

# SPECIALTY CERTIFICATION AND RESIDENCY TRAINING MANUAL: NEUROLOGY

Certification and residency Training Manual (Neurology CM) for Residents, Candidates, Sponsoring Institutions, Program Directors, Resident Advisors, Supervising Diplomates, and Secondary-Specialty Supervising Diplomates

Effective July 1, 2024 – June 30, 2025

The information contained in this Manual becomes effective on July 1, 2024. It represents the current policies, procedures, and requirements for individuals involved in the certification processes of the American College of Veterinary Internal Medicine (synonyms: ACVIM or the College).

ACVIM policies, procedures and requirements are subject to periodic review and change. All residents, Candidates, sponsoring institutions, program directors, resident advisors, supervising diplomates, and secondary-specialty supervising diplomates must read the current and relevant Certification and Residency Training Manuals.

While a concerted effort has been made to ensure the accuracy of this document, if clarification is required, program directors, resident advisors, supervising Diplomates, secondary-specialty supervising Diplomates, residents, and Candidates 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 below.

If program directors, resident advisors, supervising Diplomates, secondary-specialty supervising Diplomates residents, and/or Candidates have any questions, or if concerns arise about proposed or actual changes that could impact the certification and/or residency training processes, they 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 below.

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The ACVIM certifies specialists in veterinary neurology. Neurologists focus on diagnosing and treating diseases involving the neurological system. This Manual explains the policies, procedures and requirements for ACVIM neurology Candidates working towards certification in this specialty and the specific requirement for ACVIM neurology residency training programs (RTPs), that are in addition to the requirements specified in the Certification Manual (CM) which are required of all Candidates in all specialties.

## 1 NEUROLOGY DOCUMENTS AND FORMS

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

- Online Candidate Registration Form (via Candidate Dashboard)
- Resident report of annual progress form (RRAP).
- Neurology weekly schedule document.
- Neurosurgery case log.
- Neurology journal club log.
- Application to take the General Examination (via Candidate dashboard).
- General Examination blueprint, reading list & study resources (60 days before the examination date).
- Neurology Credentials Packet (prerequisite for the Specialty Exam)
- Registration to take the Neurology Specialty Examination (via Candidate dashboard).
- Neurology Specialty Examination blueprint, reading list & study resources (60 days before the examination date).

## 2 DEFINITIONS FOR NEUROLOGY CANDIDACY AND RESIDENCY TRAINING PROGRAMS

Review important definitions related to the specialty of neurology in Appendix A: Important neurology-related definitions. These definitions expand upon those provided in the ACVIM Certification Manual as they pertain specifically to the specialty of neurology.

## 3 NEUROLOGY RESIDENCY TRAINING PROGRAMS

The residency training program (RTP) is the foundation for the education and training of ACVIM Neurology Candidates seeking certification as ACVIM Neurology Diplomates.

All the general requirements for residents and residency training found in the ACVIM Certification Manual must be met, in addition to the specific Neurology requirements contained in this Manual. The standards contained in this Manual are the minimum requirements for the specialty of Neurology. Any ACVIM-approved Neurology RTP may include additional requirements above the minimum required by this Manual. Those additional requirements then become part of that specific RTP. A resident in such an RTP must fulfill all the additional requirements of that RTP, along with the minimum requirements in this Manual, in order to become an ACVIM Neurology Diplomate, as those additional requirements are necessary for that resident to complete the RTP and obtain a residency certificate.

A neurology RTP is more than completing the requirements contained in this section of this Manual. It embodies 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 the current ACVIM-approved neurology RTPs, as evaluated by the neurology RTC, is available on the ACVIM website, or upon request from the ACVIM office.

#### 3.B NEUROLOGY RTP REGISTRATION AND EVALUATION

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 Certification Manual (sections 3.C.4-6).

#### 3.C NEUROLOGY CANDIDATE REGISTRATION

The 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 Certification Manual (section 3.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 following RTP requirements, and to collectively work towards ensuring they are being fulfilled.

