Royal Australasian College of Surgeons

Notes to Candidates
Neurosurgery Fellowship Examination 2023

Candidates are reminded of their agreement to the Covid-19 Disclaimer as at the date of examination registration. This Note sets out the relevant information concerning the Fellowship Examination as at the date of this Note and should be read in conjunction with the Covid-19 Disclaimer. Candidates are aware of RACS' requirement to comply with both Australian and New Zealand laws, policies and restriction and acknowledge that while RACS is committed to provide updates relating to examination changes as soon as practicable, it is ultimately the responsibility of the candidate to be aware of such changes and act accordingly.

The following information is provided to help candidates prepare for the Fellowship Examination in Neurosurgery. It is hoped that after reading this, candidates will have a better understanding of the structure of the examination and the level of knowledge and expertise expected of them. If candidates come to the examination adequately prepared their likelihood of success will be maximised. **The COVID 19 pandemic has no doubt disrupted training and preparation and candidates should not present for the exam unless they feel ready and are prepared.**

The benchmark for the Fellowship Examination is to assess whether the candidate is ready to undertake Neurosurgery with a level of competency equivalent to that of a specialist in Neurosurgery in his or her first year of independent practice. Implicit in this assessment is the expectation that a successful candidate will not only have sound knowledge of the range of conditions that Neurosurgeons commonly encounter, but also they will be able to appropriately assess, investigate and manage patients with these conditions.

1 SUMMARY OF CHANGES

Changes made to allow the examination to proceed in the setting of the pandemic do not affect content, standard setting or assessment of overall performance.

2 THE EXAM CONTENT

The content of the exams is defined by the Curriculum as developed by the Board of Neurosurgery. Both the Non-technical and Technical Modules of the Curriculum are available on the NSA website.

The questions, scenarios or cases in each segment may refer to each of the levels of cognitive function (i.e., knowledge/comprehension, application/analysis or synthesis/evaluation) or, where appropriate, may be a global assessment.

Wherever possible, evaluation of the ten surgical competencies is taken into consideration throughout the assessment process. The relevant areas are the following:

MEDICAL EXPERTISE

- Relevant basic sciences outlined.
- Significance of symptoms/features identified and addressed.
- Potential pathologies identified.

JUDGEMENT – CLINICAL DECISION MAKING

History Taking and Examination:

- Exploration of the patient and condition.
- Description of physical examination.
- Demonstration of appropriate patient interaction.

Investigations:

- Identification of appropriate investigations.
- Justification for selection of investigations.
- Analysis of data from investigations.

Differential Diagnosis:

- Possible alternatives identified and considered.
- Justification of possible alternatives from evidence.
- Clinical implications of the alternatives considered.

Treatment and Management:

- Select appropriate treatment, justify selection and outline consequences.
- Safe and appropriate management plan that takes into account the patient's needs.
- Consideration of on-going management requirements.
- Consideration of other required professional support.

TECHNICAL EXPERTISE

Description of Procedure:

- Surgical procedure appropriate for the condition and diagnosis.
- Significant potential risk factors identified.
- Attention to safety of patient, self and others.

COMMUNICATION

- Clear, complete, and appropriate information for the patient.
- Appropriate communication of risks, advantages and alternatives of any management alternatives advocated.
- Prognosis reflecting the most likely outcomes.

LEADERSHIP & MANAGEMENT

- Reasons for selection of investigations and treatment indicating consideration of patient needs and system constraints.
- Understanding of leadership in a clinical team.
- Understanding of audit and quality improvement frameworks.

PROFESSIONALISM & ETHICS

- Clear understanding of medico-legal and ethical issues in relation to the patient and their management.
- Clear understanding of medico-legal and ethical issues in relation to working within a clinical team.

COLLABORATION

- Understanding of other healthcare professionals involvement and roles in patient management.
- Demonstrating ability to initiate involvement and assess input of other healthcare workers in the patient's management.

