

CANDIDATE PREPARATION INFORMATION **2018 ACVIM NEUROLOGY SPECIALTY EXAMINATION**

The information below is provided to help you prepare for the Specialty Examination in Neurology in June 2018. Included in this document is general information regarding:

- The structure of the examination
- The examination schedule (date, time, and location)
- Examination scoring
- Use of foreign language (translational) dictionaries
- ADA Request for Special Accommodation
- Examination preparation (i.e., reference/suggested reading list & question distribution)

STRUCTURE OF THE EXAMINATION

The Specialty Examination in Neurology consists of 5 major sections. On any of these sections, videotaped case material may be utilized. Question formats include multiple choice, short answer, short essay and illustration. Below is a description of each section of the exam.

1. Multiple Choice/Theory Section: addresses all aspects of clinical neurology (medical neurology, neurosurgery, neuroradiology, electrodiagnostics, and CSF analysis), as well as neuroanatomy, neurophysiology, neurotoxicology, neuropharmacology/therapeutics, and neuropathology. This section of the examination will consist 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, electrodiagnostics, clinical pathology, surgery, and video gait analysis, as they relate to the clinical cases. Question format is listing, fill-in-the-blank, multiple choice, and short answer.
3. Electrodiagnostics/Practical Section: focuses 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 are also tested. Videos may be presented. Question format is listing, fill-in-the-blank, multiple choice, and short answer.
4. Neuroradiology: focuses on interpretation of digitized images. Vertebral column and skull radiography, myelography, computerized tomography, and magnetic resonance imaging are included. Question format is 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. Question format is multiple choice.

SCHEDULE OF THE EXAMINATION

Cell phones, PDAs, cameras, or any other electronic devices will not be allowed in the examination rooms. If you bring them with you, they must be turned off and placed at a designated location away from the exam tables as directed by the College staff and/or examination proctors. Such storage will be done at your own risk.

There are three mandatory requirements in place for candidates sitting any ACVIM Examination:

- 1). All candidates must show a **picture ID** when signing-in at the exam.
- 2). All candidates must show **proof of payment in the form of an ACVIM receipt** when signing-in at the exam. *(If you have lost or misplaced your receipt, please visit your candidate dashboard, click the transaction history link then reprint the applicable receipt (paid invoice))*
- 3). All candidates must write their ACVIM candidate number on every page of their exam booklet prior to submitting them to the proctor at the end of each section.

Please be in the exam room 15 minutes prior to the start of the exam* All room assignment's are subject to change.

DAY	SECTION	ROOM	TIME
Sunday, June 10, 2018	Neurology: Radiology	Sheraton Seattle Hotel Seattle, WA Room: TBA	8:00 am – 12:00 pm (4 hours duration)
	Neurology: Electrodiagnostics	Sheraton Seattle Hotel Seattle, WA Room: TBA	1:30 pm – 5:30 pm (4 hours duration)
Monday, June 11, 2018	Neurology: Clinical Cases	Sheraton Seattle Hotel Seattle, WA Room: TBA	8:00 am – 11:00 am (3 hours durations)
	Neurology: Pathology	Sheraton Seattle Hotel Seattle, WA Room: TBA	12:30 pm – 3:00 pm (2.5 hours duration)
	Neurology: Multiple Choice	Sheraton Seattle Hotel Seattle, WA Room: TBA	3:30 – 6:30 pm (3 hours duration)

Any answers indicated in test booklet will NOT be accepted in lieu of a completed scan sheet.

NOTE: *Due to the nature of this examination, each section will be administered at the posted time and place ONLY. The examination administrators will do everything possible to ensure that a candidate is taking the correct section(s) of the exam, but ultimately it is the candidate's responsibility to report to the appropriate session(s) to take this examination. No make-up examinations or examinations at other sites will be considered.*



EXAMINATION SCORING

Examination rating and standard-setting, determined by Diplomates of the Specialty of Neurology, will establish the pass points for all sections. The ACVIM is currently engaged in a comparative study with our psychometricians to evaluate scoring and will grade the examination using both the historical as well as the rating and standard-setting method. The method which is found to be most advantageous to the Candidate will be used. In order to pass the Neurology Specialty Examination, candidates will be expected to pass the theory (multiple choice) portion and each of the four separate practical portions of the examination. Each part of the examination is autonomous and a failure of one part will require retaking of that part only.

