points and level

1 National unit credit at SCQF level 6: (6 SCQF credit points at SCQF level 6)

General information (cont)

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Recommended entry to the unit

Access to undertake this unit is at the discretion of the centre. Learners should have access to an educational dental laboratory environment, where they can complete the unit under the supervision of a General Dental Council (GDC) registrant.

Learners undertaking this unit must also be disclosed under the PVG scheme (2011) standard or enhanced and if in a workplace/work placement situation, have commenced a vaccination programme for Hepatitis B.

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes for this unit specification.

There is no automatic certification of Core Skills or Core Skill components in this unit.

Context for delivery

If this unit is delivered as part of a group award, it is recommended that it should be taught and assessed within the subject area of the group award to which it contributes.

Equality and inclusion

This unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

National unit specification: Statement of standards

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Outline the key aspects of current legislation, regulation and professional guidance and professional responsibilities of the Dental Technician in relation to infection prevention and control in the dental laboratory environment.

Performance criteria

- (a) Explain the role of the GDC in relation to regulation of the Dental Team and ensuring patient safety.
- (b) Describe the purpose of the GDC Standards for the Dental Team.
- (c) Describe the professional and ethical responsibilities of the Dental Technician as detailed in the GDC Scope of Practice.
- (d) Outline the key aspects and purpose of legislation, procedures and guidance in relation to infection prevention and control in the dental laboratory environment.

Outcome 2

Explain the significance of micro-organisms and infective proteins in the dental laboratory environment.

Performance criteria

- (a) Identify pathogenic micro-organisms and infective proteins significant to work in dental laboratory environment.
- (b) Explain the significance of Blood Borne Viruses (BBV) in relation to infection prevention and control in a dental laboratory environment.
- (c) Explain the favourable conditions in which micro-organisms can multiply.
- (d) Describe the infectious diseases caused by micro-organisms significant to the dental laboratory environment.

National unit specification: Statement of standards (cont)

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Outcome 3

Describe the methods of infection prevention and control and decontamination within the dental laboratory environment.

Performance criteria

- (a) Identify the key aspects of risk assessment in the dental laboratory environment.
- (b) Identify the methods used to prevent and control the spread of infection in the dental laboratory environment.
- (c) Explain the possible routes of infection and control measures to prevent the exposure to infection.
- (d) Explain the actions to take should a sharps injury occur within the dental laboratory environment.
- (e) Explain the principles of decontamination in the dental laboratory environment.
- (f) Describe the specific methods of decontamination for different dental devices and dental materials.

Outcome 4

Apply the principles of the decontamination process to appropriate methods of decontamination in the dental laboratory environment.

Performance criteria

- (a) Carry out a risk assessment of the dental laboratory environment.
- (b) Correctly decontaminate (2) different dental devices ensuring standard precautions of infection prevention and control are applied.
- (c) Correctly decontaminate (2) different dental materials ensuring standard precautions of infection prevention and control are applied.

National unit specification: Statement of standards (cont)

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Evidence requirements for this unit

Evidence is required to demonstrate that learners have achieved all outcomes and performance criteria.

Outcomes 1, 2, 3

Learners should:

- ◆ State the role of the GDC in relation to patient safety and regulating the Dental Team.
- ◆ Describe the purpose of the GDC.
- ◆ List (9) professional and ethical principles of GDC Standards for the Dental Team
- ◆ Outline key aspects from each of the following that relates to infection prevention and control in the dental laboratory environment:
 - Health and Safety at Work Act (1974)
 - Control of Substances Hazardous to Health (COSHH) (2002)
 - Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) (2013)
 - Scottish Dental Clinical Effectiveness Programme (SDCEP)
 - Preparing for Practice (Dental Team Learning outcomes for Registration)
 - Scope of Practice for Dental Technician
- ◆ Identify (5) pathogenic micro-organisms and infective proteins significant to working in the dental laboratory environment.
- ◆ Explain how BBVs relate to infection prevention and control in the dental laboratory environment.
- ◆ Identify the favourable conditions in which micro-organisms can multiply.
- ◆ Identify (one for each) infectious diseases caused by micro-organisms significant to the dental laboratory environment.
- ◆ Describe the symptoms of (two) diseases caused by the identified micro-organisms.
- ◆ Identify (7) methods used to prevent and control the spread of infection in the dental laboratory environment.
- ◆ List the principles of decontamination in the dental laboratory environment.
- ◆ Describe how to decontaminate each of the following dental devices and dental materials
 - Acrylic denture
 - Metal custom tray (cleft palate)
 - alginate
 - silicone
- ◆ Identify (4) common routes of infection and describe the control methods necessary for prevention.
- ◆ List, in order, the correct sequence of actions to follow should a sharps injury occur in the dental laboratory environment.

