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. : 4484 **Distribution No.: 155-L** **Month/Year:** June/2023

Instrument ID: HUMACOUNT 5D

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: 04-07-2023[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 x10³/µl	1	14.7	14.2	28.9	24.12	0.1270	1.44	0.5	0.2	0.0130	1.32
RBC x10⁶/µl	1	6.13	6.12	12.25	12.05	0.0170	0.44	0.01	0.06	0.0040	-0.84
Hb g/dl	1	14.3	14.3	28.6	28.5	0.0290	0.12	0	0.1	0.0080	-1.35
HCT%	1	48.9	48.9	97.8	95.8	0.2590	0.26	0	0.5	0.0360	-0.84
MCV-fl	1	79.9	79.77	159.67	159.6	0.3180	0.01	0.13	0.3	0.0210	-0.46
MCH-Pg	1	23.37	23.33	46.7	47.1	0.0570	-0.26	0.04	0.2	0.0120	-1.08
MCHC-g/dl	1	29.24	29.24	58.48	58.9	0.1470	-0.10	0	0.25	0.0170	-0.84
Plt. x10³/µl	1	195	184	379	399	2.71	-0.25	11	9	0.55	0.21
Retic %	2										

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=02 , Poly=71 L=04, E=00, Mono/Promono=01 , B1=00 P.M.=00, Mye=16, Meta=08, Other=00	Poly: 50 – 66, Myelo: 9 - 18, Meta: 6 – 13, Lympho: 3-7, nRBC/Promyelo/Blast/Eos/Baso/Mono: 0 – 5
RBC Morphology	3	NORMOCYTES (+), MICROCYTES(+), ANISOCYTOSIS (+)	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	CHRONIC MYELOPROLIFERATIVE NEOPLASM ? CML	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 155--L	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	347	334	87.43	89.22	5.69	4.19	6.88	6.59
RBC x10^6/µl	1	347	347	83.29	86.46	7.49	2.02	9.22	11.52
Hb g/dl	1	347	347	87.32	84.73	4.9	6.05	7.78	9.22
HCT%	1	347	333	90.39	88.89	6.61	5.11	3	6
MCV-fl	1	347	333	90.09	86.19	5.41	3.9	4.5	9.91
MCH-Pg	1	347	333	87.99	93.69	7.51	3	4.5	3.31
MCHC-g/dl	1	347	333	91.59	86.79	4.8	4.5	3.61	8.71
Plt. x10^3/µl	1	347	333	96.7	86.19	1.8	8.71	1.5	5.1
ReticCount%	2	347	222	91.44	93.24	5.41	2.7	3.15	4.06
PS Assessment	3	347	230	Satisfactory :96.26%, Borderline Sat. :2.88%, Unsatisfactory :0.86%					

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.

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

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-1662

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

EQAP CODE No. : 4484 **Distribution No.:** 157-L **Month/Year:** October/2023

Instrument ID: HUMACOUNT 5D

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: 17-11-2023[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	6.7	6.6	13.3	12.5	0.0700	0.51	0.1	0.11	0.0090	-0.07
RBC x10^6/µl	1	4.39	4.38	8.77	8.41	0.0130	1.01	0.01	0.04	0.0030	-0.51
Hb g/dl	1	11.9	11.8	23.7	23.6	0.0280	0.15	0.1	0.1	0.0090	0.00
HCT%	1	40.3	40	80.3	74	0.1930	1.23	0.3	0.4	0.0280	-0.22
MCV-fl	1	91.8	91.32	183.12	177.4	0.3730	0.55	0.48	0.3	0.0230	0.49
MCH-Pg	1	27.17	26.88	54.05	56.4	0.0820	-1.17	0.29	0.2	0.0220	0.30
MCHC-g/dl	1	29.75	29.28	59.03	63.7	0.1580	-1.11	0.47	0.3	0.0220	0.57
Plt. x10^3/µl	1										
Retic %	2	12	10	22	7.18	0.17	3.08	2	0.4	0.03	2.40