USE OF FOREIGN LANGUAGE (TRANSLATIONAL) DICTIONARIES

Candidates with English as a second language are permitted to use a foreign language (translational) dictionary during the examination provided that they request this by filling out the dictionary request form at the time that they submit their exam registration documents (February 1). They will then be contacted by the ACVIM staff to arrange for an appropriate dictionary to be purchased for use in the examination on their behalf. The dictionary will be made available for them to use during the examination in June, and must be returned to the examination proctors at the conclusion of each test subsection. Candidates must refrain from writing in these dictionaries; hand-written notes may be considered grounds for dismissal from the remaining sections of the examination as evidence of cheating. Candidates are not allowed to bring their own dictionaries for use during the examination.

REQUEST FOR SPECIAL ACCOMMODATIONS FOR THE ACVIM NEUROLOGY SPECIALTY EXAMINATION

The American College of Veterinary Internal Medicine (ACVIM) complies with the Americans with Disabilities Act of 1990, as amended by the Americans with Disabilities Act Amendment Act of 2008 (the “ADA”). You must complete the ADA Request form and return it with your examination registration form by the registration deadline. If accommodation(s) is (are) not requested in advance, ACVIM cannot guarantee the availability of accommodation(s) on-site. It is critical that the contact information you provide is current and, if there are any changes in contact information after registering for the examination, that you make ACVIM aware of those changes.

QUESTION TOPIC DISTRIBUTION BY SECTION (APPROXIMATE); percentage of items across the major content domains.

Multiple Choice Section:

Category	Weighting	% of 100 questions
Neuroanatomy		17
Cranial nerve	4	
Cord	2	
General	3	
Peripheral	2	
Developmental	1	
Brain	5	

Category	Weighting	% of 100 questions
Pathology		14
Degenerative	1	
Neoplastic	2	
Inf/Inflam	5	
Metab/Tox	1	
General	2	
Congenital/Inherited	3	
Pathophysiology		16
Inf/Inflam	3	
Metabolic	2	
Traumatic	3	
Toxic	3	
Breed/Congenital/Idiopathic	5	
Clin. Path		3
Electrophys/Electrodiag		5
Pharmacology		12
AED	5	
Misc	6	
Antibiot/Antifungal	1	
Toxicology		6
Surgery		7
Cord		
Brain/cran.nerve	2	
Muscle/nerve	1	
Neuro-imaging/Neurorad		6
Neurophysiology		8
General	3	
Spinal Cord	3	
PNS	2	

Category	Weighting	% of 100 questions
Clinical Signs of Disease		6
Traumatic	1	
Inflam/infec	2	
Toxic/metabolic	3	

Practical, Pathology Section:

Subject	Weighting
General principles	
Specific disease	
Small animal	10-15%
Large animal	2-5%
General (any species)	70-75%
Spinal fluid analysis	5-10%
Cross sectional anatomy	5-10%
Gross vs histological sections	
Total gross path	30-35%
Total histopath	50-55%
Cytology	
(crush prep/impression smear)	10-15%
Location	
Total CNS	90-95%
Total PNS	5-10%
Disease categories	
Neoplasia	15-20%
Congenital	5-10%
Degenerative	15-20%
Vascular	5-10%
Inflammatory/non-infectious	10-15%
Inflammatory/infectious	10-15%
Idiopathic	10-15%
Traumatic	5-10%

Practical, Radiology Section:

Location	
Head	50-55%
Forebrain	10-15%
Brain stem	1-5%
Cerebellum	3-5%
Whole brain	35-40%

