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

PARTICIPATION CERTIFICATE

[Certificate No. EAQP/5023/2022/30]

Date 30.12.2022

This is to certify that" **REGIONAL AYURVEDA RESEARCH INSTITUTE, NAGPUR, Nagpur, Maharashtra, 440009** "has participated in the "ISHTM-AIIMS External Quality Assurance Program" for the period "January 2022 to December 2022".

Report authorized by,

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

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. : 5023 **Distribution No.:** 158-M **Month/Year:** January/2023

Instrument ID: SYSMEX XP - 100

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: 28-02-2023[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	6.2	6.1	12.3	13.31	0.0350	-1.15	0.1	0.1	0.0070	0.00
RBC x10^6/µl	1	4.98	4.91	9.89	10.24	0.0120	-0.98	0.07	0.05	0.0030	0.39
Hb g/dl	1	13.1	13.1	26.2	26.5	0.0270	-0.40	0	0.1	0.0080	-0.67
HCT%	1	40.6	39.9	80.5	85.7	0.2190	-0.69	0.7	0.4	0.0250	0.81
MCV-fl	1	81.5	81.3	162.8	169.4	0.3530	-0.57	0.2	0.3	0.0190	-0.30
MCH-Pg	1	26.7	26.3	53	51.5	0.0590	0.92	0.4	0.2	0.0140	0.90
MCHC-g/dl	1	32.8	32.3	65.1	61	0.1400	0.75	0.5	0.3	0.0210	0.67
Plt. x10^3/µl	1	423	417	840	781	2.99	0.66	6	9	0.52	-0.37
Retic %	2	9.5	9	18.5	15.3	0.22	0.53	0.5	0.5	0.03	0.00

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=2 , Poly=2 L=11, E=0, Mono/Promono=0 , B1=36 P.M.=47, Mye=2.0, Meta=2, Other=	Blast: 65-88, Lympho: 5-14, Poly: 2-5, nRBC/Eos/Baso/Mono /Myelo/Meta/ Promyelo: 0-5
RBC Morphology	3	Predominantly Normochromic , Mild anisocytosis , Predominantly Normocytic with few Microcytes	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3		Acute Leukemia (AL)

6.3.23

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 158--M	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	337	334	84.13	84.13	5.99	6.29	9.88	9.58
RBC $x10^6/\mu l$	1	337	337	89.91	89.61	5.93	5.04	4.16	5.35
Hb g/dl	1	337	337	89.02	85.46	5.04	4.15	5.94	10.39
HCT%	1	337	335	97.91	90.15	0.9	5.37	1.19	4.48
MCV-fl	1	337	335	97.91	87.16	1.49	6.57	0.6	6.27
MCH-Pg	1	337	335	88.66	89.55	7.46	4.78	3.88	5.67
MCHC-g/dl	1	337	335	98.21	86.87	0.9	7.76	0.89	5.37
Plt. $x10^3/\mu l$	1	337	335	94.93	92.54	3.28	2.99	1.79	4.47
ReticCount%	2	337	295	91.53	85.42	6.1	9.83	2.37	4.75
PS Assessment	3	337	282	Satisfactory :97.93%, Borderline Sat. :1.18%, Unsatisfactory :0.890%					

*Comments:

1). Among Lab (EQA) : **PS Diagnosis not 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----------

6.3.23

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. : 5023 **Distribution No.:** 157-M **Month/Year:** October/2022

Instrument ID: SYSMEX XP-100 (A1143)

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: 24-11-2022[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	11.2	0.0290	-0.12	0.1	0.1	0.0060	0.00
RBC x10^6/µl	1	3.76	3.71	7.47	7.56	0.0080	-0.40	0.05	0.04	0.0030	0.22
Hb g/dl	1	12	12	24	23.7	0.0270	0.45	0	0.1	0.0080	-0.67
HCT%	1	34.5	34.1	68.6	73.3	0.1660	-0.98	0.4	0.4	0.0250	0.00
MCV-fl	1	91.9	91.8	183.7	194.55	0.3960	-0.94	0.1	0.3	0.0210	-0.63
MCH-Pg	1	32.3	31.9	64.2	62.6	0.0840	0.69	0.4	0.3	0.0200	0.27
MCHC-g/dl	1	35.2	34.8	70	64.5	0.1500	1.28	0.4	0.3	0.0220	0.27
Plt. x10^3/µl	1	157	155	312	281.5	1.19	0.95	2	4	0.28	-0.45
Retic %	2	1.9	1.6	3.5	10.5	0.23	-1.05	0.3	0.5	0.03	-0.34

