



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. : 3377

Distribution No.: 160-I

Month/Year: June/2023

Instrument ID: Yumizen H550 (909YAXH02675)

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: 08-08-2023[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	3.47	2.85	6.32	12	0.089	-3.02	0.62	0.1	0.013	4.68
RBC x10 ⁶ /µl	1	4.95	4.89	9.84	9.61	0.014	0.98	0.06	0.04	0.004	0.45
Hb g/dl	1	15.3	15.2	30.5	30.3	0.054	0.22	0.1	0.1	0.011	0.00
HCT%	1	46.2	45.2	91.4	92.3	0.320	-0.14	1	0.4	0.041	1.35
MCV-fl	1	93.3	92.5	185.8	193	0.544	-0.68	0.8	0.3	0.031	1.35
MCH-Pg	1	31.2	30.7	61.9	63	0.106	-0.56	0.5	0.3	0.023	0.90
MCHC-g/dl	1	33.8	32.8	66.6	64.6	0.229	0.45	1	0.3	0.028	2.36
Plt. x10 ³ /µl	1	124	119	243	305	2.716	-1.37	5	5	0.459	0.00
Retic %	2	3	2.7	5.7	5.4	0.169	0.09	0.3	0.3	0.032	0.00

P.S . Assesment

YOUR REPORT			CONSENSUS REPORT		
DLC%	3	Nrbcs=3 , Poly=10 L=8, E=0, Mono/Promono=2 , B1=19 P.M.=51, Mye=5, Meta=6, Other=Leucocytosis with Thrombocytopenia	Blast: 38-63, Poly: 9-17, Lympho: 8-20, Myelo: 2-9, Mono: 1-5, nRBC/Promyelo/Meta/Eos: 0-5		
RBC Morphology	3	Mild Anisocytosis. Normocytic Normochromic with few Microcytes.	Predominantly: Normocytic/Normochromic; Moderate: Microcytosis, Hypochromia; Mild: Anisocytosis		
Diagnosis	3	AML-M3 (Acute Promyelocytic Leukemia-Microgranular/Hypogranular variant)	Acute Myeloid Leukemia (AML)		

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 160--I	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	145	143	86.71	86.71	4.2	4.9	9.09	8.39
RBC x10⁶/µl	1	145	145	84.14	88.97	7.59	2.07	8.27	8.96
Hb g/dl	1	145	145	85.52	86.9	6.21	6.9	8.27	6.2
HCT%	1	145	143	93.01	90.21	4.9	5.59	2.09	4.2
MCV-fl	1	145	143	93.71	88.11	4.2	7.69	2.09	4.2
MCH-Pg	1	145	143	87.41	93.01	5.59	2.8	7	4.19
MCHC-g/dl	1	145	143	93.71	90.21	4.2	2.8	2.09	6.99
Plt. x10³/µl	1	145	143	90.21	93.01	8.39	1.4	1.4	5.59
ReticCount%	2	145	134	92.54	95.52	5.97	0.00	1.49	4.48
PS Assessment	3	145	129	Satisfactory :91.05%, Borderline Sat. :2.06%, Unsatisfactory :6.89%					

***Comments:**

- 1). Among Lab (EQA) : CBC result for WBC unacceptable, may be due to random/human error**
- 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.

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.

Note 10: Reports are kept confidential.

Report authorized by,



Dr. Seema Tyagi (Prof.)

PT Co-ordinator: ISHTM-AIIMS-EQAP

Department of Hematology, AIIMS, New Delhi

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

Title	PT/ EQAS EVALUATION RECORD
Document Number	FRM.QCM.03
Version	02
Amendment No	00
Effective Date	02.06.2023

Date of Investigation: 09/08/23 .

PT/EQAS Set Identification: 160 - I

Date of PT/EQAS: 07/06/23 .

Acceptable/ Unacceptable Results - WBC

Acceptable Result Range: 12 ± 0.08

Previous Trends/ Unacceptable Results from this Analyte/ Test:

Negative Trend in WBC

Classification of Problems: (Please tick)

Clerical:

- Transcription error (may be pre- or post-analytical factors)
- Wrong method has been registered for analysis or method change not updated.

Details of Investigation:

No.

Methodological

Instrument function checks (e.g., temperatures, blank readings, pressures) not performed as necessary, or results not within acceptable range.

Scheduled instrument maintenance not performed appropriately.

Incorrect instrument calibration.

Standards or reagents improperly reconstituted and stored, or inadvertently used beyond expiration date.

Instrument probes misaligned.

