

SPECIALTY CERTIFICATION AND RESIDENCY TRAINING MANUAL: NEUROLOGY

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The ACVIM certifies specialists in veterinary neurology. Neurologists focus on diagnosing and treating diseases involving the neurological system.

This specialty-specific Manual is intended as a resource for residents, candidates, sponsoring institutions, training sites, program directors, supervising Diplomates, secondary supervising Diplomates, residency advisors, and other institutional officials and personnel involved in the certification processes of the American College of Veterinary Internal Medicine's neurology specialty and ACVIM-accredited neurology residency training programs.

This specialty-specific Manual represents the current policies, procedures, requirements and standards for an individual seeking certification as an ACVIM Diplomate (Neurology) and those involved in ACVIM-accredited neurology residency training programs.

Common policies, procedures, requirements and standards, applicable to all ACVIM specialties, exist. These are required of all ACVIM Candidates and all ACVIM residency training programs. These are <u>not</u> detailed in this specialty-specific Manual, but rather established in the ACVIM Certification and Residency Training Manual.

Current implementational information, specifying deadline dates, fees, form / document versions, registration procedures, credentials submission, and examination content and procedures, is maintained on the ACVIM website, and <u>not</u> in this Manual. Candidates should regularly check the ACVIM website for any updates and/or changes to deadlines, fees, form / document versions, registration procedures, credentials submission, examination content and procedures, and other matters that may impact the successful completion of the certification process. It is the responsibility of Candidates and mentors to verify and maintain access to the ACVIM website, Candidate dashboard, and all relevant ACVIM listservs. The ACVIM office does <u>not</u> send out individual notices to Candidates and/or mentors regarding approaching deadline dates, as that information is maintained and kept current on the ACVIM website.

ACVIM policies, procedures, requirements and standards are subject to periodic review and change. If referring to a previously downloaded or printed version of this Manual, the ACVIM website should be checked for updates.

While a concerted effort has been made to ensure the comprehensive nature and accuracy of this Manual, if there are any questions for clarification, feedback or comments, interested parties should contact the ACVIM certification and accreditation staff at the ACVIM office, preferably by email at certification@acvim.org, or by mail or phone, as referenced on the following page.

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1 NEUROLOGY DOCUMENTS AND FORMS

The following may not be an exhaustive list of applicable documents and forms. Please navigate the ACVIM website for additional documentation and forms.

- Online Candidate registration form (via the Candidate dashboard).
- Resident report of annual progress (RRAP) form.
- Neurology weekly schedule document.
- Neurosurgery case log.
- Neurology journal club log.
- Registration to take the General Examination (via the Candidate dashboard).
- General Examination blueprint, reading list & study resources (available a minimum of 60 days before the examination date).
- Neurology Credentials packet (prerequisite to sit the Neurology Specialty Examination).
- Registration to take the neurology Specialty Examination (via the Candidate dashboard).
- Neurology Specialty Examination blueprint, reading list & study resources (available a minimum of 60 days before the examination date).

2 DEFINITIONS FOR NEUROLOGY CANDIDACY AND RESIDENCY TRAINING PROGRAMS

Review important terms and definitions related to the specialty of neurology. These definitions expand upon those provided in the ACVIM Certification and Residency Training Manual, as they pertain specifically to the specialty of neurology.

NEUROLOGY CREDENTIALS COMMITTEE (CC)

The Neurology CC's primary task is to review and determine the status of the candidates' Credentials submissions to determine eligibility for the Neurology Specialty Examination.

NEUROLOGY OMBUDSPERSON

The neurology specialty has an ombudsperson, appointed by the neurology specialty president, who is available to Candidates to provide advice and serve as a liaison during conflicts involving a Candidate, a RTP, and/or the ACVIM, or representative thereof. The ombudsperson provides guidance in resolving concerns, conflicts, or complaints in a confidential and informal manner. These concerns may be regarding the RTP and/or training officer (i.e., PD, RA or SD) or with the ACVIM Board-Certification process (i.e., change in status, communications with the Central Office). All communications are held in strict confidence. The role of the ombudsperson is to liaise, advise, and offer options toward resolution of a problem, as the ombudsperson deems appropriate. The ombudsperson cannot offer legal advice, does not actively engage in any formal arbitration process, and does not impose sanctions on individual Candidates or RTPs. The scope of the ombudsperson's role excludes matters relating to examinations and/or denial of credentials, which are addressed by the ACVIM appeals committee. If an ombudsperson is personally involved in a dispute with a Candidate, RTP, the ACVIM, or representative thereof, the ombudsperson must recuse themselves. In such a case, the ACVIM certification liaison or another specialty ombudsperson may serve as ombudsperson during that dispute.

The neurology ombudsperson may be contacted at neurologyombuds@ACVIM.org.

NEUROLOGY PROGRAM DIRECTOR (PD)

The neurology PD is the individual at the SI who assumes overall responsibility for the conduct and integrity of that institution's RTP(s). The specialty of neurology stipulates that a neurology PD must be an ACVIM Diplomate and member in good standing in any ACVIM specialty, or a Diplomate of the European College of Veterinary Neurology (ECVN) and must have been Board-Certified for a minimum of 5 years. A neurology PD must also have had a minimum of 3 years of experience training residents before becoming a PD. If the PD is in an ACVIM

Diplomate in an ACVIM specialty other than neurology, that PD may <u>not</u> also be a PD for another specialty's RTP.

NEUROLOGY RESIDENCY TRAINING COMMITTEE (RTC)

The Neurology RTC specifies the residency training criteria that must be met for ACVIM-approval of a Neurology RTP. The Neurology RTC reviews and approves all new Neurology RTPs and reviews and approves for renewal each registered neurology RTP annually. The Neurology RTC also reviews any significant changes in a neurology RTP (e.g., change in PD or RA, a resident or Candidate's early termination or failure to complete an RTP, alterations in program duration or content, and locations of secondary training sites) and notifies the Neurology CC of the approved changes. These reviews are typically based on documents submitted by the RTP's PD. However, if questions arise, the Neurology RTC may solicit supplemental documentation from other individuals who have knowledge of a particular RTP. The Neurology RTC also handles questions from neurology residents, Candidates, PDs, RA, SDs, SSSDs and SNDs, regarding the interpretation of the neurology RTP requirements and standards as established in this SM.

NEUROLOGY RESIDENT ADVISOR (RA)

The neurology RA is the individual at the SI who is primarily responsible for overseeing the resident's progress during the neurology RTP. A neurology RA must be actively participating in the field of veterinary neurology, maintaining clinical competency in the field, substantially engaged as a SD for assigned residents, and significantly involved in the clinical supervision and didactic education of assigned residents. The specialty of neurology stipulates that a neurology RA must be an ACVIM neurology Diplomate and member in good standing or an ECVN Diplomate and member in good standing, as well as being Board-Certified for a minimum of 1 year before becoming an RA. A neurology RA may <u>not</u> perform this role on behalf of multiple SIs. A neurology RA is <u>not</u> permitted to advise more than 2 residents at any one time.

NEUROLOGY SECONDARY-SPECIALTY SUPERVISING DIPLOMATES (SSSDS)

A neurology SSSD for a neurology RTP may be a Board-Certified veterinary specialist in any veterinary specialty other than neurology, who is contributing to the clinical training and didactic education of the neurology resident in any veterinary specialty other than neurology. Here Board-Certified refers to any veterinary specialist(s) certified by an ABVS or EBVS registered veterinary specialty or registered veterinary specialty organization. The Board-Certified veterinary specialist must be a Diplomate and, where relevant, member in good standing with the relevant ABVS or EBVS registered veterinary specialty or registered

veterinary specialty organization. A neurology SSSD must be actively involved in their area of specialty, maintain competency in the field, and be substantially involved in the training of the assigned residents.

NEUROLOGY SUPERVISING DIPLOMATE (SD)

A SD is an individual at the SI, or a secondary RTP clinical training site, who is actively contributing to the clinical training and didactic education of the neurology resident in the specialty of neurology. A neurology SD must be actively participating in the field of veterinary neurology, maintaining clinical competency in the field, and substantially involved in the clinical supervision and didactic education of assigned residents. A neurology SD must be an ACVIM neurology Diplomate and member in good standing, and/or an ECVN Diplomate and member in good standing. The specialty of neurology stipulates that an RTP must have a minimum of 2 full-time SDs, or the equivalent thereof, employed at the SI, for a neurology RTP to be approved, and to maintain annual re-approval.

NEUROLOGY TRAINING WEEKS

The specialty or neurology defines a directly, indirectly or remotely supervised training week as a minimum of 4 10-hour days or 5 8-hour contiguous days within a 7-day period, to account for a total of 40 hours per week. Neurology residency training must occur in blocks of time that consist of 4 or 5 consecutive days (1 full week).

