



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.: 4076

Distribution No.: 162-K

Month/Year: January/2023

Instrument ID: MINDRAY

Model Name.: 6200

Serial No.: TW 93000383

Name & Contact No. of PT Co-ordinator: Dr. Manoranjan Mahapatra (Prof. & Head), Hematology, AIIMS, Delhi,

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Date of issue & status of the report: 28-03-2024[Final].

CBC and Retic Assessment

| Test Parameters | S.No. | | | Amo | ng Lab (Ac | curacy Testi | Within Lab (Precision Testing) | | | | |
|--------------------------|-------|---------------------|------|---|------------|--------------------------------------|--------------------------------|---|---|--------------------------------------|------------|
| | | Your Result 1 | | Your Results Sum of 2 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 x10³/μl | 1 | 3.4 | 3.38 | 6.78 | 7 | 0.028 | -0.31 | 0.02 | 0.1 | 0.006 | -0.98 |
| RBC x10 ⁶ /μl | 1 | 4.51 | 4.48 | 8.99 | 8.85 | 0.012 | 0.53 | 0.03 | 0.04 | 0.003 | -0.22 |
| Hb g/dl | 1 | 9.1 | 9 | 18.1 | 18.1 | 0.022 | 0.00 | 0.1 | 0.1 | 0.007 | 0.00 |
| НСТ% | 1 | 28.6 | 28.4 | 57 | 61.4 | 0.125 | -1.35 | 0.2 | 0.3 | 0.025 | -0.27 |
| MCV-fl | 1 | 63.5 | 63.4 | 126.9 | 138.9 | 0.202 | -2.49 | 0.1 | 0.3 | 0.023 | -0.54 |
| МСН-Рд | 1 | 20.1 | 20 | 40.1 | 40.8 | . 0.063 | -0.45 | 0.1 | 0.2 | 0.013 | -0.67 |
| MCHC-g/dl | 1 | 31.7 | 31.5 | 63.2 | 58.8 | 0.123 | 1.36 | 0.2 | 0.3 | 0.019 | -0.34 |
| Plt. x10³/μl | 1 | 207 | 206 | 413 | 406.5 | 2.119 | 0.12 | 1 | 7 | 0.493 | -0.81 |
| Retic % | 2 | 25 | 23 | 48 | 21.5 | 0.322 | 3.50 | 2 | 0.5 | 0.042 | 2.53 |

P.S. Assesment

| • | | YOUR REPORT | CONSENSUS REPORT | | | | |
|-------------------|---|---|---|--|--|--|--|
| DLC% | 3 | Nrbcs=2 , Poly=5 L=9, E=2, Mono/Promono=18 , B1=21 P.M.=8, Mye=6, Meta=30, Other= | Blast: 21-86, Lympho: 3-10, Mono: 1-14, Poly: 1-6, nRBC/Eos/Baso/Myelo/Meta/ Promyelo: 0-5 | | | | |
| RBC Morphology | 3 | NORMOCYTIC NORMOCHROMIC AND NORMOCYTIC HYPOCHROMIC. | Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic, poikilocytosis | | | | |
| Diagnosis | 3 | ACUTE MYELOPROLIFERETIVE DISORDER | Acute Leukemia (AL) | | | | |

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| | C No. | Total participants | Total No. | % of Labs with Z Score 0-2 | | % of Labs with Z Score 2-3 | | % of Labs with Z Score >3 | |
|--------------------------|-------|-----------------------|-----------|-------------------------------|-------------|-------------------------------|---------------|------------------------------|------------|
| Test parameters S.No | | current dist. 162K | responded | Among labs | Within lab | Among labs | Within lab | Among labs | Within lab |
| WBC x10 ³ /µl | 1 | 268 | 267 | 88.76 | 91.76 | 3 | 4.12 | 8.24 | 4.12 |
| RBC x10 ⁶ /µl | 1 | 268 | 268 | 89.55 | 91.04 | 6.34 | 2.61 | 4.11 | 6.35 |
| Hb g/dl | 1 | 268 | 268 | 93.66 | 92.54 | 2.24 | 3.73 | 4.1 | 3.73 |
| HCT% | 1 | 268 | 266 | 92.48 | 90.6 | 5.26 | 4.14 | 2.26 | 5.26 |
| MCV-fl | 1 | 268 | 266 | 89.47 | 93.61 | 5.64 | . 3.38 | 4.89 | 3.01 |
| MCH-Pg | 1 | 268 | 265 | 88.68 | 88.68 | 7.17 | 6.42 | 4.15 | 4.9 |
| MCHC-g/dl | 1 | 268 - | 266 | 92.11 | 89.1 | 5.26 | 3.01 - | 2.63 | 7.89 |
| Plt. x10³/µl | 1 | 268 | 266 | 93.98 | 91.73 | 2.63 | 5.26 | 3.39 | 3.01 |
| ReticCount% | 2 | 268 | 223 | 87.89 | 83.86 | 10.31 | 11.21 | 1.8 | 4.93 |
| PS Assessment | 3 | 268 | 220 | Satisfactory | :95.91%, Bo | orderline Sat | t. :0.74%, U1 | nsatisfactory | :3.35% |

*Comments:

- 1). Among Lab (EQA): CBC result for RETIC 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 IOR)

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 $> \pm 3$: 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,

Dr. Manoranjan Mahapatra (Prof. & Head)

PT Co-ordinator: ISHTM-AIIMS-EQAP

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