



**PROFICIENCY TESTING REPORT**  
**ISHTM-AIIMS EXTERNAL QUALITY ASSURANCE PROGRAMME**  
 NABL accredited program as per ISO/IEC 17043:2010 standard  
 Organized By Department of Hematology, AIIMS, New Delhi-110029



*Duration of stability testing - minimum upto 8 days at ambient temp. after dispatch of specimens*

EQAP CODE No. : 3576

Distribution No.: 152-J

Month/Year: March/2021

Instrument ID: MINDRAY BC - 5000

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### CBC and Retic Assessment

| Test Parameters           | S.No. | Among Lab (Accuracy Testing) |               |                             |   |                                |         | Within Lab (Precision Testing)  |   |                                |         |
|---------------------------|-------|------------------------------|---------------|-----------------------------|---|--------------------------------|---------|---------------------------------|---|--------------------------------|---------|
|                           |       | Your Result 1                | Your Result 2 | Your Results Sum of 2 Value | Consensus result sum of 2 values (Assigned Value) | Uncertainty of Assigned Values | Z Score | Yours Results Diff. of 2 Values | Consensus Result Diff. of 2 values (Assigned Value) | Uncertainty of Assigned Values | Z Score |
| WBC x10 <sup>3</sup> /µl  | 1     | 7.19                         | 7.13          | 14.32                       | 13.8  | 0.0410                         | 0.56    | 0.06                            | 0.1   | 0.0110                         | -0.34   |
| RBC x10 <sup>6</sup> /µl  | 1     | 4.05                         | 4.03          | 8.08                        | 7.96  | 0.0110                         | 0.42    | 0.02                            | 0.04  | 0.0030                         | -0.45   |
| Hb g/dl                   | 1     | 11.3                         | 11.3          | 22.6                        | 21.7  | 0.0290                         | 1.35    | 0                               | 0.1   | 0.0080                         | -1.35   |
| HCT%                      | 1     | 33.7                         | 33.7          | 67.4                        | 67.5  | 0.1620                         | -0.03   | 0                               | 0.4   | 0.0270                         | -1.08   |
| MCV-fl                    | 1     | 83.6                         | 83.2          | 166.8                       | 170.1   | 0.3220                         | -0.45   | 0.4                             | 0.3   | 0.0300                         | 0.17    |
| MCH-Pg                    | 1     | 27.9                         | 27.9          | 55.8                        | 54.7  | 0.0880                         | 0.57    | 0                               | 0.3   | 0.0200                         | -1.01   |
| MCHC-g/dl                 | 1     | 33.5                         | 33.4          | 66.9                        | 64.2  | 0.1490                         | 0.81    | 0.1                             | 0.3   | 0.0220                         | -0.67   |
| Plt. x10 <sup>3</sup> /µl | 1     | 200                          | 198           | 398                         | 406.5   | 2.29                           | -0.16   | 2                               | 7   | 0.47                           | -0.67   |
| Retic %                   | 2     |                              |               |                             |   |                                |         |                                 |   |                                |         |

### P.S . Assesment

| YOUR REPORT    |   | CONSENSUS REPORT  |
|----------------|---|---|
| DLC%           | 3 | Nrbcs= , Poly= L=, E=, Mono/Promono= , B1= P.M.=, Mye=, Meta=, Other=   |
| RBC Morphology | 3 | Poly: 35 - 65, Myelo: 10 - 30, Meta: 5 - 15, Blast/Lympho/Promyelo: 1 - 10, nRBC/Baso/Eos/Mono: 0 - 5                         |
| Diagnosis      | 3 | Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Anisocytosis, Hypochromia; Mild: Macrocytosis, Poikilocytosis |
|                |   | Chronic Myeloid Leukemia (CML)  |

