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. : 1716   **Distribution No.:** 163-D   **Month/Year:** March/2024

Instrument ID: GENURI   **Model Name.:** PCI 6610   **Serial No.:** 0802207281936

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

Date of issue & status of the report: 01-05-2024[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	4.44	4.43	8.87	8.82	0.037	0.05	0.01	0.1	0.006	-0.81
RBC x10^6/µl	1	3.9	3.82	7.72	8.56	0.008	-3.54	0.08	0.03	0.002	1.35
Hb g/dl	1	12.4	12.3	24.7	26.8	0.019	-3.54	0.1	0.1	0.007	0.00
HCT%	1	37	36.2	73.2	83.2	0.135	-2.47	0.8	0.3	0.022	1.35
MCV-fl	1	94.8	94.8	189.6	194.55	0.259	-0.60	0	0.3	0.020	-1.01
MCH-Pg	1	32.1	31.7	63.8	62.6	0.055	0.81	0.4	0.2	0.015	0.90
MCHC-g/dl	1	33.9	33.5	67.4	64.2	0.102	0.98	0.4	0.2	0.016	0.67
Plt. x10^3/µl	1	262	262	524	514	1.336	0.28	0	6	0.336	-1.01
Retic %	2	14.5	12.5	27	12.85	0.279	1.50	2	0.4	0.024	2.70

P.S . Assesment

		YOUR REPORT	CONSENSUS REPORT
DLC%	3	Nrbcs=0 , Poly=12 L=12, E=0, Mono/Promono=1 , B1=75 P.M.=0, Mye=0, Meta=0, Other=Platelets markedly reduced on smear	Blast: 65-89, Poly: 4-9, Lympho: 3-8, Myelo/Mono/Promyelo/Meta/Eos/Baso: 0-5
RBC Morphology	3		Predominantly: Normocytic/Normochromic; Moderate: Anisocytosis, Mild: Microcytosis, Poikilocytosis
Diagnosis	3	Acute Leukemia	Acute Myeloid Leukemia(AML)

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 163--D	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	365	362	91.16	92.82	2.76	2.49	6.08	4.69
RBC x10^6/µl	1	365	365	89.04	92.6	6.85	2.47	4.11	4.93
Hb g/dl	1	365	365	88.49	89.04	6.58	4.66	4.93	6.3
HCT%	1	365	362	93.65	91.16	4.7	3.59	1.65	5.25
MCV-fl	1	365	362	95.03	86.19	3.59	7.46	1.38	6.35
MCH-Pg	1	365	361	88.09	91.41	7.2	3.05	4.71	5.54
MCHC-g/dl	1	365	361	93.35	88.92	3.88	4.71	2.77	6.37
Plt. x10^3/µl	1	365	362	90.06	92.54	6.35	3.59	3.59	3.87
ReticCount%	2	365	326	96.93	93.25	2.76	4.29	0.31	2.46
PS Assessment	3	365	338	Satisfactory :95.9%, Borderline Sat. :1.64%, Unsatisfactory :2.46%					

*Comments:

1). Among Lab (EQA) : CBC result for *RBC & HB* 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 ($\overline{x}$-$\overline{y}$) 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. Manoranjan Mahapatra (Prof. & Head)
PT Co-ordinator: ISHTM-AIIMS-EQAP
Department of Hematology, AIIMS, New Delhi

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

IVY HOSPITAL

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NABL M(EL)T LABS
NABL-M(EL)T-00076

NAME	:MR TARSEM SINGH (HAV)		
DOB/Gender	:04-Jun-1965/M	Requisition Date	:02/May/2024 09:47AM
UHID	:168576	SampleCollDate	;02/May/2024 10:16AM
Inv: No.	:4256699	Sample Rec.Date	;02/May/2024 10:16AM
Panel Name	:Ivy Hoshiarpur	Approved Date	:02/May/2024 11:18AM
Bar Code No	:13146729	Referred Doctor	:DR. GAURAV AGGARWAL

