

GUIDANCE NOTES FOR CANDIDATES EUROPEAN CERTIFICATE OF NEURORADIOLOGY (ECONR)

The examination for the European Certificate of Neuroradiology consists of three parts; a MCQ examination, a written examination and an oral examination. These notes are provided for further guidance of candidates sitting the examination and should be read in conjunction with the Rules of the ECONR (available on the ESNR website; www.esnr.org).

Multiple Choice Questions (MCQ)

As part of the requirement for sitting the final part of the examination for the European Certificate of Neuroradiology, students should have completed four modules of the European Course in Neuroradiology (ECNR). On the final day of each of these modules there is a multiple choice examination which is relevant to that particular cycle. The four courses consist of:-

First Course

Anatomy/embryology/malformations/genetics.

Second Course

Tumours and Tumour like lesions

Third Course

Vascular diseases

Fourth Course

Trauma/degenerative/metabolic/inflammatory diseases

The MCQ paper consists of 30 questions with a single stem and five options. Only one of these options is correct. There is NO negative marking.

An example of a typical question from the second course on tumours and tumour like lesions is given below:-

Concerning brain tumours in children, only one of the following statements is true.

- A) A calcified suprasellar mass on CT is most likely to be a pituitary macroadenoma.*
- B) The majority of cerebellar astrocytomas are either microscopically or macroscopically cystic.*
- C) Ependymoma of the fourth ventricle is a firm tumour that remains confined to the ventricle.*
- D) Epidermoid tumours contain high signal material on T1 weighted images that suppresses with fat suppression sequences.*
- E) MRI imaging of the spine for drop metastases in medulloblastoma is best performed in the immediate post-operative period (within the first 5 days).*

The correct answer is B

If a candidate is unsuccessful in one of the modules it is possible to re-sit that module either at a subsequent module of the ECNR (if the individual candidate is still mid way through a complete cycle). Alternatively the candidate can re-sit one of the exam modules at the time of final examinations during the ESNR Annual Scientific Meetings.

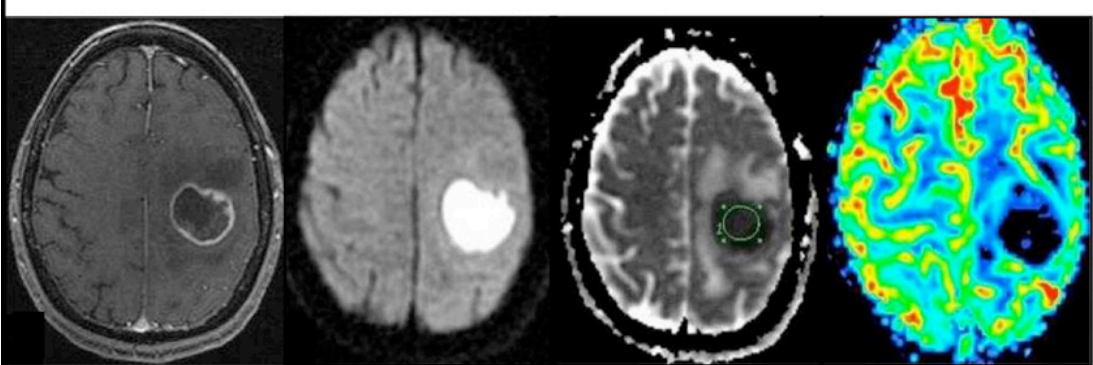
Written examination

The written examination will take place in the early afternoon on the day immediately prior to the Annual Scientific Meeting of the ESNR. The written examination will consist of 24 short cases. Material will be presented as a PowerPoint Presentation with a number of different images displayed on one slide. Associated with this slide there will be up to a maximum of four questions. These will relate to the images on display. The questions may relate to normal anatomy, neuroradiological technique or relevant pathology. There may also be relevant clinical questions related to the topic. Such clinical questions will be relevant to the body of knowledge expected of a practicing neuroradiologist.

All of these questions will require either a single word or short phrase answer. This may simply be a true / false, yes / no response or a single word or short phrase. It is not expected that the candidates give long lists of differential diagnoses at this stage. The answer sheet will have space only for short answers.