SUPERVISION OF RESIDENCY TRAINING

DIRECT SUPERVISION

Direct supervision is defined by the ACVIM (section 4.C.8.a of the ACVIM Certification and Residency Training Manual) as training circumstances wherein the SD(s), SSSD(s) or SND(s) and resident are physically present together, with interactive and concurrent management of cases. The SD(s), SSSD(s) or SND(s) is expected to be physically present and immediately available to the resident, throughout the day, for face-to-face reciprocal case management discussion, advice, direction, and assistance, as required/requested by the resident and indicated by their level of training.

The specialty of neurology states that the SD or SSSD need not personally examine each patient seen by the resident, but must review the case with the resident, and must remain physically available on-site for face-to-face consultation with the resident throughout the day.

INDIRECT SUPERVISION

Indirect supervision is defined by the ACVIM (section 4.C.8.b of the ACVIM Certification and Residency Training Manual) as training circumstances wherein the SD(s), SSSD(s) or SND(s) and resident, are not physically present together, and are not interactively and concurrently managing cases (e.g., "chief" weeks). The SD(s), SSSD(s) or SND(s) must be on-site and immediately available (e.g., telephone, text, email, Zoom, MS Teams, Skype, etc.) for reciprocal case discussion, advice, and direction, as well as immediately available for direct supervision, as required and/or requested by the resident. Indirect supervision does mandate a level of daily case management oversight by the SD(s), SSSD(s) or SND(s).

The specialty of neurology stipulates that during indirect supervision, the SD(s) or SSSD(s) must be on-site with face-to-face consultation with the resident for at least 1 hour each day.

REMOTE SUPERVISION

Remote supervision is defined by the ACVIM (section 4.C.8.c of the ACVIM Certification and Residency Training Manual) as the use of specific wireless/wired network communication technologies, namely tele- or video-conferencing platforms (E.g., telephone, Zoom, MS Teams, Skype, etc.), to facilitate some level of interactive resident education and/or training. The key component of remote supervision, as defined by the ACVIM, is that it involves live active reciprocal dialogue between the supervisor(s) and resident. Remote supervision is best suited to rounds, journal clubs and select seminars, but it may be utilized to contribute to additional resident training requirements. (E.g., clinical case management where the supervisor is not on-site, and not immediately available for direct supervision.)

The specialty of neurology now stipulates that solely telephone or text-based communications are inadequate for remote supervision, and that video-conferencing technology (E.g., Skype, Zoom, MS Teams, etc.) must be utilized.

REMOTE EDUCATIONAL EXPERIENCES

In contrast to the ACVIM's definition of remote supervision, remote educational experiences are defined by the ACVIM (section 4.C.8.c of the ACVIM Certification and Residency Training Manual) as those provided via the use of wireless/wired network communication technology, internet, television, telephone, or other communication media, to fulfill some requirements of resident education. Remote educational experiences, as defined by the ACVIM, might include on-line classes, seminars and

conferences, where there is minimal to no interaction. The type and extent of remote educational experiences must be defined in the RTP application and/or annual renewal.

TRADITIONAL NEUROLOGY RESIDENCY TRAINING PROGRAM

A traditional neurology residency training program (RTP) is a multiyear postgraduate clinical training and educational program conducted at a SI under the oversight and supervision of a PD, RA, SDs and SSSDs. The duration of a traditional neurology RTP may range from 2 to 3 years. A traditional neurology RTP entails a minimum of 96 weeks of supervised clinical training, at least 75 weeks of which must be intensive clinical training in neurology.

TRAINING HOURS

The specialty of neurology recognizes that certain fields or activities, specifically clinical pathology, anatomic pathology, imaging, electrodiagnostics, neuropathology, neurosurgery, and emergency duties, may be better suited to training time being defined as training hours rather than training weeks. The neurology specialty defines 1 training hour as 1 continuous hour (i.e., 60 minutes) undertaking the specified educational or training activity, under the direct supervision of the SD(s), SSSD(s) or SND(s).

For electrodiagnostics and neurosurgery, specifically, where training time is determined by the duration of the procedure, training time may be earned in contiguous 15-minute blocks, with four 15-minute blocks equaling 1 training hour.

NON-TRADITIONAL NEUROLOGY RESIDENCY TRAINING PROGRAM

A non-traditional neurology RTP is a program that is approved by the Neurology RTC and that is intentionally non-continuous. A non-traditional neurology RTP may be a maximum of 5 years in duration. The neurology specialty stipulates that in a non-traditional residency, all the specialty's requirements for residency training must be met, and that all training must take place within clearly defined, continuous blocks of training time. The only allowable exception from a traditional RTP is that the residency training may occur in blocks of time separated by additional block of time and therefore occurring over an extended period. The neurology specialty stipulates that each block of training time must be no less than 4 weeks in duration and the resident must also complete a minimum of 20 weeks (5 blocks) of residency training per calendar year for those portions of the RTP which must be completed in training weeks rather than in training hours.

3 NEUROLOGY RESIDENCY TRAINING PROGRAM (RTP)

An ACVIM-approved neurology RTP is the foundation for the education and training of ACVIM Candidates seeking certification as ACVIM Diplomates in the specialty of Neurology.

The common requirements and standards for certification and residency training established in the ACVIM Certification and Residency Training Manual must be met. In addition, there are specialty-specific oncology policies, procedures, requirements and standards for certification and residency training specific to the specialty of neurology, as established in this specialty-specific Manual. The policies, procedures, requirements and standards established in this specialty-specific Manual are the minimum for certification and residency training in the specialty of oncology. A neurology RTP may choose to include additional educational and training requirements above the minimum established in this specialty-specific Manual. Additional educational and training requirements outlined in that RTP's approval and annual renewal documentation are part of that RTP. A resident registered in that RTP must satisfy <u>not</u> only the minimum requirements established in this Manual, but also fulfill the additional requirements of that RTP, in order to become an ACVIM Diplomate in the specialty of neurology, as the additional requirements are necessary for that resident to complete the RTP and obtain a residency certificate of completion.

The neurology RTP is more than completing the requirements contained in the ACVIM Certification and Residency Training Manual and this specialty-specific Manual. It should embody the spirit inherent to training highly capable neurologists, whose capabilities build upon those of their mentors. The ACVIM expects neurology RTPs to be cohesive, integrated, stable, ongoing programs that continually raise the standards in veterinary neurology.

3.A Acceptable NEUROLOGY RTPs

A registry of current ACVIM-approved oncology RTPs, as evaluated by the Neurology RTC, is available from the ACVIM website, or upon request from the ACVIM office.

3.B Neurology RTP Registration and Evaluation

The ACVIM's policies, procedures and criteria for RTP registration, annual re-approval, probation and termination are standardized across all ACVIM specialties and are described in the ACVIM Certification and Residency Training Manual (4.C.4-6).

3.C Neurology Candidate Registration

ACVIM's policies, procedures and criteria for resident registration as an ACVIM Candidate in an ACVIM-approved RTP are standardized across all ACVIM specialties and are described in the ACVIM Certification and Residency Training Manual (4.C.3).

3.D General Objectives of the Neurology RTP

A neurology RTP will provide intensive training in clinical neurology, neurosurgery, internal medicine, imaging, clinical pathology, emergency medicine, critical care, anesthesiology, anatomy, pathology, and physiology. In addition, the neurology RTP will ensure that residents will have obtained the following upon completion of their training:

- Skills to care for patients with neurological diseases.
- Broad working knowledge of anatomy, physiology, and pathology for all body systems.
- In-depth knowledge of the effects of neurological disorders on the patient.
- Proficiency in clinical neurology by exposure to a sufficient number and variety of cases representing all facets of neurology in a hospital equipped for the practice of veterinary neurology.
- Exposure to basic science and clinical research.
- Training in internal medicine to develop an understanding of common medical problems and competency in their clinical management.
- Understanding of the fundamentals and applications of diagnostic methods, including but not limited to hematology, clinical pathology, cytology, radiography, myelography, CT, MRI, electrodiagnostic techniques (e.g., electromyography, motor and sensory conduction studies, spinal cord and brain evoked potentials, late waves and repetitive nerve stimulation, and EEG), immunology, gross and microscopic neuropathology, muscle and nerve biopsy techniques, immunopathology, and gross and surgical pathology as related to the nervous system.
- In-depth knowledge of treatment methods, including pharmacotherapy, chemotherapy, radiation therapy, immunotherapy, and surgery as well as awareness of important investigational methods of therapy.
- Awareness and understanding of the importance of neurological diseases in food and fiber animals, common laboratory species, and companion animals (dogs, cats, and horses).
- Exposure to clinical trial design and implementation.