Problem with instrument data processing functions. The laboratory may need to contact the manufacturer to evaluate such problems.

Problem in manufacture of reagents / standards, or with instrument settings specified by manufacturer

Carry-over from previous specimen.

Automatic pipettor not calibrated to acceptable precision and accuracy.

Imprecision from result being close to detection limit of method.

QC material not run within expiration date, or improperly stored.

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- QC material not run at relevant analyte concentration.
- Result not within reportable range (linearity) for instrument / reagent system.
- Obstruction of instrument tubing / orifice by clot or protein.
- Incorrect incubation times.

Details of Investigation:

No.

Technical

- EQA material improperly reconstituted.
- Testing delayed after reconstitution of EQA material (with problem from evaporation or deterioration).
- Sample not placed in proper order on instrument.
- Result released despite unacceptable QC data.
- QC data within acceptable limits but showed trend suggestive of problem with the assay.
- Inappropriate quality control limits / rules. If the acceptable QC range is too wide, the probability increases that a result will fall within the acceptable QC range yet exceed acceptable limits for EQA.
- Manual pipetting / diluting performed inaccurately, at an incorrect temperature or with incorrect diluent.
- Calculation error or result reported using too few significant digits.
- Secondary specimen tubes incorrectly labeled.
- In addition to above discipline specific errors may also occur

Details of Investigation:

No.

Problem with PT/EQAS Material

- Matrix effects: The performance of some instrument / method combinations may be affected by the matrix of the PT/EQAS sample. This can be overcome to some extent by assessing participants in peer groups – to be done by the PT/EQAS provider.
- Non-homogenous test material due to variability in fill volumes, inadequate mixing, or inconsistent heating of lyophilized specimens.
- Non-viable samples for microbiology PT/EQAS program.
- Haemolysis on an immune-haematology program samples.

Details of Investigation:

WBC outer issue attended by Horiba application.

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Effective Date	02.06.2023

Specialist at Mumbai. Laboratory suspected issue w/ef
Method of detection: i.e. flow cytometry leads to negative bias.

Problem with PT/EQAS Evaluation

- Peer group not appropriate.
- Inappropriate target value: Target values developed from participant consensus can be inappropriate from non-homogeneous testing material or lingering ("masked") outliers. However, occasional inappropriate target values occur in every PT program.
- Inappropriate evaluation interval: An evaluation interval may be inappropriately narrow e.g. if ± 2 standard deviation units are used with an extremely precise method; the acceptable range may be much narrower than needed for clinical usefulness.
- Incorrect data entry by PT provider.

Details of Investigation:

No.

No Explanation: Attributed to Random Error

Any Others (explain)

Summary of Investigation:

Isc performance within a range other parameter performance in EQAS found satisfactory.

Was patient data affected? & Corrective action taken if Patient data was affected.

No.

Corrective/ Preventive action taken to prevent Reoccurrence

As part of preventive action WBC parameter performance verify by stability study in Mumbai.

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Conclusions	
WBC parameter negative bias due to method of detection.	
Quality Manager/ Team Leader <i>[Signature]</i>	Date: 09/08/2023
Lab Head <i>[Signature]</i>	Date: 09/08/2023

Lupin Diagnostics, SL Andheri
Inter laboratory comparison study report of Complete Blood count

Reference Laboratory- Lupin Diagnostics , NRL
 Date of study conducted- 01.02.2023
 Study performed for – WBC Negative shift