National unit specification: Statement of standards (cont)

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Outcome 4

- ◆ Correctly apply standard precautions of infection prevention and control within a dental laboratory environment when decontaminating:
 - Risk Assessment
 - *Zoning*
 - *Wearing PPE*
 - *Disinfection of the item*
 - *Correct cleaning of the clinical environment*
 - *Handwashing*



National unit support notes

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Unit support notes are offered as guidance and are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this unit

It is anticipated that this unit would be completed as a part of a pre-registration Dental Technology training programme that leads to registration with the GDC. This will ensure that the learner can commence their role having reached the level of 'safe beginner'.

Successful completion of this unit will provide a valuable support for the trainee dental technician to commence a workplace induction and provide valuable support towards learners' integration into the role of dental technician and ensure adoption of safe working practices. It is important to note, that this unit is at an introductory level, providing an awareness of the learners' role, responsibilities and their boundaries, and the legislation and guidance notes designed to support their role so that they are equipped to work safely. Upon completion of this unit learners will be able to adopt correct professional attitudes and behaviours expected of the dental technician from the outset of their training.

Learners should be provided with a brief overview of the requirements for obtaining and maintaining registration with the GDC as a Dental Professional. This includes the importance of and requirements for Continuing Professional Development.

It is important that the learners have access to an educational dental environment under the supervision of GDC registrant, as this allow them to relate the theory contained in the unit to their practice in the dental laboratory.

The content of this unit has been informed by the following GDC requirements for employing trainee dental technicians.

Trainee dental technicians must be undertaking a recognised training programme that will lead to registration with the GDC therefore all trainee dental technicians working in the dental team should be in training. Only qualified dental technician needs to be registered with the GDC to practice. The term 'in training' means that they are either:

- ◆ Employed and enrolled or waiting to start on a recognised programme that will lead to GDC registration; or
- ◆ Studying on a recognised programme that leads directly to GDC registration.

National unit support notes (cont)

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In addition the GDC states:

'The trainee dental technician must not undertake exposure prone procedures until they have the appropriate vaccinations (if applicable) as required to practice. Please refer to the relevant health protection body in your country for further information.

A named GDC supervising registrant must take full responsibility for providing direct supervision of the individual trainee. However, according to the ability and progress of the trainee, supervision may be delegated (if appropriate) to other GDC registrants. The named supervising registrant will continue to be accountable overall for the trainee.

The employer must ensure that the individual trainee keeps a log book of training they receive (including induction), which is regularly signed off by the designated supervisor'.

Further information can be found at:

<http://archive.gdc-uk.org/Dentalprofessionals/Education/Pages/dcpsintraining.aspx>

Outcome 1 is designed to enable the learner to develop knowledge of the role of the GDC in relation to regulating the dental team and ensuring patient safety.

The learner will be introduced to the professional and ethical responsibilities required of the Dental Professional and will identify the skills and abilities required for their own role.

Teaching content should include:

- ◆ Role and function of the GDC in relation to patient safety and regulating the Dental Team
- ◆ Scope of Practice guidance — introduction, role boundaries and responsibilities for the role of Dental Technician, safe practice
- ◆ Standards for the Dental Team — Nine Ethical principles
- ◆ Indemnity Guidance — brief introduction to purpose and requirements following registration
- ◆ Continuing Professional Development — overview of purpose and requirements for registrants

National unit support notes (cont)

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Outcome 2 will allow the learner to explore the variety of micro-organisms and infective Proteins significant to dentistry; signs and symptoms of the infectious diseases caused by these micro-organisms and the routes of transmission of these diseases. It will outline the significance of Blood Borne Viruses to the dental environment.

Teaching content should include:

- ◆ Terms: Infection, pathogenic, non-pathogenic
- ◆ Different groups of micro-organisms and infective prions including their specification and diseases they are causing:
 - Bacteria
 - Viruses
 - Fungi
 - Bacteria Spores
 - Prion proteins
- ◆ Blood Borne Viruses (BBV) and their significance to dentistry
- ◆ Routes of transmission of BBV

Outcome 3 allows learners to examine the different methods of infection prevention and control. Teaching should also include the term cross-contamination; Standard Infection Control Precautions and routes of transmission of infectious diseases.

