



Higher National Unit specification

General information for centres

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

Unit code: F69B 34

Unit purpose: This Unit is designed to introduce candidates to the risks of infectious diseases, their routes of transmission and methods of infection control within the dental environment.

On completion of the Unit the candidate should be able to:

- 1 Describe the process of infection control.
- 2 Explain the significance of micro-organisms in the dental environment.
- 3 Describe the management of infectious conditions affecting dental patients.
- 4 Describe the various methods of decontamination.
- 5 Describe relevant health & safety legislation.

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

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Recommended prior knowledge and skills: There are no prescribed entry requirements for this Unit.

Core Skills: There are opportunities to develop the Core Skill(s) of *Problem Solving* in this Unit, although there is no automatic certification of Core Skills or Core Skills components.’

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 Dental Nursing at SCQF level 7. It may also be delivered as a stand-alone Unit for Continuing Professional Development.

Assessment: There is one instrument of assessment for this Unit. It could be assessed holistically using assessment paper containing multiple-choice, one word answer, and scenario questions.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

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. Candidates 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 control

Knowledge and/or Skills

- ◆ The causes of cross infection
- ◆ The methods for preventing cross infection
- ◆ The principles of Standard (Universal) infection control precautions
- ◆ Reporting and recording requirements

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can describe the:

- ◆ transmission of infection
- ◆ measures for preventing cross infection
- ◆ management of blood and body fluid spillages
- ◆ social, clinical and aseptic hand hygiene procedures
- ◆ barrier techniques including zoning
- ◆ importance of record keeping in relation to cross infection

Assessment Guidelines

This Unit may be assessed holistically using a question paper containing a series of questions which could include multiple-choice, one word answer, and scenario questions.

Higher National Unit specification: statement of standards (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

Outcome 2

Explain the significance of micro-organisms in the dental environment

Knowledge and/or Skills

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

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can identify and describe the:

- ◆ groups of micro-organisms present in the oral cavity, eg bacteria, viruses, fungi and spores
- ◆ organisms capable of producing disease
- ◆ routes of entry
- ◆ direct/indirect contact

Assessment Guidelines

This Unit may be assessed holistically using a question paper containing a series of questions which could include multiple-choice, one word answer, and scenario questions.

Higher National Unit specification: statement of standards (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

Outcome 3

Describe the management of infectious conditions affecting dental patients

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 staff medical history in relation to controlling infection

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can describe:

- ◆ infections important in dentistry, eg Hepatitis B, HIV, Herpes Simplex
- ◆ importance of immunisation
- ◆ staff induction policy
- ◆ relevance of patients and staff medical and social history

Assessment Guidelines

This Unit may be assessed holistically using a question paper containing a series of questions which could include multiple-choice, one word answer, and scenario questions.

Higher National Unit specification: statement of standards (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

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

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can identify and describe:

- ◆ clinical equipment used for sterilisation, eg washers-disinfectors, ultrasonic cleaners, vacuum and non-vacuum autoclaves, gamma irradiation, including measures for checking sterility
- ◆ difference between asepsis, sterilisation and disinfection
- ◆ correct method of sterilisation and decontamination appropriate to setting
- ◆ preparation and cleaning the clinical environment
- ◆ different types of disinfectant and their uses
- ◆ different methods used in maintaining the cleanliness of equipment, handpieces and instruments
- ◆ importance of being able to identify single use and disposable instruments/equipment

Assessment Guidelines

This Unit may be assessed holistically using a question paper containing a series of questions which could include multiple-choice, one word answer, and scenario questions.