Sr No	Parameters	Sample-1												Reference range			
		24 Hrs			48 hrs			96hrs			120hrs				144 hrs		
		NRL	Andheri	%Diff	NRL	Andheri	%Diff	NRL	Andheri	%Diff	NRL	Andheri	%Diff		NRL	Andheri	%Diff
1	RBC	4.75	4.62	2.81	4.66	4.69	-0.64	4.62	4.66	-0.86	4.71	4.66	1.07	4.76	4.63	2.81	3.8-6
2	HB	13.00	12.70	2.36	12.60	12.70	-0.79	12.70	12.80	-0.78	13.00	12.60	3.17	13.00	12.90	0.78	11.5-17
3	PCV	38.60	39.50	-2.28	39.60	40.20	-1.49	39.50	39.70	-0.50	38.40	39.60	-3.03	38.60	39.60	-2.53	35-52
4	MCV	81.20	85.50	-5.03	85.10	85.60	-0.58	85.50	85.20	0.35	81.40	85.10	-4.35	81.00	85.40	-5.15	76-100
5	HCH	27.40	27.40	0.00	27.00	27.10	-0.37	27.40	27.50	-0.36	27.70	27.00	2.59	27.30	27.90	-2.15	27-34
6	HCHC	33.70	32.00	5.31	31.70	31.60	0.32	32.00	32.30	-0.93	34.00	31.70	7.26	33.70	32.60	3.37	32-35
7	RDWCV	14.50	14.80	-2.03	15.00	15.40	-2.60	14.80	15.10	-1.99	15.60	15.00	4.00	15.30	15.50	-1.29	11.0-17
8	RDWSD	46.20	48.70	-5.13	49.60	50.40	-1.59	48.70	49.60	-1.81	30.20	49.60	-39.11	47.90	50.40	-4.96	37-49
9	PLT	274.00	259.00	5.79	262.00	252.00	3.97	259.00	266.00	-2.63	302.00	262.00	15.27	290.00	267.00	8.61	150-400
10	PCT	0.27	0.26	3.85	0.30	0.26	15.38	0.26	0.29	-10.34	0.32	0.30	6.67	0.33	0.31	6.45	0.15-0.40
11	MPV	9.90	10.10	-1.98	11.40	10.30	10.68	10.10	10.90	-7.34	10.70	11.40	-6.14	11.20	11.60	-3.45	8.0-11
12	PDW	19.00	17.50	8.57	20.50	16.90	21.30	17.50	17.80	-1.69	20.00	20.50	-2.44	20.30	21.60	-6.02	11.0-22
13	PLCC	100.00	90.00	11.11	112.00	92.00	21.74	90.00	106.00	-15.09	130.00	112.00	16.07	133.00	122.00	9.02	44-140
14	PLCR	36.70	34.80	5.46	42.90	36.40	17.86	34.80	39.80	-12.56	43.00	42.90	0.23	45.90	45.70	0.44	18-50
15	WBC	12.35	12.88	-4.11	11.38	12.44	-8.52	12.88	12.39	3.95	12.13	11.38	6.59	10.30	9.53	8.08	3.5-10
16	NEUT	8.70	8.85	-1.69	7.01	8.63	-18.77	8.85	8.47	4.49	8.60	7.01	22.68	6.59	6.27	5.10	1.6-7
17	LYMP	2.70	2.76	-2.17	3.42	2.72	25.74	2.76	2.93	-5.80	2.59	3.42	-24.27	2.83	2.25	25.78	1.0-3
18	MONO	0.54	0.74	-27.03	0.45	0.63	-28.57	0.74	0.50	48.00	0.45	0.45	0.00	0.41	0.57	-28.07	0.2-0.8
19	EOS	0.24	0.34	-29.41	0.29	0.27	7.41	0.34	0.28	21.43	0.25	0.29	-13.79	0.29	0.32	-9.38	0.0-0.50
20	BASO	0.04	0.07	-42.86	0.10	0.07	42.86	0.07	0.09	-22.22	0.03	0.10	-70.00	0.05	0.06	-16.67	0.0-0.15
21	LIC	0.06	0.12	-50.00	0.11	0.12	-8.33	0.12	0.12	0.00	0.21	0.11	90.91	0.13	0.06	116.67	0.0-0.10
22	NEUT%	70.60	69.40	1.73	62.10	70.00	-11.29	69.40	69.10	0.43	72.10	62.10	16.10	64.90	66.10	-1.82	40-73
23	LYM%	22.60	21.60	4.63	30.40	22.10	37.56	21.60	23.90	-9.62	21.70	30.40	-28.62	27.80	23.80	16.81	15-45
24	MONO%	4.40	5.80	-24.14	4.00	5.10	-21.57	5.80	4.00	45.00	3.80	4.00	-5.00	4.00	6.10	-34.43	4.0-12

Lupin Diagnostics, SL Andheri
Inter laboratory comparison study report of Complete Blood count

	2.00	2.70	2.60	2.20	18.18	2.70	2.30	17.39	2.10	2.60	-19.23	2.80	3.40	-17.65	0.5-7
25	EOS%		25.93												
26	BASO%	0.40	0.50	0.90	50.00	0.50	0.70	-28.57	0.30	0.90	-66.67	0.50	0.60	-16.67	0.0-2.0

