



Higher National Unit Specification

General information for centres

Unit title: Animal Nursing: Theatre Practice

Unit code: F3TW 34

Unit purpose: This Unit will provide practical and theoretical knowledge and understanding required for working within the companion small animal veterinary operating suites. This may allow candidates to competently carry out the tasks required of an auxiliary veterinary nurse.

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

- 1 Explain the preparation of the operating environment and methods of sterilisation.
- 2 Explain the preparation of a companion small animal for surgery and perform scrubbing up, gowning and gloving procedures.
- 3 Explain the principles, delivery and monitoring of general anaesthesia in companion small animals.
- 4 Explain the pre, intra and post general anaesthesia management of companion small animals.

Credit points and level: 1 HN credit at SCQF level 7: (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: Access to this Unit is at the discretion of the centre. However, it would be beneficial for candidates to have first achieved the Units F3V1 34 *Companion Animal Anatomy and Physiology* before undertaking this Unit.

Core Skills: There are opportunities to develop the written component of the Core Skill of *Communication* at SCQF level 6 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.

Assessment: Outcome 1 could be assessed using a closed-book written test consisting of structured questions. Outcome 2 could be assessed practically and with a closed-book oral or short answer question assessment consisting of structured questions. Outcomes 3 and 4 could be assessed by the production of a report of 1,500–2,000 words, or equivalent.

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

Explain the preparation of the operating environment and methods of sterilisation

Knowledge and/or Skills

- ◆ Preparation
- ◆ Sterilisation methods
- ◆ Sterilisation efficacy
- ◆ Cleaning, packaging, labelling and storage

Evidence Requirements

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

- ◆ explain the preparation of the operating environment. The explanation must include the reasons for cleaning protocols.
- ◆ explain methods of sterilisation by autoclave and one other method. The explanation must include acceptable temperatures, pressures and times used to achieve sterility.
- ◆ explain the advantages and disadvantages of sterilisation by autoclave and one other method. The explanation must include the suitability of the two methods for different types of surgical equipment.
- ◆ explain the methods used to monitor efficacy of sterilisation by autoclave and one other method. The explanation must include indicator tapes, Browne's tubes, TST indicator strips and spore tests and the parameters that each of these methods assesses.
- ◆ describe the cleaning, packaging, labelling and storage of surgical instruments and consumable materials used in the operating environment.

This Outcome must be assessed under closed-book, supervised conditions.

Assessment Guidelines

This Outcome could be assessed using an extended response with structured questions.

Higher National Unit specification: statement of standards (cont)

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Outcome 2

Explain the preparation of a companion small animal for surgery and perform scrubbing up, gowning and gloving procedures

Knowledge and/or Skills

- ◆ Appropriate clothing
- ◆ Scrubbing up, gowning and gloving procedures
- ◆ Asepsis
- ◆ Preparation

Evidence Requirements

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

- ◆ explain the appropriate clothing requirements for theatre personnel for a range of surgical procedures.
- ◆ perform the scrubbing up, gowning and gloving procedures without breaking asepsis.
- ◆ explain the procedures that must be followed if asepsis is broken.
- ◆ explain the requirements for the preparation of a companion small animal's skin for a surgical procedure. This must include an explanation of adequate clipping, preparations used to disinfect the skin and the way in which the procedure is carried out.

Assessment Guidelines

A closed-book oral or short answer question assessment conducted in supervised conditions could be used to assess the theoretical aspects of this Outcome. The practical component could be assessed using an appropriate observation checklist.