Higher National Unit specification: statement of standards (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

Outcome 5

Describe relevant health and safety legislation

Knowledge and/or Skills

- ◆ Health and safety policies and guidelines in relation to infection control
- ◆ How to deal with a 'sharps' injury
- ◆ The use of personal protective equipment in the dental environment
- ◆ Ways of dealing with clinical and non-clinical waste

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can identify and describe:

- ◆ Relevant legislation and regulations from the Health & Safety at Work Act
- ◆ Control of Substances Hazardous to Health regulations (COSHH)
- ◆ Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR)
- ◆ Special Waste and Hazardous Waste Regulations
- ◆ protocols for 'sharps' disposal
- ◆ clean and contaminated 'sharps' injuries
- ◆ importance of the correct workwear
- ◆ Department of Health guidelines
- ◆ Health & Safety Executive guidelines

Assessment Guidelines

This Unit may be assessed holistically using a question paper containing a series of questions which could include multiple-choice, one word answer, and scenario questions.

Administrative Information

Unit code:	F69B 34
Unit title:	Dental Nursing: Principles of Infection Control in the Dental Environment
Superclass category:	PF
Original date of publication:	August 2009
Version:	02 (April 2010)

History of changes:

Version	Description of change	Date
02	Amendment to code to reflect SCQF level change.	12/04/10

Source: SQA

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Higher National Unit specification: support notes

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

This part of the Unit specification is offered as guidance. The support notes 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

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

This Unit has been developed primarily as part of the PDA in Dental Nursing and is a contextualised version of the corresponding Unit in the VRQ developed by City and Guilds and the National Examining Board (NEBDN). 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.

For Outcomes 1–4 the following should be covered:

Common procedures

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

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.

Higher National Unit specification: support notes (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

- ◆ Disposal of waste — good clinical waste management is essential in every Practice 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. Some incidents, eg radiation contamination, accidents endangering health, require to be reported to statutory authorities (HSE) and candidates must be aware of their potential responsibilities. Records could include:

- ◆ Records of sterilisation procedure
- ◆ 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

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.

For Outcome 5, relevant legislation and regulations should include coverage of:

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

Higher National Unit specification: support notes (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

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*.

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.

Higher National Unit specification: support notes (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

Guidance on the delivery and assessment of this Unit

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

Delivery of the Unit could also include practical exercises in dealing with common situations which could result in cross-infection and/or contamination. The following examples show how to deal with a 'Needlestick' 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

Articulation with other qualifications includes:

SVQ level 3 Dental Nursing.

ENTO Unit A: Ensure your own actions reduce the risk to health and safety.

It may be possible to integrate knowledge and skills when gathering evidence for assessment.

Higher National Unit specification: support notes (cont)

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Further information

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

Scottish Executive — NHS practice inspections, compulsory audit. www.scotland.gov.uk

Practitioner Services (PSD), on behalf of the Scottish Dental Practice Board — authorises payments for NHS dentistry, patient examinations to check treatments and monitors quality www.show.scot.nhs.uk/psd

Scottish Dental Practice Board (SDPB) — sets operational policy on authorising payments to dentists and monitoring NHS dentistry www.show.scot.nhs.uk/psd/sdpb

NHS Education for Scotland — inspects NHS dental practices for vocational training or general professional training. www.nes.scot.nhs.uk

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

Opportunities for developing Core Skills

There is no automatic certification of Core Skills or Core Skill components in this Unit. However, there are opportunities to develop aspects of Written Communication and *Problem Solving*.

Open learning

This content of this Unit may be suitable for delivery in a variety of modes including open and distance learning.

Higher National Unit specification: support notes (cont)

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

General information for candidates

Unit title: Dental Nursing: Principles of Infection Control in the Dental Environment

This Unit has been designed to introduce you to the risks of infectious diseases, their routes of transmission and methods of preventing cross infection within the dental environment. It is one of four Units which make up the Professional Development Award in Dental Nursing at SCQF level 7. Completion of the PDA and the SVQ in Dental Nursing at level 3 will allow successful candidates to apply for registration as a Dental Nurse with the General Dental Council.

The Unit covers the following areas:

- ◆ The process of infection control
- ◆ The significance of micro-organisms
- ◆ The management of infectious conditions affecting dental patients
- ◆ The various methods of decontamination
- ◆ Relevant health and safety legislation

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