Spinal cord	45-50%
Animal type	
Small animal	90-95%
Large animal	5-10%
Study type	
MRI	65-70%
Brain	40-45%
Spinal Cord	30-35%
CT	15-20%
Brain	10-15%
Spinal Cord	5-10%
Myelography	5-7%
Plain radiographs	5-7%

Practical, Clinical Cases Section 2016:

<u>Subject</u>	<u>Weighting</u>
Location	
Brain	35-40%
Cranial nerves	25-30%
Spinal cord	10-15%
Peripheral nervous system	15-20%
Multifocal	10-15%
Animal type	
Small animal	85-90%
Large animal	10-15%
Disease categories	
Neoplasia	20-25%
Inflammatory/Infectious	25-30%
Vascular	5-10%
Trauma	5-10%
Idiopathic	10-15%
Degenerative	20-25%
Metabolic	5-10%
Congenital	1-5%

Practical, Electrodiagnostics Section:

- Gen principles: 20-25%
- BAER: 15-20%
- EEG: 1-5%
- EMG, NCV: 30-35%
- SEP/CDP: 5-10%

- ERG: 1-5%
- Repetitive nerve stim: 1-5%
- Late waves: 10-15%

Every effort will be made to ensure the following percentages remain accurate, however, due to item performance, some slight fluctuation may be necessary in the final scoring of the exam.

EXAMINATION PREPARATION

The examination committee has the prerogative to change the examination to any degree that is appropriate, from no changes to a complete replacement of the examination. In a typical year the examination will change by approximately 20 - 30%.

Suggested reading list

This reading list is provided to aid candidates in preparing for the Neurology Specialty Examination. It 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.

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, latest ed.
Guyton, AC	Basic Neuroscience: Anatomy & Physiology
Fisch & Spehlmann's	Basic principles of digital and analog EEG.
Platt, SR; Olby NJ	BSAVA Manual of Canine and Feline Neurology
Feldman, EC; Nelson, RW	Canine and Feline Endocrinology and Reproduction, latest ed.
Hoerlein, BF	Canine Neurology: Diagnosis and Treatment
Braund, KG	Clinical Syndromes in Veterinary Neurology
Braund, KG	Clinical Syndromes in Veterinary Neurology, 2nd ed
August JR	Consultations in Feline Internal Medicine, 1st - 5th ed.
Bojrab, MJ	Current Techniques in Small Animal Surgery, latest ed.
Bojrab, MJ	Disease Mechanisms in Small Animal Surgery
Kimura J	Electrodiagnosis in Diseases of Nerve and Muscle: Principles and Practice, latest ed.
Morgan, JP; Bailey, CS	Exercises in Veterinary Radiology: Spinal Disease
Bagley, RS	Fundamentals of Veterinary Clinical Neurology

Graham, DI; Lanto, PL	Greenfield's Neuropathology latest ed.
Morgan, RV	Handbook of Small Animal Practice, latest ed.
Oliver, JE; Lorenz, MD	Handbook of Veterinary Neurology 3rd ed.
Lorenz, MD; Kornegay, JN	Handbook of Veterinary Neurology 4th ed.
Lorenz, MD; et all.	Handbook of Veterinary Neurology 5th ed.
Koestner, A; Bilzer, T; Fatzner, R; Schulman, FY; Summers, BA; Van Winkle, TJ	Histological Classification of Tumors of the Nervous System of Domestic Animals
Greene, CE	Infectious Diseases of the Dog and Cat, latest ed.
Kirk, RW; Bonagura JD	Kirk's Current Veterinary Therapy X-XIV
Mayhew, IR	Large Animal Neurology: A Handbook for Veterinary Clinicians
Evans, HE	Miller's Anatomy of the Dog, latest ed.
Assheuer, J; Sager, M	MRI and CT Atlas of the Dog
King, AS	Physiological and Clinical Anatomy of the Domestic Mammals: Central Nervous System Vol. 1
Kandel, ER; Schwartz, JH; Jessell, TM	Principles of Neural Science, latest ed.
Gavin and Bagley,	Practical Small Animal MRI
Ganong, WF	Review of Medical Physiology, latest ed.
Kotran, RS; Robbins, V	Robbins Pathologic Basis of Disease, latest ed.
Wheeler, SJ; Sharp, NJH	Small Animal Spinal Disorders: Diagnosis and Surgery
Fossum, TW	Small Animal Surgery 4th edition
Slatter, D	Textbook of Small Animal Surgery 2nd ed.
Slatter, D	Textbook of Small Animal Surgery 3rd ed.
Thrall, DE	Textbook of Veterinary Diagnostic Radiology, latest ed.
Ettinger, SJ; Feldman, EC	Textbook of Veterinary Internal Medicine: Diseases of the Dog and Cat
Noden, DM; De Lahunta, A	The Embryology of Domestic Animals: Developmental Mechanisms and Malformations
Haussler, KK	The Veterinary Clinics of North America Equine Practice: Back Problems
Lofstedt, J; Collatos, C	The Veterinary Clinics of North America Equine Practice: Selected Neurologic and Muscular Diseases
Dennis, SM	The Veterinary Clinics of North America Food Animal Pract: Congenital Abnormalities

