



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. : 5822

Distribution No.: 160-O

Month/Year: July/2023

Instrument ID: Mindray BC 3600 (TB89002330)

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

Date of issue & status of the report: 19-09-2023[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	3.7	3.7	7.4	6.85	0.043	0.63	0	0.08	0.006	-1.08
RBC x10 ⁶ /µl	1	5.78	5.59	11.37	9.51	0.016	5.97	0.19	0.05	0.004	2.70
Hb g/dl	1	11.6	11.6	23.2	25.3	0.036	-2.58	0	0.1	0.011	-0.67
HCT%	1	48.1	46.5	94.6	80.7	0.256	2.60	1.6	0.4	0.045	2.02
MCV-fl	1	83.3	83.1	166.4	169.3	0.451	-0.30	0.2	0.3	0.030	-0.22
MCH-Pg	1	20.8	20.1	40.9	53	0.104	-6.16	0.7	0.2	0.018	2.25
MCHC-g/dl	1	25	24.1	49.1	63.1	0.231	-3.05	0.9	0.3	0.027	1.62
Plt. x10 ³ /µl	1	193	186	379	318	2.317	1.18	7	7	0.578	0.00
Retic %	2	0.02	0.01	0.03	1.59	0.054	-1.12	0.01	0.2	0.014	-0.85

P.S . Assesment

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YOUR REPORT			CONSENSUS REPORT		
DLC%	3	Nrbcs=1 , Poly=46 L=04, E=02, Mono/Promono= , B1=18 P.M.=08, Mye=09, Meta=10, Other=	Poly: 37 - 52, Myelo: 15 - 27, Meta: 9- 17, Promyelo: 2-8, Lympho: 2- 5, Blast: 1-4, Eosino: 1-3, Mono: 1-2, nRBC/ Baso: 0-5		
RBC Morphology	3	RBC's are normocytic, normochromic WBC series, slow leucocytosis with a number of immature cells. Platelets are reduced	Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, hypochromic, Mild: Poikilocytosis		
Diagnosis	3	Chronic Myelocytic Leukaemia	Chronic Myeloid Leukemia (Chronic Phase)		

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--0	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	200	199	86.43	92.96	3.52	1.01	10.05	6.03
RBC x10 ⁶ /μl	1	200	200	87	86.5	6	5.5	7	8
Hb g/dl	1	200	200	86.5	87.5	7	4.5	6.5	8
HCT%	1	200	199	92.96	89.95	2.51	3.02	4.53	7.03
MCV-fl	1	200	199	92.46	87.44	6.53	4.02	1.01	8.54
MCH-Pg	1	200	199	83.42	92.46	9.05	1.01	7.53	6.53
MCHC-g/dl	1	200	199	90.95	85.43	5.03	5.03	4.02	9.54
Plt. x10 ³ /μl	1	200	199	88.94	92.96	6.53	3.52	4.53	3.52
ReticCount%	2	200	152	84.87	92.76	7.24	9.87	7.89	-2.63
PS Assessment	3	200	163	Satisfactory :98.5%, Borderline Sat. :0%, Unsatisfactory :1.50%					

Comments:

1). Among Lab (EQA) : CBC result for **RBC, MCH & MCHC unacceptable**, please check calibration/human error. 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.ishtmailimseqap.com.

Note 10: Reports are kept confidential.

Report authorized by,



Dr. Manoranjan Mahapatra (Prof. & Head)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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

Sec 5.5; Doc.: PNH/QF/60B, ...

EQAS PERFORMANCE/ CAPA

Sl. No	EQAS Agency	Sample Testing Date	Cycle No/ Sample No	Parameter Outlier	Remarks & Corrective/ Preventive Action Taken	Reviewed By
	ISHM AIDMS	19/9/23	160-0	RBC, mcap MCTPC	ILC with NABL Accredited Lab done, ILC is satisfactory. Variation in results could be due to sample deterioration.	Agg

Doc.:	Quality system procedures	
Amend. No.: 00	Amend Date:	Prepared & Issued by QM:
Issue No.: 01	Issue Date: 01.06.2023	Approved by Lab Incharge:



PATLIPUTRA CLINICAL LAB.

7, SAMEYPUR, DELHI-110042

Phone : 8800435455, 7827660728, 9958149949

Name:

