



Higher National Unit specification

General information

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

Unit code: H9RA 34

Superclass: PF

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Version: 01

Unit purpose

This Unit is designed to develop the learners' knowledge and understanding of the risks of infectious diseases and their routes of transmission. Learners will also explore methods of infection prevention and control and decontamination within the dental environment and the legislation, professional guidance and regulation that informs best practice.

Outcomes

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

- 1 Describe the process of infection prevention and control.
- 2 Explain the significance of micro-organisms and infective proteins in the dental environment.
- 3 Describe the management of infectious conditions affecting individuals within the dental environment.
- 4 Describe the various methods of decontamination.
- 5 Outline key aspects of current legislation, regulation and professional guidance relating to infection prevention and control.

Credit points and level

1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7)

Recommended entry to the Unit

Entry is at the discretion of the centre.

Higher National Unit specification: General information (cont)

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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.

This Unit is specifically designed for delivery as part of the PDA in Dental Nursing at SCQF level 7. It may also be delivered as a stand-alone Unit for Continuing Professional Development.

The Assessment Support Pack (ASP) for this Unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable assessment. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard. A list of existing ASPs is available to download from SQA's website (<http://www.sqa.org.uk/sqa/46233.2769.html>).

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.

Higher National Unit specification: Statement of standards

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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.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the Knowledge and/or Skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Describe the process of infection prevention and control.

Knowledge and/or Skills

- ◆ The causes of cross infection
- ◆ The methods for preventing cross infection
- ◆ The principles of Standard Infection Control Precautions (SICPs)
- ◆ Reporting and recording requirements in regard to infection prevention and control

Outcome 2

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

Knowledge and/or Skills

- ◆ The main micro-organisms and infective proteins in potentially infectious conditions
- ◆ The routes of transmission of micro-organisms and infective proteins
- ◆ The significance of the terms pathogens and non-pathogens

Outcome 3

Describe the management of infectious conditions affecting individuals within the dental environment.

Knowledge and/or Skills

- ◆ Infectious conditions which affect individuals within the dental environment
- ◆ Actions to take to prevent the spread of infectious diseases in the dental environment
- ◆ The importance of immunisation of dental personnel
- ◆ Relevance of patients' and staffs' medical and social history in relation to controlling infection

Higher National Unit specification: Statement of standards (cont)

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Outcome 4

Describe the various methods of decontamination.

Knowledge and/or Skills

- ◆ The principles and methods of clinical and industrial sterilisation
- ◆ The principles and methods of disinfection
- ◆ The preparation of a clinical area to control cross infection
- ◆ The procedures used to decontaminate a clinical environment after use

Outcome 5

Outline key aspects of current legislation, regulation and professional guidance relating to infection prevention and control.

Knowledge and/or Skills

- ◆ Current legislation, policies and professional guidelines in relation to infection prevention and control
- ◆ How to deal with a 'sharps' injury
- ◆ The use of personal protective equipment (PPE) in the dental environment
- ◆ Correct methods of dealing with clinical and non-clinical waste

Higher National Unit specification: Statement of standards (cont)

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

Evidence Requirements for this Unit

Learners will need to provide evidence to demonstrate their Knowledge and/or skills across all Outcomes by showing that they can identify and describe:

Outcome 1

- ◆ The transmission of infection.
- ◆ The principles of Standard Infection Control Precautions (SICPs).
- ◆ The management of blood and body fluid spillages.
- ◆ Hand hygiene procedures including surgical scrubbing.
- ◆ The use of barrier techniques.
- ◆ The importance of record keeping in relation to infection prevention and control.

Outcome 2

- ◆ The groups of micro-organisms present in the oral cavity.
- ◆ The organisms and infective proteins capable of producing disease.
- ◆ Routes of entry for infection.
- ◆ How direct and indirect contact can transfer infection.

Outcome 3

- ◆ Infections significant in dentistry.
- ◆ The immunisations required for working in a dental environment and why this is important.
- ◆ Active, passive and acquired immunity definitions.
- ◆ Staff induction policy for safe working practices in relation to cross infection.
- ◆ The relevance of patients and staffs' medical and social history in relation to controlling infection.

Outcome 4

- ◆ The equipment used for sterilisation and measures for checking the decontamination process.
- ◆ The action to be taken when equipment faults occur.
- ◆ The definitions of asepsis, sterilisation and disinfection.
- ◆ The correct method of sterilisation and decontamination appropriate to setting.
- ◆ The preparation and cleaning of the clinical environment.
- ◆ Different types of disinfectant and their uses.
- ◆ The different methods used in maintaining the cleanliness of equipment, handpieces, instruments and suction equipment.
- ◆ The importance of being able to identify single use and disposable instruments/equipment.

