# 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. :** 1749 **Distribution No.:** 153-C **Month/Year:** July/2021

**Instrument ID:** SYSMEX XP 100 , SN-A7677

**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:** 08-09-2021[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 | 11.5 | 11.1 | 22.6 | 24.1 | 0.0830 | -0.84 | 0.4 | 0.2 | 0.0130 | 1.08 |
| RBC x10$^6$/µl | 1 | 6.2 | 6.17 | 12.37 | 12.64 | 0.0130 | -0.80 | 0.03 | 0.05 | 0.0030 | -0.39 |
| Hb g/dl | 1 | 16.2 | 16.1 | 32.3 | 32.8 | 0.0320 | -0.61 | 0.1 | 0.1 | 0.0090 | 0.00 |
| HCT% | 1 | 48.8 | 48.7 | 97.5 | 100.6 | 0.1840 | -0.66 | 0.1 | 0.4 | 0.0280 | -0.67 |
| MCV-fl | 1 | 78.9 | 78.7 | 157.6 | 159.5 | 0.2300 | -0.33 | 0.2 | 0.3 | 0.0220 | -0.27 |
| MCH-Pg | 1 | 26.1 | 26.1 | 52.2 | 51.8 | 0.0510 | 0.34 | 0 | 0.2 | 0.0140 | -1.35 |
| MCHC-g/dl | 1 | 33.2 | 33.1 | 66.3 | 65 | 0.1150 | 0.45 | 0.1 | 0.2 | 0.0180 | -0.45 |
| Plt. x10$^3$/µl | 1 | 534 | 527 | 1061 | 783.5 | 4.61 | 2.24 | 7 | 11 | 0.70 | -0.39 |
| Retic % | 2 | 1.6 | 1.5 | 3.1 | 3.59 | 0.09 | -0.18 | 0.1 | 0.2 | 0.02 | -0.34 |

## P.S . Assesment

| | | YOUR REPORT | CONSENSUS REPORT |
|---|---|---|---|
| DLC% | 3 | Nrbcs=9.4 , Poly=40 L=24, E=02, Mono/Promono=03 , B1=12 P.M.=1, Mye=2, Meta=2, Other= | Poly: 40 – 60, Lympho: 15 - 30, Blast: 10 – 25, Myelo/Meta/nRBC/Promyelo/Eos/Baso/Mono: 0 – 5 |
| RBC Morphology | 3 | anisopoikilocytosis | Predominantly: Microcytosis, Anisocytosis; Moderate: Hypochromia, Poikilocytosis; Mild: Normocytic/Normochromic, Macrocytosis, Tear drop cells, Schistocytes |
| Diagnosis | 3 | MYELOFIBROSIS | 1. Myeloproliferative Neoplasm 2. CML - Accelerated/Blast phase |

*EQAP Code No.: 1749* *Distribution No.: 153-C Month/Year: July/2021* *Instrument ID: SYSMEX XP 100 , SN-A7677*

## 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$^3$/µl | 1 | 283 | 280 | 80.36 | 91.43 | 7.14 | 3.57 | 12.5 | 4.64 |
| RBC x10$^6$/µl | 1 | 283 | 282 | 92.2 | 89.01 | 4.26 | 3.9 | 3.55 | 7.09 |
| Hb g/dl | 1 | 283 | 282 | 87.94 | 86.88 | 5.32 | 0.35 | 6.74 | 7.09 |
| HCT% | 1 | 283 | 282 | 91.13 | 90.43 | 4.61 | 3.9 | 4.26 | 5.67 |
| MCV-fl | 1 | 283 | 282 | 92.2 | 91.49 | 5.32 | 2.84 | 2.48 | 5.67 |
| MCH-Pg | 1 | 283 | 282 | 89.36 | 95.39 | 5.32 | 1.77 | 5.32 | 2.84 |
| MCHC-g/dl | 1 | 283 | 282 | 91.84 | 90.43 | 4.96 | 2.48 | 3.19 | 7.09 |
| Plt. x10$^3$/µl | 1 | 283 | 282 | 95.39 | 89.36 | 3.55 | 4.96 | 1.06 | 5.67 |
| ReticCount% | 2 | 283 | 238 | 92.02 | 87.82 | 3.78 | 0.84 | 3.36 | 11.76 |
| PS Assessment | 3 | 283 | 247 | Acceptable:85.0%,Warning Signal:14.2%,Unacceptable :0.8% | | | | | |

**Comments:**

**1). Among Lab (EQA) : Satisfactory Results**

**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,

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