American College of Veterinary Internal Medicine

CANDIDATE PREPARATION INFORMATION
2023 ACVIM NEUROLOGY SPECIALTY EXAMINATION

The information below is provided to help you prepare for the Specialty Examination in Neurology. Please review it carefully and thoroughly!

Included in this document is general information regarding:

- Exam Schedule and Administration
- Exam Structure
- Exam Preparation: Question Topic Distribution & Suggested Reading List
- Exam Scoring
- Foreign Language (translational) Dictionaries
- Special Accommodation Requests

EXAM SCHEDULE AND ADMINISTRATION

1. All candidates must follow all identification verification and check-in procedures
2. All candidates must follow ACVIM's policies regarding the storage of electronic devices during exam administration
3. All candidates must adhere to ACVIM's Confidentiality and Academic Integrity Agreement

DATES	SECTION	LOCATION	DURATION
June 5-9, 2023	Neurology: Radiology	*Live Remote or Testing Center	**4 hours
	Neurology: Electrodiagnostic	*Live Remote or Testing Center	**4 hours
	Neurology: Clinical Cases	*Live Remote or Testing Center	**3 hours
	Neurology: Pathology	*Live Remote or Testing Center	**2.5 hours
	Neurology: Multiple Choice	*Live Remote or Testing Center	**3 hours

**The 2023 exams will be administered electronically (computer-based testing). Candidates will have the option to take their exams via live remote proctoring (Proproctor) or in a Prometric testing center.*

*** In addition to the time provided to test, 15-minutes will be automatically added to your scheduled seat time to review instructions and take an optional survey at the conclusion of each section.*

During the months of October and November, ACVIM will communicate with 2023 SAIM Specialty Exam eligible candidates about testing options and scheduling. After the registration deadline on February 1, 2023, ACVIM will communicate with 2023 exam registrants, providing information and detailed instructions for exam administration.

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EXAM STRUCTURE

The Specialty Examination in Neurology consists of five sections. Videotaped case material may be utilized in any of these sections. Question formats include multiple choice, listing, short answer, and fill in the blank. Below are descriptions of each section of the exam.

1. **Multiple Choice/Theory Section**: addresses all aspects of clinical neurology (medical neurology, neurosurgery, neuroradiology, electrodiagnostic, and CSF analysis), as well as neuroanatomy, neurophysiology, neurotoxicology, neuropharmacology/therapeutics, and neuropathology. This section of the examination consists of 100 multiple-choice questions with 1 correct answer out of four choices.

2. **Clinical Cases/Practical Section**: uses a case-based format focusing on interpretation of the neurological examination as well as related diagnostic data from specific clinical cases. Case-related questions on functional neuroanatomy, diagnostic data interpretation, patient management/treatment and diagnosis are presented. This section also may include specific questions on diagnostic image interpretation, histopathology, electrodiagnostic, clinical pathology and surgery as they relate to the clinical cases. This section of the examination consists of 15-cases with a total of 88 multiple-choice questions.

3. **Electrodiagnostic/Practical Section**: uses a case-based format focusing on interpretation of electromyograms, nerve conduction studies, late waves, spinal cord evoked responses, brainstem auditory evoked responses, electroencephalograms, and to a lesser degree, electroretinograms/visual evoked responses and urodynamic studies. Knowledge of the theory and technical aspects of the above electrodiagnostic studies is also tested. This section of the examination consists of 21-cases with a total of 92 multiple-choice questions.

4. **Neuroradiology**: uses a case-based format focusing on interpretation of digitized images. Vertebral column and skull radiography, myelography, computerized axial tomography, and magnetic resonance imaging are included. This section of the examination consists of 21-cases with a total of 57 questions. Question formats include listing, fill-in-the-blank, multiple choice, and short answer. *The candidate will be expected to use appropriate descriptive terminology for the imaging modality presented.*

5. **Neuropathology**: interpretation of digitized images of gross and histopathology sections of brain, spinal cord and peripheral nerve. CSF cytology is also included. Identification of normal neuroanatomical structures is included in this section. This section of the examination consists of 41-cases with a total of 58 multiple-choice questions.

EXAM PREPARATION

Question Topic Distribution by Section (approximate percentage of items across the major content domains)

Every effort will be made to ensure the following percentages remain accurate, however, due to item performance, some slight fluctuation in this blueprint may be result due to final review and assessment of specific questions following scoring and psychometric analysis of results.