Higher National Unit specification: Statement of standards (cont)

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

Evidence Requirements for this Unit (cont)

Outcome 5

- ◆ Key aspects of current legislation, regulations and professional guidance relevant to infection prevention and control from:
 - the Health & Safety at Work Act
 - the Control of Substances Hazardous to Health regulations (COSHH)
 - the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
 - the Special Waste and Hazardous Waste Regulations

- ◆ The servicing and certification regulations for equipment used in the decontamination process.
- ◆ Protocols for 'sharps' disposal.
- ◆ Protocols for clean and contaminated 'sharps' injuries.
- ◆ The importance of the correct work wear and PPE.
- ◆ The role of Health Protection Scotland (HPS).
- ◆ The importance adhering to Health & Safety Executive, General Dental Council, and Scottish Government guidelines.



Higher National Unit Support Notes

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

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

This Unit has been developed primarily as part of the PDA in Dental Nursing

The Unit may be undertaken and assessed as a standalone Unit to provide knowledge and understanding of the risks associated with infectious diseases within the specific context of a dental environment.

As part of the PDA Award, it is designed to provide underpinning knowledge for the SVQ in Dental Nursing at level 3 which can be independently assessed and certificated. As such, the PDA and its four component Units are designed to meet in part the requirements for registration with the General Dental Council (GDC) where all four Units are assessed holistically by a single question paper under exam conditions.

Guidance on approaches to delivery of this Unit

Delivery could include use of recorded material (video or other audio-visual media), use of case studies, the internet for research, exploration of the various legal requirements including reporting procedures.

Classroom discussions surrounding infection prevention and control and decontamination processes and procedures implemented in the learners' working environment (where applicable) is beneficial as it allows the learner to make the connection between theory and practice.

Delivery of the Unit could also include practical exercises in dealing with common situations which could result in cross-infection and/or contamination.

For Outcomes 1–4 the following common procedures should be covered:

- ◆ Disinfection procedures
- ◆ Spillage procedures
- ◆ Equipment decontamination
- ◆ Personal Protective Equipment
- ◆ Industrial Sterilisation
- ◆ Correct disposal of waste

Higher National Unit Support Notes (cont)

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

Exemplification of procedures:

- ◆ Spillage procedures; Blood and body fluid spillages must be dealt with immediately. The size of the spill (spot, small (<30ml) or large spill) will determine the management. The majority of blood and body fluid spills in the dental surgery are likely to be spots and splashes.
- ◆ Equipment decontamination; All instruments selected for use even if they were not actually used must be cleaned and sterilized. Steam sterilisation is the most practicable method for sterilizing reusable equipment.
- ◆ Personal Protective Equipment such as protective clothing and eyewear and disposable gloves are worn as a barrier to prevent the transmission of micro organisms between patients and the dental team. The type of protective clothing required will depend upon the potential risks associated with the planned task. Legally it is the worker's responsibility to assess this risk and decide upon the necessary clothing as appropriate. However, the employer must provide suitable PPE that must be freely and readily available for use.
- ◆ Disposal of waste — good clinical waste management is essential in every clinical environment to reduce the risk to staff, patients and visitors and to protect the environment. It is the responsibility of the person generating waste to ensure that it is segregated according to the national guidelines.
- ◆ Decontamination is a combination of processes including cleaning, sterilisation or disinfection and storage used to render a reusable item safe.
- ◆ Disinfection: reduces the microbial load to level, which makes the disinfected object safe to handle.
- ◆ Sterilisation: killing and removal of all micro-organisms including bacterial spores.
- ◆ Accurate record keeping is essential and the GDC require evidence that all guidance has been followed to ensure patient safety.
- ◆ Some incidents, eg radiation contamination, accidents endangering health, require to be reported to statutory authorities (HSE) and learners must be aware of their potential responsibilities. Records could include:
 - Records of decontamination procedures, validation and maintenance of all associated equipment.
 - Records of incidents and emergencies
 - Records of risk assessments and other procedural issues
 - Clinical governance framework
- ◆ Common incidents which could lead to cross infection/contamination could include:
 - Needlestick Injury
 - Exposure to potentially harmful fluids, eg blood,
 - Spillages/Leakages, eg chemicals, cleaning materials
 - Cross Infection
 - Exposure to and disposal of clinical waste

Higher National Unit Support Notes (cont)

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

The following describes how to deal with a 'needle stick' or similar Sharp-Induced Injury or Body Fluid Splash:

- ◆ Encourage bleeding of puncture wound by gentle squeezing, not sucking of the area.
- ◆ Wash the affected area with soap and clean, warm running water, do not scrub.
- ◆ Where appropriate, treat mucosal surfaces, mouth and conjunctiva of the eyes, by rinsing with clean, warm running water or sterile saline, do not rub or abrade the site.
- ◆ Do not swallow liquid used for rinsing the affected site.
- ◆ Dry and protect the injury site with appropriate dressings.
- ◆ Record incident in the Accident/Incident Book.
- ◆ Report incident and action taken to appropriate personnel, eg manager.
- ◆ Consult with Occupational Health staff where appropriate.