## 3.E.1 DURATION OF NEUROLOGY RTP TRAINING

An ACVIM-approved neurology RTP is a minimum of 104 weeks in duration for a traditional 2-year RTP, or 156 weeks in duration for a traditional 3-year RTP. A neurology RTP must entail a minimum of 96 weeks of intensive clinical training, 75 weeks of which must be in neurology, and additional training time in electrodiagnostics, neurosurgery, neuropathology, clinical pathology, radiology, and emergency, as well as various scholarly and research activities. Non-traditional neurology RTPs or neurology RTPs that are interrupted must be completed in a maximum period of 5 years beginning with the first day of the RTP.

#### 3.E.2 INTENSIVE CLINICAL TRAINING IN NEUROLOGY

A minimum of 75 weeks of a neurology RTP must consist of intensive clinical training in neurology. The 75 weeks must include no fewer than 50 weeks of direct supervision by a neurology SD. The 75 weeks may include up to 25 weeks of indirect supervision by a neurology SD. A resident may spend up to 25 weeks of the 75 weeks managing the clinical neurology service. Additional intensive clinical training in neurology exceeding the required 75 weeks may contribute to the additional required 21 weeks of intensive clinical training needed to meet the total of 96 weeks required intensive clinical training.

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 supervision (direct or indirect) of a neurology SD.

During this time, the resident provides patient care, and must have primary responsibility for their cases. This includes receiving patients, supervising daily patient care, coordinating neurology clinical teaching, providing optimal client service, communicating with clients (owners), and engaging in appropriate follow-up and professional communication with referring veterinarians. The resident must maintain complete medical records for all patients. The problem-oriented veterinary medical record system is strongly encouraged. Residents must actively participate in the management of small and large animal neurology patients. The number of cases a resident sees depends on the species, the kinds of problems, and the depth of study required. Emphasis should be on the quality of cases rather than on the quantity of cases.

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

Academic degree programs (master's or doctorate) may <u>not</u> 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 (see Appendix).

## 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 choose to accrue intensive clinical training in pertinent ACVIM secondary specialties, including internal medicine, cardiology, oncology, and/or nutrition.

During intensive clinical training in ACVIM secondary specialties, a resident is assigned to a clinical service, and is either under the direct supervision of the equivalent of a minimum of 1 full-time ACVIM Diplomates or 1 full-time ECVIM-CA Diplomate (SSSDs). The resident provides patient care during this time.

Academic degree programs (master's or doctorate) cannot 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.

Because neurology is a multimodal discipline, residents must receive additional clinical training under the direct supervision of SDs in the fields of neurosurgery, radiology, clinical pathology, anatomic pathology, and emergency medicine. Additionally, specific training in neurosurgery, electrodiagnostic testing, and neuropathology (anatomic pathology) are required.

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

#### **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 (see Appendix). 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.

#### **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 (see Appendix). 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 by direct supervision or remotely.

#### 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 (see Appendix). 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 by direct or remote supervision, or a combination.

## 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 (see Appendix). No more than 40 hours is expected to be accomplished in a single training week.

#### **EMERGENCY**

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 neuroemergency 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 involved, their areas of specialization, and details of the anticipated professional interaction.

#### 3.E.6 NEUROSURGICAL PROCEDURES AND TECHNIQUES

A neurology RTP may elect to offer additional training in neurosurgical procedures and techniques beyond the 50 required hours of intensive clinical training in neurology outlined in section 3.E.2. A 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 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. A letter from the RA is required to document the satisfactory completion of the project before the RTP can be considered completed 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 (section 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 a neurology RTP. Neurology residents must participate in a minimum of 80 hours of journal club throughout their 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 a Candidate's credentials review.

## **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 <u>not</u> be used to meet more than 1 of the required didactic learning experiences.

#### 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 <u>not</u> 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.

#### 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 initial 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 <u>not</u> 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.

#### CONTINUING EDUCATION (CE) CONFERENCES AND MEETINGS

Neurology residents must also attend or participate in at least one state, regional, national, or international Veterinary medical or human medical continuing education conference or meeting during the RTP. 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). Remote attendance and/or participation at these continuing education conferences is permitted by the neurology specialty. Documentation of attendance and/or participation at the conference must be included in the Candidate's neurology credentials packet.