Sr No	Parameters	Sample-2												Reference range			
		24 Hrs			48 hrs			96hrs			120hrs				144hrs		
		NRL	Andheri	%Diff	NRL	Andheri	%Diff	NRL	Andheri	%Diff	NRL	Andheri	%Diff		NRL	Andheri	%Diff
1	RBC	5.47	5.35	2.24	5.33	5.38	-0.93	5.35	5.31	0.75	5.43	5.33	1.88	5.45	5.30	2.83	3.8-6
2	HB	14.60	14.30	2.10	14.00	14.30	-2.10	14.30	14.20	0.70	14.50	14.00	3.57	14.40	14.40	0.00	11.5-17
3	PCV	43.50	45.00	-3.33	44.50	45.00	-1.11	45.00	44.40	1.35	43.00	44.50	-3.37	43.20	44.60	-3.14	35-52
4	MCV	79.50	84.10	-5.47	83.40	83.60	-0.24	84.10	83.60	0.60	79.20	83.40	-5.04	79.30	84.10	-5.71	76-100
5	HCH	26.70	26.70	0.00	26.30	26.60	-1.13	26.70	26.80	-0.37	26.70	26.30	1.52	26.50	27.10	-2.21	27-34
6	HCHC	33.60	31.70	5.99	31.60	31.80	-0.63	31.70	32.00	-0.94	33.70	31.60	6.65	33.40	32.20	3.73	32-35
7	RDWCV	14.40	14.70	-2.04	14.90	14.20	4.93	14.70	14.60	0.68	15.00	14.90	0.67	15.00	15.30	-1.96	11.0-17
8	RDWSD	45.40	47.90	-5.22	47.90	47.00	1.91	47.90	47.90	0.00	46.20	47.90	-3.55	15.00	49.60	-69.76	37-49
9	PLT	248.00	202.00	22.77	216.00	211.00	2.37	202.00	204.00	-0.98	228.00	216.00	5.56	212.00	208.00	1.92	150-400
10	PCT	0.32	0.26	23.08	0.30	0.27	11.11	0.26	0.25	4.00	0.30	0.30	0.00	0.29	0.28	3.57	0.15-0.40
11	MPV	13.00	12.70	2.36	13.70	12.60	8.73	12.70	12.50	1.60	13.10	13.70	-4.38	13.60	13.40	1.49	8.0-11
12	PDW	27.60	24.30	13.58	27.20	23.50	15.74	24.30	23.90	1.67	27.90	27.20	2.57	27.20	26.00	4.62	11.0-22
13	PLCC	138.00	112.00	23.21	130.00	113.00	15.04	112.00	106.00	5.66	133.00	130.00	2.31	129.00	121.00	6.61	44-140
14	PLCR	55.90	55.50	0.72	60.10	53.30	12.76	55.50	52.20	6.32	58.40	60.10	-2.83	60.80	58.00	4.83	18-50
15	WBC	6.21	6.14	1.14	5.15	6.14	-16.12	6.14	6.12	0.33	5.68	5.15	10.29	4.09	4.32	-5.32	3.5-10
16	NEUT	3.52	3.28	7.32	2.51	3.48	-27.87	3.28	3.34	-1.80	3.13	2.51	24.70	1.43	1.69	-15.38	1.6-7
17	LYMP	2.16	2.16	0.00	2.05	1.99	3.02	2.16	2.14	0.93	2.03	2.05	-0.98	2.16	2.18	-0.92	1.0-3
18	MONO	0.36	0.41	-12.20	0.33	0.37	-10.81	0.41	0.38	7.89	0.33	0.33	0.00	0.27	0.22	22.73	0.2-0.8
19	EOS	0.13	0.13	0.00	0.16	0.16	0.00	0.13	0.16	-18.75	0.11	0.16	-31.25	0.13	0.12	8.33	0.0-0.50
20	BASO	0.03	0.04	-25.00	0.09	0.04	125.00	0.04	0.07	-42.86	0.04	0.09	-55.56	0.05	0.09	-44.44	0.0-0.15
21	LIC	0.01	0.12	-91.67	0.01	0.09	-88.89	0.12	0.03	300.00	0.04	0.01	300.00	0.05	0.02	150.00	0.0-0.10
22	NEUT%	57.10	54.70	4.39	49.00	57.20	-14.34	54.70	54.90	-0.36	55.60	49.00	13.47	35.30	39.40	-10.41	40-73
23	LYM%	34.80	35.80	-2.79	39.90	32.80	21.65	35.80	35.20	1.70	36.00	39.90	-9.77	53.50	50.70	5.52	15-45

Lupin Diagnostics, SL Andheri
Inter laboratory comparison study report of Complete Blood count



24	MONO%	5.70	6.70	14.93	6.30	6.10	3.28	6.70	6.20	8.06	5.80	6.30	-7.94	6.80	5.00	36.00	4.0-12
25	EOS%	2.00	2.10	-4.76	3.00	2.70	11.11	2.10	2.60	-19.23	1.90	3.00	-36.67	3.20	2.70	18.52	0.5-7
26	BASO%	0.40	0.70	42.86	1.80	1.20	50.00	0.70	1.10	-36.36	0.70	1.80	-61.11	1.20	2.20	-45.45	0.0-2.0

Observations-

- ✓ >80% Clinical correlation noted in both samples.
- ✓ High % Difference noted due to statistical limitations.
- ✓ WBC negative shift noted with increasing in time interval

Conclusion:

Based on obtained result recovery Inter laboratory comparison study successfully passed for CBC test parameter.