Higher National Unit specification: statement of standards (cont)

Unit title: Animal Nursing: Theatre Practice

Outcome 3

Explain the principles, delivery and monitoring of general anaesthesia in companion small animals

Knowledge and/or Skills

- ◆ Principles
- ◆ Reasons
- ◆ Legal requirements
- ◆ Stages and signs
- ◆ Delivery
- ◆ Monitoring methods and equipment

Evidence Requirements

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

- ◆ explain the key principles of general anaesthesia.
- ◆ explain the current legal requirements relevant to an animal undergoing general anaesthesia
- ◆ explain at least four reasons for general anaesthesia. The explanation must include when general anaesthesia may be required.
- ◆ describe four stages of general anaesthesia. The description must include the signs associated with each stage.
- ◆ explain the preparation of delivery equipment for general anaesthesia. The explanation must include preparation of an anaesthetic machine, vapouriser, gas cylinder(s), anaesthetic circuit and scavenging system and one of the following: an endotracheal tube, anaesthetic chamber or mask.
- ◆ explain the selection of an appropriate anaesthetic circuit, discussing the advantages and disadvantages of two circuits for a given scenario.
- ◆ describe two methods of monitoring general anaesthesia in a companion small animal. The description must include one type of equipment used.

Assessment Guidelines

The assessment of this Outcome could be combined with Outcome 4. This assessment could take the form of an assignment requiring candidates to investigate the principles, delivery and monitoring of general anaesthesia and the pre, intra and post general anaesthesia management of a companion animal. To cover the Evidence Requirements of both Outcomes, it is likely that the response should comprise around 1,500–2,000 words, or equivalent.

Higher National Unit specification: statement of standards (cont)

Unit title: Animal Nursing: Theatre Practice

Outcome 4

Explain the pre, intra and post general anaesthesia management of companion small animals

Knowledge and/or Skills

- ◆ Legal requirements
- ◆ Pre-anaesthesia assessment and requirements
- ◆ Preparation
- ◆ Induction
- ◆ Maintenance
- ◆ Companion small animal's condition
- ◆ Risks
- ◆ General anaesthetic recovery
- ◆ Post general anaesthesia recovery and care requirements

Evidence Requirements

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

- ◆ explain the legal requirements of informed consent. The explanation must include the limitations of staff with regards to general anaesthesia.
- ◆ explain the pre-anaesthetic assessment and requirements of a companion small animal undergoing general anaesthesia. This must include physical examination and discussion of diagnostic tests which could be carried out if necessary. The need for fasting before general anaesthesia in certain species and the benefits of pre-medication must also be included.
- ◆ explain the preparation of items which may be required for induction and maintenance of general anaesthesia and the maintenance of a companion small animal's condition. This must include the action that should be taken if the animal becomes unstable and maintenance of body temperature.
- ◆ explain the risks to the companion small animal and personnel associated with general anaesthesia and how these risks could be minimised. The explanation must include the risk of injury to the animal and personnel, risks associated with under and overdosing the animal, risks associated with vomiting in certain species and laryngeal spasm in cats and the risk of inhalation of gaseous agents by personnel.
- ◆ explain the post general anaesthesia recovery and care requirements of a companion small animal. The explanation must include when to cease oxygen supplementation and when extubation should take place. An explanation of the suitable environment for recovery and monitoring of the animal for complications such as vomiting, distress, soiling and prolonged recovery as well as the action which should be taken in these situations must also be provided.

Assessment Guidelines

The assessment of this Outcome could be combined with Outcome 3. This assessment could take the form of an assignment requiring candidates to investigate the principles, delivery and monitoring of general anaesthesia and the pre, intra and post general anaesthesia management of a companion animal. To cover the Evidence Requirements of both Outcomes, it is likely that the response should comprise around 1,500–2,000 words, or equivalent.

Administrative Information

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Higher National Unit specification: support notes

Unit title: Animal Nursing: Theatre Practice

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

This Unit is intended for candidates who are studying towards an HNC/D in Animal Care. The Unit will also be useful for animal care professionals and other candidates wishing to work within the veterinary environment.

The Unit is specifically related to the routines and procedures undertaken with in a companion small animal veterinary practice.

Additional information relating to each Outcome is given below.