The most effective risk management procedure is the **elimination of the hazard** by using an alternative method (eg replacement of difficult to sterilize instruments with single use disposable items), followed in turn by **isolation of the hazard** using design and engineering controls (eg safety needle retraction devices).

When engineering controls are unavailable or inappropriate then **work practice controls** (eg hand hygiene, personal protective equipment) and **work behaviour controls** that result in safer practices can be introduced.

Administrative controls such as infection control policies and quality assurance standards (eg validation of sterilisation cycles, legislation on waste disposal) can be used to protect individuals, communities and the environment from infectious hazards. This hierarchy of control and prevention strategies forms the foundation for all infection control and safety management in primary dental care.

Outcome 1 specifically makes reference to the principles of Standard Infection Control Precautions (SICPs) and centres should ensure that this is covered in teaching. Standard Infection Control Precautions (SICPs) are the basic infection prevention and control measures necessary to reduce the risk of transmission of infectious agents and are to be used by all staff, in all care settings at all times, for all patients.

Outcome 2 develops the learners' knowledge of the significance of micro-organisms and infective proteins in the dental environment. Teaching should include the following:

- ◆ Bacteria
- ◆ Viruses
- ◆ Fungi
- ◆ Spores
- ◆ Prions

Higher National Unit specification: support notes (cont)

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Outcome 3 covers the management of infectious conditions that can affect individuals in the dental environment. Of particular significance are Hepatitis B, HIV and Herpes Simplex. The importance of gathering the medical history of all individuals in the dental environment and why this is relevant to controlling infection should be covered. When discussing the importance of immunisations in dentistry, reference should also be made to the different types of immunity that exist.

Outcome 4 focuses on the various methods of decontamination. The clinical equipment used for sterilisation should include washer-disinfectors, ultrasonic cleaners, vacuum and non-vacuum autoclaves and gamma irradiation. Learners should be aware of validation and record keeping for checking the decontamination process and how to ensure the method of sterilisation and decontamination used is appropriate to the setting.

For Outcome 5, relevant legislation, professional guidance and regulations should include, but is not restricted to coverage of:

- ◆ Health & Safety at Work Act
- ◆ Management of Health and Safety at Work Regulations 1999
- ◆ Control of Substances Hazardous to Health regulations (COSHH)
- ◆ Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- ◆ Special Waste and Hazardous Waste Regulations

Learners' will not be expected to know the detail of each Act, Professional Guidance and Regulation but should be aware of the key aspects which are relevant to infection prevention and control and decontamination in the dental environment and their own practice.

◆ **Health and Safety at Work Act**

Primary care medical and dental practitioners have legal obligations under the Health and Safety at Work Act 1974 (HSWA). They have a duty to protect their employees and others who may be affected by their work activities such as contractors, agency staff, patients and visitors. Under HSWA employers must ensure their employees are appropriately trained and proficient in the procedures necessary for working safely. Employees have a duty to comply with systems and procedures put in place by employers to ensure their health, safety and welfare; they also have a duty not to do anything that would put others at risk.

◆ **Management of Health and Safety at Work Regulations**

Under the Management of Health and Safety at Work Regulations 1999, employers must carry out a risk assessment and must have arrangements for the effective planning, organisation, control, monitoring and review of the preventive and protective measures. They must also provide their employees with adequate health and safety training. The Medical Devices Agency have recently published a helpful booklet on risk assessment related to devices for GPs and Dentists entitled *Devices in Practice: A Guide for Health and Social Care Professionals*.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/403401/Devices_in_practice.pdf

Higher National Unit specification: support notes (cont)

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◆ **Control of Substances Hazardous to Health (COSHH)**

The COSHH Regulations 1999 are designed to protect employees against recognised hazards. COSHH requires employers to control hazardous substances to protect employees and others who may be exposed from work activities. Where prevention is not reasonably practicable, employers must take steps to eliminate, reduce or control the risk of exposure by using the measures listed in Schedule 3 to the Regulations. These measures include: the design of work processes and engineering control measures so as to prevent or minimise exposure in the work place; instituting means for safe collection, storage and disposal of waste; and specifying procedures for taking, handling and processing contaminated samples. Employers must carry out a risk assessment considering all the factors pertinent to the work and make an informed and valid judgement about the risks, the steps that need to be taken to achieve and maintain adequate control, and whether health surveillance is necessary.

