# PROFICIENCY TESTING REPORT

ISHTM-AIIMS EXTERNAL QUALITY ASSURANCE PROGRAMME
NABL accredited (ISO/IEC 17043:2010 Standard)
Organized By Department of Hematology, AIIMS, New Delhi-110029

NABL Certificate No. PC - 1002

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

**EQAP CODE No. :** 735 **Distribution No.:** 149-A **Month/Year:** November/2019

**Instrument ID:** I COUNT 5

**Name & Contact No. of PT Co-ordinator:** Dr. Renu Saxena (Prof & Head), Hematology, AIIMS, Delhi. Tel: 9013085730 , E-Mail : accuracy2000@gmail.com

**Date of issue & status of the report:** 11-12-2019[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 x$10^3$/µl | 1 | 9.7 | 9.6 | 19.3 | 15.5 | 0.0400 | 3.20 | 0.1 | 0.1 | 0.0080 | 0.00 |
| RBC x$10^6$/µl | 1 | 4.7 | 4.6 | 9.3 | 9.44 | 0.0060 | -0.73 | 0.1 | 0.04 | 0.0020 | 1.62 |
| Hb g/dl | 1 | 11.6 | 11.4 | 23 | 23.1 | 0.0160 | -0.22 | 0.2 | 0.1 | 0.0060 | 1.35 |
| HCT% | 1 | 34.2 | 33.9 | 68.1 | 76.7 | 0.1220 | -2.43 | 0.3 | 0.38 | 0.0200 | -0.29 |
| MCV-fl | 1 | 72.8 | 72.1 | 144.9 | 162.15 | 0.2270 | -2.47 | 0.7 | 0.3 | 0.0210 | 0.90 |
| MCH-Pg | 1 | 24.6 | 24.4 | 49 | 49.1 | 0.0380 | -0.09 | 0.2 | 0.2 | 0.0090 | 0.00 |
| MCHC-g/dl | 1 | 33.9 | 33.7 | 67.6 | 60.4 | 0.0960 | 2.63 | 0.2 | 0.3 | 0.0470 | -0.34 |
| Plt. x$10^3$/µl | 1 | 420 | 409 | 829 | 1028 | 2.79 | -2.35 | 11 | 8 | 0.49 | 0.37 |
| Retic % | 2 | 5.9 | 5.3 | 11.2 | 19 | 0.31 | -0.86 | 0.6 | 0.5 | 0.03 | 0.17 |

**P.S . Assesment**

| | | YOUR REPORT | CONSENSUS REPORT |
|---|---|---|---|
| DLC% | 3 | Nrbcs=02/100WBC , Poly=--- L=06%, E=---, Mono/Promono=---, B1=90% P.M.=---, Mye=---, Meta=---, Other=-- | Blast: 80-90, Poly: 5-7, Lymph: 2-7, Eo/Mono/Pro/My/Meta: 0-4 |
| RBC Morphology | 3 | NORMOCYTIC NORMOCHROMIC | Predominantly: Normocytic Normochromic. Moderate: Anisocytosis. Mild: Microcytic |
| Diagnosis | 3 | ACUTE LEUKEMIA(MORPHOLOGICALLY ACUTE MYELOID LEUKEMIA) | Acute Leukemia (myeloid lineage) |

*EQAP Code No.: 735* *Distribution No.: 149-A Month/Year: November/2019 Instrument ID: I COUNT 5*

## 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 | 450 | 385 | 88.57 | 83.9 | 5.71 | 5.19 | 4.94 | 10.13 |
| RBC x10$^6$/µl | 1 | 450 | 385 | 90.91 | 90.65 | 4.42 | 4.16 | 4.42 | 4.94 |
| Hb g/dl | 1 | 450 | 385 | 87.79 | 92.21 | 8.31 | 3.9 | 3.64 | 3.64 |
| HCT% | 1 | 450 | 385 | 88.31 | 88.31 | 8.05 | 4.68 | 2.86 | 6.23 |
| MCV-fl | 1 | 450 | 385 | 90.13 | 91.17 | 5.19 | 3.64 | 4.42 | 4.94 |
| MCH-Pg | 1 | 450 | 385 | 89.35 | 92.99 | 6.75 | 4.16 | 3.64 | 2.6 |
| MCHC-g/dl | 1 | 450 | 385 | 89.61 | 93.51 | 7.01 | 3.38 | 3.12 | 2.6 |
| Plt. x10$^3$/µl | 1 | 450 | 385 | 92.99 | 90.13 | 4.68 | 4.94 | 2.08 | 4.68 |
| ReticCount% | 2 | 450 | 351 | 96.58 | 88.03 | 4.27 | 8.55 | 0.57 | 5.41 |
| PS Assessment | 3 | 450 | 367 | Acceptable:96%,Warning Signal:2.9%,Unacceptable :1.1% | | | | | |

**Comments:**

1). Among Lab (EQA) : **CBC result for *WBC* unacceptable, may be due to random/human error**

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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