Pooja
Documented By
(Ms Pooja)

Sagar
Approved by
(Dr Sagar)

Day - 1

Results

Run Date 02/28/2023 03:46:59 PM

Operator LUPIN

Last Name

Sample ID DH VALIDATON

First Name

Rack/Pos

Gender

Age

Department

Patient ID

Physician

Birth Date

Type Standard

Sample comments

Recommended actions

Slide review

Alarms

Control failed

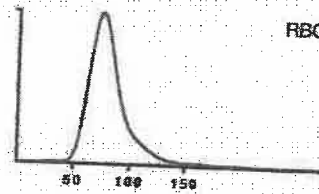
PLT

RBC PLT Interference

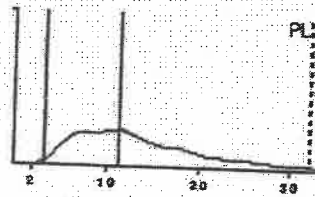
Susp. Pathologies

Macroplatelets

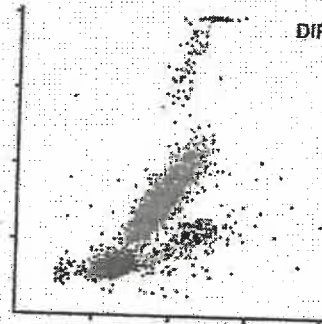
				Range
RBC	5.32	*	10 ⁶ /μL	3.80 - 6.00
HGB	14.0		g/dL	11.5 - 17.0
HCT	44.8	*	%	35.0 - 52.0
MCV	84.1	*	μm ³	76.0 - 100.0
MCH	26.4		pg	27.0 - 34.0
MCHC	31.4	L	g/dL	32.0 - 35.0
RDW-CV	14.2		%	11.0 - 17.0
RDW-SD	47.0		μm ³	37.0 - 49.0



				Range
PLT	221	*	10 ³ /μL	150 - 400
PCT	0.29	*	%	0.15 - 0.40
MPV	13.0	H*	μm ³	8.0 - 11.0
PDW	25.1	H*	μm ³	11.0 - 22.0
P-LCC	120		10 ³ /μL	44 - 140
P-LCR	54.5	h	%	18.0 - 50.0



			Range		Range
WBC	6.50		10 ³ /μL	3.50 - 10.00	
	#		Range	%	Range
NEU	3.70		1.60 - 7.00	57.0	40.0 - 73.0
LYM	2.21		1.00 - 3.00	34.1	15.0 - 45.0
MON	0.36		0.20 - 0.80	5.5	4.0 - 12.0
EOS	0.15		0.00 - 0.50	2.3	0.5 - 7.0
BAS	0.07		0.00 - 0.15	1.1	0.0 - 2.0
LIC	0.01		0.00 - 0.10	0.2	0.0 - 1.0



Slide Review

Neutrophil

Myeloblast

Anisocytosis

Lymphocyte

Promyelocyte

Hypochromia

Monocyte

Myelocyte

Polychromasia

Eosinophil

Metamyelocyte

Poikilocytosis

Basophil

Blast

Microcytosis

Atypical Lymphocyte

Target Cell

Macrocytosis

Other

Sickle Cell

Platelet Clumps

Viewed on _____

by _____

Signature :

02/28/2023 03:46:28 PM

Printed by : LUPIN

S/N 106YAXH03393

1

Day - 1

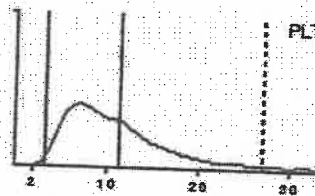
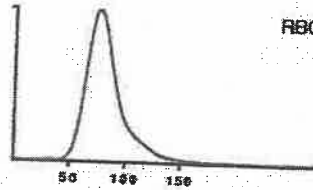
Results

Run Date 02/28/2023 03:44:49 PM
Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