Sample ID: ASHOK KUMAR

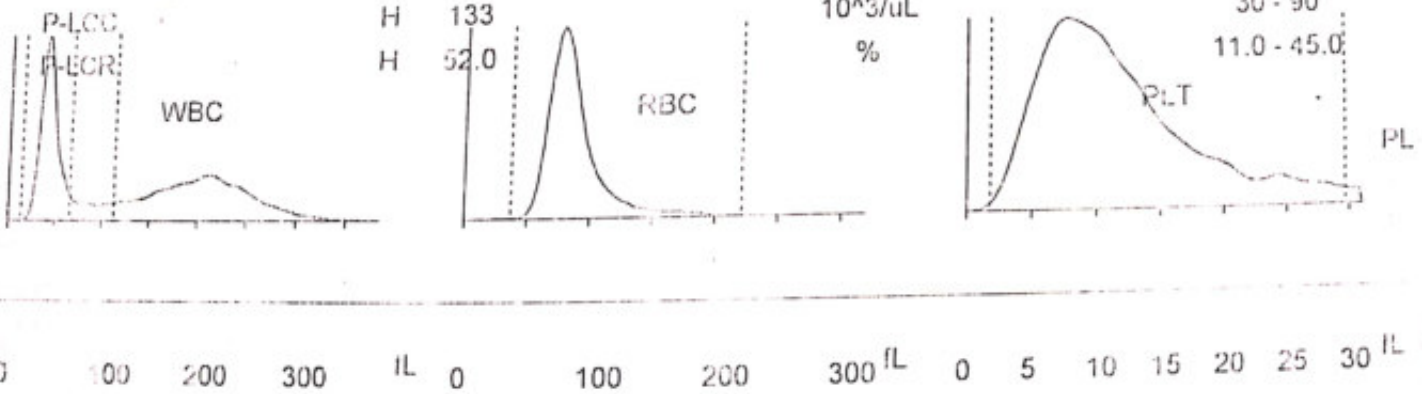
MR Number:

Bed No.:

Department:

Mode: Whole blood Gender: Male Age: 44 Years Time: 30/09/2023 12:25

Analysis Modules	Result	Unit	Ref. range
WBC	5.7	10 ³ /uL	4.0 - 10.0
Lymph#	2.2	10 ³ /uL	0.8 - 4.0
Mid#	0.5	10 ³ /uL	0.1 - 1.5
Gran#	3.0	10 ³ /uL	2.0 - 7.0
Lymph%	39.0	%	20.0 - 40.0
Mid%	9.1	%	3.0 - 15.0
Gran%	51.9	%	50.0 - 70.0
RBC	4.69	10 ⁶ /uL	4.00 - 5.50
HGB	13.9	g/dL	12.0 - 16.0
HCT	L 39.8	%	40.0 - 54.0
MCV	84.9	fL	80.0 - 100.0
MCH	29.6	pg	27.0 - 34.0
MCHC	34.9	g/dL	32.0 - 36.0
RDW-CV	15.2	%	11.0 - 16.0
RDW-SD	46.8	fL	35.0 - 56.0
PLT	255	10 ³ /uL	150 - 450
MPV	12.0	fL	6.5 - 12.0
PDW	16.3		9.0 - 17.0
PCT	H 3.06	mL/L	1.08 - 2.82
P-LCC	H 133	10 ³ /uL	30 - 90
P-LCR	H 52.0	%	11.0 - 45.0



Clinician:
Validator:
Receive Time:

Technologist:
Collection Time:
Time printed:

Admin
30/09/2023 12:25

Comments:

Asy.

【This result can only be applied to the sample of which it is produced】

Partner Name : Patliputra Clinical Lab
 Patient Name : Ashok Kr
 Age/Gender : 44Y 0M 0D /Male
 Order Id : 9078352888
 Referred By : Dr. S. Chaddha
 Customer Since : 30/Sep/2023
 Sample Type : Whole Blood EDTA

Barcode : B0308089
 Sample Collected On : 30/Sep/2023 01:03PM
 Sample Received On : 30/Sep/2023 02:25PM
 Report Generated On : 30/Sep/2023 02:53PM
 Sample Temperature : Maintained
 Report Status : Final Report

DEPARTMENT OF HAEMATOLOGY

PNH 31

Test Name	Value	Unit	Bio. Ref Interval
Complete Haemogram			
Haemoglobin (HB) Method: Photometry	13.8	g/dL	13.0-17.0
Total Leucocyte Count (TLC) Method: Impedance	6.6	10 ³ /uL	4.0-10.0
Hematocrit (PCV) Method: Calculated	41.7	%	40.0-50.0
Red Blood Cell Count (RBC) Method: Impedance	5.00	10 ⁶ /ul	4.50-5.50
Mean Corp Volume (MCV) Method: Derived from RBC Histogram	82.9	fL	83.0-101.0
Mean Corp Hb (MCH) Method: Calculated	27.4	pg	27.0-32.0
Mean Corp Hb Conc (MCHC) Method: Calculated	33.1	g/dL	31.5-34.5
RDW - CV Method: Derived from RBC Histogram	15.0	%	11.6-14.0
RDW - SD Method: Derived from RBC Histogram	44.60	fL	39.0-46.0
Mentzer Index Method: Calculated	16.58	Ratio	
RDWI Method: Calculated	248.70	Ratio	
Green and king index Method: Calculated	75	Ratio	
Differential Leucocyte Count			
Neutrophils Method: VCS Technology	49.0	%	40 - 80
Lymphocytes Method: VCS Technology	38	%	20-40

S. U. Agarwal

DR. SAKESH AGARWAL
 MBBS, DCP, HEALTHIANS LABS



SIN No: B0308089





PATLIPUTRA CLINICAL LAB.