3 THE MARKING SYSTEM

Examiners are paired for the duration of each examination; candidates will be assessed by a number of pairs of examiners. Each segment of the examination is marked separately without reference to other segments. The results in each segment are collated by the Senior Examiner and the progress or final result of each candidate remains unknown to individual examiners until the meeting of the Specialty Court at the conclusion of the examination.

A candidate's performance is assessed by two examiners in each segment. Within each segment there is a pre-determined number of marking points.

The exam is marked using the Expanded Close Marking System (ECMS). Each marking point is scored according to the ECMS grades:

4	=	Well above the required standard.
3	=	At or above the required standard.
2	=	Below the required standard.
1	=	Well below the required standard.

The grades achieved in these marking points are used by each examiner to conclude their individual final mark and also used by the examining pair to determine a final consensus grade for that segment (also using the ECMS). Although each exam segment contains different numbers of Marking Points, all segments have equal weighting in determining if a candidate's overall performance is satisfactory.

At the conclusion of all segments, the Specialty Court in Neurosurgery (comprising the Senior Examiner and all examiners participating in that exam) meets to discuss the candidates' results. Candidates who have been successful in all segments of the exam will pass the examination.

Candidates who have not passed all seven segments of the exam may still pass the examination if the Specialty Court considers that their overall performance throughout the exam was satisfactory. The overall performance is based on consideration of the distribution of all the marking point grades through all seven segments of the examination.

4 THE STRUCTURE OF THE EXAMINATION

There are seven components (segments) consisting of two written and five clinical/viva examinations.

The written segments are completed approximately a month prior to the clinical/viva segments (in April and August). Candidates nominate which venue they wish to attend; venues are available in Adelaide, Brisbane, Melbourne, Sydney, Perth, in Australia and in Auckland and Wellington in Aotearoa New Zealand.

The Clinical/viva segments are held in May and September and they occur from Friday to Sunday.

The dates for the 2023 Fellowship Examinations can be found on the RACS website at the following address: http://www.surgeons.org/becoming-a-surgeon/surgical-education-training/examinations/examination-dates-and-locations/

5 WRITTEN EXAMINATION

This examination consists of one **130 minute** exam (morning) and one **150 minute** exam (afternoon).

The main objective of the written examination is to test the breadth and depth of the candidate's knowledge acquired during their training. The questions cover any aspects of the syllabus/curriculum. The questions evaluate understanding of neurosurgical conditions and their clinical management, including the risks and expectations of clinical management and decision-making and alternatives of management; aspects of anatomy, pathology, neurology and interpreting radiology may be included, as well as non-technical aspects of team-based neurosurgical care.

The first written exam consists of three essay questions (often one trigger and multiple parts) covering the neurosurgical syllabus, including one applied anatomy question.

The second written exam consists of two essay questions (often one trigger and multiple parts) and five short answer questions covering the neurosurgical syllabus. In addition, there is one question requiring approximately 20 minutes writing time, which is generic to all surgical specialties. This question may cover common aspects of surgical practice or the non-technical competencies of surgical practice.

The Neurosurgery written examinations will be delivered electronically.

Candidates are encouraged to view the Demonstration version of the electronic format available at (login required): https://www.surgeons.org/Examinations/fellowship-examination-fex/preparing-for-the-fellowship-examination/preparing-for-the-written-component

Important Information
1. *Answers are typed in the text box provided for each question. The amount of space provided for essay questions is unlimited.*
2. *Answers are auto-saved every 60 seconds and whenever the 'Next' button is clicked.*
3. *If a candidate runs out of time, all answers will be submitted automatically, and the examination will close.*

6 CLINICAL/VIVAS

This component consists of five separate segments. Candidates will be assessed by several pairs of examiners. An observer may be present for the examination and discussion of the candidate.

The order in which the five clinical/viva components are examined may vary from the order listed below. You will receive a timetable from the Examinations Department closer to the examination date which will outline the order.