- 1 The lecture sessions for this Outcome should clearly define the terms asepsis, disinfection and the principles of sterilisation. Appropriate cleaning protocols and routines for the surgical suite could cover damp dusting, use of disinfectants, cleaning between procedures, and end of day procedures. The explanation of sterilisation methods (autoclave, ethylene oxide and chemical sterilisation) includes acceptable temperatures, pressures and times used to achieve sterility. Discussion on the most appropriate methods of sterilisation for the variety of equipment that might be sterilised within the veterinary practice would be useful. The variety of methods used to assess the effectiveness of sterilisation technique could include which parameters each method assesses and should include indicator tapes, Browne's tubes, TST indicator strips and spore tests. Explanation of the uses for these instruments should also be covered. Appropriate cleaning methods for instruments, packaging methods and materials, labelling and storage of packaged items should also be covered. Identification of commonly used basic surgical instruments and their uses would be useful.
- 2 Appropriate clothing that should be worn by theatre personnel to reduce the risk of contamination should be discussed. Appropriate disinfectants including their advantages and disadvantages for use by personnel and for the animal should be covered. Practical teaching of scrub up procedures, gowning and gloving could be undertaken and would be of particular benefit to candidates in preparation for assessment. Closed and open gloving could also be covered. The importance of adequate clipping should also be covered when discussing preparation of the animal as well as the process of surgical preparation. It would also be of benefit to the candidates to discuss the common surgical areas that require clipping.
- 3 The legal reasons for providing general anaesthesia should be discussed. The signs and stages of general anaesthesia should be discussed in detail, including the signs of cardiac and respiratory arrest. Explanation of how anaesthetic machines deliver oxygen and volatile agents plus the setting up and checking of the general anaesthesia delivery methods should be covered. Identification of different gas cylinders and vapourisers should also be covered. Particular attention should be paid to the types of anaesthetic circuits available, how these circuits work, their appropriateness for use in particular animals and the advantages and disadvantages of these systems. The use of anaesthetic chambers should also be discussed.

Higher National Unit specification: support notes (cont)

Unit title: Animal Nursing: Theatre Practice

Practical sessions could be used to allow candidates to identify the systems and practice assembling them for use. Discussion on the appropriateness of endotracheal tubes and face masks should be covered and the advantages and disadvantages of their use. A range of monitor methods and monitoring equipment plus the benefits of using anaesthetic monitoring forms should be covered. The varied scavenging options (active and passive) and the role that scavenging plays should also be explained.

- 4 This Outcome should focus on the role of staff in the preparation of companion small animals for general anaesthesia. Legal requirements for general anaesthesia should cover the importance of completion of a consent form, including the need for this to be informed consent. The limitations of unqualified and qualified staff under the Veterinary Surgeons Act 1966 should be clearly defined. Discussion of pre-anaesthetic physical examination including diagnostic tests that may be carried out and their relevance prior to general anaesthesia should also be covered. The need for fasting of certain species and the reasons for premedication and analgesic requirements should also be explained. Preparation procedures for general anaesthesia should include the items which may be required for induction eg clippers, local anaesthetic spray etc. Induction procedures (intravenous, intramuscular, induction chamber, masking) and the maintenance of general anaesthesia should be covered. The maintenance of the animals condition should involve discussion of the vital signs plus the action that should be taken if the animal becomes unstable and maintenance of body temperature. A range of potential risks to the animal and personnel associated with general anaesthesia should be discussed including the action that can be taken to reduce these risks. These should include injuries that personnel and the animal could sustain, inhalation of gaseous agents by personnel, the risks associated with under and overdosing the animal and the risks associated with vomiting and laryngeal spasm. When to cease anaesthesia and subsequent procedures that should then be followed, including when to cease oxygen supplementation and when extubation should take place should be explained alongside the process of recovery. The care requirements of the animal post anaesthesia should cover the type of environment required for recovery and monitoring of the animal. It should also cover identification of post anaesthesia complications including pain, vomiting, distress, soiling and prolonged recovery as well as the action required in these situations.

Guidance on the delivery and assessment of this Unit

This Unit is likely to form part of a Group Award within the HNC/HND Animal Care framework. It could also be delivered as a stand-alone Unit for candidates who are employed within the Veterinary environment.