7, SAMEY PUR, DELHI-110042

Phone : 8800435455, 7827660728, 9958149949

Name:

MR Number:

Sample ID. KRISHNA

Bed No.:

Department:

Age: 10 Years

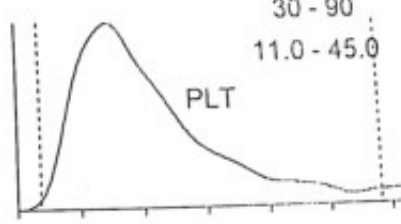
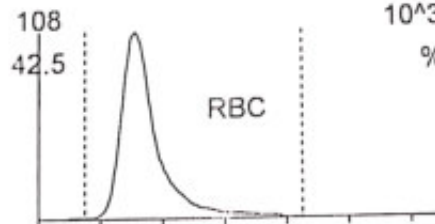
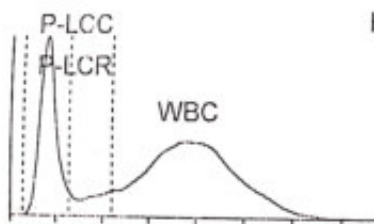
Time:

30/09/2023-12:21

Mode: Whole blood

Gender: Male

Analysis Modules	Result	Unit	Ref. range
WBC	8.8	10 ³ /uL	4.0 - 12.0
Lymph#	2.5	10 ³ /uL	0.8 - 7.0
Mid#	0.7	10 ³ /uL	0.1 - 1.5
Gran#	5.6	10 ³ /uL	2.0 - 8.0
Lymph%	28.2	%	20.0 - 60.0
Mid%	7.8	%	3.0 - 15.0
Gran%	64.0	%	50.0 - 70.0
RBC	4.29	10 ⁶ /uL	3.50 - 5.20
HGB	L 11.8	g/dL	12.0 - 16.0
HCT	36.3	%	35.0 - 49.0
MCV	84.6	fL	80.0 - 100.0
MCH	27.5	pg	27.0 - 34.0
MCHC	32.5	g/dL	31.0 - 37.0
RDW-CV	13.8	%	11.0 - 16.0
RDW-SD	44.2	fL	35.0 - 56.0
PLT	254	10 ³ /uL	100 - 300
MPV	10.8	fL	6.5 - 12.0
PDW	16.5		9.0 - 17.0
PCT	2.74	mL/L	1.08 - 2.82
P-LCC	H 108	10 ³ /uL	30 - 90
P-LCR	42.5	%	11.0 - 45.0



0 100 200 300 fL 0 100 200 300 fL 0 5 10 15 20 25 30 fL

Clinician:
Validator:
Receive Time:

Technologist:
Collection Time:
Time printed:

Admin
30/09/2023 12:21

Comments: *Asg.*

[This result can only be applied to the sample of which it is produced]

Partner Name : Patliputra Clinical Lab
 Patient Name : Krishna
 Age/Gender : 10Y 0M 0D /Male
 Order Id : 9078521260
 Referred By : Dr. S. Chaddha
 Customer Since : 30/Sep/2023
 Sample Type : Whole Blood EDTA

Barcode : B0308095
 Sample Collected On : 30/Sep/2023 01:24PM
 Sample Received On : 30/Sep/2023 02:25PM
 Report Generated On : 30/Sep/2023 02:53PM
 Sample Temperature : Maintained
 Report Status : Final Report

DEPARTMENT OF HAEMATOLOGY
 PNH 32

Test Name	Value	Unit	Bio. Ref Interval
Complete Haemogram			
Haemoglobin (HB) Method: Photometry	11.8	g/dL	11.5-15.5
Total Leucocyte Count (TLC) Method: Impedance	9.9	$10^3/uL$	5.0-13.0
Hematocrit (PCV) Method: Calculated	36.2	%	35.0-45.0
Red Blood Cell Count (RBC) Method: Impedance	4.40	$10^6/\mu l$	4.00-5.20
Mean Corp Volume (MCV) Method: Derived from RBC Histogram	82.9	fL	77.0-95.0
Mean Corp Hb (MCH) Method: Calculated	27.1	pg	25.0-33.0
Mean Corp Hb Conc (MCHC) Method: Calculated	32.7	g/dL	31.0-37.0
RDW - CV Method: Derived from RBC Histogram	13.9	%	11.6-14.0
RDW - SD Method: Derived from RBC Histogram	41.10	fL	39.0-46.0
Mentzer Index Method: Calculated	18.84	Ratio	
RDWI Method: Calculated	261.89	Ratio	
Green and king index Method: Calculated	81	Ratio	
Differential Leucocyte Count			
Neutrophils Method: VCS Technology	59.9	%	
Lymphocytes Method: VCS Technology	29	%	

S. U. Agarwal

DR. SAKESH AGARWAL
 MBBS, DGP, HEALTHIANS LABS



SIN No: B0308095