Teaching content should include:

- ◆ Importance of risk assessment to infection prevention and control
- ◆ Standard Infection Control Precautions — brief introduction and principles
- ◆ Cross-infection and routes of infection transmission
- ◆ Chain of infection
- ◆ The meaning of the term 'disinfection'
- ◆ Methods of Infection Prevention, including:
 - Handwashing
 - Use of Personal Protective Equipment (PPE)
 - Correct cleaning of the clinical environment
 - Social cleanliness
 - Zoning
 - Disinfection of the items traveling between Dental Lab and Dental Surgery
- ◆ Disinfection of the laboratory equipment and items

National unit support notes (cont)

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Outcome 4

This outcome will allow learners to carry out the risk assessment of their own role as a Dental Technician and understand what precautions have to be implemented to ensure a safe working environment and welfare for them, their colleagues and the public.

Teaching content should include:

- ◆ Appropriate methods of disinfection for dental devices and dental materials
- ◆ Justification of the disinfection methods with relation to the item to be disinfected
- ◆ Types of disinfectants and their purpose (COSHH)
- ◆ Safe waste disposal: plaster, clinical waste

Guidance on approaches to delivery of this unit

It is recommended that learners have access to a dental teaching environment under the supervision of the GDC registrant.

It is desired that this unit is delivered prior to the commencement of the other units as a compulsory part of the course and preparation for the safe practice at work placement.

Learners should be provided with the necessary support and mentoring in the early stages of their training for employment.

Role play and simulation activities in the delivery of Outcome 4 will introduce learners to infection prevention and control in the dental laboratory environment and help understanding of the routes of infection.

Progression and development through this unit will require the learner to undertake self-directed study to develop the awareness of their role and responsibilities as a Dental Technician, risk assessment of the work place and significance of various micro-organisms to their work.

Formal teaching support, peer support and mentoring within the work placement will enable the learner to explore any aspects of their learning to date, to enable further understanding and implement theory into practice.

Learning and teaching approaches within the centre will include lectures, large and small groups teaching, demonstration, and simulation and where appropriate practical teaching to consolidate learning and begin to prepare for the assessment.

National unit support notes (cont)

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

Outcome 1, 2 and 3 may be assessed holistically by a closed-book assessment (under controlled conditions) of short answer and multi-choice questions, covering all of the evidence requirements. This holistic assessment will aim to ensure that the learner has an underpinning knowledge of the legislation, regulation and professional guidance relevant to their role and responsibilities. This method of assessment lends itself to e-assessment (eg moodle) however any appropriate method may be used.

The practical aspect of Outcome 4 may be assessed using observation of the tasks performed in the classroom via role play. This assessment will aim to ensure that the learner can apply the gained knowledge to their working practice. Where observation of practice is used as method of assessment, centres should use an internally moderated observation checklist.

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this unit, particularly in outcomes 1, 2 and 3. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the evidence requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at

www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

There will be opportunities to develop aspects of the Core Skills in *Communication Information and Communication Technology (ICT)*, *Working with Others*, *Numeracy* and *Problem Solving* through this unit.

Other transferable skills such as time management, personal study skills, confidence and motivation may be developed throughout this unit.

History of changes to unit

Version	Description of change	Date

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General information for learners

Unit title: Professional Responsibilities, Infection Prevention and Control in a Dental Laboratory Environment (SCQF level 6)

This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

The General Dental Council states that the Trainee Dental Technicians must be either registered with the GDC or be undertaking a recognised training programme that will lead to registration. All Trainee Dental Technicians working in the Dental Team should be in training. The term 'in training' means that they are either:

- ◆ employed and enrolled or waiting to start on a recognised programme that will lead to GDC registration; or
- ◆ studying on a recognised programme that leads directly to GDC registration.

Further information can be found at:

<http://archive.gdc-uk.org/Dentalprofessionals/Education/Pages/dcpsintraining.aspx>

This introductory unit has been designed to introduce you to safe working practices within the Dental Laboratory environment and should be completed prior to commencing work placement. You should have access to a dental environment in an educational establishment, under the supervision of a GDC registrant.

To undertake this unit you must also be disclosed under the PVG scheme (2011) standard or enhanced and if in a workplace/work placement situation, have commenced a vaccination programme for Hepatitis B.

On successful completion of the unit you will be able to:

- 1 Outline the key aspects of current legislation, regulation and professional guidance and professional responsibilities of the Dental Technician in relation to infection prevention and control in the dental laboratory environment.
- 2 Explain the significance of micro-organisms and infective proteins in the dental laboratory environment.
- 3 Describe the methods of infection prevention and control and decontamination within the dental laboratory environment.
- 4 Apply the principles of decontamination process to appropriate methods of decontamination in a dental laboratory environment.

Assessment will be carried out on pre-agreed dates by closed-book questioning and observation of your practice to cover all the knowledge and understanding.