The Nordic Education Program on "Diagnostics of hereditary eye diseases in dogs and cats" for Denmark, Finland, Norway and Sweden

Revised by the NEEC, February 2, 2023

Terminology

"Eye Scheme Examiner" (ESE) in the following text relates to a Nordic person, approved by the ECVO, who has participated in the education programme, and passed the examination on diagnostics of hereditary diseases of the eye in dogs and cats, or has equivalent training.

"Eye-panel" in the following text means all eye-examiners within one country.

"DK, FI, NO, SE" in the following text refers to Denmark, Finland, Norway and Sweden respectively.

ECVO is the European College of Veterinary Ophthalmologists

ACVO is the American College of Veterinary Ophthalmologists

NEEC is the Nordic Eye Examination Committee

"The Program" refers to the requirements and content of the education program, described in this document.

"The Guidelines for NEEC" refers to a separate document describing the organisation and regulations for the NEEC.

"The NEEC exam procedure" refers to a separate document describing the exam and appeals procedures.

"National Head organisations" (HO) refer to the organisation in each country responsible for the approval and administration of this educational programme. They are as follows:

Denmark – Øjenudvalget (ØU), Den Danske Dyrlægeforening

Finland – SEP Säätiö sr., c/o Laura Hänninen, Koskelantie 33 C 29, 00610 Helsinki

Norway – Den Norske Veterinærforening, P.O.Box 6781 St.Olavs Pl., 0130 Oslo

Sweden – Svenska Sällskapet för Veterinär Oftalmologi (SSVO)

Requirements to be accepted as a candidate within the education programme.

- The applicant should be a licensed veterinarian in one or more of the four countries DK, FI, NO or SE.
- Before training commences, the candidate must confirm normal stereoscopic, colour vision (binocular, with a minimum corrected visual acuity of 0.7).
- The candidate should have access to the basic ophthalmic instruments; direct and indirect ophthalmoscopes, a slit-lamp biomicroscope, a gonioscopy lens and a tonometer.
- An education and training plan based on the requirements of the ECVO Eye Scheme must be organised by the candidate.
- It is recommended to have a main supervisor, who is an ECVO Diplomate or an ESE from an ECVO approved national Panel.

The contents of the education program in ophthalmic diagnostics

Education and examination on diagnostics of hereditary eye diseases in dogs and cats should include the following:

- A: Courses and consultation meetings
- B: Practical training in the performance of ophthalmic examinations.

A1. Basic continuing education in general ophthalmology.

NEEC will specify the extent of the basic education (a total of 5-7 days of courses are suggested). The head organisation will control that the candidate has fulfilled the requirements before examination. ESAVS and ACVO basic science courses are approved. Other relevant courses can also be accepted as Basic continuing education by the NEEC, after evaluation of the course contents.

The candidate should have basic and updated knowledge on

- Ocular embryology and anatomy
- Ocular physiology
- Basic examination techniques, breed-related diseases and genetic testing
- Neuroophthalmology

A2. Special courses and consultation meetings:

The candidate must document participation in at least 3 ECVO-recognized continuing education courses in ophthalmology (each of a duration of minimum 1.5-2 days), which include the use of ophthalmic equipment, diseases of the anterior and posterior segments, and basic genetic principles.

The ACVO Basic Science courses is approved as "special course". The ESAVS courses can be a part of these "special courses" after evaluation by the NEEC.

B. Practical training in the performance of ophthalmic examinations:

- a) At least 1000 dogs must be examined under direct supervision of an approved supervisor (see below).
- b) At least 600 out of the 1000 must be examined under the supervision of a Nordic eyeexaminer approved by ECVO (= all present Nordic eye-panellists).
- c) At least 100 out of the 1000 must be examined under the supervision of an ECVO-diplomate.
- d) Up to 200 cases examined under the supervision of a non-Nordic ECVO Eye Scheme Examiner, who is not an ECVO- or an ACVO-diplomate may be included.
- e) Up to 400 cases examined under supervision of a non-Nordic ECVO- or ACVO-diplomate may be included.

- f) At least 100 cats must be examined. Of these, 10 must be examined together with an eye scheme examiner and/or ECVO-/ACVO-diplomate. The remaining 90 can be examined without the direct supervision of an approved supervisor. All examined cases must be recorded.
- g) Gonioscopy is part of the training. The candidate must perform and record gonioscopy on 20 canine cases under supervision.
- h) Canine and feline patients with clearly progressive diseases can be included in the case log more than once, with at least a one-year-interval between examinations.

In addition, the candidate should examine a specified minimum number of cases showing certain normal variations and/or diseases. The candidate should also examine a specified minimum number of animals of certain breeds and certain age-groups. These "qualitative" requirements will be specified by NEEC.

All cases examined must be listed by the candidate according to instructions from NEEC.

For ESE Written exams administered by the NEEC, the suggested literature is listed in the NEEC Reading List available 1st of January in the year of the exam.

Duration of validity of the credentials and approval

The different parts of the education programme (courses, cases, practical training, etc.) are valid for the past ten years from the day of submission of credentials to the NEEC. *Example*: Submission on 01. November 2022-> educational activities are only counted from 01. November 2012 until 31. October 2022.