**COMBINED DATA VALUES OF TOTAL PARTICIPANTS**

| Test parameters           | S.No. | Total participants covered in the current dist. | Total No. responded | % of Labs with Z Score 0-2                           |            | % of Labs with Z Score 2-3 |            | % of Labs with Z Score >3 |            |
|---------------------------|-------|---|---------------------|--|------------|----------------------------|------------|---------------------------|------------|
|                           |       |   |                     | Among labs   | Within lab | Among labs                 | Within lab | Among labs                | Within lab |
| WBC x10 <sup>3</sup> /µl  | 1     | 249   | 276                 | 80.43  | 91.3       | 5.8                        | 1.45       | 13.04                     | 6.16       |
| RBC x10 <sup>6</sup> /µl  | 1     | 249   | 276                 | 88.04  | 90.58      | 6.16                       | 2.54       | 5.07                      | 6.16       |
| Hb g/dl                   | 1     | 249   | 276                 | 88.77  | 90.58      | 5.07                       | 4.35       | 5.8                       | 4.71       |
| HCT%                      | 1     | 249   | 276                 | 90.22  | 89.13      | 3.99                       | 3.62       | 5.07                      | 6.52       |
| MCV-fl                    | 1     | 249   | 276                 | 86.59  | 93.12      | 9.06                       | 0.72       | 3.62                      | 5.43       |
| MCH-Pg                    | 1     | 249   | 276                 | 86.23  | 94.57      | 7.61                       | 1.45       | 5.43                      | 3.26       |
| MCHC-g/dl                 | 1     | 249   | 276                 | 87.68  | 89.49      | 6.52                       | 5.43       | 5.07                      | 4.35       |
| Plt. x10 <sup>3</sup> /µl | 1     | 249   | 276                 | 86.59  | 88.04      | 6.16                       | 5.8        | 6.52                      | 5.43       |
| ReticCount%               | 2     | 249   | 253                 | 95.65  | 81.82      | 2.77                       | 0.79       | 1.58                      | 17.79      |
| PS Assessment             | 3     | 249   | 257                 | Acceptable:94.4,Warning Signal:4.0,Unacceptable :1.6 |            |                            |            |                           |            |

**\*Comments:**

1). **Among Lab (EQA) : Retic Results & PS not reported, remaining results acceptable**

2). **Within Lab (IQA) : Precision acceptable.**

**Note-1: EQA** (External Quality Assurance) : Your Performance among various of participating labs in PT, to determine the accuracy of your results.

**IQA** ( Internal Quality Assurance) : Your Performance of comparison of two consecutive measurement values within your lab to test the precision of your autoanalyzer.

**Note-2:** Z score among & within lab were calculated, as per to ISO/IEC 13528:2015 standard. Z score among lab (EQA)= (Your Result Sum of two values - Consensus Result sum of two values)/(Normalised IQR)

Z score within lab (IQA)= (Your Result Difference of two values - Consensus Result difference of two values)/(Normalised IQR)

IQR = Quartile 3 - Quartile 1 of participant data, Normalised IQR = 0.7413 x IQR

**Note-3:** Z score 0 to ±2: Acceptable, Z score ±2 to ±3 :Warning Signal, Z score > ±3 : Unacceptable [As per ISO/IEC 13528:2015 standard]

**Note-4:** Z score value between "0 to ±2" are texted in green colour. Z score value between "±2 to ±3" are texted in orange colour. Z score value > ±3 are texted in red colour.

**Note-5:** Homogeneity and stability testing of PT sample were done as per ISO 13528:2015 standard. To pass homogeneity test, between sample SD (Ss) should be smaller than the check value (0.3\*SDPA). To pass the stability test, average difference in measurement values of first and last day sample ( $\bar{x}-\bar{y}$ ) should be smaller than the check value (0.3\*SDPA).

**Note-6:** ISHTM-AIIMS-EQAP does not subcontract any task of its scheme

**Note-7:** Participants are free to use methods/analyzer of their own choice.

**Note-8:** Proficiency testing (PT ) samples are sent quarterly to each participant.

**Note-9:** All the necessary details regarding design and implementation of PT, are provided in the instruction sheet as well as on programme's website www.ishtmaiimseqap.com.

Report authorized by,



Dr. Seema Tyagi (Prof.)

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