

**Report of Primary (Part 1) Examination in Critical Care Medicine
Of the College of Critical Care Medicine
(Under auspices of the Critical Care Education Foundation)**

4th – 6th March 2011

This report is prepared to provide candidates, teachers and their Supervisors of training with information about the way in which the Examiners assessed the performance of candidates in the Examination. Answers provided are not model answers but guides to what was expected... Candidates should discuss the report with their teachers so that they may prepare appropriately for the future examinations.

The examination was conducted between 4th-6th March 2011 at BSES Hospital, Mumbai. **Thirty-three (33) candidates presented for this examination. Fifteen (45.45%) were successful.**

ORAL SECTIONS

Objectives Structured Clinical Examination (OSCE) Section

There were six (6) stations with rest stations inbetween. **Fourteen (42.42%) candidates passed this section.** A systematic approach to the types of investigations examined was more likely to maximise the candidate's score. Candidates should ensure that they take note of the clinical information provided when considering their answer. It is imperative that candidates answer the specific question asked (eg. differential diagnosis, "the most likely" = give one, or "list five" means list up to five but **not** more). Candidates were given 12 minutes per station (2 minutes to read and 10 minutes to write).

Station:

1. **Arterial Blood Gas Interpretation:** Total of 4 ABG reports were presented. These included Metabolic acidosis with normal AG due to Renal Tubular Acidosis, metabolic acidosis with increased AG + metabolic alkalosis with respiratory alkalosis (triple disorder), Calculation of alveolar-arterial oxygen gradient and salicylate poisoning picture.
11 out of 33 candidates (33.33%) passed this section.
2. **Biochemistry:** Total of 4 biochemistry reports were presented. These included pattern of low sodium with high potassium, Adrenal Insufficiency, Hypokalemia with hyperglycemia, Sick Euthyroid Syndrome, Hyponatremia.
12 out of 33 candidates (36.36%) passed this section.
3. **Hematology and Coagulation:** Total of 4 reports were presented. These included coagulation abnormalities, Megaloblastic anaemia picture, anemia of chronic illness and isolated increase in aPTT with significance of thrombin time.
19 out of 33 candidates (57.58%) passed this section.
4. **ECG:** Total of 4 reports were presented. These included SVT due to AVNRT, hyperkalemia, heart block needing pacing, and pulmonary embolism.
29 out of 33 candidates (87.88%) passed this section.

5. **X-Rays.** Total of 4 xrays were presented. These included identification of abnormalities in 4-X-rays (showing IJV catheter in Right subclavian vein, ET in Right main bronchus, RT, Pleural effusion, pulm infiltrations, Pericardial tamponade, dialysis catheter, Pulm. Edema, Bilateral gas under diaphragm, Rt. IJV cath which was too deep, PA cath (Swan Ganz) in PA, Epicardial pacing wires, Sternal sutures, Surgical clips in abdomen and Massive Right pneumothorax).
7 out of 33 candidates (21.21%) passed this section.
6. **CT Scans:** Total of 4 CT scans/MRI were presented. These included CT with Multiple ring enhancing lesions in brain, Aortic dissection of descending thoracic and abdominal aorta with left hemothorax, Bilateral pulm embolism and brainstem (pontine) bleed.
11 out of 33 candidates (33.33%) passed this section.

Cross Table Viva Section

There were 4 structured Vivas of ten minutes each. There were two minutes provided to read a scenario outside each viva room and 7 minutes of cross table viva with one minute for change to next viva station. **Thirty (90.91%) out of Thirty-three candidates passed this section.** Candidates should be able to provide a systematic approach for assessment and management of commonly encountered clinical scenarios. Candidates should also be prepared to provide a reasonable strategy for management of conditions that they might not be familiar with.

The topics covered, including introductory scenarios and initial questions were:

VIVA 1: Trauma/ splenic injury:

Scenario: A 23 year old male admitted with motor vehicle accident. He complains of left sided chest pain and breathlessness. On admission his B.P. is 90/56 mm of Hg , pulse rate 106/ min.

Introductory question: You are the treating doctor, how will you manage this patient?

27 out of 33 candidates (81.82%) passed this section.