#### 3.E.11 STUDY TIME

In addition to the research and scholarly time, 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 and Candidate 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 VACATION AND PERSONAL TIME

A neurology resident should take vacation time during the neurology RTP that is totally separate from other activities and requirements. Total vacation time must be a minimum of 2 weeks per year of a neurology RTP. 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 <u>not</u> 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.

An RTP must also provide reasonable accommodation for a resident's medical needs (e.g., doctor's appointments, etc.).

#### **3.E.13** RESIDENCY TRAINING INTERRUPTION

Training interruptions may be unavoidable in circumstances where a resident must switch from one RTP to another to fulfill all RTP and credentialing requirements. In such cases, the following steps must be taken:

- A new 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 residency training resumes.

In some circumstances, residents may need to take a leave of absence that prevents them from completing the traditional RTP on time. When a leave of absence is necessary, residents have a maximum of 4 years if enrolled in a traditional 2-year RTP or 5 years if enrolled in a traditional 3-year RTP to complete the requirements of their RTP and achieve Board-certification.

Residents in interrupted programs when actively engaged in the residency must attend full-time in no less than 20 weeks of training in any residency year: for example, the 12-month period beginning with the first day of their residency. If a resident interrupts their training, a new residency year begins on the first day on which they resume training.

Training must occur in five blocks of time with 4 continuous weeks in each block for those portions of the residency that must be completed in training weeks (see Appendix). Blocks may run consecutively or be separated, but each block must be 4 weeks in length.

In some cases, a resident may complete a portion of training at another approved RTP or with another research unit or mentor. In those cases, the second RTP or the research unit or research mentor is considered a secondary training site. The neurology RTC must approve that relationship as part of the RTP submission, along with all appropriate supporting documents from the primary training site.

#### 3.E.14 RTP VARIANCES

Variances to neurology RTPs may be permitted by the neurology RTC, but a request for a variance will require a detailed explanation from the PD to the neurology RTC, and written permission from the neurology RTC must be granted. In general, such approval will relate to 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 them as part of the RTP. Documentation relating to approved variances must be included with the Candidate's 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.

## 4.A.1 NEUROLOGY SUPERVISION

The SI must have a minimum of 2 full-time neurology SDs. As defined in the Appendix 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.

#### 4.A.2 SUPPORTING DISCIPLINES

The SI must ensure the neurology RTP requirements for training and supervision in additional ACVIM and non-ACVIM secondary specialties, as described in section 3.E.4 and section 3.E.5, are met.

The SI must ensure neurology residents have daily access to consultation with Board-certified specialists in internal medicine, oncology, cardiology, surgery, ophthalmology, emergency medicine, critical care, nutrition, anesthesiology, clinical and anatomic pathology, and diagnostic imaging.

The SI ensures 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 the Certification Manual, section 3.C.16, 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 <u>not</u> currently required.
- On-site electrodiagnostic equipment for nerve stimulation and electromyography.
- On-site access to EEG is highly recommended but is not currently required.
- Access to clinical pathological services, including CBC, serum chemistries, blood gas analysis, urinalysis, cytology, parasitology, microbiology, and endocrinology. If these capabilities are unavailable at the SI, then the SI must make arrangements with local and/or regional laboratories.
- On-site surgical facilities.

 Ready access to a veterinary medical library that contains the textbooks and current journals that the neurology RTC specifies.

#### 4.A.4 DIDACTIC LEARNING OPPORTUNITIES

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

#### 4.B RESPONSIBILITIES OF SECONDARY TRAINING SITES

If the SI schedules training at secondary training sites during the neurology RTP, the provider(s) of this training must submit training agreement forms to the neurology RTC. These forms must accompany the neurology RTP registration form for each new program request and for each annual renewal of registration. Each form must specify the number of weeks scheduled and the rotation time requirement satisfied at the secondary training site. If, for example, a resident has a clinical pathology rotation at another institution, the supervising clinical pathologist at that institution must provide a signed statement confirming the name of the resident, rotation duration and proposed dates, and the institution with which the resident is affiliated.