Multiple Choice Section:

1. Pre-clinical and basic training: 28
2. Clinical training: Medical Neurology: 56
3. Clinical Training: Surgical Neurology: 5
4. Clinical Training: Neuroradiology: 8
5. Clinical Training: Neuropathology: 3

Clinical Cases Section - Breakdown:

Subject	Approximate Weighting
Pre-clinical training	**30%**
Medical neurology	**30%**
Surgical neurology	**15-20%**
Diagnostic imaging	**15-20%**
Neuropathology	**5%**
Location	
Brain	30-35%
Cranial nerves	10-15%
Spinal cord	25-30%
Peripheral nervous system	25-30%
Animal type	
Small animal	80-85%
Equine	5-10%
Farm animal	5%-10%
Disease categories	
Neoplasia	10-15%
Inflammatory/Infectious	25-30%
Vascular	5%
Trauma	5-10%
Idiopathic	5%
Degenerative	20%
Metabolic	5%
Congenital	15-20%

Practical, Electrodiagnostic Section:

General principles:	20-30%
BAER:	10-15%
EEG:	1-3%
EMG, NCV, RNS:	30-40%
F/H:	5%
SEP/CDP:	5%
ERG:	1-2%

Practical, Radiology Section:

Location	
Head	65%
Forebrain	35%
Brain stem	20%
Cerebellum	10%

Whole brain	35%
Spine	35%
Animal type	
Small animal	90%
Large animal	10%
Study type	
MRI	65%
Brain	50%
Spine	15%
CT	20%
Brain	10%
Spine	10%
Myelography	5%
Plain radiographs	10%

Practical, Pathology Section:

Subject	Weighting
General principles	
Diagnosis	45-50%
Identification (anatomy, stains, etc.)	30-35%
Pathologic processes	10-15%
Interpretation	5-10%
Animal type	
Small animal	85-90%
Large animal	10-15%
Gross vs histological sections	
Total histopathology	50-55%
Total gross path	30-35%
Spinal fluid	5-10%
Clinical pathology	5-10%
Location	
Total CNS	80-85%
Total PNS	10-15%
Disease categories	
Congenital	1-10%
Degenerative	15-25%
Inflammatory/non-infectious	10-15%
Inflammatory/infectious	20-25%
Neoplasia	15-20%
Toxic	5-10%
Traumatic	5-10%
Vascular	5-10%

Suggested Reading List (most recent edition, unless otherwise indicated)

This list of suggested reference materials below is meant to guide Candidates in preparing for the Neurology Specialty Examination. The list is NOT a complete listing of all texts/journals from which questions may be drawn but represents a body of work that a qualified candidate should know. While the most up to date publications may not be present on this list, as a best practice, residents should have exposure to current literature as an ongoing part of their residency training programs. The exam will emphasize information taken from veterinary literature, including journals, textbooks, and select electronic resources.

Note: When more than one edition is available, reference the most current edition, but earlier editions are often current enough with respect to core concepts.

Author	Title
Dewey, CW	A Practical Guide to Canine and Feline Neurology
Piermattei, DL	An Atlas of Surgical Approaches to the Bones and Joints of the Dog and Cat
Guyton, AC	Basic Neuroscience: Anatomy & Physiology
Fisch, B	Fisch & Spehlmann's EEG primer: Basic principles of digital and analog EEG.
Platt, SR	BSAVA Manual of Canine and Feline Neurology
Braund, KG	Clinical Syndromes in Veterinary Neurology
Shores, A	Current Techniques in Canine and Feline Neurosurgery
Strain, GM	Deafness in Dogs and Cats
Kimura J	Electrodiagnosis in Diseases of Nerve and Muscle: Principles and Practice
Preston, DC	Electromyography and Neuromuscular Disorders
Furr, M	Equine Neurology
Morgan, JP	Exercises in Veterinary Radiology: Spinal Disease
Uemura, EE	Fundamentals of Canine Neuroanatomy and Neurophysiology
Bagley, RS	Fundamentals of Veterinary Clinical Neurology
Lorenz, MD	Handbook of Veterinary Neurology
Koestner, A	Histological Classification of Tumors of the Nervous System of Domestic Animals
Greene, CE	Infectious Diseases of the Dog and Cat
Mayhew, IR	Large Animal Neurology: A Handbook for Veterinary Clinicians
Evans, HE	Miller's Anatomy of the Dog
Assheuer, J	MRI and CT Atlas of the Dog
King, AS	Physiological and Clinical Anatomy of the Domestic Mammals: Central Nervous System Vol. 1
Kandel, ER	Principles of Neural Science
Gavin, PR	Practical Small Animal MRI
Platt, SR	Small Animal Neurological Emergencies
Wheeler, SJ	Small Animal Spinal Disorders: Diagnosis and Surgery
Fossum, TW	Small Animal Surgery
Slatter, D	Textbook of Small Animal Surgery
Thrall, DE	Textbook of Veterinary Diagnostic Radiology
Ettinger, SJ	Textbook of Veterinary Internal Medicine: Diseases of the Dog and Cat
Plumb, DC	Veterinary Drug Handbook
Thomson, C	Veterinary Neuroanatomy: A Clinical Approach
De Lahunta, A	Veterinary Neuroanatomy and Clinical Neurology
Oliver, JE	Veterinary Neurology
Summers, BA	Veterinary Neuropathology
Vandevelde, M	Veterinary Neuropathology: Essentials of Theory and Practice
Gellatt, KN	Veterinary Ophthalmology