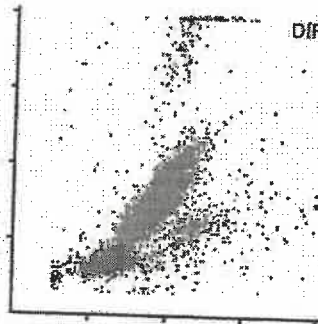
Operator LUPIN
Sample ID PS VALIDATION
Rack/Pos
Department
Physician
Type Standard

				Range
RBC	4.72	*	10 ⁹ /μL	3.80 - 6.00
HGB	12.7		g/dL	11.5 - 17.0
HCT	40.5	*	%	35.0 - 52.0
MCV	85.9	*	μm ³	76.0 - 100.0
MCH	26.9	I	pg	27.0 - 34.0
MCHC	31.4	L	g/dL	32.0 - 35.0
RDW-CV	15.0		%	11.0 - 17.0
RDW-SD	49.6	h	μm ³	37.0 - 49.0
Range				
PLT	281		10 ³ /μL	150 - 400
PCT	0.29		%	0.15 - 0.40
MPV	10.4		μm ³	8.0 - 11.0
PDW	17.6		μm ³	11.0 - 22.0
P-LCC	104		10 ³ /μL	44 - 140
P-LCR	37.0		%	18.0 - 50.0

Recommended actions
Slide review
Alarms
Control failed
WBC
MON Interference
Susp. Pathologies
Leukocytosis
Neutrophilia



				Range
WBC	13.16	H	10 ⁹ /μL	3.50 - 10.00
Range				
	#		Range	%
NEU	9.17	H*	1.60 - 7.00	69.9 *
LYM	2.94	*	1.00 - 3.00	22.4 *
MON	0.60	*	0.20 - 0.80	4.6 *
EOS	0.28	*	0.00 - 0.50	2.2 *
BAS	0.12	*	0.00 - 0.15	0.9 *
LIC	0.05	*	0.00 - 0.10	0.4 *



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Sinophil	Metamyelocyte	Poikilocytosis
Sophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Spher	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

Results

Run Date 03/01/2023 03:59:32 PM

Operator LUPIN

Last Name

Sample ID PS VALID DAY-2

First Name

Rack/Pos

Gender

Age

Department

Patient ID

Physician

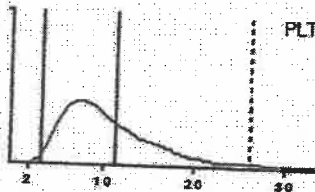
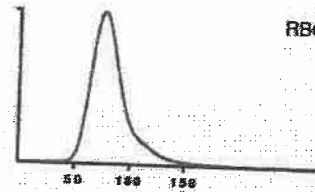
Birth Date

Type Standard

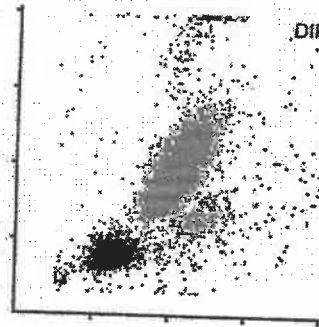
Sample comments

Alarms
Control failed
Susp. Pathologies
Neutrophilia

			Range
RBC	4.62	10 ⁹ /μL	3.80 - 6.00
HGB	12.7	g/dL	11.5 - 17.0
HCT	39.5	%	35.0 - 52.0
MCV	85.5	μm ³	76.0 - 100.0
MCH	27.4	pg	27.0 - 34.0
MCHC	32.0	g/dL	32.0 - 35.0
RDW-CV	14.8	%	11.0 - 17.0
RDW-SD	48.7	μm ³	37.0 - 49.0
Range			
PLT	259	10 ⁹ /μL	150 - 400
PCT	0.26	%	0.15 - 0.40
MPV	10.1	μm ³	8.0 - 11.0
PDW	17.5	μm ³	11.0 - 22.0
P-LCC	90	10 ⁹ /μL	44 - 140
P-LCR	34.8	%	18.0 - 50.0



			Range		Range
WBC	12.88	h	10 ³ /μL	3.50 - 10.00	
	#		Range	%	Range
NEU	8.85	H	1.60 - 7.00	69.4	40.0 - 73.0
LYM	2.76		1.00 - 3.00	21.6	15.0 - 45.0
MON	0.74		0.20 - 0.80	5.8	4.0 - 12.0
EOS	0.34		0.00 - 0.50	2.7	0.5 - 7.0
BAS	0.07		0.00 - 0.15	0.5	0.0 - 2.0
LIC	0.12	h	0.00 - 0.10	0.9	0.0 - 1.0



Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Monocyte | Myelocyte | Polychromasia |
| Eosinophil | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

03/01/2023 04:01:36 PM

Printed by : LUPIN

S/N 106YAXH03393

Results

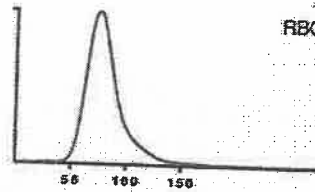
Run Date 03/01/2023 04:02:26 PM

Operator: LUPIN

Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

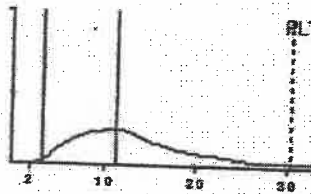
Sample ID DH VALID DAY-2
Rack/Pos
Department
Physician
Type Standard

				Range
RBC	5.35	*	10 ⁹ /μL	3.80 - 6.00
HGB	14.3		g/dL	11.5 - 17.0
HCT	45.0	*	%	35.0 - 52.0
MCV	84.1	*	μm ³	76.0 - 100.0
MCH	26.7		pg	27.0 - 34.0
MCHC	31.7	L	g/dL	32.0 - 35.0
RDW-CV	14.7		%	11.0 - 17.0
RDW-SD	47.9		μm ³	37.0 - 49.0

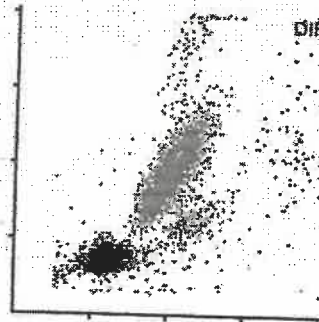


Recommended actions
Slide review
Alarms
Control failed
PLT
RBC PLT Interference
Susp. Pathologies
Macroplatelets

				Range
PLT	202	*	10 ³ /μL	150 - 400
PCT	0.26	*	%	0.15 - 0.40
MPV	12.7	H*	μm ³	8.0 - 11.0
PDW	24.3	h*	μm ³	11.0 - 22.0
P-LCC	112		10 ³ /μL	44 - 140
P-LCR	55.5	h	%	18.0 - 50.0



			Range		Range
WBC	6.14		10 ³ /μL	3.50 - 10.00	
	#		Range	%	Range
NEU	3.28		1.60 - 7.00	54.7	40.0 - 73.0
LYM	2.16		1.00 - 3.00	35.8	15.0 - 45.0
MON	0.41		0.20 - 0.80	6.7	4.0 - 12.0
EOS	0.13		0.00 - 0.50	2.1	0.5 - 7.0
BAS	0.04		0.00 - 0.15	0.7	0.0 - 2.0
LIC	0.12	h	0.00 - 0.10	1.9	h 0.0 - 1.0



Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Monocyte | Myelocyte | Polychromasia |
| Eosinophil | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

3/01/2023 04:03:55 PM

Printed by : LUPIN

S/N I06YAXH03393

DAY-3

Results

Run Date 03/02/2023 03:55:10 PM

Operator LUPIN

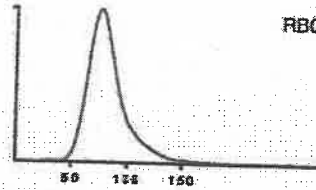
Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

Sample ID PRIYA.VALID
Rack/Pos
Department
Physician
Type Standard

Range
3.80 - 6.00
11.5 - 17.0
35.0 - 52.0
76.0 - 100.0
27.0 - 34.0
32.0 - 35.0
11.0 - 17.0
37.0 - 49.0

Alarms
Control failed
Susp. Pathologies
Neutrophilia

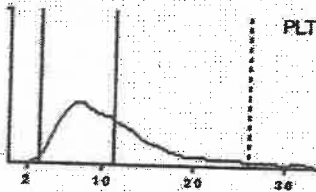
RBC	4.69	*	10 ⁹ /μL
HGB	12.7		g/dL
HCT	40.2	*	%
MCV	85.6	*	μm ³
MCH	27.1		pg
MCHC	31.6	L	g/dL
RDW-CV	15.4		%
RDW-SD	50.4	h	μm ³



RBC

PLT	252		10 ³ /μL
PCT	0.26		%
MPV	10.3		μm ³
PDW	16.9		μm ³
P-LCC	92		10 ³ /μL
P-LCR	36.4		%