◆ **Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995**

RIDDOR requires the reporting of work-related accidents, diseases and dangerous occurrences. It applies to all work activities, but not to all incidents. The information collected enables the enforcing authorities to identify where and how risks arise and investigate serious accidents. The enforcing authorities can then help and advise on prevention action to reduce injury, ill health and accidental loss. Accidents (including physical violence) connected with work and which result in an over three day injury to an employee or self-employed person must be reported to the enforcing authority. Reportable work-related diseases must be reported to the enforcing authority under **RIDDOR** as should incidents or accidents which do not result in a reportable injury, but which clearly could have done.

Further information and references which may be helpful to delivery are listed below.

There are a number of statutory and regulatory bodies which monitor aspects of NHS and/or private dentistry in Scotland. This includes monitoring quality of dental treatment, educational provision for newly-qualified dentists and quality of dental practices. Key regulatory bodies and relevant websites are listed below.

The General Dental Council (GDC) — regulates all dental care professionals (DCPs).
General Dental Council — www.gdc-uk.org

The Scottish Government — NHS practice inspections, compulsory audit. Guidance issued by the Scottish Government at <http://www.gov.scot/Topics/Health> and the Scottish Dental Clinical Effectiveness Programme www.sdcep.org.uk

NHS Education for Scotland: develops and delivers education and training for those who work in NHS Scotland www.nes.scot.nhs.uk

Health and Safety Executive Health and Safety Executive — the HSE's key role is to prevent death, injury and ill health in Great Britain's workplaces through research, information and advice, promoting training, new or revised regulations and codes of practice, inspection, investigation and enforcement www.hse.org.uk

Higher National Unit specification: support notes (cont)

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

References to websites, legislation and regulation given within this Unit specification are correct at the time of publication. However, centres must ensure that their learners are given the most current and up to date web links, information and publications.

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.

It is recommended that the Outcomes for this Unit be assessed holistically in an assessment paper (approx. 30 minutes) containing multiple choice, short answer, and scenario based questions to cover all Outcomes.

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.

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this Unit. 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 is no automatic certification of Core Skills or Core Skill components in this Unit. However, there are opportunities to develop aspects of *Communication, Numeracy, Information and Communication Technology (ICT), Working with Others* and *Problem Solving*.

History of changes to Unit

Version	Description of change	Date

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General information for learners

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

This section will help you decide if 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, where applicable, opportunities for further learning and employment.

This Unit has been designed to develop your knowledge and understanding of the risks of infectious diseases and their routes of transmission. You will explore methods of infection prevention and control and decontamination within the dental environment and the legislation, guidance and regulation that informs best practice.

It is one of four Units which make up the Professional Development Award in Dental Nursing at SCQF level 7. Completion of both the PDA and the SVQ in Dental Nursing at level 3 will allow successful learners to apply for registration as a Dental Nurse with the General Dental Council.

Upon completion of the 5 Outcomes you should be able to:

- ◆ Describe the process of infection prevention and control.
- ◆ Explain the significance of micro-organisms and infective proteins in the dental environment.
- ◆ Describe the management of infectious conditions affecting individuals within the dental environment.
- ◆ Describe the various methods of decontamination.
- ◆ Outline key aspects of health and safety legislation, professional guidance and regulation relating to infection prevention and control.

Assessment of this Unit may take the form of a question paper containing multiple-choice, short answer, and scenario based questions to cover all Outcomes.

You will have the opportunity to develop your Core Skills in *Communication, Problem Solving, working with Others, Information and Communication Technology (ICT) and Numeracy*.

Post registration qualifications are available for progression. These qualifications have been produced to reflect the General Dental Council's Scope of Practice for Dental Nurses.

Professional Development Awards in:

- ◆ Dental Nursing: Delivering Oral Health Interventions at SCQF level 8
- ◆ Dental Nursing: Supporting Special Care Provision at SCQF level 8
- ◆ Intravenous Sedation for Dental Care Professionals at SCQF level 8
- ◆ Orthodontic Dental Nursing at SCQF level 8
- ◆ Dental Care Professionals: Dental Laboratory Skills at SCQF level 8
- ◆ Recording Patient Assessment for Dental Care Professionals at SCQF level 8
- ◆ Oral Health Care: Dental Managers at SCQF level 8
- ◆ Dental Radiography (Operator) for Dental Care Professionals at SCQF level 9

General information for learners (cont)

Unit title: Dental Nursing: Principles of Infection Prevention and Control in the Dental Environment (SCQF level 7)

Higher National Certificate (HNC) in:

- ◆ Oral Health Care at SCQF level 7

Higher National Diploma (HND) in:

- ◆ Dental Nursing at SCQF level 8