# 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

PC-1002

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

**EQAP CODE No. :** 1717 **Distribution No.:** 155-C **Month/Year:** February/2022

**Instrument ID:** XP-100 (S.N0. B6502 )

**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:** 21-04-2022[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 | 8.6 | 8.5 | 17.1 | 17.18 | 0.0790 | **-0.04** | 0.1 | 0.13 | 0.0100 | **-0.20** |
| **RBC x10$^6$/µl** | 1 | 4.34 | 4.29 | 8.63 | 8.12 | 0.0390 | **0.42** | 0.05 | 0.06 | 0.0040 | **-0.17** |
| **Hb g/dl** | 1 | 14.1 | 13.9 | 28 | 27.6 | 0.0210 | **0.72** | 0.2 | 0.1 | 0.0080 | **1.35** |
| **HCT%** | 1 | 39.5 | 39 | 78.5 | 80.3 | 0.2460 | **-0.25** | 0.5 | 0.5 | 0.0260 | **0.00** |
| **MCV-fl** | 1 | 91 | 90.9 | 181.9 | 199.5 | 0.6050 | **-0.97** | 0.1 | 0.5 | 0.0360 | **-0.67** |
| **MCH-Pg** | 1 | 32.5 | 32.4 | 64.9 | 68 | 0.3170 | **-0.31** | 0.1 | 0.5 | 0.0280 | **-0.90** |
| **MCHC-g/dl** | 1 | 35.7 | 35.6 | 71.3 | 68.7 | 0.2090 | **0.45** | 0.1 | 0.3 | 0.0240 | **-0.45** |
| **Plt. x10$^3$/µl** | 1 | 497 | 485 | 982 | 876 | 3.50 | **1.11** | 12 | 10 | 0.66 | **0.21** |
| **Retic %** | 2 | 3.5 | 2.5 | 6 | 8 | 0.14 | **-0.53** | 1 | 0.3 | 0.02 | **2.36** |

**P.S . Assesment**

| | | YOUR REPORT | CONSENSUS REPORT |
|---|---|---|---|
| **DLC%** | 3 | Nrbcs=58 , Poly=64 L=28, E=02, Mono/Promono=06 , B1=00 P.M.=00, Mye=00, Meta=00, Other=00 | Lympho: 35-55, Poly: 35-46, Mono: 2-5, nRBC/Blast/Eosino/Myelo/Meta: 1-2 |
| **RBC Morphology** | 3 | MACROCYTES, MACROOVALOCYTES, FEW MICROCYTES, TEAR DROP CELLS, SPHEROCYTES, SCHISTOCYTES, MODERATE ANISOCYTOSIS, MILD HYPOCHROMIA | Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Macrocytosis, Poikilocytosis |
| **Diagnosis** | 3 | HEMOLYTIC ANEMIA | Chronic lymphoproliferative disorder ( CLPD ) |

## COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test parameters | S.No. | Total participants covered in the current dist. 155--C | 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 $x10^3$/µl | 1 | 320 | 319 | 89.66 | 89.97 | 6.9 | 5.96 | 3.44 | 4.07 |
| RBC $x10^6$/µl | 1 | 320 | 320 | 97.81 | 90.63 | 1.56 | 4.06 | 0.63 | 5.31 |
| Hb g/dl | 1 | 320 | 320 | 90.94 | 90.94 | 3.75 | 2.81 | 5.31 | 6.25 |
| HCT% | 1 | 320 | 319 | 92.48 | 89.97 | 6.27 | 6.58 | 1.25 | 3.45 |
| MCV-fl | 1 | 320 | 319 | 96.87 | 89.97 | 2.51 | 5.64 | 0.62 | 4.39 |
| MCH-Pg | 1 | 320 | 319 | 94.98 | 90.91 | 4.39 | 4.7 | 0.63 | 4.39 |
| MCHC-g/dl | 1 | 320 | 319 | 90.6 | 91.22 | 6.9 | 3.76 | 2.5 | 5.02 |
| Plt. $x10^3$/µl | 1 | 320 | 319 | 92.48 | 90.91 | 5.64 | 3.76 | 1.88 | 5.33 |
| ReticCount% | 2 | 320 | 303 | 93.4 | 94.72 | 4.95 | 2.64 | 1.65 | 2.64 |
| PS Assessment | 3 | 320 | 286 | Satisfactory :56.57%, Borderline Sat. :32.18%, Unsatisfactory :11.25% | | | | | |

*Comments:

1). Among Lab (EQA) : PS Diagnosis wrongly 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.

**Note 10:** Reports are kept confidential.

Report authorized by,

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----------End Of Report----------