



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. : 2799

Distribution No.: 157-G

Month/Year: September/2022

Instrument ID: K11052123038

Name & Contact No. of PT Co-ordinator: Dr. Seema Tyagi (Prof.), Hematology, AIIMS, Delhi,
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Date of issue & status of the report: 07-11-2022[Final].

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 ³ /µl | 1 | 4.92 | 4.85 | 9.77 | 9.2 | 0.0320 | 0.77 | 0.07 | 0.1 | 0.0080 | -0.25 |
| RBC x10 ⁶ /µl | 1 | 4.84 | 4.84 | 9.68 | 9.33 | 0.0120 | 1.23 | 0 | 0.04 | 0.0030 | -1.08 |
| Hb g/dl | 1 | 12.8 | 12.7 | 25.5 | 24.9 | 0.0310 | 0.90 | 0.1 | 0.1 | 0.0090 | 0.00 |
| HCT% | 1 | 42.2 | 41.6 | 83.8 | 79.5 | 0.2200 | 0.79 | 0.6 | 0.4 | 0.0280 | 0.54 |
| MCV-fl | 1 | 87.2 | 86.1 | 173.3 | 170.4 | 0.3660 | 0.33 | 1.1 | 0.3 | 0.0270 | 1.80 |
| MCH-Pg | 1 | 26.4 | 26.3 | 52.7 | 53.2 | 0.0790 | -0.29 | 0.1 | 0.2 | 0.0180 | -0.45 |
| MCHC-g/dl | 1 | 30.6 | 30.3 | 60.9 | 62.4 | 0.1810 | -0.32 | 0.3 | 0.3 | 0.0210 | 0.00 |
| Plt. x10 ³ /µl | 1 | 206 | 202 | 408 | 370 | 1.48 | 1.22 | 4 | 6 | 0.39 | -0.39 |
| Retic % | 2 | 4.8 | 4.7 | 9.5 | 9.8 | 0.21 | -0.06 | 0.1 | 0.4 | 0.03 | -1.01 |

P.S . Assesment

| YOUR REPORT | | CONSENSUS REPORT |
|----------------|---|---|
| DLC% | 3 | Nrbcs=54 , Poly=55 L=32, E=9, Mono/Promono=4 , B1=0 P.M.=0, Mye=0, Meta=0, Other=NO |
| RBC Morphology | 3 | Poly: 42-56 , Lympho: 28-40,Eosino: 5-12 , Mono: 2-5, blast/Promyelo/Myelo/Meta: 0 |
| Diagnosis | 3 | Sickle cells (Drepanocytes),Target cells,few fragmentedRBCs,nucleated RBCs,Howell jolly bodies |
| | | Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Poikilocytosis , Target cells , Sickle shaped cells ,tear drop cells |
| | | Sickle Cell Anemia |
| | | Hemoglobinopathy possible sickle cell anemia |

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test parameters | S.No. | Total participants covered in the current dist. 157--G | 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 x10³/µl | 1 | 244 | 243 | 83.54 | 88.89 | 2.06 | 3.7 | 14.4 | 7.41 |
| RBC x10⁶/µl | 1 | 244 | 244 | 87.7 | 86.48 | 4.51 | 4.1 | 7.79 | 9.42 |
| Hb g/dl | 1 | 244 | 244 | 87.3 | 84.43 | 8.2 | 7.79 | 4.5 | 7.78 |
| HCT% | 1 | 244 | 243 | 92.18 | 87.65 | 6.17 | 6.17 | 1.65 | 6.18 |
| MCV-fl | 1 | 244 | 243 | 90.95 | 90.95 | 7.82 | 4.12 | 1.23 | 4.93 |
| MCH-Pg | 1 | 244 | 243 | 86.42 | 90.95 | 5.35 | 2.06 | 8.23 | 6.99 |
| MCHC-g/dl | 1 | 244 | 243 | 95.06 | 86.42 | 3.29 | 4.12 | 1.65 | 9.46 |
| Plt. x10³/µl | 1 | 244 | 243 | 86.01 | 87.24 | 7 | 4.53 | 6.99 | 8.23 |
| ReticCount% | 2 | 244 | 224 | 95.54 | 94.2 | 4.02 | 2.23 | 0.44 | 3.57 |
| PS Assessment | 3 | 244 | 224 | Satisfactory :88.13%, Borderline Sat. :10.65%, Unsatisfactory :1.22% | | | | | |

***Comments:**

1). Among Lab (EQA) : 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 $> \pm 3$: 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 $> \pm 3$ 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.

Note 10: Reports are kept confidential.

Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

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