Test Description	Observed Value	Unit	Reference Range
HAEMATOLOGY			
COMPLETE BLOOD COUNT (Sample Type- Whole Blood EDTA)			
Haemoglobin (Noncyanmethhaemoglobin)	10.0	gm/dl	13-18
Hematocrit(PCV) (Calculated)	27.1	%	36-48
Red Blood Cell (RBC) (Impedence/DC Detection)	3.30	10^6 / μl	4.5-5.5
Mean Corp Volume (MCV) (Impedence/DC Detection)	81.4	fL	83-97
Mean Corp HB (MCH) (Calculated)	30.0	pg/mL	27-31
Mean Corp HB Conc (MCHC) (Calculated)	36.9	gm/dl	32-36
Red Cell Distribution Width -CV (Calculated)	14.7	%	11-15
Platelet Count (Impedence/DC Detection/Microscopy)	204	10^3/ul	150-450
Mean Platelet Volume (MPV) (Impedence/DC Detection)	12.6	fL	7.5-10.3
Total Leucocyte Count (TLC) (Impedence/DC Detection)	10.0	10^3 / μl	4.0-11.0
Differential Leucocyte Count (VCS/ Microscopy)			
Neutrophils	71	%	40-75
Lymphocytes	20	%	20-40
Monocytes	6	%	0-8
Eosinophils	3	%	0-4
Basophils	0	%	0-1
Absolute Neutrophil Count	7,100	μl	2000-7000
Absolute Lymphocyte Count	2,000	uL	1000-3000
Absolute Monocyte Count	600	uL	200-1000
Absolute Eosinophil Count	300	μl	20 - 500

*** End Of Report ***

DR AMANDEEP KAUR KANG
M. D. PATHOLOGY

Ivy Hospital

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MC-6172

NAME	:MR TARSEM SINGH (HAV)		
DOB/Gender	:04-Jun-1965/M	Requisition Date	:02/May/2024 09:47AM
UHID	:168576	Sample Coll.Date	;03/May/2024 08:15AM
Inv. No.	:4256699	Sample Rec.Date	;03/May/2024 8:16AM
Panel Name	:Ivy Mohali	Approved Date	:03/May/2024 10:30AM
Bar Code No	:13146729	Referred Doctor	:DR. GAURAV AGGARWAL

Test Description	Observed Value	Unit	Reference Range
HAEMATOLOGY			
COMPLETE BLOOD COUNT (Sample Type- Whole Blood EDTA)			
Haemoglobin (Noncyanmethhaemoglobin)	10.5	gm/dl	13-18
Hematocrit(PCV) (Calculated)	28.0	%	36-48
Red Blood Cell (RBC) (Impedence/DC Detection)	4.0	10^6/µl	4.5-5.5
Mean Corp Volume (MCV) (Impedence/DC Detection)	81.9	fL	83-97
Mean Corp HB (MCH) (Calculated)	30.0	pg/mL	27-31
Mean Corp HB Conc (MCHC) (Calculated)	36.0	gm/dl	32-36
Red Cell Distribution Width -CV (Calculated)	14.7	%	11-15
Platelet Count (Impedence/DC Detection/Microscopy)	205	10^3/ul	150-450
Mean Platelet Volume (MPV) (Impedence/DC Detection)	12.5	fL	7.5-10.3
Total Leucocyte Count (TLC) (Impedence/DC Detection)	10.1	10^3/µl	4.0-11.0
Differential Leucocyte Count (VCS/ Microscopy)			
Neutrophils	70	%	40-75
Lymphocytes	21	%	20-40
Monocytes	6	%	0-8
Eosinophils	3	%	0-4
Basophils	0	%	0-1
Absolute Neutrophil Count	7000	µl	2000-7000
Absolute Lymphocyte Count	2,100	uL	1000-3000
Absolute Monocyte Count	600	uL	200-1000
Absolute Eosinophil Count	300	µl	20 - 500

End of Report

The highlighted values should be correlated clinically
Result Entered By:Bhumika Bisht P0025