The delivery of this Unit could contain practical sessions covering the surgical scrub up, gowning and gloving procedures. Candidates would also benefit from session which allowed them to see and/or handle anaesthetic delivery systems. Visits to a Veterinary Practice, work experience or voluntary work to observe an anaesthetic procedure would enhance the candidates understanding and knowledge and are strongly recommended.

Higher National Unit specification: support notes (cont)

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The first Outcome is assessed under closed-book, supervised conditions. This could consist of an extended response with structured questions.

The second Outcome could be assessed practically using an observation checklist as well as an oral or closed-book written test consisting of structured questions conducted under supervised conditions.

Outcomes 3 and 4 could be assessed holistically by way of a single assessment designed to cover the requirements of both Outcomes. As a result of the detail in these Evidence Requirements it is recommended that candidates are given clear instruction as to what is required in the assessment and that in order to meet the Evidence Requirements for both Outcomes that the report is likely to be around 1,500–2,000 words in length. It is envisaged that the assignment may broadly comprise a discussion of how to prepare/care for a chosen species.

Opportunities for developing Core Skills

The delivery and assessment of this Unit may contribute towards the component Written Communication of the Core Skill of *Communication* at SCQF level 6, particularly by use of the suggested combined assignment as instrument of assessment for Outcomes 3 and 4. The general skills of the component are ‘read, understand and evaluate written communication’ for its reading element and ‘produce well-structured written communication’ for its written element.

Any preparation towards producing the assignment such as supplementary reading and research will facilitate development of the component’s reading element, as candidates will need to examine a variety of information, for example, when explaining the legal requirements of informed consent in the fourth Outcome. Similarly, the writing element of the component may be developed when dealing with these and other topics such as explaining risks to personnel and animals, and associated issues.

In both formative and summative assessment candidates should be encouraged to present all essential ideas/information and supporting detail in a logical and effective order; use a structure that takes account of purpose and audience and links major and minor points in ways which assist the clarity and impact of the writing; use conventions which are effective in achieving the purpose and adapted as necessary for the target audience and use spelling, punctuation and sentence structures which are consistently accurate.

These skills can be developed through formative activities, such as any short essays/reports on topics, without formal Core Skill certification.

Open learning

The practical aspects associated with this Unit mean that open learning delivery would be difficult to arrange.

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).

General information for candidates

Unit title: Animal Nursing: Theatre Practice

This Unit will prepare you for working within the operating suites of the veterinary practice.

The Unit consists of four Outcomes, as described below.

The first Outcome will enable you to prepare the operating suite and equipment for a surgical procedure. You will gain knowledge and understanding of sterilisation techniques, monitoring of efficiency and care of equipment.

The second Outcome will enable you to carry out the scrubbing up, gowning and gloving procedures that are required for surgery and the appropriate attire that should be worn in this environment. You will also study the procedures that need to be carried out to prepare the patient for surgery.

The third Outcome covers the principles, delivery and monitoring of general anaesthesia. This Outcome is closely linked to Outcome 4.

The fourth Outcome will provide you with the knowledge and understanding of the pre, intra and post general anaesthesia requirements and management of an animal undergoing this procedure.

For Outcome 1, assessment is likely to be by a closed-book written test consisting of structured questions, in a supervised environment. In Outcome 2, assessment may consist of a practical activity and closed-book test taken under supervised conditions. Outcomes 3 and 4 may be assessed together. You will receive clear instruction from your tutor and may be asked to produce a report of 1,500–2,000 words or equivalent.

You are advised to gain as much practical experience as possible. Visits, work experience or voluntary work within a Veterinary Practice would allow you to increase your practical knowledge and understanding of the work that is carried out within the operating suite.

Outcomes 3 and 4 require candidates to explain the principles, delivery and monitoring of general anaesthesia in companion small animals and to explain the pre, intra and post general anaesthesia management of companion small animals. This is likely to be in the form of a report of 1,500–2,000 words or equivalent and will provide the opportunity to develop the written component of the Core Skill of *Communication* at SCQF level 6.