

**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)**

**15-17 March 2013**

*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.*

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**The examination was conducted from 15-17 March 2013 at the Chirayu Medical College & Hospital, Bhopal. Out of 70 Candidates who registered for the examination, 50 candidates passed their Logbook and were eligible to appear in the examination. Six (6) candidates were absent. Total of forty-Four (44) candidates presented for this examination. Twenty-six candidates (26) (59.09%) passed the examination.**

**Written Section**

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. Twenty-five percent of the questions covered applied physiology, 25% covered critical care pharmacology and remaining 50% questions dealt with clinical medicine.

**Overall 31/44 candidates passed this section (70.45%). Highest Mark scored was 84/100.**

**Objectives Structured Clinical Examination (OSCE) Section**

There were six (6) stations with rest stations in between. 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). **Overall 21/44 candidates passed this section (47.73%). Highest Mark scored was 534/600.**

**Station:**

1. **Arterial Blood Gas Interpretation:** Examples included metabolic acidosis due to excess heparin in syringe with justification of answer, mixed metabolic acidosis (HAGMA) with metabolic alkalosis with possible causes of this picture, HONK with justification, commenting on oxygenation status (here candidates were expected to calculate A-a gradient and interpret). Total of 4 ABG reports were presented. **Overall 10/44 candidates passed this section (22.73%). Highest Mark scored was 100/100.**
2. **Biochemistry:** Examples included pattern of hyponatremia with negative anion gap due to multiple myeloma, Picture of polyuria with low urine osmolarity (psychogenic polydipsia, DI) and further investigation, Hypokalemia with hypocalcemia (causes), pattern of low sodium high potassium due to DKA.  
**Overall 11/44 candidates passed this section (25%). Highest Mark scored was 82/100.**

3. **Hematology and Coagulation:** Examples included increased APTT with increased bleeding time (DD), increased APTT with normal TCT and interpretation of APTT normalizing after 50:50 mixing test, HELLP syndrome picture, causes of increased MCV. **Overall 19/44 candidates passed this section (43.18%). Highest Mark scored was 95/100.**
4. **ECG:** Examples included ECG of electrical alternans with low voltage (Cardiac tamponade), AVNRT (and its treatment), complete heart block with RBBB needing pacing, Complete LBBB with possible causes. **Overall 22/44 candidates passed this section (50%). Highest Mark scored was 97/100.**
5. **X-Rays:** Examples included identification of abnormalities in 4- X-rays. Important findings were hydropneumothorax, bilateral pleural effusion with pericardial effusion with 2 pigtail catheters in pericardium (possible causes), Post CABG with multiple lines and tubes including IABP catheter, PA catheter and raised right diaphragm, x-ray abdomen with Sengstaken Blakemore tube (reason for patients admission). **Overall 17/44 candidates passed this section (38.64%). Highest Mark scored was 90/100.**
6. **CT Scans:** Material presented included CT with large saddle embolus in pulmonary artery, CT abdomen with gall stone, stone in bile duct and pancreatitis, CT brain with multiple ring enhancing lesions, CT head with large extradural hematoma, midline shift, cerebral contusion etc. **Overall 28/44 candidates passed this section (63.64%). Highest Mark scored was 80/100.**

### **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 8 minutes of cross table viva with change to next viva station. 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. **Overall 42/44 (95.45%) candidates passed this section**

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

**VIVA 1:** *A 68 yr lady is brought by neighbor who found her drowsy an hour back. She lives alone but appeared alright earlier in the day. On admission her BP is 80/40 mmHg. No history is available.*

**Introductory question:** *What could be the reasons for her presentation?*

**Overall 41/44 candidates passed this section (93.18%). Highest marks scored was 92/100.**

**VIVA 2:** *A 42 year diabetic, alcoholic man presented with pain in abdomen, vomiting and breathlessness since 1 day. His B.P. 110/60 mmHg, RR: 30/min*

**Introductory question:** *what are the possible causes for his symptoms?*

**Overall 38/44 candidates passed this section (83.36%). Highest mark scored was 96/100.**

**VIVA 3:** *A 54 year old lady on ventilator since 10 days, now develops bleeding through the endotracheal tube.*

*Q.1: What are all the possible reasons for her bleeding through the endotracheal tube?*

**Introductory Question:** *What will be your initial clinical assessment?*

**Overall 40/44 candidates passed this section (90.91%). Highest mark scored was 98/100.**

**VIVA 4:** A 32 year old man presented with seizures. He has H/O fever, headache and altered sensorium of 2 days duration.

**Introductory question:** What immediate measures would you take?

**Overall 40/44 candidates passed this section (90.91%). Highest mark scored was 99/100.**

## **The Clinical Section**

The Clinical Section was conducted at the ICU of Chirayu Hospital, Bhopal.

Clinical section consisted of one hot (ICU) case (15 minutes) per candidate. Two examiners independently evaluated the performance. **Overall 26/44 candidates passed this section (59.09%). Highest Marks scored was 91/100.**

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.

Cases encountered as Hot Cases 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.

***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.***

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

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  3. Panel of Examiners
  4. Supervisors of Intensive Care Training/ Course Supervisors
  5. Registered Trainees

## **Examiners' Report**

### **Examiners**

|   |                         |
|---|-------------------------|
| <b>Chief Examiner:</b>                    | Dr. P K Jain            |
| <b>Examination planning &amp; Design:</b> | Dr. Meeta Mehta         |
| <b>Venue co-ordination:</b>               | Dr. Pradip Bhattacharya |

### **Examiner Faculty**

|                        |                      |
|------------------------|----------------------|
| 1. Praveen K Jain      | 2. Meeta Mehta       |
| 3. Kapil Singhal       | 4. Rajendra V.       |
| 5. Pradip Bhattacharya | 6. K. V. Kameshwarao |
| 7. Anurag Mahajan      | 8. Jamshed Sunavala  |

### **Observer examiners**

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|---------------------|
| Rajesh Bhagchandani |
| Pradyumn Pandey     |
| Vivek Baxi          |
| Raghunath           |

### **Clinical Cases:**

HOT cases:

1. Dr. Jamshed Sunavala & Dr. Anurag Mahajan
2. Dr. Praveen K Jain & Dr. Vivek Baxi
3. Dr. Meeta Mehta & Dr. K. V. Kameshwarao
4. Dr. Pradip Bhattacharya & Dr. Kapil Singhal

### **Vivas:**

|        | <b>Group A</b> | <b>Group B</b>      | <b>Group C</b>  |
|--------|----------------|---------------------|-----------------|
| Viva 1 | Rajendra V.    | Pradip Bhattacharya | Raghunath       |
| Viva 2 | J.D. Sunavala  | Pradyumn Pandey     | R. Bhagchandani |
| Viva 3 | Meeta Mehta    | Kapil Singhal       | Praveen K Jain  |
| Viva 4 | K. V. Kamesh   | Anurag Mahajan      | Vivek Baxi      |