DR BHUMIKA BISHT
M. D. PATHOLOGY

S. No.	Test Name	Mean	Normal Range	1	2	3	4	5	6	7	8	9	10	11
1	WBC	3.54	3.0-4.0	3.59	3.81	3.58	3.64	3.53	3.55	3.60	2.45	3.61	3.5	3.52
2	NEU%	50.7	38.7-62.7	49.3	53.2	48.4	48.4	51.2	49.4	49.4	48.5	48.4	48.2	50.2
3	LYM%	37.7	28.7-46.7	39.6	35.4	40.0	39.3	37.6	38.9	39.0	40.1	39.7	39.9	38.4
4	MON%	6.9	0-13.8	6.2	6.4	7.1	8.3	7.7	7.2	6.8	7.0	7.1	7.4	6.9
5	EOS%	4.6	0-9.2	4.9	5.0	4.5	4.0	3.5	4.5	4.8	4.4	4.8	4.5	4.5
6	BSO%	2.3	0-4.6	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.3	0.2	0.2	0.2
7	RBC	2.12	1.94-2.3	2.12	2.20	2.0	2.08	1.99	2.02	2.0	2.02	2.04	2.04	2.02
8	HB	5.7	1.7-9.7	6.0	6.3	5.9	6.0	5.6	5.6	5.6	5.7	5.7	5.7	5.7
9	HCT	16.9	15.4-18.4	16.9	17.5	16.0	16.5	15.9	16.1	16.0	16.1	16.3	163	16.2
10	MCV	79.9	74.9-84.9	79.5	79.4	79.2	79.2	79.7	79.8	77.8	79.8	79.8	79.9	80.1
11	MCH	26.8	24.3-29.3	28.4	28.5	29.0	28.8	28.3	27.8	27.9	28.5	27.9	27.8	28.2
12	MCHC	33.7	30.7-36.7	35.8	35.9	36.6	36.4	35.5	34.8	35.0	35.6	35.0	34.8	35.2
13	RDW CV	17.2	14.2-20.2	16.4	16.3	16.5	16.3	16.5	16.3	15.3	16.2	15.9	162	16.3
14	RDW SD	50.2	42.2-58.2	48.2	47.8	48.2	48.0	48.8	48.1	46.8	47.7	47.1	47.9	47.9
15	PLT	42	22-62	60	61	55	55	60	52	53	51	62	55	62
16	MPV	8.2	5.2-11.2	10.4	10.4	10.3	10.2	10.4	10.7	10.4	9.4	10.8	10.2	10.8
	In charge sign													
	Pathologist Sign													

Control Lot No. --**DH2405-(LOW)**----
IVY Hospital Hoshiarpur

Control Level--**LOW**

| File No. | 1 ▼ | | Lot No. | DH2405 | | Level | Low | | Exp.Date | 05-07-2024 |
| Mode | Whole Blood | | QC Type | | LOW | | | QC Sample ID | DH2405 |

Para	Result	Unit	Para	Result	Unit
WBC	3.81	10^3/uL	HGB	6.3	g/dL
Neu#	2.03	10^3/uL	HCT	17.5	%
Lym#	1.35	10^3/uL	MCV	79.4	fL
Mon#	0.24	10^3/uL	MCH	28.5	pg
Eos#	0.19	10^3/uL	MCHC	35.9	g/dL
Bas#	0.01	10^3/uL	RDW-CV	16.3	%
Neu%	53.2	%	RDW-SD	47.8	fL
Lym%	35.4	%	PLT	61	10^3/uL
Mon%	6.4	%	MPV	10.4	fL
Eos%	5.0	%	PDW-CV	16.2	%
Bas%	0.2	%	PDW-SD	H 19.2	fL
NLR	1.50		PCT	0.064	%
PLR	45.19		P-LCC	21	10^3/uL
RBC	2.20	10^6/uL	P-LCR	34.0	%
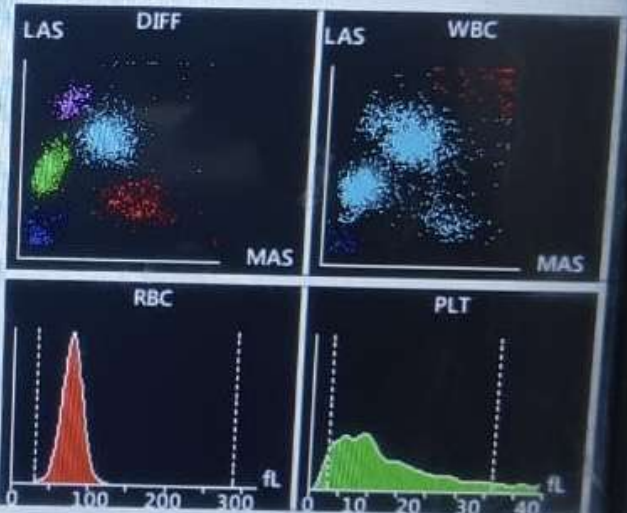
| Setup | QC Table | QC Graph | Edit Result |

Mode:Whole Blood-CBC+DIFF   Admin   10:15 02-05-2024

ILC done — Report is satisfactory.

IQC done — Report is satisfactory.