



LAS-Learning

Trainees Instructions

EU Module 24 - Designated Veterinarian

Development of interactive e-learning modules on specific areas of the Education & Training framework facilitating implementation of DIR 2010/63/EU

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1. Module Overview

1.1 Overview

The Designated Veterinarian, possessing specialised knowledge in laboratory animal medicine, is responsible for offering guidance on animal welfare and treatment to individuals involved in breeding, supplying, or utilising animals for research purposes. This course provides an introductory overview of the Designated Veterinarian's role and offers insight into the necessary knowledge and skills for effective performance in this capacity.

This module will cover six topics: Statutory roles, communication and interactions, Specific legislative requirements, Ethics, welfare & three Rs, Life as a DV part 1 – health welfare and husbandry, Life as a DV part 2 – procedures, and Communication and clinical governance.

If you are visiting the site independently, you should consult the EC Training and Education framework [guidance document](#), which provides an overview of training requirements for individuals with different responsibilities under their relevant national legislation. Additional education and training may be necessary to meet national or institutional requirements.

This document offers suggestions for supporting your training. Each module aligns with the learning outcomes specified by the EU Education & Training framework for laboratory animal science. This module was developed by Anne-Dominique Degryse, Ngaire Dennison, Lucy Whitfield, and Maggie Lloyd, experts in veterinary and laboratory animal science, and revised further by an international Reflection Group panel. In addition, an international Reflection Group panel has further refined the content, while Nuno H. Franco managed overall coordination.

Your collaboration and feedback are greatly appreciated, as the module is currently in the testing phase.

1.2 Topics Covered

- Statutory roles, communication and interactions
- Specific legislative requirements
- Ethics, welfare & three Rs
- Life as a DV part 1 – health, welfare and husbandry
- Life as a DV part 2 – procedures
- Communication and clinical governance

1.3 Learning Objectives

- Understand the legal responsibilities of Named Veterinary Surgeons (NVS) under the Animals (Scientific Procedures) Act 1986, and develop effective



communication skills to interact with research teams and regulatory bodies.

- Gain comprehensive knowledge of the specific legislative frameworks governing animal research, ensuring compliance with all relevant laws and guidelines.
- Apply ethical principles and the Three Rs (Replacement, Reduction, Refinement) to promote animal welfare in research settings.
- Develop expertise in overseeing the health, welfare, and husbandry practices of laboratory animals, ensuring optimal living conditions and care.
- Acquire proficiency in assessing and overseeing procedures performed on animals, ensuring they are conducted ethically and in compliance with regulatory standards.
- Enhance communication skills and understand clinical governance principles to effectively oversee veterinary practices within research establishments.

To support your ongoing learning, each module concludes with a curated list of recommended readings and cited references. Whenever possible, these references are linked to facilitate further exploration.



2. Prerequisites and Requirements

No specific prior knowledge is required. However, a basic understanding of searching bibliographic databases and a background in laboratory animal science and/or non-animal methods can be advantageous.

This module is designed to guide you step by step, eliminating the need for prior study.

2.1 Requirements

- Completion of lessons and understanding of learning objectives.
- Participation in knowledge checks and assessments to evaluate understanding.



3. Grading and Completion

Grading will be based on the successful completion of knowledge checks and assessments provided at the end of each module. Upon finishing all parts of the module, students will receive a certificate of completion.



4. Textbooks and Reading Materials

The **“References and Further Reading”** lesson provides most references and readings. They comprise scientific articles, sections of books, websites, and videos. Clicking on any link will open a new window to download or visualise the additional material. Several links to further resources can also be found in the module contents to better guide the reader.

The additional materials provide more information on specific topics, tools, and resources.



5. Course Program

The module is organised into eight chapters, with lessons and learning objectives as follows:

Chapter	Lesson	Learning objectives
Introduction	1-2	General introduction about the course Get to know the learning objectives
Statutory roles, communication and interactions	3-5	Duties and responsibilities of the Designated Veterinarian Roles and responsibilities of others and interactions with the DV Assess your knowledge
Specific legislative requirements	6-9	Role of the DV in the use and disposal of medicines for animals Role of the DV in import, export, and transport of laboratory animals Legislative controls on the creation and use of Genetically Altered Animals Assess your knowledge
Ethics, welfare & three Rs	10-15	The Three Rs The Harm Benefit analysis Good science and good welfare Culture of care Where to go for more information Assess your knowledge
Life as a DV part 1 – health, welfare and husbandry	16-27	Planning your visit to the animal facility Health and biosecurity Species and care - introduction Species and care - small laboratory animals Species and care - aquatics Species and care - farm animals & horses Species and care - carnivores Species and care - non-human primates Species and care - Avian species Humane Killing Safety in the facility Assess your knowledge
Life as a DV part 2 – procedures	28-30	Genetically altered animals Anaesthesia and surgery Assess your knowledge
Communication and clinical governance	31	Communication, record keeping and clinical governance
Summary and knowledge check	32-34	Module summary List of references and further reading Assess your knowledge



Table 1 - Learning objectives per parts and lessons.

5.1 Progress Tracking

Once you begin working through a module, your progress is tracked, and you can break off and resume your studies at any point. Once the module is completed, the trainee can access any section to refresh their understanding of a topic.

5.2 Module Structure

The module is divided into several parts, and although they were designed to be followed sequentially, they can also be taken iteratively. Please note that a certificate of completion is only issued to learners who complete all module parts.

