



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. : 289

Distribution No.: 158-A

Month/Year: October/2022

Instrument ID: BC 6200 (TW-04001042)

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: 21-12-2022[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 | 7.84 | 7.59 | 15.43 | 14.5 | 0.0300 | 1.07 | 0.25 | 0.1 | 0.0070 | 1.35 |
| RBC x10 ⁶ /µl | 1 | 4.39 | 4.31 | 8.7 | 8.5 | 0.0070 | 1.07 | 0.08 | 0.03 | 0.0020 | 1.69 |
| Hb g/dl | 1 | 13.2 | 13.1 | 26.3 | 25.1 | 0.0200 | 2.02 | 0.1 | 0.1 | 0.0070 | 0.00 |
| HCT% | 1 | 45.1 | 44.3 | 89.4 | 79.6 | 0.1720 | 1.69 | 0.8 | 0.3 | 0.0060 | 1.69 |
| MCV-fl | 1 | 102.6 | 102.6 | 205.2 | 188 | 0.3400 | 1.38 | 0 | 0.2 | 0.0180 | -0.67 |
| MCH-Pg | 1 | 30.3 | 30.1 | 60.4 | 59.2 | 0.6740 | 0.89 | 0.2 | 0.2 | 0.0130 | 0.00 |
| MCHC-g/dl | 1 | 29.5 | 29.3 | 58.8 | 62.7 | 0.1290 | -0.87 | 0.2 | 0.2 | 0.0150 | 0.00 |
| Plt. x10 ³ /µl | 1 | 240 | 239 | 479 | 503 | 1.50 | -0.56 | 1 | 6 | 0.31 | -0.96 |
| Retic % | 2 | 3.8 | 3.6 | 7.4 | 15.8 | 0.26 | -1.12 | 0.2 | 0.4 | 0.02 | -0.34 |

P.S . Assesment

| YOUR REPORT | | CONSENSUS REPORT |
|----------------|---|---|
| DLC% | 3 | Nrbcs=5 , Poly=67 L=24, E=4, Mono/Promono=5 , B1=0 P.M.=0, Mye=0, Meta=0, Other=0 |
| RBC Morphology | 3 | Lympho: 37-47, Poly: 44-54, Mono: 2-5, Eosino: 1-5, blast/Promyelo/Myelo/Meta: 0 |
| Diagnosis | 3 | Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Poikilocytosis , Target cells , Sickle shaped cells ,tear drop cells |
| | | correlation with clinical features,hemato morphological features suggestive of hemolytic anemia possibility of thalassemia correlate with HB Electrophoresis |
| | | Diagnosis- Haemoglobinopathy/Thalassemia |

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test parameters | S.No. | Total participants covered in the current dist. 158--A | 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 | 362 | 356 | 84.55 | 85.39 | 4.21 | 7.3 | 11.24 | 7.31 |
| RBC x10⁶/µl | 1 | 362 | 362 | 84.25 | 90.61 | 8.56 | 3.59 | 7.19 | 5.8 |
| Hb g/dl | 1 | 362 | 362 | 87.85 | 91.71 | 4.97 | 2.49 | 7.18 | 5.8 |
| HCT% | 1 | 362 | 357 | 98.04 | 86.27 | 0.84 | 6.72 | 1.12 | 7.01 |
| MCV-fl | 1 | 362 | 357 | 99.44 | 87.11 | 0.28 | 9.52 | 0.28 | 3.37 |
| MCH-Pg | 1 | 362 | 357 | 87.96 | 92.44 | 5.6 | 2.52 | 6.44 | 5.04 |
| MCHC-g/dl | 1 | 362 | 357 | 97.2 | 93 | 1.12 | 3.08 | 1.68 | 3.92 |
| Plt. x10³/µl | 1 | 362 | 357 | 92.16 | 90.2 | 5.32 | 5.88 | 2.52 | 3.92 |
| ReticCount% | 2 | 362 | 340 | 93.53 | 93.24 | 4.12 | 5 | 2.35 | 1.76 |
| PS Assessment | 3 | 362 | 339 | Satisfactory :96.68%, Borderline Sat. :2.76%, Unsatisfactory :0.552% | | | | | |

***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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