3.E Specific Requirements of the Neurology RTP

It is incumbent upon the SI, PD, RA, SDs, SSSDs, resident and Candidate, as well as relevant ACVIM staff and committee members, to be aware of the common and neurology-specific RTP

policies, procedures, requirements and standards, and to collectively work towards ensuring they are being fulfilled.

3.E.1 DURATION OF THE NEUROLOGY RTP

The ACVIM-approved neurology RTP is a minimum duration of 156 weeks for a traditional 3-year RTP, and a minimum duration of 104 weeks for a traditional 2-year RTP.

The neurology RTP must entail a minimum of 96 weeks of intensive clinical training, 75 weeks of which must be intensive clinical training in neurology. The remaining required 21 weeks of intensive clinical training may consist of a combination of additional directly or indirectly supervised intensive clinical training in neurology, directly supervised intensive clinical training in secondary ACVIM specialties, and/or directly supervised intensive clinical training in non-ACVIM veterinary specialties. A combination of additional directly or indirectly supervised intensive clinical training in neurology, directly supervised intensive clinical training in secondary ACVIM and non-ACVIM disciplines, didactic educational experiences, research and creative scholarship activity, study time, vacation and personal leave may then contribute to the remaining 60 weeks of the traditional 3-year neurology RTP, or the remaining 8 weeks of the traditional 2-year neurology RTP.

Non-traditional neurology RTPs, or neurology RTPs that are interrupted, must be completed in a maximum period of 5 years from the first day of the RTP.

3.E.2 INTENSIVE CLINICAL TRAINING IN NEUROLOGY

The ACVIM-approved neurology RTP requires a minimum of 75 weeks of intensive clinical training in neurology. A minimum of 50 weeks of the required 75 weeks of intensive clinical training in neurology must be under the direct supervision of a neurology SD. The required 75 weeks may include up to 25 weeks of indirect supervision by a neurology SD. As such, the resident may spend up to 25 weeks of the required 75 weeks managing the clinical neurology service ("chief weeks").

Additional weeks of intensive training in clinical neurology may be accrued, exceeding the minimum of 75 weeks required. Any additional weeks of intensive clinical training in neurology may count towards a maximum of 15 weeks of the additional required 21 weeks of intensive clinical training required for completion of the neurology RTP.

During the minimum of 75 weeks of intensive clinical training in neurology, a resident is assigned to a clinical neurology service, and is under the direct or indirect supervision of a neurology SD.

During weeks of intensive clinical training in neurology, the neurology resident will actively participate in the management and care of both small and large animal patients with neurologic disease, taking primary responsibility for their cases. This will include:

- Obtain and insightfully interpret the patient's history.
- Perform a thorough physical examination, including neurologic examination.
- Develop a list of differential diagnoses.
- Suggest an appropriate diagnostic approach.
- Perform and interpret the results of appropriate diagnostic tests.
- Propose an appropriate therapeutic approach, and alternative therapeutic approaches, outline and explain the rationale for the treatment option(s) proposed and implement treatment(s).
- Provide ongoing daily patient care.
- Provide reasonable estimates of prognosis.
- Communicate honestly, clearly and professionally with clients, colleagues and referring veterinarians.
- Display superior clinical decision-making.
- Provide optimal client and referring veterinarian service, including engaging in appropriate case follow-up.
- Maintain accurate and complete medical records (the problem-oriented veterinary medical record system is strongly encouraged).

The number of cases seen during the neurology RTP will vary among training sites, depending on species, the kinds of problem(s), and the depth of study required. The emphasis should be on the quality and breadth of clinical case exposure and experience, rather than quantity, although a sufficient caseload must be available to provide clinical case exposure and experience spanning all types of neurology disease in both small and large animals.

During intensive clinical training in neurology, the resident must also attend and participate in daily patient- or case-orientated rounds with at least 1 neurology SD present. At a SI where veterinary student and interns are integral to, and participating in, hospital activities, the resident should be encouraged to lead the daily patient- or case-orientated rounds, with a neurology SD present, until the SD deems a resident capable of leading student rounds independently.

Academic degree programs, such as master's (MS) or doctorate (PhD) programs, cannot be substituted for intensive clinical training in neurology.

3.E.3 ELECTRODIAGNOSTICS

In addition to the required 75 weeks of intensive clinical training in neurology, and potentially contributing to the additional required 21 weeks to make the total of 96 weeks required intensive clinical training, neurology residents must spend a minimum of 50 hours during the neurology RTP participating in, reviewing, evaluating, and interpreting different aspects of electrodiagnostics, including, but not limited to, electroencephalography, electromyography, motor and sensory nerve conduction studies, and evoked potentials. In electrodiagnostics, where much of the training time is determined by the duration of the procedure, the training time may be earned in contiguous 15-minute blocks, with four 15-minute blocks equaling 1 training hour. No more than 40 hours is expected to be accomplished in a single training week. For portions of this requirement the specialty of neurology allows for remote supervision.

3.E.4 INTENSIVE CLINICAL TRAINING IN ACVIM SECONDARY SPECIALTIES

In addition to the required 75 weeks of intensive clinical training in neurology, and potentially contributing to the additional required 21 weeks to make the total of 96 weeks required intensive clinical training, a neurology resident may accrue intensive clinical training in pertinent ACVIM secondary specialties, including cardiology, large animal internal medicine, nutrition, oncology and/or small animal internal medicine.

During intensive clinical training in ACVIM secondary specialties, the resident is assigned to a clinical service, must be under the direct supervision of the SSSD(s) and must participate and provide patient care in the secondary specialty to the level of which they are deemed capable.

Academic degree programs, such as master's (MS) or doctorate (PhD) programs, <u>cannot</u> be substituted for intensive clinical training in ACVIM secondary specialties.

3.E.5 INTENSIVE CLINICAL TRAINING IN NON-ACVIM SECONDARY SPECIALTIES

In addition to the required 75 weeks of intensive clinical training in neurology, and potentially contributing to the additional required 21 weeks to make the total of 96 weeks required intensive clinical training, the resident must accrue intensive clinical training in pertinent non-ACVIM secondary specialties, amounting to a minimum of 6 weeks (250 hours).

Because neurology is a multimodal discipline, residents must receive additional clinical training under the direct supervision of SSSDs in the fields of neurosurgery, radiology, clinical pathology, anatomic neuropathology, and emergency and critical care.

The non-ACVIM clinical training experiences required by the specialty of neurology, and that may contribute to the minimum of 21 weeks additional intensive clinical training, are as follows:

3.E.5.a NEUROSURGERY

Neurology residents must spend a minimum of 50 hours during the neurology RTP participating in veterinary neurosurgical procedures. This time may be completed in training hours rather than training weeks. There are specific neurosurgical procedures, such as nerve biopsies, where the training time is determined by the duration of the procedure, and the training time may be earned in contiguous 15-minute blocks, with four 15-minute blocks equaling 1 training hour. No more than 40 hours is expected to be accomplished in a single training week.

3.E.5.b RADIOLOGY

Neurology residents must spend at least 50 hours in interactive contact time with a board-certified veterinary radiologist, interpreting images, learning and evaluating the results of special imaging techniques, and attending radiology rounds or seminars. This time may be completed in training hours rather than training weeks. No more than 40 hours is expected to be accomplished in a single training week. The neurology specialty does allow this interactive contact time with a board-certified radiologist to be accomplished under the direct supervision and/or remote supervision of the SSSD.

3.E.5.c CLINICAL PATHOLOGY

Neurology residents must spend at least 50 hours in interactive contact time with a board-certified veterinary clinical pathologist, and/or board-certified anatomic pathologist with experience in clinical pathology, evaluating clinical pathologic findings, attending clinicopathological conferences, and examining surgical sections. This time may be completed in training hours rather than training weeks. No more than 40 hours is expected to be accomplished in a single training week. The neurology specialty does allow this interactive contact time with a board-certified pathologist to be accomplished under the direct and/or remote supervision of the SSSD.

3.E.5.d NEUROPATHOLOGY / ANATOMIC PATHOLOGY

Neurology residents must spend a minimum of 50 hours during the neurology RTP in the review of veterinary neuropathology with a board-certified anatomic pathologist through lecture series, seminars, or in a formal training program. This time may be completed in training hours rather than training weeks. No more than 40 hours is expected to be accomplished in a single training week. The neurology specialty does allow this interactive contact time with a board-certified pathologist to be accomplished under the direct and/or remote supervision of the SSSD.

3.E.5.e EMERGENCY AND CRITICAL CARE

Neurology residents must participate in emergency service duties. Acceptable emergency clinic duties include rotations on an after-hours emergency service, emergency and critical care (ECC) service, after-hours on-call duties, and/or evaluation of daytime or nighttime neuro-emergency cases through a neurology service. Emergency cases seen may be limited to neurology. This contact may occur either at the primary training site or at a secondary training site. The RTP must document, in the initial RTP application and annual renewal to the neurology RTC, the names of the SDs or SSSDs involved, their areas of specialization, and details of the anticipated professional interaction(s).

