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. : 1879 **Distribution No.:** 157-E **Month/Year:** August/2022

Instrument ID: A7125

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: 22-10-2022[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	9.9	9.8	19.7	17.38	0.1220	**0.74**	0.1	0.17	0.0110	**-0.47**
RBC x10^6/µl	1	5.69	5.67	11.36	10.98	0.0110	**1.27**	0.02	0.04	0.0030	**-0.45**
Hb g/dl	1	10.9	10.9	21.8	21.1	0.0220	**1.18**	0	0.1	0.0070	**-1.35**
HCT%	1	40.3	40.2	80.5	71.3	0.1690	**2.01**	0.1	0.3	0.0230	**-0.54**
MCV-fl	1	70.9	70.8	141.7	129.15	0.2640	**1.68**	0.1	0.2	0.0120	**-0.45**
MCH-Pg	1	19.2	19.2	38.4	38.5	0.0510	**-0.08**	0	0.1	0.0090	**-0.79**
MCHC-g/dl	1	27.1	27.1	54.2	59.2	0.1610	**-1.12**	0	0.2	0.0130	**-0.90**
Plt. x10^3/µl	1	288	285	573	465	2.38	**1.64**	3	7	0.49	**-0.49**
Retic %	2	4.3	4	8.3	8.5	0.17	**-0.04**	0.3	0.4	0.02	**-0.34**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=3 , Poly=30 L=5, E=01, Mono/Promono=0 , B1=02 P.M.=03, Mye=11, Meta=14, Other=Plasma Cells/plasma blast cells:34	Poly: 19 – 36, Myelo: 20 - 40, Meta: 9 – 20, Lympho: 2 – 6, Promyelo: 1 - 6, nRBC/ Baso/ Eos/ Mono /Blast: 0 – 5
RBC Morphology	3	Moderate anisopoikilocytosis with Predominantly macrocytic and microcytic cells, with few normocytic normochromic cells. Also seen are few tear drop cells.	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	Plasma Cell Leukemia.	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 157--E	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	313	311	85.85	89.07	10.29	4.18	3.86	6.75
RBC $x10^6$/µl	1	313	313	87.86	90.42	5.43	3.83	6.71	5.75
Hb g/dl	1	313	313	85.94	90.73	5.11	4.47	8.95	4.8
HCT%	1	313	310	92.26	89.03	4.52	4.52	3.22	6.45
MCV-fl	1	313	310	91.94	88.39	3.87	9.03	4.19	2.58
MCH-Pg	1	313	309	85.76	91.91	5.5	4.21	8.74	3.88
MCHC-g/dl	1	313	309	91.59	91.91	5.18	4.53	3.23	3.56
Plt. $x10^3$/µl	1	313	311	94.53	87.14	4.5	6.43	0.97	6.43
ReticCount%	2	313	288	97.92	93.4	1.39	1.04	0.69	5.56
PS Assessment	3	313	289	Satisfactory :74.77%, Borderline Sat. :9.58%, Unsatisfactory :15.65%					

*Comments:

1). Among Lab (EQA) : PS Diagnosis wrongly reported, remaining 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-1002

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

EQAP CODE No. : 1879 **Distribution No.:** 155-E **Month/Year:** March/2022

Instrument ID: XP 100 A7125 SYSMAX

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: 29-04-2022[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	3.3	3.2	6.5	6.4	0.0320	**0.11**	0.1	0.09	0.0050	**0.15**
RBC x10^6/µl	1	3.16	3.1	6.26	6.14	0.0070	**0.65**	0.06	0.03	0.0020	**1.01**
Hb g/dl	1	11.8	11.7	23.5	22.4	0.0210	**2.02**	0.1	0.1	0.0070	**0.00**
HCT%	1	34.4	33.8	68.2	69.4	0.1290	**-0.34**	0.6	0.3	0.0230	**1.01**
MCV-fl	1	109	108.9	217.9	225.1	0.3410	**-0.78**	0.1	0.4	0.0310	**-0.51**
MCH-Pg	1	37.7	37.3	75	73.1	0.0970	**0.71**	0.4	0.3	0.0220	**0.34**
MCHC-g/dl	1	34.6	34.3	68.9	64.65	0.1280	**1.15**	0.3	0.3	0.0150	**0.00**
Plt. x10^3/µl	1	187	186	373	351	1.21	**0.67**	1	5	0.31	**-0.77**
Retic %	2	7	6.8	13.8	15.5	0.26	**-0.25**	0.2	0.5	0.04	**-0.51**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=02 , Poly=40 L=04, E=01, Mono/Promono=01 , B1=01 P.M.=01, Mye=36, Meta=16, Other=	Poly: 37 – 50, Myelo: 16 - 32, Meta: 8 – 16, Promyelo: 1-10, nRBC/Lympho/Blast/Eos/Baso/Mono: 0 – 5
RBC Morphology	3	Normocytic Normochromic, mild anisocytosis, occasional microcytes, mild hypochromia, Occasional polychromatic RBCs seen..	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	Chronic Myeloid Leukemia Chronic Phase.	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 155--E	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	320	318	89.94	90.25	5.66	3.77	4.4	5.98
RBC $x10^6$/µl	1	320	320	88.13	87.81	6.56	3.13	5.31	9.06
Hb g/dl	1	320	320	85	91.25	5.63	3.13	9.37	5.62
HCT%	1	320	318	93.4	88.36	5.03	5.97	1.57	5.67
MCV-fl	1	320	317	94.01	95.58	4.42	1.58	1.57	2.84
MCH-Pg	1	320	317	90.22	88.01	4.1	5.36	5.68	6.63
MCHC-g/dl	1	320	318	93.08	90.25	4.09	4.72	2.83	5.03
Plt. $x10^3$/µl	1	320	318	89.94	88.99	6.92	5.66	3.14	5.35
ReticCount%	2	320	298	90.94	88.26	6.04	6.38	3.02	5.36
PS Assessment	3	320	300	Satisfactory :87.16%, Borderline Sat. :6.89%, Unsatisfactory :5.95%					