Additional information about residency training site locations can be found in the Certification Manual, section 3.B.

## **4.C** RESPONSIBILITIES OF THE PROGRAM DIRECTOR (PD)

As defined in the Appendix, the neurology program director (PD) is the individual at the SI who assumes overall responsibility for the conduct and integrity of that institution's RTP(s). Unlike some specialties, the specialty of neurology stipulates that a neurology PD may be an ACVIM Diplomate and member in any ACVIM specialty, or a Diplomate of the European College of Veterinary Neurology (ECVN). The ACVIM neurology Diplomate and member, or ECVN Diplomate, must have been Board-certified for a minimum of 5 years and must remain 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 an ACVIM Diplomate and member in an ACVIM specialty other than neurology, that PD may <u>not</u> also be a PD for another specialty's RTP. A SI may have only 1 neurology PD. The PD maintains the highest integrity in representing the SI's neurology RTP.

The neurology PD must remain current on the residency training requirements outlined in this Manual.

The PD must report substantive changes within a neurology RTP affecting compliance with specialty of neurology requirements to the neurology RTC chair within 14 days. This must be done in writing through the ACVIM office before the changes are made to ensure they are acceptable to the neurology RTC. Any training time undertaking the changed activity before the change is approved 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 (addition or deletion) in 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 (this must be approved by the RTC before it can be implemented).

- 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 clinical training.
- Interaction with SSSDs.
- Documentation of research, didactic learning activities, and study time.

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 not resolved within the 12-month probation period, the neurology RTC may recommend termination of the RTP.

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.

The PD ensures signed letters of commitment of required time for any secondary training site(s) are submitted annually with the application for PD renewal. Supervising Diplomates and SSSDs with whom the resident has trained must provide the PD (or the RA) with documentation of these interactions.

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)

As defined in the Appendix, the neurology resident advisor (RA) is the primary individual at the SI who monitors the neurology resident's progress during residency training. The specialty of neurology stipulates that the neurology RA must be an ACVIM Diplomate and member in the specialty of neurology, or an ECVN Diplomate, and must have been Board-certified for a minimum of 1 year before becoming an RA. The ACVIM neurology Diplomate and member, or ECVN Diplomate, must be in good standing with the ACVIM or ECVN, respectively. The neurology RA must be full-time at the SI, active in the practice of neurology and must maintain clinical competency in the field.

The RA must be actively involved as a supervising Diplomate (SD) for the assigned residents and substantially involved in the clinical supervision of assigned residents. Each neurology RA is permitted to advise no more than 2 residents at any one time.

The RA, with appropriate input from PD and all SDs and SSSDs, must evaluate an assigned resident at least once every 6 months and discuss the result of each evaluation with the resident. The RA is encouraged to use the clinical milestones detailed later in this section to aid in the assessment of resident strengths and deficiencies and to monitor the success of the RTP. The RA completes an evaluation form, such as the 1 that is posted on the ACVIM website for each assigned resident, at least once every 6 months. It is permissible to use other evaluation forms if that is the preference of the RA. 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 also ensures that the resident receives additional training as required. These experiences should occur in full training weeks as part of the 21 weeks devoted to training in allied specialties as detailed in section 3.E.5.

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)

As defined in the Appendix, a neurology supervising Diplomate (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 resident to fulfill all the requirements of the specialty's RTP as outlined in this Manual, while adhering to the highest professional standards and the ACVIM's Code of Conduct.

#### 4.G RESPONSIBILITIES OF THE CANDIDATE

It is the responsibility of the 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.

It is the Candidate's responsibility to be aware of all certification and RTP requirements, other relevant information and deadlines. It is the Candidate's responsibility to maintain a record of all receipts and essential documentation.