3.E.6 NEUROSURGICAL PROCEDURES AND TECHNIQUES

The neurology RTP may offer additional training in neurosurgical procedures and techniques beyond the required 75 weeks of intensive clinical training in neurology (3.E.2) and the required 50 hours of neurosurgery (3.E.5). The neurology RTP that offers additional neurosurgical training will ensure that, upon completion, residents will have obtained the following:

- Broad working knowledge of surgical anatomy, physiology, and pathology of the nervous system.
- In-depth knowledge of the effects of disorders on patients that have neurosurgery as a treatment option.
- Proficiency in clinical neurosurgery gained by exposure to and performing surgery on a sufficient number and variety of cases representing all facets of neurosurgery in a hospital equipped for the practice of veterinary neurology and neurosurgery.
- Awareness of and ability to complete a neurosurgical log.

3.E.7 RESEARCH AND CREATIVE SCHOLARLY ACTIVITY

A neurology resident is expected to participate in a laboratory or clinical investigative research project during the neurology RTP. The resident must complete a basic science or clinical research project that follows the scientific method approach and receives approval from the RA. Suitable projects can be retrospective or prospective. An undersigned letter from the RA is required to document the satisfactory completion of the project before the RTP can be considered completed, before credentials will be approved, and before Board-Certification can be awarded.

3.E.8 PUBLICATION REQUIREMENT

There is currently <u>no</u> publication requirement for candidacy or RTPs in the specialty of neurology, although evidence of the aforementioned research requirement (3.E.7) must be provided.

3.E.9 JOURNAL CLUB

An organized, routinely scheduled and documented journal club of at least 80 hours must be part of the neurology RTP. Neurology residents must participate in a minimum of 80 hours of journal club throughout the neurology RTP. At least 1 neurology SD must attend each journal club meeting. Journal club may include interactive remote participation by both residents and/or SDs. Residents must maintain a log of journal club activities that includes the date, topics discussed, and those in attendance. The log is to be submitted as part of the neurology Candidate's credentials packet.

3.E.10 DIDACTIC LEARNING OPPORTUNITIES

Neurology residents must participate in the following didactic learning opportunities, facilitated by the SI: neurology topic review sessions, formal conferences, continuing education conferences, and formal examination review sessions. This Manual allows for remote training (primarily RACE acceptable) when necessary. The exact same conference, seminar, rounds, class, etc. (date and time) may not be used to meet more than 1 of the required didactic learning experiences.

3.E.10.a FORMAL REVIEW SESSIONS

A neurology RTP must provide a minimum of 40 hours per year of the neurology RTP of intensive formal review sessions for residents on topics covered by both the General Examination and Neurology Specialty Examination. Attending daily clinical rounds does not meet this requirement, although structured courses, seminars and/or conferences may. If adequate formal review sessions are not available at the SI, a resident may meet this requirement in part by attending or

participating remotely in an ACVIM advanced continuing education (ACE) course, the ACVIM Neuroscience Course (Brain Camp), or ACVIM Forum. The neurology RTP must provide a list of these formal review sessions to the neurology RTC in the initial RTP application and the annual review to ensure ACVIM approval of the RTP.

3.E.10.b FORMAL CONFERENCES

In addition to the aforementioned formal review sessions, neurology residents must also attend and/or participate in formal conferences in neurology and related disciplines, including, but not limited to, resident seminars, grand rounds sessions, SAIM journal club, SAIM formal review sessions, and neurobiology classes or courses. Conferences or seminars given within a veterinary practice or hospital or at a medical school or medical teaching hospital are acceptable. Residents must participate in these activities an average of four times per month, regardless of their duty status. The neurology RTP application and annual review submitted to the neurology RTC should include the schedule and format of these formal conferences to ensure ACVIM approval of the RTP.

The resident must also give at least 3 presentations at such a formal conference during the neurology RTP. Presentations may include lectures in departmental courses for veterinary students, grand rounds, or morbidity and mortality rounds, whereby the presentation format is to a hospital-wide, multi-specialty audience. Presentation at a formal conference does not include resident rounds, which for this purpose specifically is defined as a presentation to the institutional neurologists and/or resident-only audience, nor presentations to veterinary school clubs. Documentation, such as a copy of the conference program, an email announcement of the seminar, or class syllabus, of these presentations must be included in the Candidate's neurology credentials submission.

As a substitute for the aforementioned formal presentation requirement, the resident may present at a regional, state, or national meeting 3 times during the neurology RTP. A copy of the program must be included in the Candidate's credentials packet.

3.E.10.c CONTINUING EDUCATION (CE) CONFERENCES AND MEETINGS

Neurology residents must also attend or participate in at least 1 state, regional, national, or international Veterinary medical or human medical continuing education conference or meeting during the RTP relevant to the specialty. Appropriate examples of continuing education conferences or meetings might include, but are not limited to, the annual ACVIM Forum, an ACVIM-moderated

ACE course, and the ACVIM Neuroscience Course ("Brain Camp"). While on-site attendance is ideal, remote attendance at and/or participation in these continuing education conferences or meetings is permitted by the neurology specialty. Documentation of attendance at and/or participation in the conference or meeting must be included in the Candidate's neurology credentials packet.

3.E.11 STUDY TIME

In addition to the time allocated to research and creative scholarly activity, and required CE opportunities, an additional minimum of 4 continuous weeks of protected and uninterrupted study time, during which the resident is relieved of all clinic responsibilities, including the responsibility for client communications, must be allocated to the resident to prepare for the ACVIM General Examination. Study time should be scheduled to immediately precede the General Examination date as much as is practical. During study time, residents should still attend journal club, seminars, and didactic learning opportunities as they arise.

A further additional minimum of 4 continuous weeks of protected and uninterrupted study time, during which the resident is relieved of all clinic responsibilities, including the responsibility for client communications, must be allocated to the resident and Candidate to prepare for the Neurology Specialty Examination. Study time should be scheduled to immediately precede the Specialty Examination date as much as is practical. During study time, residents should still attend journal club, seminars, and didactic learning opportunities as they arise.

The 8 weeks of study time allocated for General Examination and Neurology Specialty Examination preparation should not be taken during the 96 weeks allocated to intensive clinical training in neurology and other veterinary specialties.

Additional time, beyond the 4 weeks of study time allocated for General Examination preparation and the 4 weeks of study time allocated for Neurology Specialty Examination preparation, may be provided to the resident by the RTP for independent study.

3.E.12 UNSUPERVISED, VACATION AND PERSONAL TIME

3.E.12.a UNSUPERVISED TIME

Please refer to section 4.C.17.b of the ACVIM Certification and Residency Training Manual.

The neurology specialty currently has no stipulations or allowances regarding the unsupervised time that might contribute to RTP time, excepting the requirements for conference attendance, study leave, vacation, personal leave.

3.E.12.b VACATION

Please refer to section 4.C.17.b of the ACVIM Certification and Residency Training Manual.

The specialty of neurology stipulates that the neurology resident should take vacation during the neurology RTP that is separate and independent of all other RTP requirements and activities. Vacation time may be allocated as 2 continuous weeks each year or, at the request of the resident, vacation time may be arranged differently. Vacation time should not be scheduled during the 96 weeks allocated to intensive clinical training in neurology and other veterinary specialties. Vacation must never be required to be used as a release from clinical obligations to prepare for the General Examination or the Neurology Specialty Examination.

3.E.12.c PERSONAL LEAVE

Please refer to section 4.C.17.c of the ACVIM Certification and Residency Training Manual.

The neurology RTP is expected to provide reasonable and practicable accommodation for the resident's medical and personal needs (E.g., healthcare appointments, medical leave, carer's leave, jury duty, etc.).

If a period of extended personal leave is necessary, typically leave exceeding 5 weeks, which is the resident's ability to satisfy the core /common and neurology-specific RTP requirements and standards, as well as any additional RTP requirements as described in the RTP's approval / annual re-approval documentation in place at the time the resident commenced the RTP, the neurology RTC must be petitioned by the PD for an individual variance, and written approval must be granted. The petition should adequately explicate the reason(s) necessitating the leave, anticipated duration of leave, and plan to fulfill any incomplete RTP requirements. Documentation of the neurology RTC's approval of the individual variance must be maintained by the resident as part of their essential documentation and submitted along with the credentials packet.

The neurology specialty does stipulate that when extended personal leave is necessary and approved by the relevant specialty RTC, the resident then has a revised maximum of 5 years from the start date of the 3-year RTP, and 4 years

from the start date of the 2-year RTP, to complete the RTP requirements, and then a maximum of 5 years from the end of the RTP to achieve Board-Certification.