Once approved, the credentials are valid for 6 years, counted from the date of approval until the last application to sit the exam.

Example: A candidate submits the credentials 20.11.2021. The candidate can still sit the exam in 2028, if applied before 20.11.2027. According to the national rules, the candidate has to pay the annual fee until all exams have been passed.

Exceptions for the 10-year validity of credentials

In case the training is paused because of military service, maternal/paternal leave, serious illness etc, the candidate may apply the national MO for a prolongation of the training period and validity of the credentials. The application shall be made immediately, and not when the credentials are expiring. The national MO decides if the prolongation is granted and defines the period of extension. Credentials (cases, courses etc) obtained during the pause in training cannot be invoked as part of the training programme, and the MO will normally suspend the annual fee for the period of exception. The MO shall inform the national NEEC representative as soon as possible after a decision about prolongation has been made.

Registration of candidates and information to the candidates

The head organisation in each country will register candidates from their own country. The NEEC shall keep and update a list of candidates who has initiated the exams.

The national representative should keep a list of all aspirants in the country.

Information from the NEEC should be sent to the four head organisations that shall then distribute the information to the candidates in each respective country.

Major changes (as defined by the NEEC, i.e. significant increase in number of animals to be examined/cases to be seen, additional courses required etc.), apply to candidates who have started after the change has been made. For candidates who have started before the change has been made, a 5-year transition period is applied, i.e. if they submit their credentials within 5 years from the change, they do not have to adhere to the major changes. If the transitional period has expired, these major changes also apply to all candidates.

Minor changes (as defined by the NEEC; ie. reduction of number of cases), will apply to all candidates from the day announced by the NEEC.

It is the candidate's responsibility to make sure they fulfil all requirements.

Supervisors

All eye-panelists in all four Nordic countries are approved as supervisors for candidates in this common Nordic education programme, as all present Nordic panellists have been accepted by ECVO.

APPENDIX A. LIST OF VALID MAJOR CHANGES

The following changes, made on <u>February 2, 2023</u>, are considered major changes that will apply to all candidates starting after this date and to all candidates in training after a 5-year transition period:

Section B, item c): At least 100 cases should be examined under supervision of an ECVO-diplomate (changed from "an ECVO- or ACVO-diplomate").

Section B, item g) and Appendix B: Of the 20 gonioscopy cases, at least 5 cases of each of these 3 categories should be examined: affected-mild, affected-moderate, and affected-severe.

APPENDIX B. "THE QUANTITATIVE LIST"

Updated NEEC 2023

The following list of diseases/variations should have been seen and recorded. The form must be signed by the supervisor(s)

	Disease	Number
Globe	Microphthalmia	2
Eyelids	Distichiasis	5
	Atresia of lacrimal punctum	3
Iris	Persistent pupillary membrane (iris-cornea or iris-lens)	3
	Persistent pupillary membrane (iris-iris, crossing pupil)	2
	Iris hypoplasia	2
	Iris atrophy	2
Lens	Cataract, other: Nuclear ring	2
	Cataract, other: Nuclear fibrillar or punctate opacities	5
	Pigment on anterior lens capsule	5
	Cataract, complete	2
	Cataract, posterior cortical, including posterior polar	10
	Cataract, other: anterior cortical / subcapsular	5
	Cataract, other: anterior suture lines	5
	Cataract, other: suture tips	5
	Cataract, nuclear	5
	Lens (sub)luxation (can be seen without supervision -cats can be	5
	included)	
Vitreous	Asteroid hyalosis	2
	Vitreous in anterior chamber	1
	PHTVL/PHPV grade 1	3
	PHTVL/PHPV grade 2-6	2
Fundus	Complete retinal detachment (One can be seen without supervision – cats can be included)	2
	Partial retinal detachment. (One can be seen without supervision – cats can be included)	2
	RD focal/multifocal, retinal folds	5
	RD geographic	2
	CEA, CRD	20
	CEA, coloboma (3 cases have to be in collie breeds)	5
	PRA early stage	2
	PRA late stage	3
	Non-inherited focal retinopathies	5
	Micropapilla/optic nerve hypoplasia	2
	Other presumed hereditary retinopathies* (type described)	4
Other	Iridocorneal angle abnormalities (ICAA) as defined in the ECVO	5 of
	manual, Chapter 6, Guidelines, as "Affected-mild", "affected-moderate", and "affected-severe"	each

*Examples of retinopathies, but not limited to: Canine Multifocal retinopathy (CMR), Chinese Crested (CC) pigmentary chorioretinopathy, Working Dog Retinopathy (WDR), Västgötaspets (Swedish vallhund) retinopathy (J175); Flatcoated Retriever chorioretinopathy, Rottweiler retinopathy, canine Stargardt disease (ABCA4^{insC/insC}-mutation) (see ECVO manual Ch.6, Guidelines)

Of the 1000 dogs examined, at least 80 has to be puppies < 10 weeks of any breed known to be affected by CEA. Of those at least 40 has to be collie/Sheltie puppies. At least 10 of the puppies has to be merle dogs. 5 of the 10 merle puppies can be of other breeds than collie/Sheltie.