## 5 CLINICAL MILESTONES FOR NEUROLOGY RESIDENTS

#### 5.A CLINICAL MILESTONES FOR FIRST-YEAR NEUROLOGY RESIDENTS

#### **5.A.1** PATIENT CARE

First-year residents should meet the following milestones related to patient care to continue to the second vear of the RTP:

- 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 residents should meet the following milestones related to medical knowledge to continue to the second year of the RTP:

- 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 problem-solving, 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 residents should meet the following milestones related to learning and improvement to continue to the second year of the RTP:

- 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 decisionmaking.
- 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 residents should meet the following milestones related to interpersonal and communication skills to continue to the second year of the RTP:

- 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 residents should meet the following milestones related to professionalism to continue to the second year of the RTP:

- 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** CLINICAL RESEARCH

First-year residents should meet the following milestones related to research and publication productivity to continue to the second year of the RTP:

- Identify a research study under the supervision of their resident advisor (RA) or a supervising Diplomate (SD) during the first 6 months of residency 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-year residents should meet the following milestones related to patient care to continue to the third year of the RTP:

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-year residents should meet the following milestones related to medical knowledge to continue to the third year of the RTP:

- Fulfill 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-year residents should meet the following milestones related to practice-based learning and improvement to continue to the third year of the RTP:

- 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-year residents should meet the following milestones related to interpersonal and communication skills to continue to the third year of the RTP:

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

#### **5.B.5** PROFESSIONALISM

Second-year residents should meet the following milestone related to professionalism to continue to the third year of the RTP:

• Continue to refine and demonstrate professionalism skills developed as a first-year resident.

#### 5.B.6 CLINICAL RESEARCH AND PUBLICATION

Second-year residents should meet the following milestones related to clinical research and publication to continue to the third year of the RTP:

- Fulfill all requirements expected of first-year residents.
- Initiate study implementation, including active participation in patient recruitment and sample collection, data analysis, and manuscript preparation.
- Maintain focus on study completion and troubleshoot any problems that may arise with mentors.
- Research productivity can, for example, be demonstrated by having a published abstract, conference presentation, or accepted peer-reviewed publication. Research productivity needs to be completed to the RA's satisfaction with appropriate input from the research mentor. The neurology specialty does not have a formal publication requirement.

## **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 GENERAL EXAMINATION**

All ACVIM Neurology Candidates must pass the General Examination in order to be eligible to attain Diplomate status (Board-certification). Information about the General Examination is outlined in the ACVIM Certification Manual, section 3.E.5.

## **8 NEUROLOGY CREDENTIALS**

Credentials approval (or conditional approval) is a prerequisite for taking an ACVIM Specialty Examination, and for Board-certification.

#### 8.A PROCEDURES FOR SUBMITTING CREDENTIALS

\*\*\*Always check the ACVIM website for the most up-to-date information before submission; 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 a 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.

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 THIS DEADLINE. CREDENTIALS PACKETS MUST BE SUBMITTED ON THE DUE DATE TO ALLOW ADEQUATE TIME FOR REVIEW BY THE NEUROLOGY CC. CREDENTIALS PACKETS WILL NOT BE REVIEWED IF THE CREDENTIALS FEE HAS NOT BEEN PAID BEFORE THE SUBMISSION OF THE CREDENTIALS PACKET.

Candidates may submit their complete credentials packet and credentials fee online to the ACVIM office **following the completion of a 2-year residency**, **after 22 months of a 3-year residency**, or after the equivalent time in any other approved residency provided these Candidates are in the final year of that program. 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 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 Credentials Committee 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.

Documentation of receipt of the Candidate's neurology credentials application, 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 application acknowledgement will be provided by the ACVIM, and must be maintained by the Candidate as part of their essential documentation.

#### 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.\*\*\*

Candidates must include all items that are specified on the Candidates' webpage on the ACVIM website to have a complete credentials packet.

The resident's report of annual progress form will provide much of the required information and so must be filled out completely and accurately:

- The completed application form.
- Letters documenting completion of rotations outside the SI, if applicable (the person from the outside facility who had oversight of an applicable rotation must sign the letter).
- 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, as late applications will *not* be reviewed.