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=00 , Poly=03 L=07, E=00, Mono/Promono=00 , B1=90 P.M.=00, Mye=00, Meta=00, Other=00	Blast: 44-90, Lympho: 4-21, Poly: 1-6, nRBC/Eos/Baso/Mono /Myelo/Meta/ Promyelo: 0-5
RBC Morphology	3	NORMOCYTES(+), MICROCYTES(+), ANISOCYTOSIS(+)	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3	ACUTE LEUKEMIA ?ALL	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 156--L	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	318	306	92.16	82.35	5.56	5.88	2.28	11.77
RBC x10^6/µl	1	318	318	87.11	83.65	5.35	4.4	7.54	11.95
Hb g/dl	1	318	318	87.74	84.91	3.14	5.35	9.12	9.74
HCT%	1	318	307	92.18	89.25	4.56	5.21	3.26	5.54
MCV-fl	1	318	307	91.21	91.86	5.54	3.58	3.25	4.56
MCH-Pg	1	318	307	89.25	85.67	4.89	3.58	5.86	10.75
MCHC-g/dl	1	318	307	90.88	86.97	5.86	5.21	3.26	7.82
Plt. x10^3/µl	1	318	307	91.86	92.18	5.86	2.61	2.28	5.21
ReticCount%	2	318	218	91.28	83.94	3.67	13.3	5.05	2.76
PS Assessment	3	318	216	Satisfactory :93.4%, Borderline Sat. :2.83%, Unsatisfactory :3.77%					

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.

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

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. : 4484 **Distribution No.:** 156-L **Month/Year:** August/2022

Instrument ID: HUMACOUNT 5D

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: 27-09-2023[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 x10³/µl	1	7.5	6.9	14.4	12.18	0.0990	0.74	0.6	0.15	0.0120	2.76
RBC x10⁶/µl	1	4.61	4.58	9.19	8.69	0.0140	1.27	0.03	0.05	0.0040	-0.30
Hb g/dl	1	12.4	12.4	24.8	24.8	0.0290	0.00	0	0.1	0.0100	-0.45
HCT%	1	41.6	41.4	83	79.6	0.2150	0.59	0.2	0.4	0.0290	-0.34
MCV-fl	1	90.39	90.24	180.63	183.3	0.3570	-0.26	0.15	0.4	0.0270	-0.48
MCH-Pg	1	27.07	26.9	53.97	57.3	0.0800	-1.70	0.17	0.3	0.0200	-0.44
MCHC-g/dl	1	29.95	29.81	59.76	62.4	0.1610	-0.61	0.14	0.3	0.0230	-0.43
Plt x10³/µl	1	186	170	356	348	1.70	0.18	16	7	0.47	1.01
Retic %	2										

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=03 , Poly=23 L=03, E=00, Mono/Promono=02 , B1=00 P.M.=01, Mye=50, Meta=21, Other=00	Poly: 32 – 50, Myelo: 14 - 28, Meta: 10 – 18, Promyelo: 2-8, Lympho: 2-7, nRBC/ /Blast/Eos/Baso/Mono: 0 – 5
RBC Morphology	3	MICROCYTES(+), NORMOCYTES(+),ANISOCYTOSIS(+)	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	CHRONIC MYELOPROLIFERATIVE NEOPLASM ? CML	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 157--L	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 $x10^3/\mu l$	1	312	300	77.33	90	6.33	2.33	16.34	7.67
RBC $x10^6/\mu l$	1	312	312	88.14	83.65	3.85	5.45	8.01	10.9
Hb g/dl	1	312	312	84.29	82.69	5.45	5.77	10.26	11.54
HCT%	1	312	301	90.03	87.04	6.31	5.65	3.66	7.31
MCV-fl	1	312	301	93.02	89.37	4.65	6.64	2.33	3.99
MCH-Pg	1	312	301	87.71	90.03	7.97	2.66	4.32	7.31
MCHC-g/dl	1	312	301	92.36	91.03	5.98	2.99	1.66	5.98
Plt. $x10^3/\mu l$	1	312	297	93.27	92.26	4.38	3.7	2.35	4.04
ReticCount%	2	312	206	88.83	89.81	5.83	7.28	5.34	2.91
PS Assessment	3	312	199	Satisfactory :90.04%, Borderline Sat. :3.21%, Unsatisfactory :6.75%					

Comments:

1). Among Lab (EQA) : CBC result for and 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.
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