



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. : 4332

Distribution No.: 153-K

Month/Year: October/2021

Instrument ID: 0801214180492

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: 10-12-2021[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 ³ /µl | 1 | 3.7 | 3.6 | 7.3 | 8.7 | 0.0440 | -1.45 | 0.1 | 0.13 | 0.0100 | -0.25 |
| RBC x10 ⁶ /µl | 1 | 5.19 | 5.18 | 10.37 | 10.4 | 0.0130 | -0.09 | 0.01 | 0.05 | 0.0040 | -0.67 |
| Hb g/dl | 1 | 16.3 | 16 | 32.3 | 32.5 | 0.0460 | -0.19 | 0.3 | 0.2 | 0.0100 | 1.35 |
| HCT% | 1 | 51.5 | 51.2 | 102.7 | 99.6 | 0.2350 | 0.48 | 0.3 | 0.5 | 0.0390 | -0.36 |
| MCV-fl | 1 | 99.3 | 98.9 | 198.2 | 190.7 | 0.3630 | 0.78 | 0.4 | 0.4 | 0.0290 | 0.00 |
| MCH-Pg | 1 | 31.4 | 30.8 | 62.2 | 62.4 | 0.0880 | -0.10 | 0.6 | 0.3 | 0.0190 | 1.35 |
| MCHC-g/dl | 1 | 31.6 | 31.2 | 62.8 | 65.35 | 0.1640 | -0.61 | 0.4 | 0.3 | 0.0210 | 0.34 |
| Plt. x10 ³ /µl | 1 | 126 | 124 | 250 | 284 | 1.84 | -0.69 | 2 | 6 | 0.36 | -0.77 |
| Retic % | 2 | 0.8 | 0.4 | 1.2 | 7 | 0.14 | -1.60 | 0.4 | 0.3 | 0.02 | 0.45 |

P.S . Assesment

| YOUR REPORT | | CONSENSUS REPORT |
|-----------------------|---|---|
| DLC% | 3 | Nrbcs=0 , Poly=5 L=94, E=1, Mono/Promono=0 , B1=0 P.M.=0, Mye=0, Meta=0, Other=0 |
| RBC Morphology | 3 | Lymp: 85-94, Poly: 4-12, blast: 1-8, nRBC/mono/Eosino/Myelo/Meta: 0-1 |
| Diagnosis | 3 | Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Macrocytosis, Poikilocytosis |
| | | many basket cells seen. suggestive of lympho proliferative disorder most likely chronic lymphoid leukaemia advise flow cytometry for confirmation |
| | | Chronic Lymphocytic Leukemia (CLL) |

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

| Test parameters | S.No. | Total participants covered in the current dist. 153--K | 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 x10³/µl | 1 | 267 | 267 | 77.9 | 88.01 | 6.74 | 2.25 | 15.36 | 9.74 |
| RBC x10⁶/µl | 1 | 267 | 267 | 91.01 | 86.52 | 6.37 | 7.49 | 2.62 | 5.99 |
| Hb g/dl | 1 | 267 | 267 | 88.39 | 61.42 | 7.87 | 32.21 | 3.74 | 6.37 |
| HCT% | 1 | 267 | 266 | 95.86 | 87.97 | 2.26 | 5.26 | 1.88 | 6.77 |
| MCV-fl | 1 | 267 | 266 | 94.36 | 95.49 | 4.89 | 2.26 | 0.75 | 2.25 |
| MCH-Pg | 1 | 267 | 266 | 88.35 | 89.47 | 7.14 | 3.38 | 4.51 | 7.15 |
| MCHC-g/dl | 1 | 267 | 266 | 95.49 | 89.85 | 3.38 | 4.14 | 1.13 | 6.01 |
| Plt. x10³/µl | 1 | 267 | 266 | 95.11 | 90.98 | 3.38 | 4.89 | 1.51 | 4.13 |
| ReticCount% | 2 | 267 | 267 | 95.13 | 84.27 | 2.62 | 1.5 | 2.25 | 14.23 |
| PS Assessment | 3 | 267 | 232 | Satisfactory :93.14%, Borderline Sat. :0.86%, Unsatisfactory :6% | | | | | |

***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 $> \pm 3$: 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 $> \pm 3$ 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.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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