



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. : 4249

Distribution No.: 153-K

Month/Year: October/2021

Instrument ID: BC 3000 PLUS

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: 10-12-2021[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	31.1	30.7	61.8	8.7	0.0440	55.10	0.4	0.1	0.0100	2.53
RBC x10 ⁶ /µl	1	5.09	5.08	10.17	10.4	0.0130	-0.71	0.01	0.05	0.0040	-0.67
Hb g/dl	1	17.1	16.9	34	32.5	0.0460	1.45	0.2	0.1	0.0100	0.67
HCT%	1	46.4	46.2	92.6	99.6	0.2350	-1.08	0.2	0.5	0.0390	-0.58
MCV-fl	1	91.3	91	182.3	190.7	0.3630	-0.87	0.3	0.35	0.0290	-0.10
MCH-Pg	1	33.5	33.2	66.7	62.4	0.0880	2.07	0.3	0.25	0.0190	0.17
MCHC-g/dl	1	36.8	36.5	73.3	65.35	0.1640	1.89	0.3	0.3	0.0210	0.00
Plt. x10 ³ /µl	1	128	117	245	284	1.84	-0.80	11	5	0.36	1.04
Retic %	2	0.8	0.7	1.5	7	0.14	-1.52	0.1	0.3	0.02	-0.67

P.S . Assesment

YOUR REPORT		CONSENSUS REPORT
DLC%	3	Nrbcs=3.00 , Poly= L=0.00, E=, Mono/Promono= , B1=0.00 P.M.=, Mye=, Lymph: 85-94, Poly: 4-12, blast: 1-8, nRBC/mono/Eosino/Myelo/Meta: 0-1 Meta=, Other=
RBC Morphology	3	NORMOCYTIC NORMOCHROMIC Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Macrocytosis, Poikilocytosis
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. 153--K	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 x10³/µl	1	267	267	77.9	88.01	6.74	2.25	15.36	9.74
RBC x10⁶/µl	1	267	267	91.01	86.52	6.37	7.49	2.62	5.99
Hb g/dl	1	267	267	88.39	61.42	7.87	32.21	3.74	6.37
HCT%	1	267	266	95.86	87.97	2.26	5.26	1.88	6.77
MCV-fl	1	267	266	94.36	95.49	4.89	2.26	0.75	2.25
MCH-Pg	1	267	266	88.35	89.47	7.14	3.38	4.51	7.15
MCHC-g/dl	1	267	266	95.49	89.85	3.38	4.14	1.13	6.01
Plt. x10³/µl	1	267	266	95.11	90.98	3.38	4.89	1.51	4.13
ReticCount%	2	267	267	95.13	84.27	2.62	1.5	2.25	14.23
PS Assessment	3	267	232	Satisfactory :93.14%, Borderline Sat. :0.86%, Unsatisfactory :6%					

***Comments:**

1). **Among Lab (EQA) : CBC result for WBC unacceptable, may be due to random/human error, PS DLC 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 $> \pm 3$: 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 $> \pm 3$ 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.ishtmaiimseqap.com.

Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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

SHREE PATH LAB,REWARI

EQAS CAPA CHECKLIST

Date and time:- 12/04/2022

EQAS sample detail:- AIIMS EQAS 153-K

Result detail:- ALL RESULTS ARE ACCEPTABLE EXCEPT VALUE OF WBC COUNT OF SAMPLE-1.

Outlier detail:- AIIMS EQAS SAMPLE 153-K. NO TRANSCRIPTIONAL ERROR DURING RESULT SUBMISSION ON THE PORTAL. ALL RESULTS FOUND IN ACCEPTABLE RANGE EXCEPT WBC COUNT OF SAMPLE-1.

Root cause analysis checklist:-

1.	Check for typographical error	OK
2.	Check instrument print for flag or alarm	OK
3.	Check technical staff status	OK
4.	IQC status for any outlier	OK
5.	Sample run procedure step according to SOP	OK
6.	Storage condition of EQAS sample	OK
7.	IQC send for outlier parameter to verify current status	OK
8.	IQC result interpretation	OK

Analysis comment:-

CHECKLIST COMPLETED AND A RANDOM SAMPLE SENT OUTSIDE LAB FOR VERIFICATION. RESULT WAS FOUND OUT TO BE SATISFACTORY.

Corrective action taken and preventive action:-

HEMATOLOGY ANALYSER RC-3070 PLUS CALIBRATED
AND IQC SAMPLE RESULT VERIFICATION DONE
FOR CURRENT STATUS.

Follow up status:-

IQC TO BE MONITOR FOR ANY SHIFT
OR ANY OUTLIER.