## 8.C EVALUATION OF CREDENTIALS FOR THE NEUROLOGY SPECIALTY EXAMINATION

The ACVIM office and the neurology credentials committee (neurology CC) review all Candidate applications and credentials packets. A reviewer assigned by the neurology CC evaluates and rates Candidates' credentials as acceptable or unacceptable. The reviewer records the evaluation results on a standard form, which the ACVIM office retains. The neurology CC chair compiles the reviewer's evaluation comments for unsuccessful Candidates' credentials. The ACVIM office sends the compiled comments to the Candidates.

The ACVIM office notifies Candidates regarding acceptance or rejection of their credentials within 60 days of the deadline for credentials submission.

## 9 NEUROLOGY SPECIALTY EXAMINATION

#### 9.A NEUROLOGY SPECIALTY EXAMINATION REGISTRATION AND FEE

Once credentials are approved, Candidates may register for the neurology Specialty Examination and pay the fee online to the ACVIM office by the date specified on the ACVIM website the year before they intend to take the 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. \*\*\*

A blueprint of the neurology Specialty Examination is posted on the ACVIM website at least 60 days before the examination date each year.

## 10 CORRESPONDENCE, INQUIRIES, ISSUES AND COMPLAINTS

Residents and/or Candidates with queries and/or complaints regarding RTP noncompliance, especially concerns that are not sufficiently resolved by the RTP's PD, should direct concerns in writing to the neurology ombudsperson and/or to the current RTC chair. Residents can obtain the names and contact information of these individuals from the ACVIM office or ACVIM website. A response to the query and/or complaint can be expected within 4 weeks. Assistance from the neurology ombudsperson can also be sought for situations that are difficult to resolve. The neurology ombudsperson can be contacted directly by email at NeurologyOmbuds@ACVIM.org. The ACVIM can only address matters related to adherence to this Manual's requirements. Personnel matters are unique to each SI and its human resources policies and procedures and are *not* subject to ACVIM review.

## 11 MAINTENANCE OF CREDENTIALS (MOC)

As discussed in the Certification manual, every 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. ACVIM neurology Diplomates subject to MOC will be required to complete a minimum number of credits of activities that demonstrate either continuing education or progressive involvement in the practice of veterinary neurology over a 10-year period.

The neurology maintenance of credentials (MOC) committee maintains a list of acceptable continuing education experiences and their associated points that count toward the renewal of neurology credentials by the ACVIM. This information is available on the ACVIM website, or upon request from the ACVIM office. It is the responsibility of each neurology Diplomate to maintain documentation of these activities.

## **APPENDIX A: IMPORTANT DEFINTIONS**

## NEUROLOGY CREDENTIALS COMMITTEE (NEUROLOGY CC)

The neurology CC evaluates a neurology Candidate's progress during the ACVIM certification candidacy period, including completion of RTP requirements, General and Specialty Examination results, and fulfillment of additional credentials requirements, such as the resident's logs / publication. The neurology CC is responsible for reviewing the neurology Candidate's credentials application packet and certifying that a Candidate meets all the requirements for becoming a Diplomate of the ACVIM in neurology.

#### **NEUROLOGY OMBUDSPERSON**

The neurology ombudsperson is an individual appointed by the specialty president to be available to residents still in training and to Candidates who have completed their RTP but have not achieved Diplomate status, in order to serves as a liaison during conflicts between a Candidate and either an RTP or the ACVIM. Residents or Candidates may contact the neurology ombudsperson with any questions and concerns they have about their residency or candidacy experience. The ombudsperson may provide advice and assistance with these issues. The neurology ombudsperson may be contacted at <a href="mailto:neurologyombuds@ACVIM.org">neurologyombuds@ACVIM.org</a>. All communications are held in strict confidence.

## NEUROLOGY PROGRAM DIRECTOR (PD)

The neurology program director (PD) is the individual at the SI who assumes overall responsibility for the conduct and integrity of that institution's RTP(s). Unlike some specialties, the specialty of neurology stipulates that a neurology PD may be an ACVIM Diplomate and member 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. A SI may have only 1 full-time neurology PD.