*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,

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PT Co-ordinator: ISHTM-AIIMS-EQAP
Department of Hematology, AIIMS, New Delhi

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

PROFICIENCY TESTING REPORT

ISHTM-AIIMS EXTERNAL QUALITY ASSURANCE PROGRAMME

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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. : 1879 **Distribution No.:** 156-E **Month/Year:** May/2022

Instrument ID: XP-100 (A7125 Sysmex)

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: 28-07-2022[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	6.8	6.6	13.4	14.31	0.0900	**-0.43**	0.2	0.12	0.0110	**0.47**
RBC x10^6/µl	1	3.83	3.77	7.6	7.73	0.0090	**-0.57**	0.06	0.04	0.0030	**0.54**
Hb g/dl	1	13.9	13.8	27.7	26.8	0.0300	**1.01**	0.1	0.1	0.0080	**0.00**
HCT%	1	41.9	41.5	83.4	87	0.2310	**-0.56**	0.4	0.4	0.0260	**0.00**
MCV-fl	1	110.1	109.4	219.5	224	0.4640	**-0.37**	0.7	0.3	0.0240	**0.90**
MCH-Pg	1	36.6	36.3	72.9	69.2	0.1030	**1.41**	0.3	0.3	0.0210	**0.00**
MCHC-g/dl	1	33.3	33.2	66.5	61.2	0.1770	**1.16**	0.1	0.2	0.0200	**-0.34**
Plt. x10^3/µl	1	307	296	603	567.5	3.17	**0.41**	11	7	0.44	**0.65**
Retic %	2	5.2	5	10.2	20.5	0.36	**-1.10**	0.2	0.7	0.05	**-0.84**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=56 L=03, E=01, Mono/Promono=01 , B1=02 P.M.=02, Mye=19, Meta=15, Other=	Poly: 40 – 56, Myelo: 14 - 26, Meta: 7 – 16, Promyelo: 2-6, nRBC/ Lympho /Blast/Eos/Baso/Mono: 0 – 5
RBC Morphology	3	Mild anosocytosis, normocytic normochromic, microcytic hypochromic cells	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia, Microcytosis; Mild: Macrocytosis, Poikilocytosis
Diagnosis	3	Chronic Myeloid Leukemia (Chronic Phase)	Chronic Myeloid Leukemia (Chronic Phase)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 156--E	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	298	296	77.36	88.51	7.43	5.07	15.21	6.42
RBC $x10^6$/µl	1	298	298	88.59	89.6	5.37	4.36	6.04	6.04
Hb g/dl	1	298	298	86.91	84.23	4.03	8.39	9.06	7.38
HCT%	1	298	296	91.22	89.86	6.42	6.08	2.36	4.06
MCV-fl	1	298	295	89.49	94.24	6.78	2.03	3.73	3.73
MCH-Pg	1	298	295	88.47	90.85	5.42	4.41	6.11	4.74
MCHC-g/dl	1	298	295	91.19	90.51	5.08	3.05	3.73	6.44
Plt. $x10^3$/µl	1	298	296	89.19	88.85	8.78	5.74	2.03	5.41
ReticCount%	2	298	270	90	80.37	5.56	14.44	4.44	5.19
PS Assessment	3	298	279	Satisfactory :91.29%, Borderline Sat. :5.36%, Unsatisfactory :3.35%					

*Comments:

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

2). Within Lab (IQA) : Precision acceptable.

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IQR = Quartile 3 - Quartile 1 of participant data, Normalised IQR = 0.7413 x IQR

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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).

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