NIHS Residency TRAINING PROGRAM

Program: Anesthesia Specialty

Comprehensive Clinical Examination (CCE)

I. Definition of Comprehensive Clinical Examination (CCE)

CCE is a form of performance-based testing of higher levels of cognition to ensure that the candidate has clinical competence to practice independently as a specialist or consultant. During a CCE, candidates are observed and evaluated through a series of stations in which the stations reflect real-life situations and allow the candidate to explain the rationale behind their thinking. Each station tests one or more clinical competency domains.

II. Comprehensive Clinical Examination (CCE) Exam Format

1. Number of Stations = 8 - 12
2. Duration per station = 10 - 12
3. Duration of the break between the two consecutive stations = 3
4. Examiners per Station =2

Number of Stations	Duration of the station	Types of stations	Orientation and calibration
8-12 Stations	Each station could last between **10 –12 minutes** long. There should be **3 minutes** before each station.	**Multiple** clinical/practical skill domains can be covered in a CCE station Eg. History & physical examination of a real or simulated patient, performance of procedures, interpretation of results, analysis and reasoning, Decision-making or communication and professionalism	**On Examination day** **30 minutes** Examiner/Examinee orientation & **1 hour** calibration

III. Clinical/Practical Skill Domains

Proposed Domains for NIHS	DEFINITIONS
Data gathering / History taking	Asks key relevant questions. Sensitively gathers appropriate information. Explores main problems/concerns of patient/parent/career in structured manner.
Physical Examination and practical skills	Demonstrate correct, thorough, systematic, appropriate, fluent, and professional technique of physical examination. Demonstrate proficiency in performing practical and procedural skills at the level of a specialist.
Data interpretation	Correctly interpret the History findings, Physical examination and Investigation results.
Clinical reasoning and analytical skills (Differential Diagnosis & Provisional Diagnosis)	Formulate & propose likely appropriate differential diagnosis Understand the implications of findings. Able to suggest appropriate steps if the physical examination was inconclusive.
Decision-making & Management	Select or negotiate a sensible and appropriate management plan for a patient, relative or clinical situation. Select appropriate investigations or treatments for a patient. Apply clinical knowledge, including knowledge of law and ethics, to the case.
Communication & Professionalism	Appropriate level of confidence; greeting and introduction; appropriate body language Develops appropriate rapport with patient/parent/carer or colleague. Appropriate tone & pace of speech Behave towards the patient or relative, respectfully and sensitively and in a manner that ensures their comfort (eg. avoid causing pain), safety (eg. washing hands) and dignity (eg. covering patient). Seek, detect, acknowledge and address patients' or relatives' concerns. Demonstrate empathy.

IV. Blueprint Outline

- This will be published on the NIHS website for the candidates.
- This will act as a guideline for Examination Sub-committee for exam design.
- This will be fixed for the next 4 academic years

- **Conduct of Anesthesia**
- **Pharmacology**
- **Physics**
- **Airway Management**
- **Obstetrics**
- **Respiratory System**
- **Cardiovascular System**
- **Central Nervous System**
- **Endocrine**
- **Neuropsychiatric Anesthesia**
- **Neuromuscular Diseases**
- **Renal Diseases**
- **Gastrointestinal Tract (GIT)**
- **Orthopedics**
- **Anesthesia for Trauma**
- **Ear, Nose, and Throat (ENT)**
- **Ophthalmology**
- **Vascular**
- **Cardiac Surgery**
- **Thoracic Surgery**
- **Plastic Surgery**
- **Blood Diseases**
- **Acid-Base Balance and Fluid Management**
- **Blood Transfusion**
- **Pediatric Anesthesia**
- **Geriatrics**
- **Anesthesia for Radiology and Remote Areas**
- **Intensive Care Unit (ICU)**
- **Regional Anesthesia**
- **Pain Management**

V. Passing Score

- Each station shall be assigned a minimum performance level (MPL) based on the expected performance of a minimally competent candidate using a sound scientific standard-setting method such as regression analysis.
- To pass the examination, a candidate must attain a score equal to or more than the MPL in at least 70% of the number of stations.

VI. Time Management

- The examiner is aware of how much material needs to be covered per station, and it is their responsibility to manage the time accordingly.

- The examiner will want to give you every opportunity to address all the questions within the station.
- They may indicate that "in the interests of time, you will need to move to the next question." This type of comment has no bearing on your performance. It is simply an effort to ensure that you complete the station.
- If you are unclear about something during the station, ask the examiner to clarify.
- Some stations may finish early – if this occurs, the examiner will end the encounter.

VII. Examiner Professionalism

- The examiners have been instructed to interact with you professionally − don't be put
- off if they are not as warm and friendly towards you as usual.
- We recognize this is a stressful situation, and the examiner is aware that you are nervous. If you need a moment to collect your thoughts before responding, indicate this to the examiner.
- The nomination of examiners is based on the principle that candidates are assessed by qualified examiners selected and appointed by NIHS. The examiner is not obligated by any means to share their personal information or professional details with the candidate.

VIII. Conflict of Interest

- The examiners come from across the country. You will likely recognize some of them and may have worked with some of them in your center's clinical/academic capacity. This is completely acceptable to the NIHS and is not a conflict unless if the examiner had a substantial contribution to your training or evaluation, or if you have another personal relationship with the examiner.
- Identify the conflict at the moment of introduction; examiners have been instructed to do the same. Examiners will alert the NIHS staff – every attempt will be made to find a suitable replacement for the station.

IX. Confidentiality

- Electronic devices are NOT permitted.
- Communication with other candidates during the evaluation is prohibited.

X. Link to FAQs on NIHS Website

XI. Textbooks

Anesthesia, Ronald D.Miller (Churchill Livingstone)
Clinical Anesthesia, Paul G. Barash (B. Lippincott Company)
Anesthesia and Co-Existing Disease, Robert K. Stoelting (Churchill Livingstone)
Stoelting Pharmacology & physiology in Anesthesia practice (Lippincott William & Wilkins)
Morgan & Mikhail clinical anesthesiology

XII. Journals

Obstetric Anesthesia, David Chestnut.
The ICU book, Paul Marino Cote' A practice of anesthesia for infants and children
Clinical Electrocardiography A Simplified Approach, Ary Louis Goldberger (C.V.Mosby Company)
Lecture Notes on Medical Statistics, Aviva Petrie (Black Scientific Publications)
Cardiac Anesthesia, Frederick Kaplan
A practical approach to cardiac anesthesia, Hensley (Lippincott William & Wilkins)
Anesthesia and uncommon disease, Lee Fleisher (Elsevier)
Anesthesiologist's manual of surgical procedures, Richard Jaffe (LWW)
Hadzic's textbook of Regional Anesthesia and acute pain management (Mc Graw Hill)
West's respiratory physiology
Essentials of pain medicine, Honorio Benzon (Mosby)
Thoracic Anesthesia by Peter Slinger

XIII. Others