



### 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.: 2640** 

Distribution No.: 160-F

Month/Year: June/2023

Instrument ID: HORIBA YUMIZEN H

Model Name.:

Serial No.:

500(001YOXH03179)

Name & Contact No. of PT Co-ordinator: Dr. Manoranjan Mahapatra ( Prof. & Head), Hematology, AIIMS, Delhi, Tel: 9013085730 , E-Mail : info@ishtmaiimseqap.com

Date of issue & status of the report: 01-08-2023[Final].

## **CBC** and Retic Assessment

| Test<br>Parameters       | S.No. |                     |                     | Among Lab (Accuracy Testing)            |  |                                      |       | Within Lab (Precision Testing)              |   |                                      |       |  |
|--------------------------|-------|---------------------|---------------------|---|--|--------------------------------------|-------|---|---|--------------------------------------|-------|--|
|                          |       | Your<br>Result<br>1 | Your<br>Result<br>2 | Your<br>Results<br>Sum of<br>2<br>Value | Consensus<br>result<br>sum of 2<br>values<br>(Assigned<br>Value) | Uncertainty<br>of Assigned<br>Values |       | Yours<br>Results<br>Diff. of<br>2<br>Values | Consensus Result Diff. of 2 values (Assigned Value) | Uncertainty<br>of Assigned<br>Values |       |  |
| WBC x10³/μl              | 1     | 5.63                | 4.31                | 9.94                                    | 10.7   | 0.002                                | 1.07  | 1.32  | 0.1   | 0.005                                | 1.96  |  |
| RBC x10 <sup>6</sup> /μl | î     | 4.92                | 4.9                 | 9.82                                    | 10.22  | 0.011                                | -1.30 | 0.02  | 0.05  | 0.003                                | -0.67 |  |
| Hb g/dl                  | 1     | 14.3                | 14.3                | 28.6                                    | 28.7   | 0.027                                | -0.15 | 0   | 0.1   | 0.008                                | -0.67 |  |
| нст%                     | -1    | 40.5                | 40.4                | 80.9                                    | 90.7   | 0.206                                | -1.66 | 0.1   | 0.4   | 0.024                                | -0.81 |  |
| MCV-fl                   | 1     | 82.5                | 82.4                | 164.9                                   | 178.6  | 0.326                                | -1.38 | 0.1   | 0.3   | 0.020                                | -0.54 |  |
| мсн-Рд                   | 1     | 29.2                | 29.1                | 58.3                                    | 56   | 0.068                                | 1.29  | 0.1   | 0.2   | 0.015                                | -0.45 |  |
| MCHC-g/dl                | 1     | 35.4                | 35.3                | 70.7                                    | 62.7   | 0.147                                | 1.78  | 0.1   | 0.3   | 0.018                                | -0.67 |  |
| Plt. x10³/μl             | 1     | 102                 | 101                 | 203                                     | 235.5  | 1.723                                | -0.72 | 1   | 5   | 0.331                                | -0.67 |  |
| Retic %                  | 2     | 12.5                | 12.2                | 24.7                                    | 10.9   | 0.282                                | 1.54  | 0.3   | 0.5   | 0.034                                | -0.34 |  |

#### P.S. Assesment

|                   |   | YOUR REPORT  | CONSENSUS REPORT  |  |  |  |  |  |
|-------------------|---|--|---|--|--|--|--|--|
| DLC%              | 3 | Nrbcs=3, Poly=1 L=6, E=00,<br>Mono/Promono=00, B1=90 P.M.=00,<br>Mye=00, Meta=00, Other= | Blast: 49-83, Lympho: 3-10, Myelo: 2-10, Poly: 2-7, Promyelo: 0-9, nRBC/Mono/Eos/Baso/Meta: 0-5 |  |  |  |  |  |
| RBC<br>Morphology | 3 | NORMOCYTIC HYPOCHROMIC   | Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic                     |  |  |  |  |  |
| Diagnosis         | 3 | ACUTE LEUKEMIA (ALL-L2)  | Acute Leukemia (AL)   |  |  |  |  |  |

# COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test parameters          | S.No. | Total participants covered in the current dist. 160F | Total No.<br>responded | % of Labs with Z<br>Score 0-2                                       |               | % of Labs with Z<br>Score 2-3 |               | % of Lahs with Z<br>Score >3 |               |
|--------------------------|-------|--|------------------------|---|---------------|-------------------------------|---------------|------------------------------|---------------|
| Test parameter           |       |  |                        | Among<br>labs   | Within<br>lab | Among<br>labs                 | Within<br>lab | Among<br>labs                | Within<br>lab |
| WBC x10³/μl              | 1     | 326  | 324                    | 85.49   | 90.12         | 6.17                          | 5.25          | 8.34                         | 4.63          |
| RBC x10 <sup>6</sup> /µl | 1     | 326  | 326                    | 87.42   | 91.72         | 7.98                          | 2.76          | 4.6                          | 5.52          |
| Hb g/dl                  | 1     | 326  | 326                    | 86.81   | 86.81         | 6.75                          | 4.6           | 6.44                         | 8.59          |
| HCT%                     | 1     | 326  | 323                    | 95.05   | 83.59         | 2.79                          | 6.19          | 2.16                         | 10.22         |
| MCV-fl                   | 1     | 326  | 323                    | 95.67   | 85.14         | 3.1                           | 9.29          | 1.23                         | 5.57          |
| мсн-Рд                   | 1     | 326  | 321                    | 88.16   | 95.02         | 7.79                          | 1.87          | 4.05                         | 3.11          |
| MCHC-g/dl                | 1     | 326  | 323                    | 95.98   | 91.33         | 3.41                          | 4.64          | 0.61                         | 4.03          |
| Plt. x10³/µl             | 1     | 326  | 324                    | 91.67   | 91.98         | 7.1                           | 4.94          | 1.23                         | 3.08          |
| ReticCount%              | 2     | 326  | 273                    | 02.77   | 88.64         | 4.03                          | 8.06          | 2.2                          | 3.30          |
| PS Assessment            | 3     | 326  | 282                    | Satisfactory :91.67%, Borderline Sat. :2.16%, Unsatisfactory :6.17% |               |                               |               |                              |               |

#### 'Comments:

- 1). Among Lab (EQA): Acceptable Results.
- 2). Within Lab (IQA): Precession Acceptable.

Note-1: EQA (External Quality Assurance): Your Performance among various of participating labs in PT, to determine

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

IQR = Quartile 3 - Quartile 1 of participant data, Normalised  $IQR = 0.7413 \times IQR$ values)/(Normalised IQR)

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

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 (x-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.

No outlier observed Suchthal no CAPA
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Note 10: Reports are kept confidential.

Report authorized by,

Dr. Manoranjan Mahapatra ( Prof. & Head)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

-----End Of Report-