



**PROFICIENCY TESTING REPORT**  
**ISHBT-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. : 1169

Distribution No. : 152-C

Month/Year: January/2021

Instrument ID: A 5203 SYSMEX SP-100

Name & Contact No. of PT Co-ordinator: Dr. Seema Tyagi (Prof.), Hematology, AIIMS, Delhi.  
 Phone: 011-26571011 Mail: accuracy2000@gmail.com

Date of issue & status of the report: 25-02-2021[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 <sup>9</sup> /pl	1	4.1	4	8.1	7.2	0.0350	0.83	0.1	0.1	0.0060	0.00	
RBC x10 <sup>6</sup> /pl	1	3.22	3.19	6.41	6.63	0.0070	-1.29	0.03	0.03	0.0020	0.00	
Hb g/dl	1	11.2	11	22.2	22.7	0.0190	-0.96	0.2	0.1	0.0070	1.15	
HCT%	1	33.3	33	66.3	71.4	0.1540	-0.99	0.3	0.3	0.0230	0.00	
MCV-fL	1	103.4	103.4	206.8	213.95	0.3740	-0.53	0	0.3	0.0270	-0.58	
MCH-Pg	1	35.1	34.2	69.3	68.5	0.0680	0.43	0.9	0.3	0.0200	1.62	
MCHC-g/dl	1	33.9	33	66.9	63.4	0.1230	0.80	0.9	0.3	0.0190	1.62	
Plt. x10 <sup>9</sup> /pl	1	152	143	295	288.5	1.12	0.21	9	4	0.25	1.15	
Retic %	2	6	5.6	11.6	13	0.20	-0.24	0.4	0.5	0.02	-0.27	

**P.S. Assessment**

YOUR REPORT		CONSENSUS REPORT
DLC%	3 Nrbcs=0, Poly=22, L=72, E=0, Mono/Promono=00, B1=0, P.M.=00, Mye=00, Meta=00, Other=6 SMUDGE CELLS[ lymphocyte]	Lympho: 75-90, Poly: 5-15, Mono: 1-5, nRBC/Blast/Eo/Myelo/Meta: 0-1
RBC Morphology	3 normocytic, hypochromic	Predominantly: Normocytic/Normochromic, Moderate: Anisocytosis, Mild: Microcytosis, Hypo.
Diagnosis	3 CHRONIC LYMPHOCYTIC LEUKEMIA	Chronic Lymphocytic Leukemia (CLL)

## 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 <sup>9</sup> /pl	1	333	344	91.57	85.76	4.94	6.4	2.91	6.1
RBC x10 <sup>6</sup> /pl	1	333	344	87.79	90.7	6.4	4.36	5.23	3.2
Hb g/dl	1	333	344	87.21	88.37	7.56	5.23	4.36	5.52
HCT%	1	333	344	96.51	89.53	2.33	4.07	0.58	4.65
MCV-fL	1	333	344	98.55	93.02	0.58	3.2	0.29	3.2
MCH-Pg	1	333	344	88.66	88.95	7.27	6.4	3.49	3.2
MCHC-g/dl	1	333	344	96.8	91.28	2.33	3.49	0.29	4.07
PLT. x10 <sup>9</sup> /pl	1	333	344	91.28	92.73	6.1	4.94	2.03	1.74
ReticCount%	2	333	329	94.22	90.88	3.65	1.22	2.43	8.21
PS Assessment	3	333	339	Acceptable:92.5,Warning Signal:2.7,Unacceptable :4.8					

**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  $\pm 2$ : Acceptable, Z score  $\pm 2$  to  $\pm 3$  :Warning Signal, Z score  $> \pm 3$  : Unacceptable [As per ISO/IEC 13528:2015 standard]

**Note-4:** Z score value between "0 to  $\pm 2$ " are texted in green colour. Z score value between " $\pm 2$  to  $\pm 3$ " are texted in orange colour. Z score value  $> \pm 3$  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.ishtmalimseqap.com](http://www.ishtmalimseqap.com).

Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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

EQAP CODE No. : 1169

Distribution No.: 151-C

Month/Year: August/2020

Instrument ID: SYSMEX XP 100 A5203

Name & Contact No. of PT Co-ordinator: Dr. Seema Tyagi (Prof.), Hematology, AIIMS, Delhi,  
 Tel: 9013085730, E-Mail : accuracy2000@gmail.com

Date of issue &amp; status of the report: 27-11-2020[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 <sup>9</sup> /µl	1	3.5	3.4	6.9	6.3	0.0220	1.01	0.1	0.1	0.0570	0.00
RBC x10 <sup>6</sup> /µl	1	2.85	2.61	5.46	5.14	0.0050	2.16	0.24	0.02	0.0130	7.12
Hb g/dl	1	7.7	7.6	15.3	15.2	0.0160	0.22	0.1	0.1	0.0070	0.00
HCT%	1	23.9	23.4	47.3	46.3	0.1090	0.35	0.5	0.2	0.0110	1.35
MCV-fl	1	90.2	89.7	179.9	179.4	0.3260	0.06	0.5	0.4	0.0270	0.19
MCH-Pg	1	29.1	29.1	58.2	59.4	0.1530	-0.62	0	0.3	0.0240	-1.01
MCHC-g/dl	1	32.5	32.2	64.7	66.1	0.0720	-0.34	0.3	0.4	0.0190	-0.27
Plt. x10 <sup>3</sup> /µl	1	267	266	533	473	1.56	1.25	1	6	0.35	-0.96
Retic %	2	3.6	3.2	6.8	5	0.13	0.44	0.4	0.2	0.02	0.67

### P.S . Assesment

YOUR REPORT			CONSENSUS REPORT		
DLC%	3	Nrbcs=00 , Poly=24 I.=04, E=04, Mono/Promono=00 , B1=00 P.M.=12, Mye=22, Meta=16, Other=18 BAND FORM	Poly: 25-50, Lymph: 2-7, nRBC/Mono/Eo/Blast/Pro: 0-5, Myelo: 20-35, Meta: 15-25, Baso: 0-3		
RBC Morphology	3	NORMOCHROMIC NORMOCYTIC RBCS	Predominantly: Normocytic Normochromic. Moderate: Anisocytosis Mild: Microcytic.		
Diagnosis	3	MYELOPROLIFERATIVE DISORDER	Chronic Myeloid Leukemia (Chronic Phase) : CML-CP		

**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 <sup>3</sup> /µl	1	450	333	87.09	90.09	4.2	3.6	8.71	6.01
RBC x10 <sup>6</sup> /µl	1	450	333	87.39	90.09	8.41	4.5	4.2	4.8
Hb g/dl	1	450	333	87.69	92.49	5.71	4.2	6.61	3.3
HCT%	1	450	333	90.69	92.49	6.01	3	3	3.9
MCV-fL	1	450	333	89.79	91.89	8.41	5.41	1.8	2.7
MCH-Pg	1	450	333	86.79	91.59	7.21	4.2	6.01	3.3
MCHC-g/dl	1	450	333	90.69	92.49	6.61	4.5	2.7	2.7
PLT x10 <sup>3</sup> /µl	1	450	333	94.59	89.79	3.9	6.91	1.5	3.3
ReticCount%	2	450	291	93.47	87.97	4.81	2.41	1.72	12.03
PS Assessment	3	450	328	Acceptable:75.1%,Warning Signal:24.9%,Unacceptable :0%					

**Comments:**

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

2). Within Lab (IQA) : Difference in the CBC measurement values for **RBC 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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**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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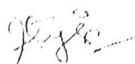
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