

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.: 5153

Distribution No.: 157-M Month/Year: October/2022

Instrument ID: Merilyzer CelQuant 5 (Sr no. 201203)

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: 24-11-2022[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 | | | Uncertainty of Assigned Values | Z Score | |
| WBC x10³/µl | 1 | 5.68 | 5.58 | 11.26 | 11.2 | 0.0290 | 0.07 | 0.1 | 0.1 | 0.0060 | 0.00 | |
| RBC x10 ⁶ /µl | 1 | 3.89 | 3.85 | 7.74 | 7.56 | 0.0080 | 0.86 | 0.04 | 0.04 | 0.0030 | 0.00 | |
| Hb g/dl | 1 | 12 | 11.9 | 23.9 | 23.7 | 0.0270 | 0.30 | 0.1 | 0.1 | 0.0080 | 0.00 | |
| HCT% | 1 | 37.1 | 36. <mark>7</mark> | 73.8 | 73.3 | 0.1660 | 0.10 | 0.4 | 0.4 | 0.0250 | 0.00 | |
| MCV-fl | 1 | 95.4 | 95.3 | 190.7 | 194.55 | 0.3960 | -0.33 | 0.1 | 0.3 | 0.0210 | -0.63 | |
| MCH-Pg | 1 | 30.9 | 30.8 | 61.7 | 62.6 | 0.0840 | -0.39 | 0.1 | 0.3 | 0.0200 | -0.54 | |
| MCHC-g/dl | 1 | 32.4 | 32.4 | 64.8 | 64.5 | 0.1500 | 0.07 | 0 | 0.3 | 0.0220 | -0.81 | |
| Plt. x10³/µl | 1 | 137 | 136 | 273 | 281.5 | 1.19 | -0.26 | 1 | 4 | 0.28 | -0.67 | |
| Retic % | 2 | 11 | 10 | 21 | 10.5 | 0.23 | 1.57 | 1 | 0.5 | 0.03 | 0.84 | |

P.S . Assesment

| | | YOUR REPORT | CONSENSUS REPORT | | | | |
|-------------------|---|-------------------------------------|--|--|--|--|--|
| DLC% | 3 | | Poly: 60 - 77, Myelo: 5 - 12, Meta: 5 - 10, Lympho: 3 - 7, Eos: 1- 3, nRBC/ Baso/ Promyelo, Blast Mono: 0 - 5 | | | | |
| RBC Morphology | 3 | UNATTOCVIIC DATTOCATOMIC | Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis hypochromia | | | | |
| Diagnosis | 3 | Chronic Myeloproliferative disorder | Chronic Myeloid Leukemia | | | | |

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COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test name atom | 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. 157M | | Among labs | Within lab | Among labs | Within lab | Among labs | Within lab | |
| WBC x10 ³ /µl | 1 | 333 | 332 | <mark>83</mark> .13 | 88.55 | 6.63 | 5.12 | 10.24 | 6.33 | |
| RBC x10 ⁶ /µl | 1 | 333 | 333 | 88.89 | 88.89 | 5.11 | 5.71 | 6 | 5.4 | |
| Hb g/dl | 1 | 333 | 333 | 86.49 | 85.89 | 6.01 | 6.91 | 7.5 | 7.2 | |
| HCT% | 1 | 333 | 3 <mark>31</mark> | 93.96 | 91.54 | 4.23 | 3.32 | 1.81 | 5.14 | |
| MCV-fl | 1 | 333 | 332 | 95.48 | 91.27 | 3.01 | 2.41 | 1.51 | 6.32 | |
| MCH-Pg | 1 | 333 | 332 | 90.36 | <mark>85</mark> .54 | 5.72 | 7.83 | 3.92 | 6.63 | |
| MCHC-g/dl | 1 | 333 | 332 | 93.67 | <mark>91.8</mark> 7 | 3.92 | 2.11 | 2.41 | 6.02 | |
| Plt. x10 ³ /µl | 1 | 333 | 332 | 91.57 | 92.17 | 5.72 | 4.22 | 2.71 | 3.61 | |
| ReticCount% | 2 | 333 | 296 | 88.18 | 88.18 | 7.43 | 7.09 | 4.39 | 4.73 | |
| PS Assessment | 3 | 333 | 269 | Satisfactory :87.66%, Borderline Sat. :11.14%, Unsatisfactory :1.20% | | | | | | |

*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 > ± 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 guarterly 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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