All common and neurology RTP-specific requirements, incomplete at the time of taking personal leave, must be fulfilled upon recommencing the RTP. All common and neurology-specific RTP requirements and standards, as well as any additional RTP requirements as described in the RTP's approval / annual reapproval documentation in place at the time the resident commenced the RTP, must still be met.

Additionally, the neurology specialty stipulates that, upon returning from a period of personal leave, the neurology resident must recommence the neurology RTP full-time. Further RTP clinical training must occur in blocks of time consisting of a minimum of 4 consecutive weeks in each block; this is for those RTP requirements that must be completed in weeks of clinical training. Blocks of clinical training may run sequentially or be separated by other RTP activities, but each block of clinical training must be a minimum of 4 consecutive weeks' duration. Moreover, the blocks of clinical training must total a minimum of 20 weeks per remaining year of the RTP, with the new residency year commencing on the first day on which the resident resumes the RTP.

3.E.13 RESIDENCY TRAINING INTERRUPTION

As described above, in some circumstances, the resident may need to take an extended personal leave from the RTP. Please refer to section 4.C.17.c of the ACVIM Certification and Residency Training Manual for the ACVIM's policies, procedures, requirements and standards around personal leave, and section 3.E.12 of this Manual for the neurology specialty's specific stipulations.

Neurology RTP interruptions may also be unavoidable in circumstances where a neurology resident must switch from 1 RTP to another to fulfill all RTP, credentials and certification requirements and standards.

In such cases, the following steps must be taken:

- A new neurology RTP must be identified.
- The neurology RTC must approve the new RTP before the resumption of residency training.
- The resident must re-register with the ACVIM in the new RTP.

 The resident must complete training in continuous blocks of time once the RTP resumes.

Common and neurology-specific RTP requirements and standards, incomplete at the time of RTP interruption, must be fulfilled upon recommencing the RTP. All common and neurology-specific RTP requirements and standards, as well as any additional RTP requirements as described in the RTP's approval / annual re-approval documentation in place at the time the resident commenced the RTP, must still be met.

Additionally, the neurology specialty stipulates that, upon returning from a period of interrupted training, the neurology resident must recommence the neurology RTP full-time. Further RTP clinical training must occur in blocks of time consisting of a minimum of 4 consecutive weeks in each block; this is for those RTP requirements that must be completed in weeks of clinical training. Blocks of clinical training may run sequentially or be separated by other RTP activities, but each block of clinical training must be a minimum of 4 consecutive weeks' duration. Moreover, the blocks of clinical training must total a minimum of 20 weeks per remaining year of the RTP, with the new residency year commencing on the first day on which the resident resumes the RTP.

When a neurology RTP is interrupted, the neurology resident then has a revised maximum of 5 years from the start date of the 3-year RTP, and 4 years from the start date of the 2-year RTP, to complete the RTP requirements, and then a maximum of 5 years from the end of the RTP to achieve Board-Certification.

3.E.14 RTP VARIANCES

Please refer to section 4.C.19. of the ACVIM Certification and Residency Training Manual.

Substantiative variances to individual neurology RTPs may be approved at the discretion of the neurology RTC. The petition for the variance from the PD to the neurology RTC will require a description of the scope of the variance and adequate explanation, and written approval from the neurology RTC must be granted. Typically, variances have been approved to accommodate combined residency-graduate degree programs or RTPs that include significant resident research commitments. Variances must be approved by the neurology RTC before the resident includes the amended portion of the RTP as part of the RTP. Documentation of the RTC's approval of the individual variance must be maintained by the resident as part of their essential documentation and submitted along with the credentials packet.

3.E.15 ONLINE EXIT INTERVIEW SURVEY

Within 90 days of completion of the RTP, newly finished residents are strongly encouraged to fill out an online survey regarding the quality of the training experience.

Responses are shared with the appropriate PD to provide important feedback regarding their residency training. Data, held strictly confidential annually, will be published as a 5-year rolling average score per surveyed category calculated for each RTP and will be released every 3 years to ensure the anonymity of Candidates who completed smaller programs.

4 ROLES AND RESPONSIBILITIES ASSOCIATED WITH NEUROLOGY CANDIDACY AND RTPS

4.a Responsibilities of the Sponsoring Institution (SI)

The SI for a neurology RTP, in partnership with the PD, RA, SDs and SSSDs, must ensure a healthy and safe learning and working environment that promotes resident professional advancement, as well as psychological, emotional, and physical well-being. The SI and the PD must ensure the availability of all necessary professional, technical, and clerical personnel to best support the neurology RTP.

The SI must ensure adherence to local, state, and federal employment laws, or the international equivalents thereof, including but <u>not</u> limited to Equal Employment Opportunity, Non-Harassment, Workplace Violence Prevention, Family and Medical Leave, Health and Safety, and Workplace Conduct policies. The SI must ensure all residents, Candidates, program directors, supervising Diplomates, secondary supervising Diplomates, secondary supervising non-Diplomates, residency advisors, and other institutional officials and personnel involved in the certification processes of the American College of Veterinary Internal Medicine (synonyms: ACVIM or the College) and ACVIM-accredited residency training programs have access to these policies

4.A.1 NEUROLOGY SUPERVISION

The SI and PD must ensure the neurology RTP requirements and standards for education, clinical training and supervision in neurology, as described in sections 3.E.2 and 3.E.3 of this Manual, are met.

The specialty of neurology stipulates that an RTP must have a minimum of 2 full-time SDs, or the equivalent thereof, employed at the SI, for a neurology RTP to be approved, and to maintain annual re-approval.

The neurology supervising Diplomate (SD) is an individual at the SI, or a secondary RTP clinical training site, who is actively contributing to the clinical training and didactic education of the neurology resident in the specialty of neurology. A neurology SD must be actively participating in the field of veterinary neurology, maintaining clinical competency in the field, and substantially involved in the clinical supervision and didactic education of assigned residents. A neurology SD must be an ACVIM neurology Diplomate and member in good standing, and/or an ECVN Diplomate and member in good standing.

4.A.2 SUPPORTING ACVIM AND NON-ACVIM DISCIPLINES

The SI and PD must ensure the neurology RTP requirements and standards for education, clinical training and supervision in secondary ACVIM specialties and non-ACVIM specialties, as described in sections 3.E.4 and 3.E.5 of this Manual, are met.

For education, clinical training and supervision in secondary ACVIM specialties and non-ACVIM specialties, the neurology RTP SSSD must be a Board-Certified veterinary specialist in any veterinary specialty other than neurology, who is contributing to the clinical training and didactic education of the neurology resident in any veterinary specialty other than neurology. Here Board-Certified refers to any veterinary specialist(s) certified by an ABVS or EBVS registered veterinary specialty or registered veterinary specialty organization. The Board-Certified veterinary specialist must be a Diplomate and, where relevant, member in good standing with the relevant ABVS or EBVS registered veterinary specialty organization. The SSSD must also be active in their specialty discipline and maintaining clinical competency in the field.

Moreover, the SI and PD must ensure neurology residents have daily access to consultation with Board-Certified specialists in anesthesiology, cardiology, emergency medicine and critical care, internal medicine, nutrition, oncology, ophthalmology, and both clinical and anatomic pathology.

The SI must ensure that residents have access to a Board-Certified veterinary clinical pathologist and anatomic pathologist for evaluation and consultation, at least by timely phone calls, about clinical material submitted.

4.A.3 FACILITIES AND EQUIPMENT

In addition to the facilities and equipment outlined in section 3C.16 of the ACVIM Certification and Residency Training Manual, the specialty of neurology stipulates that the SI for a neurology RTP must have the following facilities and equipment:

- On-site radiographic, ultrasonographic, and electrocardiographic equipment.
- On-site access to MRI, CT, and nuclear medicine is highly recommended, but is *not* currently required.
- On-site electrodiagnostic equipment for nerve stimulation and electromyography.
- On-site access to EEG is highly recommended but is not currently required.
- On-site surgical facilities.

4.A.4 DIDACTIC LEARNING OPPORTUNITIES

The SI and PD for a neurology RTP must commit to providing the resident with the required journal club and didactic learning opportunities as described in section 3.E.10 of this Manual.

4.B Responsibilities of Secondary Training Sites

In some cases, the resident may complete a portion of clinical training at a secondary training site as described in section 4.C.7.b of the ACVIM Certification and Residency Training Manual. The neurology RTC must ideally approve the relationship and clinical training experience as part of the RTP's initial application and/or application for annual renewal. Letters of commitment for the provision of secondary training site(s) must be submitted when requesting approval of a new RTP, and updated letters of commitment must be submitted at the annual renewal of an existing RTP.

