Module C

Veterinary Pathology
Basic Tissue Pathology, Necropsy and Biopsy (C-VP.1)

Module Leader - tbc

LEARNING OUTCOMES

The objective of the module is to enable the candidate to consolidate clinical knowledge gained at undergraduate level, and to develop an in depth understanding of the application of that knowledge in a practice environment in relation to basic tissue pathology.

Candidates are encouraged to establish contact with an experienced pathologist working in a diagnostic laboratory to assist them in some aspects of the module.

LEARNING TOPICS

At the end of the module, candidates should be able to:

- Understand the basic principles of general tissue pathology
- Organise and safely conduct a thorough necropsy in the context of the clinical environment
- Organise and collect appropriate samples from biopsies, cytology and necropsy examination for subsequent pathological evaluation
- Review and integrate results from clinical, clinical chemistry and histopathology
- Be capable of critically appraising pathology reports and utilising current literature to put the findings in context
- Review the outcomes of their cases in order to improve their performance
UNDERPINNING KNOWLEDGE

1. Health and Safety
   - Legislation regarding safety at work and COSHH
   - Forensic pathology and evidence
   - Notifiable diseases
   - Zoonoses
   - Organisation and responsibility in a team environment
   - Disposal of waste and handling of hazardous materials
   - Chemical safety (fixatives, processing chemicals, stains)
   - Packaging and handling of pathology materials

2. Welfare and Ethics
   - Professional relationships
   - Consent for necropsy examination
   - Retention of tissues
   - Euthanasia and impact on sampling
   - Identification and labelling

3. Biopsy and Cytology
   - Choice of sample – needle, excision, endoscopy
   - Preparation of samples
   - Preservation and choice of fixatives
   - Processing for examination
   - Understand the relative advantages/disadvantages of fine needle aspirates, needle biopsies and excisional biopsies and their integrative roles in case diagnosis

4. Necropsy Examination
   - Preparation and equipment
   - Prosection and other necropsy techniques
   - Necropsy techniques
   - Description and recording of findings (manual and computer based)
   - Sampling and preservation of tissues and choice of fixatives for paraffin wax embedding, frozen sections, bone marrow, bacteriology, virology, parasitology, electron microscopy, PCR
   - Sampling for toxicology/poisoning

5. Basic pathology theory
   - Processing and sectioning
   - Staining including special stains, immunohistochemistry (IHC) and in situ hybridisation (ISH)
   - Basic pathological processes of cellular adaptation, injury and death, inflammation, tissue renewal, healing and repair, haemodynamic disorders, immune diseases and neoplasia
   - Histological appearance of basic pathological changes in organ systems
   - Integration of pathology findings with clinical findings and clinical pathology findings
   - Interpretation of pathology diagnostic reports
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ASSESSMENT

- A case diary of 20 cases that documents the candidate’s experience. Cases can be collected from up to 12 months prior to the date of enrolment on the CertAVP programme.
- A casebook of three cases, each of up to 1,750 words in length. These cases should be selected to demonstrate the candidate’s ability to use the competences that have been acquired to cope with a challenging situation, with the use of tissue pathology, rather than necessarily using classic textbook cases of particular conditions.
- A reflective essay of 4,500 words, completed at the end of the module, reflecting upon how the course of study has resulted in a more competent practitioner.

ANNUAL ASSESSMENT TIMETABLE

<table>
<thead>
<tr>
<th>Date</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>31st March</td>
<td>Submit case diary for assessment.</td>
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<tr>
<td>30th June</td>
<td>Submit casebook for assessment.</td>
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<tr>
<td>30th September</td>
<td>Submit reflective essay for assessment.</td>
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LEARNING SUPPORT ACTIVITIES

- Access to the on-line veterinary pathology resource within the RVC-managed WikiVet will be provided.
- Access to an online case material database.
- Interesting paper posted every 2 months by Module Leader
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INSTRUCTIONS FOR SUBMITTING CASEBOOKS / REFLECTIVE ESSAYS / CASE DIARIES

Please ensure that at the beginning of your casebook / reflective essay is included:

- Your name
- Module name
- Casebook/reflective essay title
- Word count (excluding the above, tables, photo titles and references)

Casebooks/reflective essays should be referenced and references cited in a standard format.
- Use *The Veterinary Record* or *The Journal of Small Animal Practice* as guidance to both citation of references within the text and format of references in the reference list.
- *The Harvard Guide to Referencing* is also available to candidates enrolled for learning support or online (various web sites allow the guide to be downloaded).

Please submit your casebook/reflective essay as a

- MS Word document (97-2003 format or later)*

and your case diary as a

- MS Excel spreadsheet (97-2003 format or later)*

attached to an e-mail and send it to: certavp@rvc.ac.uk

*(Please note that as case diaries / casebooks / reflective essays in alternative formats have been unreadable in MS Word any other format will be sent back to the candidate)
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SUGGESTED READING

Most of the textbooks on veterinary pathology (tissue pathology) are written for the qualified pathologist or pathologist in training programmes. Those that cover the underlying mechanisms of disease and how this relates to different organ systems - without being too specialist - include:


A further text on general mechanisms of pathology is the medical textbook


Only the chapters on general pathology would be relevant.

The British Society of Veterinary Pathology run a series of 2-day modules on veterinary pathology aimed at pathologists training for specialist MRCPath or European/American board qualifications. Details of those modules can be obtained from www.bsvp.org