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

NABL Certificate No. PC - 1002

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

EQAP CODE No. : 2126 **Distribution No.:** 149-F **Month/Year:** December/2019

Instrument ID: MINDARY BC 5000

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: 09-03-2020[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	6.92	4	10.92	11.63	0.0270	**-0.86**	2.92	0.1	0.0080	**22.38**
RBC x10^6/µl	1	3.77	3.5	7.27	8.06	0.0070	**-3.81**	0.27	0.04	0.0020	**5.17**
Hb g/dl	1	10.9	10	20.9	22.2	0.0200	**-1.95**	0.9	0.1	0.0070	**5.40**
HCT%	1	34.9	34	68.9	66.8	0.1410	**0.46**	0.9	0.3	0.0210	**1.62**
MCV-fl	1	92.6	80	172.6	166.25	0.3130	**0.57**	12.6	0.2	0.0200	**27.88**
MCH-Pg	1	28.9	27	55.9	55	0.0540	**0.61**	1.9	0.2	0.0100	**7.64**
MCHC-g/dl	1	31.2	31	62.2	66.7	0.1380	**-0.88**	0.2	0.3	0.0190	**-0.27**
Plt. x10^3/µl	1	166	100	266	340	0.92	**-2.73**	66	6	0.32	**10.12**
Retic %	2	5		5							

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT
DLC%	3	Nrbcs=10-15/100 WBCs , Poly=05% L=10%, E=10%, Mono/Promono=05% , B1=09% P.M.=04%, Mye=08%, Meta=12%, Other=00%	Poly: 50-60, Lymph: 2-6, nRBC/Eo/Mono/Blast/Pro: 0-5, My: 10-20, Meta: 10-15
RBC Morphology	3	00%	Predominantly: Normocytic Normochromic. Moderate: Micro. Mild: Hypo, Aniso.
Diagnosis	3	CHRONIC MYELOID LEUKEMIA	Chronic Myeloid Leukemia (Chronic Phase) : CML-CP

EQAP Code No.: 2126 *Distribution No.: 149-F* *Month/Year: December/2019* *Instrument ID: MINDARY BC 5000*

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist.	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	450	366	90.98	84.97	3.28	6.83	5.19	7.1
RBC x10^6/µl	1	450	366	89.89	88.25	5.46	5.19	4.1	6.01
Hb g/dl	1	450	366	92.08	86.89	4.92	3.83	2.46	8.74
HCT%	1	450	366	95.08	90.16	3.01	5.74	1.37	3.55
MCV-fl	1	450	366	96.99	95.63	1.37	1.64	1.09	2.19
MCH-Pg	1	450	366	87.7	89.62	7.65	5.19	4.1	4.64
MCHC-g/dl	1	450	366	97.54	88.25	1.64	4.92	0.27	6.28
Plt. x10^3/µl	1	450	366	89.34	91.53	7.92	4.64	1.91	3.01
ReticCount%	2	450	301	94.02	74.75	2.99	20.6	2.99	7.64
PS Assessment	3	450	349	Acceptable:96.2%,Warning Signal:3.2%,Unacceptable :0.6%					

***Comments:**

1). Among Lab (EQA) : CBC result for RBC unacceptable, may be due to random/human error, PS partially correct, PS Morph not reported

2). Within Lab (IQA) : Difference for most of the CBC results unacceptable, check precision.

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.

Report authorized by,

Dr. R. Saxena
Prof & Head, Hematology, AIIMS, Delhi.
PT Co-ordinator: ISHTM-AIIMS-EQAP

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

PROFICIENCY TESTING REPORT

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NABL Certificate No. PC - 1002

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

EQAP CODE No. : 2126 **Distribution No.:** 152-F **Month/Year:** February/2021

Instrument ID: H560 (K11042015033)

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: 25-03-2021[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	3.4	7.1	6.7	0.0230	**0.75**	0.3	0.1	0.0060	**3.17**
RBC x10^6/µl	1	4.16	4.15	8.31	8.3	0.0090	**0.04**	0.01	0.04	0.0030	**-1.01**
Hb g/dl	1	13.4	13.3	26.7	27.2	0.0300	**-0.69**	0.1	0.1	0.0080	**0.00**
HCT%	1	44	43.9	87.9	85.1	0.1870	**0.52**	0.1	0.4	0.0260	**-0.95**
MCV-fl	1	105.8	105.7	211.5	206	0.3690	**0.64**	0.1	0.3	0.0280	**-0.39**
MCH-Pg	1	32.1	32.1	64.2	65.5	0.0880	**-0.70**	0	0.25	0.0190	**-0.84**
MCHC-g/dl	1	30.4	30.3	60.7	64.1	0.1500	**-0.92**	0.1	0.3	0.0190	**-0.67**
Plt. x10^3/µl	1	112	111	223	204	1.39	**0.61**	1	4	0.34	**-0.67**
Retic %	2	6.5	6.5	13	8.5	0.17	**1.11**	0	0.3	0.03	**-0.54**

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=5-7/100 WBCs , Poly=40% L=08%, E=05%, Mono/Promono=09% , B1=05% P.M.=02%, Mye=10%, Meta=11%, Other=Stab Cells and Band cells 06% +03%	Poly: 35 – 65, Myelo: 10 – 30, Meta: 5 – 15, Promyelo: 1 – 10, nRBC/Baso/Blast/Lympho/Eos/Mono: 0 – 5
RBC Morphology	3	Normocytic Normochromic cells	Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Anisocytosis; Mild: Hypochromia, Macrocytosis, Poikilocytosis
Diagnosis	3	Chronic myeloid leukemia (CML) Chronic phase	Chronic Myeloid Leukemia (CML)

EQAP Code No.: 2126 *Distribution No.: 152-F* *Month/Year: February/2021* *Instrument ID: H560 (K11042015033)*

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist.	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	236	255	89.41	87.84	3.14	0.78	7.45	10.2
RBC x10^6/µl	1	236	255	89.8	91.76	5.49	3.92	4.71	3.92
Hb g/dl	1	236	255	93.33	92.16	3.53	3.53	3.14	4.31
HCT%	1	236	255	94.12	89.8	5.49	2.75	0	6.67
MCV-fl	1	236	255	91.76	93.33	5.88	2.75	1.57	3.53
MCH-Pg	1	236	255	85.1	88.63	9.41	5.1	5.1	5.49
MCHC-g/dl	1	236	255	96.08	89.02	2.75	3.14	0.39	7.06
Plt. x10^3/µl	1	236	255	89.8	88.63	5.88	3.53	3.92	7.45
ReticCount%	2	236	235	92.34	92.34	4.68	5.11	3.4	2.98
PS Assessment	3	236	244	Acceptable:95.3,Warning Signal:0.9,Unacceptable :3.8					

***Comments:**

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

2). Within Lab (IQA) : Difference in the CBC measurement values for *WBC* 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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Report authorized by,

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

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