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

PC-1002

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

EQAP CODE No. : 4317 **Distribution No.:** 156-K **Month/Year:** July/2022
Instrument ID: 705ES0H11486
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: 25-09-2022[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	5.6	5.5	11.1	9.2	0.0610	1.22	0.1	0.1	0.0110	0.00
RBC x10^6/µl	1	4.38	4.29	8.67	8.88	0.0110	-0.79	0.09	0.05	0.0030	0.77
Hb g/dl	1	13.6	13.2	26.8	27	0.0370	-0.21	0.4	0.1	0.0100	2.02
HCT%	1	45.4	44.1	89.5	83.2	0.2210	1.17	1.3	0.5	0.0370	1.54
MCV-fl	1	104	103	207	186.65	0.3960	2.26	1	0.3	0.0270	1.57
MCH-Pg	1	31	30.7	61.7	60.9	0.0870	0.41	0.3	0.3	0.0190	0.00
MCHC-g/dl	1	29.9	29.9	59.8	65.15	0.1890	-1.22	0	0.3	0.0210	-0.95
Plt. x10^3/µl	1	174	149	323	211.5	1.74	2.40	25	4	0.32	4.72
Retic %	2	3.7	3.5	7.2	3.8	0.10	1.36	0.2	0.2	0.01	0.00

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=40 L=2, E=2, Mono/Promono=1 , B1=1 P.M.=2, Mye=42, Meta=7, Other=	Poly: 35 - 48, Myelo: 14 - 26, Meta: 8 - 15, Promyelo: 3-7, nRBC/ Lympho /Blast/Eos/Baso/Mono: 0 - 5
RBC Morphology	3	RBC SHOW MILD ANISOCYTOSIS,PREDOMINANTLY NORMOCYTIC NORMOCHROMIC, MICROCYTES(+),MACROCYTES(+) SEEN.	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	MYELOPROLIFERATIVE NEOPLASM, MOST PROBABLY CHRONIC MYELOID LEUKEMIA-CHRONIC PHASE (CML-CP)	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 156--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	252	248	84.27	87.1	6.85	2.42	8.88	10.48
RBC x10⁶/µl	1	252	252	86.11	92.46	6.75	1.59	7.14	5.95
Hb g/dl	1	252	252	90.87	82.54	1.98	7.94	7.15	9.52
HCT%	1	252	248	94.35	91.94	2.42	2.82	3.23	5.24
MCV-fl	1	252	248	89.11	94.35	6.85	2.42	4.04	3.23
MCH-Pg	1	252	248	87.1	91.53	6.05	2.82	6.85	5.65
MCHC-g/dl	1	252	248	91.13	91.94	4.44	2.42	4.43	5.64
Plt. x10³/µl	1	252	248	92.34	89.11	3.63	5.24	4.03	5.65
ReticCount%	2	252	214	93.46	89.72	4.67	7.48	1.87	2.80
PS Assessment	3	252	213	Satisfactory :93.65%, Borderline Sat. :4.76%, Unsatisfactory :1.58%					

Comments:

1). Among Lab (EQA) : Results acceptable.

2). Within Lab (IQA) : Difference in the CBC measurement values for PLT unacceptable, may be due to random/human error.

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,

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

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

PROFICIENCY TESTING REPORT

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Organized By Department of Hematology, AIIMS, New Delhi-110029

PC-1002

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

EQAP CODE No. : 4317 **Distribution No.:** 158-K **Month/Year:** December/2022

Instrument ID: MICROS ES60 (705ESOH11486)

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: 23-02-2023[Final].

CBC and Retic Assessment

Test Parameters	S.No.	Your Result 1	Your Result 2	Among Lab (Accuracy Testing) Your Results Sum of 2 Vaiue	Consensus result sum of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score	Within Lab (Precision Testing) Yours Results Diff. of 2 Vaiues	Consensus Result Diff. of 2 values (Assigned Value)	Uncertainty of Assigned Values	Z Score
WBC x10³/µl	1	4.7	4.4	9.1	9.5	0.0430	-0.40	0.3	0.1	0.0290	1.93
RBC x10⁶/µl	1	3.61	3.59	7.2	7.47	0.0090	-1.40	0.02	0.03	0.0030	-0.34
Hb g/dl	1	11.7	11.6	23.3	24	0.0250	-1.18	0.1	0.1	0.0080	0.00
HCT%	1	35.4	34.9	70.3	73	0.1780	-0.60	0.5	0.3	0.0270	0.67
MCV-fl	1	99	97	196	196.1	0.3950	-0.01	2	0.3	0.0290	3.82
MCH-Pg	1	32.4	32.3	64.7	64.2	0.0830	0.26	0.1	0.3	0.0180	-0.90
MCHC-g/dl	1	33.5	32.7	66.2	65.5	0.1560	0.17	0.8	0.3	0.0220	1.69
Plt. x10³/µl	1	198	196	394	312	1.36	2.77	2	4	0.34	-0.45
Retic %	2	6.2	6.1	12.3	8	0.19	0.89	0.1	0.3	0.02	-0.90

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=3 , Poly=60 L=12, E=6, Mono/Promono=4 , B1=0 P.M.=1, Mye=14, Meta=1, Other=	Poly: 51 - 65, Myelo: 5 - 12, Meta: 5- 11, Lympho: 7- 14, Eosino: 2-6, Promyelo: 0-5, nRBC/Blast/Baso/Mono: 0 - 5
RBC Morphology	3	PREDOMINANTLY NORMOCYTIC NORMOCHROMIC WITH MICROCYTE (+) AND MACROCYTE (+)	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	1. MYELOPROLIFERATIVE DISORDER SUGGESTIVE OF CHRONIC MYELOID LEUKEMIA - CHRONIC PHASE (CML-CP) . 2. NEUTROPHILIC LEUCOCYTOSIS WITH LEFT SHIFT	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 158--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	233	229	83.41	88.65	1.75	5.24	14.84	6.11
RBC x10⁶/µl	1	233	233	83.26	85.84	8.15	7.3	8.59	6.86
Hb g/dl	1	233	233	88.41	91.42	6.87	0.86	4.72	7.72
HCT%	1	233	229	94.32	88.65	4.37	3.93	1.31	7.42
MCV-fl	1	233	229	97.38	97.38	2.18	0.87	0.44	1.75
MCH-Pg	1	233	229	90.83	91.27	6.11	4.37	3.06	4.36
MCHC-g/dl	1	233	229	97.38	87.77	1.31	6.55	1.31	5.68
Plt. x10³/µl	1	233	229	90.39	93.45	7.86	5.24	1.75	1.31
ReticCount%	2	233	204	96.08	86.27	3.43	1.96	0.49	11.77
PS Assessment	3	233	198	Satisfactory :87.56%, Borderline Sat. :10.30, Unsatisfactory :2.14%					

Comments:

1). Among Lab (EQA) : Results acceptable.

2). Within Lab (IQA) : Difference in the CBC measurement values for MCV unacceptable, may be due to random/human error.

Note-1: EQA (External Quality Assurance) : Your Performance among various of participating labs in PT, to determine the accuracy of your results.
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----------End Of Report----------