(K) Rawl
Department in-charge

Psen
Technical Staff

ajp
Prepared by

(K) Rawl
Approved by



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

EQAP CODE No. : 4249

Distribution No.: 154-K

Month/Year: January/2022

Instrument ID: RJ-99128744

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: 28-03-2022[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	7.7	7.5	15.2	16.96	0.0760	-0.93	0.2	0.17	0.0130	0.20
RBC x10 ⁶ /µl	1	4.08	4.07	8.15	8.89	0.0130	-2.38	0.01	0.04	0.0030	-0.58
Hb g/dl	1	11.5	11.3	22.8	21.9	0.0310	1.21	0.2	0.1	0.0090	0.67
HCT%	1	31.7	31.4	63.1	71.7	0.1730	-1.97	0.3	0.4	0.0270	-0.27
MCV-fl	1	77.9	77.1	155	161.8	0.3460	-0.77	0.8	0.2	0.0220	2.02
MCH-Pg	1	28.2	27.6	55.8	49.3	0.0870	3.10	0.6	0.2	0.0160	1.80
MCHC-g/dl	1	36.2	35.9	72.1	60.9	0.1530	2.91	0.3	0.3	0.0190	0.00
Plt. x10 ³ /µl	1	355	336	691	811	3.57	-1.37	19	10	0.70	0.87
Retic %	2	1.1	0.7	1.8	7	0.16	-1.12	0.4	0.3	0.02	0.45

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT		
DLC%	3	Nrbcs=8.00 , Poly=50.00 L=15.00, E=4.00, Mono/Promono= , B1=3.00 P.M.=2.00, Mye=6.00, Meta=18.00, Other=	Poly: 55 - 69, Myelo: 4 - 10, Meta: 4 - 9; Lympho/Promyelo: 1 - 10; Blast/nRBC/Eos/Baso/Mono: 0 - 5		
RBC Morphology	3	NORMOCYTIC NORMOCHROMIC	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Microcytosis, Hypochromia; Mild: Macrocytosis, Poikilocytosis		
Diagnosis	3	CHROINC MYELOID LEUKEMIA-CHRONIC PHASE	Chronic Myeloid Leukemia (CML)		

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 154--K	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 x10³/µl	1	268	266	83.46	87.97	4.14	4.51	12.4	7.52
RBC x10⁶/µl	1	268	268	87.31	91.04	7.46	3.36	5.23	5.6
Hb g/dl	1	268	268	89.55	91.79	6.34	4.1	4.11	4.11
HCT%	1	268	265	92.83	91.32	3.77	3.4	3.4	5.28
MCV-fl	1	268	264	93.94	94.32	1.52	2.65	4.54	3.03
MCH-Pg	1	268	264	89.02	90.91	6.82	3.41	4.16	5.68
MCHC-g/dl	1	268	265	92.83	91.32	4.15	4.53	3.02	4.15
Plt. x10³/µl	1	268	265	92.83	89.43	3.4	5.66	3.77	4.91
ReticCount%	2	268	268	92.16	83.96	3.36	6.34	4.48	9.7
PS Assessment	3	268	233	Satisfactory :85.03%, Borderline Sat. :12.35%, Unsatisfactory :2.62%					

***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)

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Note-3: Z score 0 to ± 2 : Acceptable, Z score ± 2 to ± 3 :Warning Signal, Z score $> \pm 3$: Unacceptable [As per ISO/IEC 13528:2015 standard]

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Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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

SHREE PATH LAB,REWARI

EQAS CAPA CHECKLIST

Date and time:- 12/05/2022

EQAS sample detail:- AIIMS EQAS - ISYK (JANUARY 2022)

Result detail:- ALL RESULTS ARE ACCEPTABLE EXCEPT
MCH - OF SPECIMEN-1.

Outlier detail:- EQAS SAMPLE - AIIMS - ISYK (JANUARY 2022)
RUN BY LAB INCHARGE. NO TRANSCRIPTIONAL ERROR
DURING RESULT SUBMISSION ON THE PORTAL. ALL RESULT
FOUND IN ACCEPTABLE RANGE EXCEPT MCH.

Root cause analysis checklist:-

1.	Check for typographical error	OK
2.	Check instrument print for flag or alarm	OK
3.	Check technical staff status	OK
4.	IQC status for any outlier	OK
5.	Sample run procedure step according to SOP	OK
6.	Storage condition of EQAS sample	OK
7.	IQC send for outlier parameter to verify current status	OK
8.	IQC result interpretation	OK

Analysis comment:-

CHECK LIST COMPLETED AND A RANDOM
SAMPLE SENT OUTSIDE LAB FOR VERIFICATION. RESULT
WAS FOUND OUT TO BE SATISFACTORY.

Corrective action taken and preventive action:-

WE CALLED ENGINEER FOR SERVICING OF THE
HIRMATOLOGY ANALYSER. IQC SAMPLE RESULT
VERIFICATION DONE FOR CORRECT STATUS.

Follow up status:-

IQC TO BE MONITOR FOR ANY SHIFT
OR ANY OUTLIER.

Praveen
Department in-charge

Praveen
Technical Staff

Prepared by Praveen

Praveen
Approved by