



PROFICIENCY TESTING REPORT
ISHBT AIIMS EXTERNAL QUALITY ASSURANCE PROGRAMME
 NABL accredited program as per ISO/IEC 17043:2010 standard
 Organized by Department of Hematology, AIIMS, New Delhi-110029

IAAB Certificate No. PC-1902

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

EQAP CODE No. : 1272

Distribution No.: 152-D

Month/Year: February/2021

Instrument ID: Merilyzer cellquant (191216)

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: 02-03-2021[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 ⁹ /µl | 1 | 2.82 | 2.63 | 5.45 | 5.5 | 0.0200 | -0.09 | 0.19 | 0.1 | 0.0050 | 1.39 |
| RBC x10 ⁶ /µl | 1 | 4.74 | 4.71 | 9.45 | 9.32 | 0.0080 | 0.63 | 0.03 | 0.03 | 0.0020 | 0.00 |
| Hb g/dl | 1 | 13.1 | 13 | 26.1 | 27 | 0.0200 | -1.52 | 0.1 | 0.1 | 0.0070 | 0.00 |
| HCT% | 1 | 41.6 | 41.4 | 83 | 83.9 | 0.1780 | -0.15 | 0.2 | 0.3 | 0.0200 | -0.27 |
| MCV-fl | 1 | 88 | 87.7 | 175.7 | 179.9 | 0.3170 | -0.40 | 0.3 | 0.2 | 0.0170 | 0.15 |
| MCH-Pg | 1 | 27.6 | 27.6 | 55.2 | 57.7 | 0.0540 | -1.65 | 0 | 0.2 | 0.0140 | -0.90 |
| MCHC-g/dl | 1 | 31.5 | 31.4 | 62.9 | 64.15 | 0.1300 | -0.28 | 0.1 | 0.3 | 0.0120 | -0.67 |
| Plt. x10 ³ /µl | 1 | 103 | 97 | 200 | 196 | 0.75 | 0.19 | 6 | 4 | 0.26 | 0.15 |
| Retic % | 2 | 3.1 | 2.9 | 6 | 5 | 0.08 | 0.41 | 0.2 | 0.2 | 0.01 | 0.00 |

P.S . Assessment

| YOUR REPORT | | | CONSENSUS REPORT | | |
|----------------|---|--|--|--|--|
| DLC% | 3 | Nrbcs=76, Poly=69 L=28, E=0, Mono/Promono=0, B1=0 P.M.=0, Mye=0, Meta=0.3, Other=0 | nRBC: 30 - 65, Poly: 60 - 75, Lympho: 15-30, Eos/Mono: 1-5, Blast/Myelo/Meta: 0-1 | | |
| RBC Morphology | 3 | Macrocytes, macro-ovalocytes, microcytes, normocytes, tear drop cells, spherocytes | Predominantly: Macrocytosis, Microcytosis, Spherocytosis, Polychromasia, Anisocytosis; Moderate: Normocytic/Normochromic, Hypo | | |
| Diagnosis | 3 | Dimorphic anemia Predominantly macrocytic. Advised- Hemolytic workup | Hemolytic Anemia | | |

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(191216)

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 | 312 | 347 | 89.05 | 91.93 | 2.31 | 1.44 | 8.36 | 6.34 |
| RBC x10 ⁶ /µl | 1 | 312 | 347 | 89.63 | 90.78 | 6.92 | 3.46 | 3.17 | 5.19 |
| Hb g/dl | 1 | 312 | 347 | 91.07 | 93.08 | 6.92 | 2.59 | 2.02 | 4.32 |
| HCT% | 1 | 312 | 347 | 97.41 | 91.93 | 1.73 | 3.46 | 0.58 | 4.32 |
| MCV-fl | 1 | 312 | 347 | 97.12 | 85.59 | 1.44 | 8.93 | 0.86 | 4.9 |
| MCH-Pg | 1 | 312 | 347 | 91.35 | 90.78 | 6.05 | 3.46 | 2.31 | 5.48 |
| MCHC-g/dl | 1 | 312 | 347 | 98.27 | 91.93 | 0.29 | 3.75 | 1.15 | 3.75 |
| Plt. x10 ³ /µl | 1 | 312 | 347 | 93.08 | 91.64 | 3.46 | 5.48 | 3.17 | 2.59 |
| ReticCount% | 2 | 312 | 318 | 93.71 | 86.48 | 4.09 | 2.2 | 2.2 | 11.64 |
| PS Assessment | 3 | 312 | 335 | Acceptable:91.4,Warning Signal:7.7,Unacceptable :0.9 | | | | | |

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 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,

Dr. Seema Tyagi (Prof.)
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