Specifically, if adequate personnel or facilities to fulfill requirements involving anatomic or clinical pathology, radiology, imaging, or direct supervision in other specialties are unavailable at the SI, the PD must make special arrangements at other facilities for a resident to fulfill all deficiencies. The neurology RTC must approve such arrangements in advance. Letters of commitment for the provision of secondary training site(s) must be submitted when requesting approval of a new RTP, and updated letters of commitment must be submitted at the annual renewal of an existing RTP.

If a novel clinical training experience at a secondary training site is scheduled off-cycle during the neurology RTP, a proposal for the clinical training experience, along with supporting letters from the secondary training site SD(s) or SSSD(s), must be submitted by the PD, and approval obtained from the neurology RTC before the commencement of the clinical training experience at the secondary site. The proposal should include the scope of clinical training to be undertaken, number of weeks and names of supervisor(s) involved. The PD should allow enough time from submission of the proposal to allow for approval by the neurology RTC.

Moreover, if the neurology resident completes any clinical training portion of the RTP at a secondary site, i.e., a site not the SI, the resident must obtain written confirmation that the training experience took place, with the documentation specifying the number of weeks, dates of experience, name(s) of supervisor(s) and undersigned by the SD(s) and/or SSSD(s) involved, to be maintained as part of the resident's essential documentation, and included with the credentials packet.

4.C Responsibilities of the Program Director (PD)

The PD is the individual at the SI who assumes overall responsibility for the conduct and integrity of that institution's RTP(s). The specialty of neurology stipulates that a neurology PD may be an ACVIM Diplomate and member in good standing in any ACVIM specialty, or a

Diplomate of the European College of Veterinary Neurology (ECVN) and must have been Board-Certified for a minimum of 5 years. The ACVIM neurology Diplomate and member, or ECVN Diplomate, must be in good standing with the ACVIM or ECVN, respectively. A neurology PD must also have had a minimum of 3 years of experience training residents before becoming a PD. If the PD is in an ACVIM Diplomate in an ACVIM specialty other than neurology, that PD may <u>not</u> also be a PD for another specialty's RTP.

The neurology PD must remain current on the common RTP policies, procedures, requirements and standards as established in the ACVIM Certification and Residency Training Manual and this specialty-specific Manual.

The PD is responsible for the accurate and complete submission of the initial RTP application, and annual reapproval application, including all documentation relating to secondary training site clinical training experiences.

The PD must report substantive changes to the neurology RTP, impacting compliance with core / common policies, procedures, requirements and standards as established in the ACVIM Certification and Residency Training Manual, this specialty-specific Manual and any additional requirements of that RTP as described in the program's initial approval and/or annual reapproval documentation, within 14 days. This must be done in writing through the ACVIM office before the changes are implemented in order to ensure they are acceptable to the neurology RTC. Any clinical training time and/or RTP activities undertaken under the changed condition(s) prior to approval by the neurology RTC does <u>not</u> count toward RTP completion by a resident.

Substantive changes include, but are not limited to, the following:

- Changes, either addition and/or deletion, of supervisory personnel, especially changes resulting in too few RAs, SDs or SSSDs for the number of residents or requirements of the RTP.
- Alteration of program duration.
- A resident relocating from one program to another (such relocation requests involve review by both the neurology CC and the neurology RTC to determine whether any transfer of credit is permitted).
- A resident either being placed on probation or being dismissed from the program.
- A resident beginning another RTP (for a second neurology residency, this would require approval by the RTC, as it would entail transitioning to a non-traditional program).
- A resident enrolling in an institutional graduate program.

At the time of annual program renewal, PDs may be asked to verify resident activities. Activities include, but are not limited to:

- Satisfactory intensive clinical training in neurology and secondary ACVIM and non-ACVIM veterinary specialties.
- Interaction with SD(s) and SSSD(s).
- Documentation of research and creative scholarly activity, journal club, didactic educational activities, study time and vacation.

If, at any time, the neurology RTC identifies problems with the RTP resulting in probation, it is the PD's responsibility to provide the neurology RTC with an updated plan for any current residents if no resolution occurs within a 12-month probation period. During that period, the PD provides written updates every 3 months to the neurology RTC on what is being done to correct the deficiencies. If the deficiencies are <u>not</u> resolved within the 12-month probation period, the neurology RTC may recommend termination of the RTP.

The neurology RTC can request further information or documentation from the PD, RA, SD(s) and/or SSSD(s) at any time, if such information is deemed necessary to verify that the RTP is occurring as described in the approved RTP neurology program description form. Reporting inaccuracy may result in neurology RTP probation or termination.

4.D Responsibilities of the Resident Advisor (RA)

The RA is the individual at the SI who is primarily responsible for overseeing the resident's progress during the neurology RTP. A neurology RA must be actively participating in the field of veterinary neurology, maintaining clinical competency in the field, substantially engaged as a SD for assigned residents, and significantly involved in the clinical supervision and didactic education of assigned residents. The specialty of neurology stipulates that a neurology RA must be an ACVIM neurology Diplomate and member in good standing or an ECVN Diplomate and member in good standing, as well as being Board-Certified for a minimum of 1 year before becoming an RA. A neurology RA may <u>not</u> perform this role on behalf of multiple SIs. A neurology RA is <u>not</u> permitted to advise more than 2 residents at any one time.

The neurology RA must remain current on the core / common RTP policies, procedures, requirements and standards as established in the ACVIM Certification and Residency Training Manual and this specialty-specific Manual. The RA must also be aware of any additional RTP requirements and standards specific to their RTP.

The RA is responsible for ensuring, on a daily basis, that the resident meets the requirements and standards for clinical training and education as described in the ACVIM Certification and

Residency Training Manual, this specialty-specific Manual and any additional RTP requirements and standards specific to their RTP.

The RA, with appropriate input from PD and all SDs and SSSDs, must evaluate assigned resident(s) at least once every 6 months. The RA is encouraged to utilize the clinical milestones detailed later in this Manual to guide the evaluation of assigned resident(s), assessing strengths and deficiencies, and identifying areas for emphasis, and to monitor the resident's progress and the success of the RTP. The RA must complete an evaluation form, such as the example posted on the ACVIM website for each assigned resident, at least once every 6 months. It is permissible to utilize alternative evaluation forms, if that is the preference of the RA, PD or SI. The results of each 6-monthly evaluation must be discussed with the resident. The RA must have the resident sign the RA's copy of the written evaluation as documentation that the resident received a copy of the evaluation and that it was discussed with the resident. The RTC or the neurology CC may request copies of the evaluation forms if there is a dispute regarding a resident's evaluations.

The RA and the assigned resident must document that training occurred as specified. The RA signs and verifies all documentation related to a resident's completion of program requirements. The RA provides copies of resident evaluations to the PD who provides them to the neurology RTC if requested. The purpose of the neurology RTC review is to allow the RTC, the PD, RA, and the resident to identify and correct any programmatic issues that might place a program in jeopardy of suspension.

4.E Responsibilities of the Supervising Diplomate (SD)

A neurology SD must be an ACVIM Diplomate and member in the specialty of neurology, or an ECVN Diplomate, who is contributing to the clinical training and didactic education of the neurology resident in the specialty of neurology. The ACVIM neurology Diplomate and member, or ECVN Diplomate, must be in good standing with the ACVIM or ECVN, respectively. A neurology SD must be active in the practice of neurology and must maintain clinical competency in the field. The SI must employ a minimum of 2 full-time neurology SDs.

The maximum number of neurology residents that an SD may supervise at any one time is 2. The SD may directly or indirectly or remotely supervise the resident. Definitions are provided in the Appendix The SD must ensure that any resident on clinic duty has access to videoconferencing capabilities. Review of patient care and case management by the resident should be conducted directly between the SD and the resident. Contact between the SD and the resident exclusively by telephone or text-based methods is unacceptable.

4.f Responsibilities of the Resident

It is the responsibility of the neurology resident to reasonably work towards fulfilling the requirements of the neurology RTP in which they are registered, participating in and contributing to their own education, clinical training and professional development, as well as psychological, emotional, and physical well-being, while also demonstrating the highest professional and ethical behavior, adhering to the ACVIM's Code of Conduct, and upholding the vision, mission and values of the ACVIM.

The ACVIM's policies, procedures, criteria and specific responsibilities for residents are standardised across all ACVIM specialties and are described in the ACVIM Certification and Residency Training Manual (4.C.16.g), and are elaborated upon throughout this specialty-specific Manual as they pertain to neurology residents.

4.g Responsibilities of the Candidate

The ACVIM's policies, procedures, criteria and specific responsibilities for Candidates are standardised across all ACVIM specialties and are described in the ACVIM Certification and Residency Training Manual (4.C.16.h), and are elaborated upon throughout this specialty-specific Manual as they pertain to neurology Candidates.