Constable, PD	The Veterinary Clinics of North America Food Animal Pract: Ruminant Neurologic Diseases
Moore, MP	The Veterinary Clinics of North America Small Animal Practice: Diseases of the Spine
Bagley, RS	The Veterinary Clinics of North America Small Animal Practice: Intracranial disease
Luttgen, PJ	The Veterinary Clinics of North America Small Animal Practice: Common Neurologic Problems
Thomas, WB	The Veterinary Clinics of North America Small Animal Practice: Common Neurologic Problems
Shelton, GD	The Veterinary Clinics of North America Small Animal Practice: Neuromuscular Diseases
Shelton, GD	The Veterinary Clinics of North America Small Animal Practice: Neuromuscular Diseases II
Chrisman, CL	The Veterinary Clinics of North America Small Animal Practice: Veterinary Neurology
Plumb, DC	Veterinary Drug Handbook latest ed.
De Lahunta, A	Veterinary Neuroanatomy and Clinical Neurology, 3rd ed.
Oliver, JE; Hoerlein BF; Mayhew IG	Veterinary Neurology
Summers, BA; Cummings, JF; De Lahunta, A	Veterinary Neuropathology
Vandeveld, M; Higgins, R; Oevermann, A	Veterinary Neuropathology: Essentials of Theory and Practice
Gellatt, KN	Veterinary Ophthalmology, latest ed.
Hoskins, JD	Veterinary Pediatrics: Dogs and Cats from Birth to Six Months latest ed.
	Recommended Journals/Proceedings
	Acta Neuropathologica
	ACVIM Proceedings
	American Journal Veterinary Research
	Australian Veterinary Journal
	Canadian Veterinary Journal
	Compendium Continuing Education: Practicing Veterinarian
	Current Neuropharmacology
	Journal American Animal Hospital Association
	Journal of Comparative Pathology

Journal of Neurology
Journal of the American Veterinary Medical Association
Journal Small Animal Practice
Journal Veterinary Diagnostic Investigation
Journal Veterinary Emergency and Critical Care
Journal Veterinary Internal Medicine
Journal of Veterinary Pharmacology and Therapy
New England Journal of Medicine
Problems in Veterinary Medicine
Progress in Veterinary Neurology
Seminars Veterinary Medicine and Surgery
Veterinary Immunology / Immunopathology
Veterinary Medicine
Veterinary Pathology
Veterinary Quarterly
Veterinary Radiology and Ultrasound
Veterinary Record
Veterinary Surgery

2017/2018 NEUROLOGY EXAM COMMITTEE

If you have further questions once you have reviewed the information in this letter, you may contact any of the examination committee members for further clarification. Please preferentially use email for correspondence since this ensures that an appropriate record can be maintained.

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Good Luck to all of you, and see you in June!