## NEUROLOGY RESIDENCY TRAINING COMMITTEE (RTC)

The neurology residency training committee (RTC) specifies the residency training criteria that must be met for certification. The neurology RTC reviews and approves all new RTPs. The neurology RTC reviews and approves for renewal each registered RTP annually. The neurology RTC also reviews any significant changes in an RTP (e.g., change in PD or RA, a resident or Candidate's early termination or failure to complete an RTP, alterations in RTP duration or content, and locations of secondary training sites) and notifies the neurology CC of the approved changes. These reviews are normally based on documents submitted by the PD; however, if questions arise, the CRTC may solicit supplemental documentation from other individuals who have knowledge of a particular RTC. The neurology RTC, in concert with the

certification liaison, also handles questions from the residents and Candidates or PDs regarding the interpretation of this Manual's RTP guidelines.

## NEUROLOGY RESIDENT ADVISOR (RA)

The neurology resident advisor (RA) is the primary individual at the SI who monitors the neurology resident's progress during residency training. The specialty of neurology stipulates that the neurology RA must be an ACVIM Diplomate and member in the specialty of neurology, or an ECVN Diplomate, and must have been Board-certified for a minimum of 1 year before becoming an RA. The ACVIM neurology Diplomate and member, or ECVN Diplomate, must be in good standing with the ACVIM or ECVN, respectively. The neurology RA must be active in the practice of neurology and must maintain clinical competency in the field. The RA must be actively involved as a supervising Diplomate (SD) for the assigned residents and substantially involved in the clinical supervision of assigned residents. Each neurology RA is permitted to advise no more than 2 residents at any one time.

## NEUROLOGY SECONDARY-SPECIALTY SUPERVISING DIPLOMATES (SSSDs)

A secondary-specialty supervising diplomate (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 specialty other than neurology. Here Board-certified refers to a veterinary specialist 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 SSSD for a neurology RTP must be active in their specialty discipline and must maintain clinical competency in the field.

## NEUROLOGY SUPERVISING DIPLOMATE (SD)

A neurology supervising Diplomate (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.

## 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 as having the SD(s) or SSSD(s) and resident participating in clinical practice together, wherein both the SD or SSSD and the resident are on the clinic floor, interactively and concurrently managing cases. The SD or SSSD need <u>not</u> 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 as circumstances wherein the SD(s) or SSSD(s) and resident, although participating in a clinical practice together, are <u>not</u> on the clinic floor simultaneously and are <u>not</u> concurrently managing cases (e.g.," chief weeks"). Indirect supervision does imply a level of interaction between the supervisor(s) and resident, and the SD(s) or SSSD(s) must be immediately available for consultation and direct supervision when needed by the resident. 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 as the use of technology, such as tele- or videoconferencing (e.g., Zoom, MS Teams, Skype, etc.) to facilitate some level of interactive resident training. The key component of remote supervision, as defined by the ACVIM, is that it involves interaction between the supervisor(s) and resident. It is most suited to interactive online rounds, journal club, and seminars, but may be utilized on a limited basis to contribute to additional residency training requirements. 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 TRAINING / EDUCATIONAL EXPERIENCES

Remote training is the use of technology, such as tele- or videoconferencing (e.g. Zoom, MS Teams, Skype, etc.) to facilitate some aspects of resident education and/or training. Remote training, as defined by the ACVIM, best applies to online classes, seminars and conferences, where there is minimal to <u>no</u> interaction. The type and extent of remote training must be defined in the RTP application and/or annual renewal for approval by the RTC.

#### 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 (i.e., clinical pathology, imaging, neurosurgery, neuropathology, electrodiagnostics, and emergency duties), may be better suited to training time being defined as training hours rather than training weeks. A training hour is defined as a minimum of 1 continuous hour (60 minutes) of direct supervision with a SD or SSSD while engaged in that field or activity. 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. One-year extensions may be granted by the neurology RTC due to extenuating circumstances and upon petition by the PD. Under exceptional circumstances, such as pandemic-imposed travel restrictions, the RTC may allow a one-time variance in the required minimum of five training blocks in a residency year, upon petition by the PD.