It is the responsibility of the neurology Candidate to fulfill the requirements of the specialty's certification process as outlined in this Manual, while adhering to the highest professional standards and the ACVIM's Code of Conduct, in order to become a Diplomate of the ACVIM in the specialty of neurology. The certification process includes, but is not limited to, fulfilling all the requirements of the specialty's RTP as outlined in this Manual.

Candidates can access this Manual, other relevant information, all relevant forms, and deadlines on the ACVIM website, or request said information from the ACVIM office.

5 CLINICAL MILESTONES FOR THE NEUROLOGY RESIDENT

5.a Clinical Milestones for First-Year Neurology Residents

5.A.1 PATIENT CARE

First-year neurology residents should meet the following milestones related to patient care to continue:

- Provide patient care that is compassionate, appropriate, and effective.
- Demonstrate comprehensive history taking and physical examination skills.
- Demonstrate the ability to evaluate and prioritize data into a problem list and formulate a diagnostic plan with some supervision.
- Assess daily patient progress accurately and perform appropriate and timely follow-up of diagnostic tests and interventions.
- Have daily communication with the supervising attending veterinarian, including attending daily service and house officer rounds.
- Demonstrate effective communication skills accompanied by respectful and professional behavior in all interactions with patients, owners, referring veterinarians, and colleagues.

5.A.2 MEDICAL KNOWLEDGE

First-year neurology residents should meet the following milestones related to medical knowledge:

- Demonstrate acceptable knowledge about established and evolving biomedical and clinical sciences and apply this knowledge to patient care.
- Have basic knowledge of pathophysiology, pharmacology, and clinical disease states.
- Demonstrate an analytical approach to clinical situations.
- Demonstrate self-directed learning and reading of pertinent medical literature.
- Participate in organized educational activities designed to develop or expand their medical knowledge base and to teach analytical thinking and problemsolving, such as the following:
- Attending daily clinical service and house officer rounds when on neurology clinical service.
- Attending scheduled journal club and structured learning activities, such as departmental seminars, morbidity and mortality rounds, and other related sessions.

- Attending rounds when rotating through internal medicine and other specialty services (i.e., cardiology, oncology, critical care, etc.).
- Attending rounds specific to any service or specialty rotation in which the resident participates (E.g., diagnostic imaging, clinical pathology, or other activities related to the neurology RTP).

5.A.3 LEARNING AND IMPROVEMENT

First-year neurology residents should meet the following milestones related to learning and improvement:

- Investigate and evaluate their patient care practices, appraise and assimilate scientific evidence, and improve their patient care practices because of these activities.
- Demonstrate a willingness to acknowledge and learn from errors.
- Participate in didactic rounds, daily house officer rounds, journal club, and other performance improvement activities, including presentation of ACVIM review topics and presentation in journal club at least five times per year.
- Use available medical databases or evidence-based medicine resources to support clinical decision-making.
- Participate in the clinical training (case supervision, daily ward rounds, etc.) of students, interns, and other healthcare professionals as applicable.
- Demonstrate an interest in and ability to participate in various didactic learning opportunities.
- Assist in the clinical teaching of veterinary students, externs and interns (if applicable), and other house officers, including providing feedback to these individuals regarding performance, knowledge, medical recordkeeping, and patient care as applicable.

5.A.4 INTERPERSONAL AND COMMUNICATION SKILLS

First-year neurology residents should meet the following milestones related to interpersonal and communication skills:

- Demonstrate interpersonal and communication skills that result in effective information exchange and engagement with owners and professional associates.
- Develop language and documentation skills (e.g., succinct and comprehensive case presentations, progress notes, and comprehensive patient care plans) as they progress in training.
- Provide efficient but comprehensive information exchange with colleagues, healthcare professionals, and owners.

- Develop effective listening skills.
- Establish professional and ethically sound relationships with owners and referring veterinarians.

5.A.5 PROFESSIONALISM

First-year neurology residents should meet the following milestones related to professionalism:

- Demonstrate a commitment to carrying out professional responsibilities, adhering to ethical principles, and possessing sensitivity to cultural differences and orientations.
- Demonstrate respect, compassion, and integrity in all interactions with patients, owners, colleagues, and other healthcare professionals.
- Maintain a professional appearance.
- Demonstrate a commitment to ethical principles pertaining to confidentiality of patient information and informed consent.
- Demonstrate commitment to professional responsibility in completing all medical records in a timely fashion.
- Begin to develop skills in conflict resolution.

5.A.6 RESEARCH AND CREATIVE SCHOLARLY ACTIVITY

First-year neurology residents should meet the following milestones related to research and creative scholarly activity:

- Identify a research project under the supervision of their resident advisor (RA) or a supervising Diplomate (SD) or appropriate mentor during the first 6 months of the RTP and prepare a detailed research proposal by the end of the first year.
- Assist research mentor in study design, literature review, grant preparation (if applicable), and submission of selected research projects.
- Comply with the ethical principles of research and actively participate in writing an animal care and use protocol (if applicable).

5.B Clinical Milestones for Second- and Third-Year Neurology Residents

5.B.1 PATIENT CARE

Second- and third-year neurology residents should meet the following milestones related to patient care:

• Fulfill all requirements expected of first-year residents.

- Formulate independent diagnostic and therapeutic plans with the supervision of an attending veterinarian.
- Coordinate patient care among all members of the healthcare team.
- Counsel and educate owners and referring veterinarians.
- Develop competence in performing the core procedural skills essential to the practice of neurology.

5.B.2 MEDICAL KNOWLEDGE

Second- and third-year neurology residents should meet the following milestones related to medical knowledge:

- Fulfill and then exceed all requirements expected of first-year residents.
- Develop a deeper understanding of disease states and their management.
- Continue to develop skills in critical assessment, reading, and interpretation of the medical literature with application to patient care.
- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies (i.e., skills emphasized in clinical rotations and rounds discussions).

5.B.3 LEARNING AND IMPROVEMENT

Second- and third-year neurology residents should meet the following milestones related to practice-based learning and improvement:

- Fulfill all requirements expected of first-year residents.
- Develop competence in educating owners.
- Facilitate the learning of students and interns (if present), other residents, and other healthcare professionals.

5.B.4 INTERPERSONAL AND COMMUNICATION SKILLS

Second- and third-year neurology residents should meet the following milestones related to interpersonal and communication skills:

- Continue to develop the interpersonal and communication skills developed as first-year residents.
- Develop effective negotiation and leadership skills that facilitate effective conflict avoidance and resolution.

5.B.5 PROFESSIONALISM

Second- and third-year neurology residents should meet the following milestone related to professionalism:

 Continue to refine and demonstrate professionalism skills developed as a firstyear resident.

5.B.6 RESEARCH AND CREATIVE SCHOLARLY ACTIVITY

Second- and third-year neurology residents should meet the following milestones related to research and creative scholarly activity:

- Fulfill all requirements expected of first-year residents.
- Initiate research project implementation, including active participation in patient recruitment and sample collection, data analysis, and manuscript preparation.
- Maintain focus on research project completion and troubleshoot any problems that may arise with mentors.

6 RESIDENT EVALUATION

The RA and PD or the SI Residency Training Committee reviews the progress of all residents for the duration of the RTP and provides written evaluation to the resident. Residents are evaluated by the RA on the criteria listed in neurology clinical milestones (section 5). Evaluation occurs at least every 6 months for the duration of the RTP. The RA maintains a copy of each review until a Candidate receives Board-Certification. The RA should have the resident sign the RA's copy of the written evaluation as documentation that the resident has received a copy and that the results of the evaluation were discussed with the resident.

Residents initiate and maintain an annual report of their activities and credentials (see neurology credentials information packet) for the duration of their residencies. Each annual report includes the weekly schedule of activities and a summary of their schedule for the year. The resident and the RA must sign each report. Residents retain the original reports and update the progress reports in their entirety every 12 months. The PD and the RA receive a copy of the credentials report. A list of required submissions, along with the procedures for submitting training documents, is provided on the Candidates' pages on the ACVIM website. If deficiencies are found in a resident's activities, they will be notified of their deficiencies. If the deficiencies are not corrected, it may result in the resident not being allowed to take their specialty examination during their third year of training.

Residents and their RA document that training occurred as specified. RAs ensure that residents submit annual reports of their progress to the neurology RTC by the date specified on the ACVIM website following the end of each year of residency and upon completion of the program.

In addition, residents must submit the annual program reports to the neurology RTC by the date specified on the ACVIM website of the year before the date they plan to take the neurology Specialty Examination. The appropriate SD signs off on this report. The report follows the standardized spreadsheet format found on the ACVIM website. Residents submit this information via the website for review by the neurology RTC. Residents ensure that their RAs keep these standardized evaluations on file in case the neurology RTC requests the information.

