

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.: 1979

Distribution No.: 157-E Month/Year: August/2022

Instrument ID: BC-6200

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

Date of issue & status of the report: 22-10-2022[Final].

CBC and Retic Assessment

| | | | | Among Lab (Accuracy Testing) | | | | Within Lab (Precision Testing) | | | | |
|--------------------------|-------|---------------------|--------------------|---|--|--------------------------------------|------------|--------------------------------|------|--------------------------------------|------------|--|
| Test Parameters | S.No. | Your Result 1 | | Your Results Sum of 2 Value | Consensus result sum of 2 values (Assigned Value) | Uncertainty of Assigned Values | Z Score | Deculto | | Uncertainty of Assigned Values | Z Score | |
| WBC x10³/µl | 1 | 7.79 | 7.68 | 15.47 | 17.38 | 0.1220 | -0.61 | 0.11 | 0.17 | 0.0110 | -0.40 | |
| RBC x10 ⁶ /µl | 1 | 5.36 | 5.35 | 10.71 | 10.98 | 0.0110 | -0.88 | 0.01 | 0.04 | 0.0030 | -0.67 | |
| Hb g/dl | 1 | 10.3 | 10.2 | 20.5 | 21.1 | 0.0220 | -1.01 | 0.1 | 0.1 | 0.0070 | 0.00 | |
| НСТ% | 1 | 44.4 | 44. <mark>2</mark> | 88.6 | 71.3 | 0.1690 | 3.78 | 0.2 | 0.3 | 0.0230 | -0.27 | |
| MCV-fl | 1 | 82.8 | 82.5 | 165.3 | 129.15 | 0.2640 | 4.85 | 0.3 | 0.2 | 0.0120 | 0.45 | |
| MCH-Pg | 1 | 19.1 | 19.1 | 38.2 | 38.5 | 0.0510 | -0.25 | 0 | 0.1 | 0.0090 | -0.79 | |
| MCHC-g/dl | 1 | 231 | 230 | 461 | 59.2 | 0.1610 | 90.34 | 1 | 0.2 | 0.0130 | 3.60 | |
| Plt. x10³/µl | 1 | 234 | 231 | 465 | 465 | 2.38 | 0.00 | 3 | 7 | 0.49 | -0.49 | |
| Retic % | 2 | 1.8 | | 1.8 | | | | | | | | |

P.S. Assesment

| | | YOUR REPORT | CONSENSUS REPORT | | | | |
|-------------------|----|---|--|--|--|--|--|
| DLC% | 2 | Nrbcs= , Poly=12 L=11, E=1, Mono/Promono=0 , B1=07 P.M.=06, Mye=16, Meta=24, Other=BAND FORMS -18 | Poly: 19 – 36, Myelo: 20 - 40, Meta: 9 – 20, Lympho: 2 – 6, Promyelo: 1 - 6, nRBC/ Baso/ Eos/ Mono /Blast: 0 – 5 | | | | |
| RBC Morphology | 3 | Normocytic hypochromic RBCs admixed with microcytic hypochromic,nRBCs seen (3/100) Anisocytosis seen. | Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis | | | | |
| Diagnosis | .1 | Chronic myeloid Leukemia (Chronic phase) | Chronic Myeloid Leukemia (Chronic Phase) | | | | |

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test never store | S No | Total participants covered in the | Total No. responded | % of Labs with Z Score 0-2 | | % of Labs with Z Score 2-3 | | % of Labs with Z Score >3 | |
|--------------------------|-------|---|------------------------|--|---------------------|-------------------------------|---------------|------------------------------|---------------|
| Test parameters | 5.NU. | current dist. 157E | | Among labs | Within lab | Among labs | Within lab | Among labs | Within lab |
| WBC x10 ³ /µl | 1 | 313 | 311 | <mark>85</mark> .85 | 89.07 | 10.29 | 4.18 | 3.86 | 6.75 |
| RBC x10 ⁶ /µl | 1 | 313 | 313 | 87.86 | 90.42 | 5.43 | 3.83 | 6.71 | 5.75 |
| Hb g/dl | 1 | 313 | 313 | 85.94 | 90.73 | 5.11 | 4.47 | 8.95 | 4.8 |
| HCT% | 1 | 313 | 3 <mark>10</mark> | 92.26 | 89.03 | 4.52 | 4.52 | 3.22 | 6.45 |
| MCV-fl | 1 | 313 | 310 | 91.94 | 88.39 | 3.87 | 9.03 | 4.19 | 2.58 |
| MCH-Pg | 1 | 313 | 309 | 85.76 | <mark>91</mark> .91 | 5.5 | 4.21 | 8.74 | 3.88 |
| MCHC-g/dl | 1 | 313 | 309 | 91.59 | <mark>91.9</mark> 1 | 5.18 | 4.53 | 3.23 | 3.56 |
| Plt. x10³/µl | 1 | 313 | 311 | 94.53 | 87.14 | 4.5 | 6.43 | 0.97 | 6.43 |
| ReticCount% | 2 | 313 | 288 | 97.92 | 93.4 | 1.39 | 1.04 | 0.69 | 5.56 |
| PS Assessment | 3 | 313 | 289 | Satisfactory :74.77%, Borderline Sat. :9.58%, Unsatisfactory :15.65% | | | | | |

*Comments:

1). Among Lab (EQA) : CBC result for HCT, MCV & MCHC unacceptable, please check calibration/human error.Remaining results acceptable.

2). Within Lab (IQA) : MCHC & RETIC result is unacceptable, please check precision/human error.Remaining 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,

Jeye-

Dr. Seema Tyagi (Prof.) PT Co-ordinator: ISHTM-AIIMS-EQAP Department of Hematology, AIIMS, New Delhi

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