	Recommended Journals & Proceedings January 1, 2015 – December 31, 2021
	ACVIM Proceedings
	American Journal Veterinary Research
	Australian Veterinary Journal
	BMC Veterinary Research
	Canadian Veterinary Journal
	Compendium Continuing Education: Practicing Veterinarian
	Equine Veterinary Journal
	Frontiers in Veterinary Neurology and Neurosurgery
	Journal American Animal Hospital Association
	Journal of the American Veterinary Medical Association
	Journal of Feline Medicine and Surgery
	Journal Small Animal Practice
	Journal Veterinary Diagnostic Investigation
	Journal Veterinary Emergency and Critical Care
	Journal Veterinary Internal Medicine
	Journal of Veterinary Pharmacology and Therapy
	PLOS ONE
	Progress in Veterinary Neurology
	The Veterinary Journal
	Topics in Companion Animal Medicine
	Veterinary Clinical Pathology
	Veterinary and Comparative Orthopaedic and Traumatology
	Veterinary Immunology / Immunopathology
	Veterinary Pathology
	Veterinary Radiology and Ultrasound
	Veterinary Record
	Veterinary Surgery
Divers, TJ	Veterinary Clinics of North America Equine Practice: Clinical Neurology, 2011
Haussler, KK	Veterinary Clinics of North America Equine Practice: Selected Neurologic and Muscular Diseases, 1997
Lofstedt, J	Veterinary Clinics of North America Exotic Practice: Exotic Animal Neurology, 2018
Orosz, SE	Veterinary Clinics of North America Exotic Practice: Neuroanatomy and Neurodiagnostics, 2007
Tell, LA	Veterinary Clinics of North America Food Animal Practice: Food Animal Neurology, 2017
Washburn, KE	Veterinary Clinics of North America Food Animal Practice: Ruminant Neurologic Diseases, 2004
Constable, PD	Veterinary Clinics of North America Small Animal Practice: Neurology, 2018
Kerwin, SC	Veterinary Clinics of North America Small Animal Practice: Advances in Veterinary Neurology, 2014
Olby, NJ	Veterinary Clinics of North America Small Animal Practice: Diseases of the Brain, 2010
Thomas, WB	Veterinary Clinics of North America Small Animal Practice: Diseases of the Spine, 2010
Shelton, GD	Veterinary Clinics of North America Small Animal Practice: Neuromuscular Diseases II, 2004
Shelton, GD	Veterinary Clinics of North America Small Animal Practice: Neuromuscular Diseases, 2002
Thomas, WB	Veterinary Clinics of North America Small Animal Practice: Common Neurologic Problems, 2000

EXAM SCORING

To become Board-certified, a Candidate must pass each section of the Specialty Examination. Candidates who do not pass all five sections on the first attempt only have to retake those sections that were failed. Pass points are determined based on the minimal level of competence as determined by Diplomates rating the examination and are not based on the curve of the candidates' performance. These questions are evaluated by Neurology Diplomates who assist in determination of the pass point.

FOREIGN LANGUAGE (TRANSLATIONAL) DICTIONARIES

Information regarding the use of foreign language (translational) dictionaries can be found in the Certification Manual. Request forms are on the exam page of the ACVIM website and **must be submitted by February 1, 2023.**

SPECIAL ACCOMMODATION REQUESTS

Information regarding requests for special accommodations can be found in the Certification Manual. Request forms will be posted on the exam page of the ACVIM website and **must be submitted by February 1, 2023. Late submissions for accommodation requests will only be accepted in cases where a disability/impairment is documented for the first time AFTER the 2/1/23 deadline.**

The ACVIM is here to help you navigate the certification process and we wish you the best of luck on the 2023 Small Animal Internal Medicine Specialty Exam!

Please reach out to Certification@ACVIM.org with any questions.