5.3 In-Depth Explanation Lesson by Lesson

Lesson	Title	LO	Explanation
	About this course		Aims of the course with information about the course duration and the learning opportunities used.
Introduction			
1	Introduction		Overview of responsibilities and training requirements for DVs, with recommendations for further training
Chapter 1: Statutory roles, communication and interactions			
1	Duties and responsibilities of the Designated Veterinarian	24.1	Overview of responsibilities of tasks of the DV defined in Directive 1020/63, and additional non-statutory tasks the DV may be asked to undertake. Identification of potential conflicts of interest and how to avoid them.
2	Roles and responsibilities of others and interactions with the DV	24.2 24.9	Overview of roles of people with specified responsibilities under the Directive and others likely to be encountered in the facility. Outline of how these people interact with the DV, and the importance of effective communication. Outline of tasks and composition of the animal welfare body
3	Knowledge-check		Covering LO 24.1 and 24.2
Chapter 2: Specific legislative requirements			
1	Role of the DV in the use and disposal of medicines for animals	24.3	Outline of key pieces of legislation covering the acquisition, storage, supply and use of medicines in animals, and how these apply in a research environment.
2	Role of the DV in import, export, and	24.4	General legislative requirements for the import, export and transport of animals with an overview of the role of the DV.



	transport of laboratory animals		
3	Legislative controls on the creation and use of Genetically Altered Animals	24.5	Overview of regulations covering the creation and management of genetically altered animals.
4	Knowledge-check		Covering LO 24.3, 24.4 and 24.5
Chapter 3: Ethics, welfare and 3 Rs			
1	The Three Rs	24.6	Definition and examples of the three Rs with examples of each. Outline of the role of the DV in promoting implementation of the three Rs. Overview of methods for pain and distress recognition in lab animals, and the importance of refinement in improving scientific outputs.
2	The Harm Benefit analysis	24.11	Definition or harm benefit analysis, with examples of harms and benefits and process for weighing harms and benefits.
3	Good science and good welfare	24.7 24.12	Discussion of the importance of good welfare in promoting good science and the impact of ill health on scientific outputs. Overview of sources of bias in animal models and the role of the DV.
4	Culture of care	24.9	Definition of culture of care and outline of why it is important. Overview of how to build a culture of care and the role of the DV in this.
5	Where to go for more information	24.10 24.8	Sources of information on ethics and the three RS and how the DV can promote these in the establishment, including use of ethical concepts in decision making.
6	Knowledge-check		Covering LO 24.7, 24.8, 24.9, 24.10, 24.11, 24.12.
Chapter 4: Life as a DV part 1 - health, welfare and husbandry			
1	Planning your visit to the animal facility	24.14 24.13	Basic principles of planning a visit to the animal facility.
2	Health and biosecurity	24.16 24.17 24.18 24.22	Key principles of disease surveillance in laboratory animals. Overview of the importance of biosecurity and how to achieve this, with strategies for management of disease outbreaks.
3	Species and care - introduction	24.19 24.20 24.24	Overview of the principles of laboratory animal husbandry and the relationship between husbandry and health. Includes: - Overview of different types of housing



			<ul style="list-style-type: none"> - Brief introduction to environmental control and lab animal nutrition. - Principles of enrichment and the importance of meeting ethological needs - Introduction to the Five Domains of animal welfare and the impact of the animal caretaker. - Outline of the benefits of positive reinforcement training
4-9	Species and care - species specific sections	24.24	<p>An overview of basic biology, breeding and maintenance, behaviour, common conditions and use in research for different laboratory animal species, including:</p> <ul style="list-style-type: none"> - Small laboratory animals - Aquatics - Farm animals and horses - Carnivores (dogs, cats, ferrets) - Non-human primates - Avian species
10	Humane Killing	24.21	Outline of the legal requirements for humane killing and the role of the DV in this.
11	Safety in the facility	24.23	Introduction to potential hazards in the laboratory, risk management and the role of the DV.
12	Knowledge-check		Covers LO 24.13, 24.14, 24.16, 24.17, 24.18, 24.19, 24.20, 24.21, 24.22, 24.23 and 24.24
Chapter 5: Life as a DV part 2 - procedures			
1	Genetically altered animals	24.25	<p>Overview of different methods of inducing changes in genetic material, and the importance of managing genetic drift.</p> <p>Outline of welfare implications of genetic alteration, and strategies for welfare assessment and reducing wastage.</p> <p>Overview of nomenclature of inbred and genetically altered animals and the importance of standardisation.</p>
2	Anaesthesia and surgery	24.26 24.27 24.28	<p>Overview of legal requirements for anaesthesia and analgesia, and differences between clinical and research anaesthesia, including problems that may be encountered in research animals. Summary of pre-anaesthetic preparation and medication suitable for research animals.</p> <p>Methods for anaesthetic monitoring and factors affecting choice of anaesthetic including options for long-term and non-recovery anaesthesia.</p> <p>Peri-operative care, and outline of consequences of sub-optimal anaesthesia for animals and science.</p>



			Differences between experimental and clinical surgery and challenges for the DV, with an outline of the DV's role in refining surgery.
3	Knowledge-check		Covers LO 24.26, 24.27 and 24.28
Chapter 6: Communication, record keeping and clinical governance			
1	Communication, record keeping and clinical governance	24.29 24.15 24.30	Overview of elements of good communication and why this is important for the DV. The importance of record keeping for the DV. Types of records and formats in which these may be kept. Overview of sources of information for the DV.
Final summary and knowledge check			
1	Summary		Module summary
2	References and Further Reading		References for additional materials
3	Knowledge-check		Final summative knowledge check covering the entire module.

Table 2 - Explanation lesson by lesson.



6. Target Audience

This module is intended for (bio)medical researchers, participants in laboratory animal science courses, university students, biology/medical teachers, animal welfare body members, regulators, and anyone interested in learning more about animal research ethics and the principles of Replacement, Reduction, and Refinement of animal use for scientific and educational purposes.