7 THE ACVIM GENERAL EXAMINATION

All ACVIM neurology Candidates must pass the General Examination, in order to be eligible to attain Diplomate status. Information about the General Examination is outlined in the ACVIM Certification and Residency Training Manual (4.F.6).

8 NEUROLOGY CREDENTIALS

Credentials approval, or conditional approval of credentials, is a prerequisite for taking the Neurology Specialty Examination(s).

Credentials approval is a requirement, in order to be eligible to attain ACVIM Diplomate status in the specialty of neurology.

8.a Procedures for Submitting Credentials

Always check the ACVIM website for the most up-to-date information before submission, as this process is subject to change.

The information listed in this section provides an overview of the procedures for submitting neurology credentials. Specific guidelines are in the neurology credentials information packet. Because application requirements change periodically, Candidates must be sure they are using the most current application and credentials packet. If the Candidate has any questions regarding the application process, that individual should request clarification in writing from the neurology CC chair or from the ACVIM office well before the Credentials submission deadline date.

Neurology Candidates may submit their complete credentials packet and credentials fee online to the ACVIM office following the completion of a 2-year residency, or after 22 months of a 3-year residency. Candidates in approved non-traditional residencies may submit completed credentials packets and fees following the completion of equivalent time, provided it is in the final year of the program. If an individual is ACVIM Board-Certified in a specialty other than neurology and is participating in an ACVIM-registered neurology residency, that individual may submit credentials within the final 12 months of the neurology RTP. The neurology CC evaluates submitted credentials packets for completeness and accuracy.

A Candidate who intends to take the neurology Specialty Examination must submit credentials for the Neurology Specialty Examination so that the ACVIM office receives the credentials packet no later than the date specified on the ACVIM website in the year preceding that examination date.

THERE ARE NO EXCEPTIONS TO THE CREDENTIALS DEADLINE. LATE SUBMISSIONS WILL <u>NOT</u> BE REVIEWED. CREDENTIALS PACKETS MUST BE SUBMITTED ON, OR BEFORE, THE DEADLINE DATE, TO ALLOW ADEQUATE TIME FOR REVIEW BY THE NEUROLOGY CC.

CREDENTIALS PACKETS WILL <u>NOT</u> BE REVIEWED IF THE CREDENTIALS FEE HAS NOT BEEN PAID BEFORE OR AT THE TIME OF CREDENTIALS PACKET SUBMISSION.

Payment of the credentials fee is also required at the time of submission. Candidates must maintain the record and receipt associated with payment as part of their essential documentation.

Applicant instructions for meeting the credentials requirements are available on the ACVIM website, or by request in writing from the ACVIM office. If a Candidate has any questions regarding the credentials process, the Candidate should request clarification in writing from the neurology CC chair or the ACVIM office well before the submission deadline date.

Documentation of receipt of the Candidate's neurology credentials application, receipt of the paid fee, and documentation of neurology CC approval, or conditional approval, with the Candidate's unique identification number, must be maintained by the Candidate as part of their essential documentation.

Separate receipts for each ACVIM fee paid and registration acknowledgement will be provided by the ACVIM and must be maintained by the Candidate as part of their essential documentation.

A Candidate who intends to take the Neurology Specialty Examination must electronically submit credentials, including letters of reference, for the Neurology Specialty Examination so that the ACVIM office receives the credentials packet no later than the date specified on the ACVIM website of the year preceding that examination date. Materials are forwarded to the Neurology CC chair. Each Candidate is notified no later than 60 days after the submission deadline regarding the acceptability of the submitted credentials packet for the neurology Specialty Examination. All Candidates must submit the current standard neurology application form along with the other required documents. They must carefully follow the instructions provided in the credentials packet, as inadequate attention to detail may cause the entire application to be rejected.

8.b Credentials Items to Be Submitted

Always check the ACVIM website for the most up-to-date information before submission; this is only a partial list and is also subject to change.

The Candidate's credentials packet must be complete and must include all items that are specified on the Candidates' webpage of the ACVIM website, as well as in the most up-to-date credentials packet. This will include, but is <u>not</u> limited to, the following:

- The completed credentials application form.
- The resident's report of annual progress form will provide much of the required information and must be filled out comprehensively and accurately.
- Essential documentation, letters of approval and completion, pertaining to clinical training undertaken at secondary training sites.
- Essential documentation, written approval of any relevant RTP variances.
- Reference forms or letters.
 - Candidates must have three associates with whom they have worked in their training program submit either an ACVIM neurology referee form, or a letter of reference, which may be used in lieu of the form. At least 1 reference must be from the RA and/or SD who supervised a major part of the resident's training. The reference forms or letters and copies are forwarded as directed in the credentials packet. The Candidate ensures the reference letters arrive at the ACVIM office by the date specified on the ACVIM website of the year before that the Candidate intends to take the examination.

It is the Candidate's responsibility to submit all credential items before the deadline date, as late applications will *not* be reviewed.

8.c Evaluation of Credentials for the Neurology Specialty Examination

The ACVIM office evaluates the credentials packets for completeness. Complete credentials packets are forwarded to the neurology CC for further review. Credentials will be evaluated and rated as approved, conditionally approved or unacceptable by the neurology CC. The ACVIM office will notify the Candidate of the approval or denial of their credentials within 60 days of the deadline date for submission of credentials.

9 NEUROLOGY SPECIALTY EXAMINATION

All ACVIM neurology Candidates must pass the neurology Specialty Examination(s), in order to be eligible to attain Diplomate status. Common information regarding the ACVIM Specialty Examination(s) is outlined in the ACVIM Certification and Residency Training Manual (4.F.7). Further specialty-specific information is outlined below.

9.A Neurology Specialty Examination Registration and Fee

Once credentials are approved, or conditionally approved, neurology Candidates may register to take the Neurology Specialty Examination. An additional fee is required. Candidates must register and pay the associated fee online to the ACVIM office by the deadline date specified on the ACVIM website in the year before they intend to take the Neurology Specialty examination.

Candidates retaking the neurology Specialty Examination must pay online by the date specified on the ACVIM website of the year they plan to take the examination.

Documentation of receipt of the Candidate's Neurology Specialty Examination registration, receipt of the paid fee, and documentation of credentials approval, with the Candidate's unique identification number, must be maintained by the Candidate as part of their essential documentation.

Separate receipts for each ACVIM fee paid and registration acknowledgement will be provided by the ACVIM and must be maintained by the Candidate as part of their essential documentation.

9.B Neurology Specialty Examination Content and Format

***Always check the Candidates' exam webpage(s) on the ACVIM website for the most up-to-date information pertaining to ACVIM Examinations. Examination format/design, item types and standard setting/cut score determination method(s) are subject to change, as necessary to continue to align the examination with best practice and accreditation industry standards. Any changes will be reflected in the current examination blueprint and/or information provided to Candidates. ***

An updated blueprint of the Neurology Specialty Examination is posted on the ACVIM website a minimum of 60 days prior to the Neurology Specialty examination date each year.

10 MAINTENANCE OF CREDENTIALS (MOC)

As discussed in the ACVIM Certification and Residency Training Manual, every ACVIM Diplomate who completed credentials and became a Diplomate on, or after, January 1, 2016, is awarded a Diplomate certificate that is valid for 10 years. These ACVIM neurology Diplomates are subject to MOC. The MOC policies, procedures, requirements and standards are posted on the ACVIM website. The neurology maintenance of credentials (MOC) committee maintains a list of acceptable continuing education experiences and their associated points that count toward renewal of neurology credentials by the ACVIM. This information is available on the ACVIM website, or by request from the ACVIM office. It is the responsibility of each ACVIM neurology Diplomate to maintain a record of these activities and submit documentation as required to meet MOC requirements and standards.

11 CORRESPONDENCE, INQUIRIES, issues and complaints

Residents, Candidates, SI(s), training site(s), PD(s), RA(s), SD(s), SSSD(s), other institutional officials and personnel involved in the certification processes of the neurology specialty and members of the public with comments, queries, issues and/or complaints regarding the ACVIM certification process and/or neurology residency training programs, especially issues of neurology RTP noncompliance <u>not</u> sufficiently resolved by the RTP's PD, should direct communication in writing to the neurology ombudsperson and/or to the relevant committee chair and/or the ACVIM office. Interested parties can obtain the names and contact information for these representatives from the ACVIM office or ACVIM website. A response to the communication can be expected within 4 weeks.

The ACVIM, and representatives thereof, can only address matters related to policies, procedures, requirements and standards established in the ACVIM Certification and Residency Training Manual, specialty-specific manuals, and guiding documents of the organization. Personnel matters are unique to each SI and training site and their Human Resources policies and procedures and are <u>not</u> subject to ACVIM review.