VIVA 2: Subarachnoid Hemorrhage:

Scenario: A 46 yr woman with diabetes undergoes right middle cerebral artery aneurysm clipping for a subarachnoid haemorrhage. The postoperative course has been uncomplicated until on 4th day when she develops sudden aphasia with the right-sided weakness. Temp 39.0C, BP 180/100, SpO2 90% on 3 L/min O2, S. Glucose 300 mg/dl, S. Na 124 mEq/L.

Introductory question: Why do you think this patient has deteriorated neurologically?

16 out of 33 candidates (48.48%) passed this section.

VIVA 3: Acute MI with pacing:

Scenario: A 52 year old man, hypertensive & diabetic, is admitted with retrosternal chest pain, vomiting and giddiness since 1 hour.

Introductory Question: What could be the reason for his symptoms?

21 out of 33 candidates (63.64%) passed this section.

VIVA 4: COPD

Scenario: A 56 year male admitted to ICU with flu-like symptoms and breathlessness since two days. Resp. rate is 36/min. His general practitioner has been treating him with bronchodilators off and on for the past five years..

Introductory question: What could be the reason for breathlessness in this patient?

31 out of 33 candidates (93.94%) passed this section.

The Clinical Section

The Clinical Section was conducted at the ICU of BSES Hospital, Mumbai, Maharashtra.

Clinical section consisted of one hot (ICU) case (15 minutes) per candidate. **HOT cases pass rate was 17 out of 33 (51.52%).**

Candidates should listen carefully to the introduction given by the examiners and direct their examination accordingly. Patients were presented as problem solving exercises. For maximal marks, candidates should demonstrate a systematic approach to examination, clinical signs should be demonstrated, and a reasonable discussion regarding their findings should follow. Exposing the patients should be limited to those areas that are necessary for that component of the examination, and in keeping with the modesty requirements of the patients.

In general hot-cases encountered in exams are patients with acute medical problems commonly faced by resident doctors in the ICU such as ventilated patients, hemodynamically unstable patients, acute strokes, trauma to spine, difficult to wean, hepatic encephalopathy, Pontine bleed, approach to Patient with fever in the ICU, Pneumothorax with kinked ICD and ARDS etc.

Comments documented at the time of the clinical examination suggested that common problems encountered related to examination technique, detection of clinical signs, interpretation of clinical signs, identification of clinically significant issues and factual knowledge.

WRITTEN SECTIONS

One hundred Multiple Choice Questions (MCQ with only one correct answer) were presented and had to be answered in 120 minutes. Answers were written in a separate answer sheet. A quarter of the questions covered applied physiology, another quarter of the questions covered critical care pharmacology and remaining questions dealt with clinical medicine.

16 out of 33 (48.48%) passed this section.

All candidates were given a detailed orientation of the various sections and expected approach before the examination. In addition, there was an orientation conducted prior to each section by the section in charge.



Dr P. K. Jain
Chief Examiner,
College of Critical Care Medicine.
Chairman, Examination Committee

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 2. President, College of Critical Care Medicine.
 3. Panel of Examiners
 4. Supervisors of Intensive Care Training/ Course Supervisors
 5. Registered Trainees

Examiners' Report

Examiners

Chief Examiner: Dr. PK Jain
Examination planning & Design: Dr. Meeta Mehta, Dr. Prachee Sathe
Venue co-ordination: Drs. Vivek Baxi, Rakesh Tank, Nandini Iyer

Examiner Faculty

1. Praveen K Jain
2. Ajay Kantharia
3. Prachee Sathe
4. Nimesh Bagasaria
5. Meeta Mehta
6. S. Sanglikar
7. Lakshmi Kumar
8. Mita Vira

Observer examiners

Dr. Purvesh

Clinical Cases:

HOT cases: *Dr. Praveen K. Jain and Dr S. Sanglikar*
Dr. Prachee Sathe and Dr. Mita Vira
Dr. Meeta Mehta and Dr.Nimesh bagasaria
Dr. Ajay Kantharia and Dr.Lakshmi Kumar

Vivas:

1. Trauma/splenic injury: *Dr. Lakshmi Kumar and Dr.Nimesh bagasaria*
2. Subarachnoid Hemorrhage: *Dr. Ajay Kantharia and Dr.S. Sanglikar*
3. Acute MI with pacing: *Dr. Meeta Mehta and Dr.Mita Vira*
4. COPD : *Dr. Praveen K. Jain and Dr.Prachee Sathe*