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT
DLC%	3	Nrbcs=1 , Poly=79 L=1, E=2, Mono/Promono=0 , B1=0 P.M.=2, Mye=7, Meta=9, Other=	Poly: 60 - 77, Myelo: 5 - 12, Meta: 5 - 10, Lympho: 3 - 7, Eos: 1- 3, nRBC/ Baso/ Promyelo, Blast Mono: 0 - 5
RBC Morphology	3	Predominantly Normocytic Normochromic.Mild Anisocytosis with few microcytes & macrocytes seen. Mild Anisochromia mainly mild Hypochromia	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromia
Diagnosis	3		Chronic Myeloid Leukemia

07/12/2022

7.12.22

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. : 5023 **Distribution No.:** 156-M **Month/Year:** July/2022

Instrument ID: SYSMAX XP -100 (A1143)

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: 28-09-2022[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	2.8	2.8	5.6	6.47	0.0430	-0.98	0	0.1	0.0110	-0.84
RBC x10^6/µl	1	3.93	3.83	7.76	7.95	0.0160	-0.64	0.1	0.06	0.0050	0.60
Hb g/dl	1	13.5	13.1	26.6	27	0.0470	-0.54	0.4	0.17	0.0160	1.06
HCT%	1	39.1	38.1	77.2	83.05	0.3440	-0.81	1	0.6	0.0610	0.49
MCV-fl	1	99.5	99.5	199	209.8	0.6860	-0.74	0	0.5	0.0540	-0.84
MCH-Pg	1	35.2	33.3	68.5	67.9	0.1360	0.23	1.9	0.3	0.0360	3.60
MCHC-g/dl	1	35.4	33.5	68.9	64.05	0.2860	0.83	1.9	0.4	0.0380	2.89
Plt. x10^3/µl	1	151	150	301	282	1.67	0.57	1	6	0.45	-0.96
Retic %	2	3	2	5	3	0.11	0.84	1	0.2	0.02	2.70

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=3.0 , Poly=03 L=94, E=00, Mono/Promono=03 , B1=0 P.M.=0, Mye=0, Meta=00, Other=00	Blast: 32-75, Lympho: 11-39, Poly: 4-9, nRBC/Eos/Baso/Mono /Myelo/Meta/ Promyelo: 0-5
RBC Morphology	3	Normocytic Normochromic	Predominantly: Normocytic/ Normochromic, Moderate: Anisocytosis, Microcytic
Diagnosis	3	Normocytic Normochromic Anaemia with Lymphocytosis with Thrombocytopenia	Acute Leukemia (AL)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 156--M	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	171	170	83.53	81.18	5.29	6.47	11.18	12.35
RBC x10^6/µl	1	171	171	83.63	85.38	8.19	5.26	8.18	9.36
Hb g/dl	1	171	171	77.19	91.81	8.77	1.75	14.04	6.44
HCT%	1	171	170	91.18	88.82	6.47	4.12	2.35	7.06
MCV-fl	1	171	170	93.53	85.88	5.29	2.35	1.18	11.77
MCH-Pg	1	171	170	85.88	85.29	6.47	5.88	7.65	8.83
MCHC-g/dl	1	171	170	93.53	88.24	4.12	2.94	2.35	8.82
Plt. x10^3/µl	1	171	170	91.76	86.47	6.47	7.06	1.77	6.47
ReticCount%	2	171	153	89.54	86.93	6.54	9.15	3.92	3.92
PS Assessment	3	171	149	Satisfactory :78.95%, Borderline Sat. :11.11%, Unsatisfactory :9.94%					

***Comments:**

1). Among Lab (EQA) : PS Diagnosis partially correct, remaining results acceptable

2). Within Lab (IQA) : Difference in the CBC measurement values for MCH 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)
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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]

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