At each viva examination segment, the candidate is examined by a pair of examiners. The examiners will introduce themselves and will also wear name badges. They will introduce any observer and their role, indicating that they are observing the Examiners and not taking part in the examination (assessment) process. The Examiners will address the candidates by their candidate number and not by their name. This is to help maintain anonymity and impartiality.

CLINICAL CASES – 45 MINUTES

Candidates will be asked to examine and discuss several (usually three or four) patients in front of two examiners, with an emphasis on diagnosis and management of brain, spine and peripheral nerve conditions, as well as communication and patient interaction.

NEURORADIOLOGY – 25 MINUTES

Candidates will be shown 15 to 20 radiological images on a computer screen. They will be expected to demonstrate an understanding of the diagnosis and the clinical relevance of this diagnosis.

SURGICAL ANATOMY – 25 MINUTES

Candidates will be shown 15 to 20 computer images of relevant basic and applied anatomy. A level of knowledge is expected that demonstrates an understanding of the relationship between functional and structural anatomy.

SURGICAL PATHOLOGY – 25 MINUTES

Candidates will be shown 15 to 20 computer images of pathological specimens, histological slides and correlative radiology. They will be asked to diagnose the pathology and relate this to the clinical outcomes and management.

OPERATIVE SURGERY – 25 MINUTES

Candidates will be shown three to four radiological images on a computer screen and asked to demonstrate knowledge of the operative approach to various neurosurgical conditions, including the management of intraoperative complications.

The results of the Examination will be declared at the conclusion of the examination. Unsuccessful candidates will have a face-to-face meeting with their surgical Supervisor with feedback in sufficient detail to inform and assist the candidate in rectifying areas of deficiency.

7 COPING WITH THE EXAMINATION

is acknowledged that the Fellowship Examination is a challenging experience for candidates, but a lifetime of surgical practice is also challenging. Members of the Court of Examiners have been carefully selected to have not only good knowledge of the training requirements and the curriculum for Neurosurgery but also strong interest in the well-being of Trainees and International Medical Graduates and a demonstrated capacity for balanced and fair assessment of candidates.

Preparation, both physically and mentally is the key to a successful exam. Practice in completing written papers is essential. Practice in answering both the long and short question components is important, including getting the timing right. Practice in answering written questions is an excellent learning tool. Past exam papers are available from the NSA website.

Undoubtedly a lot of time needs to be spent revising the theory that underpins our specialty in the lead up to the written papers and computer-based vivas. However, success in the clinical exams requires good interpersonal skills with patients, accurate examination skills and the ability to synthesise information provided to devise and discuss a reasonable treatment plan.

It is important to maintain continuous contact and involvement with the clinical environment in the lead up to the exam. Treating every patient seen in the clinical setting (in the lead up to the exam) as a practice for the exam will undoubtedly improve the performance in the clinical component.

Vivas should be treated as an interaction with colleagues rather than an interrogation by the examiners. Interaction with patients in the clinical vivas should be the same as the interaction with patients under care in everyday clinical situations. Is important to remember that the patients have taken time out to help with the exam; they should be treated politely and professionally.

Candidates who find they struggle to answer a component of a viva should ask for clarification. The examiners will give the clarification or may move forward to another area. If the examiner suggests a candidate reconsider an answer – they should be trusted and the prompts followed. Examiners are trying to help candidates, not trick them.

If a candidate is unsuccessful a composite written report will be provided by the Senior Examiner to the Board Chair, the current Supervisor and candidate through the Examinations Department. This report will be emailed within two weeks of the Fellowship Examination. Candidates should liaise with the Board Chair and Supervisor to arrange an interview within four weeks of the Fellowship Examination. A regional examiner should not be approached directly.

I wish you well for the examination and look forward to meeting you during the exam.

For any queries prior to the examination, please contact the Examinations Department by email: examinations@surgeons.org.

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