The examination will last 90 minutes giving over 3 minutes for each of the 24 cases. This will allow sufficient time to analyse the images, read the appropriate questions and write the answers on the answer sheet provided. It is hoped that eventually this written examination will be incorporated into the final day of each module of the ECNR. This however is yet to be confirmed.

Below is a typical example of a case that may be presented during the written examination (case courtesy of Professor Massimo Gallucci):-



T1 + gad DWI ADC CBV

1. Is diffusion restricted or normal?
2. Is the lesion mainly frontal or parietal?
3. Is the CBV increased or decreased?
4. Is the lesion an abscess or a glioblastoma?

Oral examination

The oral examination will take place in the second half of the afternoon following the written examination. The oral examination will be conducted by internationally recognised examiners working under the guidance of the Education Committee of the ESNR. There will be two examiners per candidate. It is possible that a third adviser will also be present in the room however this individual will not ask questions of the candidate. The examination will last for 15 minutes.

In the first 5 minutes the candidate will present a single case of his or her own choice. This will be brought in the form of a PowerPoint Presentation with a limited number of slides (maximum 5 slides, static images only, no embedded movie files). The aim of this case is to present material that the candidate has come across in his or her own hospital that is of general neuroradiological interest. This material should lead to a discussion with the examiners. Rare or unusual cases are to be discouraged unless they illustrate a particular aspect of educational value that would be applicable to a general neuroradiological audience. This should be brought on a memory stick or CD to the exam, saved as a PowerPoint Presentation (Microsoft Office, 97-2004 compatible file).

The remaining 10 minutes will be used by the examiners to present material of their choice to the candidate. There will be a range of material of varying complexity. Two or possibly more cases will be shown. The candidate will be given an opportunity to demonstrate their power of observation and deduction.

It is expected that the candidate will demonstrate a logical and informed approach to interpretation of the case including diagnosis and differential diagnosis. Technical aspects of the imaging may also be discussed at a level relevant to a practicing neuroradiologist. The candidate should also expect to discuss potential further imaging investigations or relevant clinical management of the particular case. The types of cases presented will be clinical cases that a neuroradiologist would be expected to come across during their neuroradiological practice. Rare or esoteric diagnoses will not be expected of the candidate and the examiners are instructed to avoid such cases.

The examiners will assist you to perform to the best of your ability. Candidates however should expect to be asked searching questions. It is important to listen carefully to information that is provided by the examiners and candidates should not be afraid to ask the examiners for clarification should anything be unclear. The total number of cases that is discussed will be at the discretion of the examinations. Typically there will be two or three cases presented although this depends upon the performance of the candidate and the type of case material presented. It may be possible for the candidates to see even more cases within the time frame.

During the examination you will be given information about patients. It is important to remember that patient confidentiality must be respected at all times. The examination cases therefore must not be discussed outside of the examination room. Patient names and identification will be removed from the images presented and the examiners will provide any relevant patient demographics. Under no circumstances are the candidates allowed to make any copies of the cases presented during the examination. Any candidate who is found copying or transmitting images from any part of the exam will potentially be disqualified.

Further Information

Candidate identification – Each candidate should bring some form of identification that includes a photograph, full name and signature (eg passport).

Equipment required for the examination – The candidate will need to bring writing equipment. Personal belongings should be left in the cloakroom available at the venue. Small items may be brought in to the examination room but they should be kept either to the side or underneath their seats.

The candidate should bring the own case material on a USB memory stick or CD. No other electronic equipment should be brought into the examination room. Specifically no laptop computers or digital cameras are allowed. All mobile phones, BlackBerrys or pagers should be fully turned off for the examination.

Results

The results of the ECONR will be published during the Annual Scientific Meeting of the ESNR. Results will not be given to the candidate immediately at the end of the Oral Examination (as it may be necessary for individual candidates to be discussed by the Education Committee prior to publishing the final results).

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Dr Charles A J Romanowski
Acting Chairman of the Examination Committee