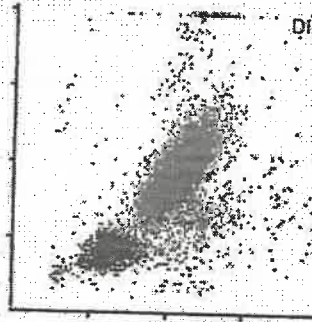
Range
150 - 400
0.15 - 0.40
8.0 - 11.0
11.0 - 22.0
44 - 140
18.0 - 50.0



PLT

WBC	12.44	h	10 ³ /μL	Range 3.50 - 10.00
	#			
NEU	8.63	H	1.60 - 7.00	70.0
LYM	2.72		1.00 - 3.00	22.1
MON	0.63		0.20 - 0.80	5.1
EOS	0.27		0.00 - 0.50	2.2
BAS	0.07		0.00 - 0.15	0.6
LIC	0.12	h	0.00 - 0.10	1.0

Range
40.0 - 73.0
15.0 - 45.0
4.0 - 12.0
0.5 - 7.0
0.0 - 2.0
0.0 - 1.0



Dif

Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Eosinophil | Myelocyte | Polychromasia |
| Monocyte | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

DAM-3

Results

Run Date 03/02/2023 03:57:09 PM

Operator LUPIN

Last Name

Sample ID DANISH.VALID

First Name

Rack/Pos

Gender

Department

Patient ID

Age

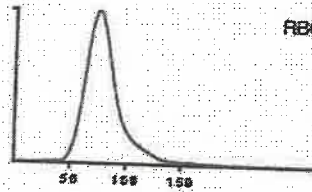
Physician

Birth Date

Type Standard

Sample comments

				Range
RBC	5.38	*	10 ⁹ /μL	3.80 - 6.00
HGB	14.3		g/dL	11.5 - 17.0
HCT	45.0	*	%	35.0 - 52.0
MCV	83.6	*	μm ³	76.0 - 100.0
MCH	26.6	I	pg	27.0 - 34.0
MCHC	31.8	L	g/dL	32.0 - 35.0
RDW-CV	14.2		%	11.0 - 17.0
RDW-SD	47.0		μm ³	37.0 - 49.0



Recommended actions

Slide review

Alarms

Control failed

WBC

LYM Interference

PLT

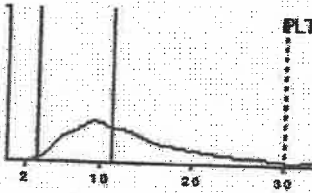
RBC PLT Interference

Susp. Pathologies

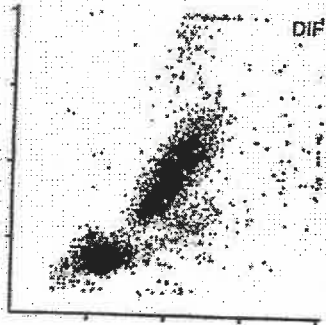
Macroplatelets

PLT aggregate or NRBC ?

				Range
PLT	211	*	10 ³ /μL	150 - 400
PCT	0.27	*	%	0.15 - 0.40
MPV	12.6	H*	μm ³	8.0 - 11.0
PDW	23.5	h*	μm ³	11.0 - 22.0
P-LCC	113		10 ³ /μL	44 - 140
P-LCR	53.3	h	%	18.0 - 50.0



				Range				Range
WBC	6.16	*	10 ³ /μL	3.50 - 10.00				
	#							
NEU	3.48	*	1.60 - 7.00	57.2	*	40.0 - 73.0		
LYM	1.99	*	1.00 - 3.00	32.8	*	15.0 - 45.0		
MON	0.37	*	0.20 - 0.80	6.1	*	4.0 - 12.0		
EOS	0.16	*	0.00 - 0.50	2.7	*	0.5 - 7.0		
BAS	0.07	*	0.00 - 0.15	1.2	*	0.0 - 2.0		
LIC	0.09	*	0.00 - 0.10	1.4	h*	0.0 - 1.0		



Slide Review

utrophil	Myeloblast	Anisocytosis
nphocyte	Promyelocyte	Hypochromia
rocyte	Myelocyte	Polychromasia
inophil	Metamyelocyte	Poikilocytosis
ophil	Blast	Microcytosis
pical Lymphocyte	Target Cell	Macrocytosis
er	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

03/02/2023 04:02:06 PM

Printed by : LUPIN

S/N 106YAXH03393

Results

Run Date 03/03/2023 03:52:10 PM

Operator LUPIN

Last Name

Sample ID PS VALI DAY-4

First Name

Rack/Pos

Gender

Age

Department

Patient ID

Physician

Birth Date

Type Standard

Sample comments

Recommended actions

Slide review

Alarms

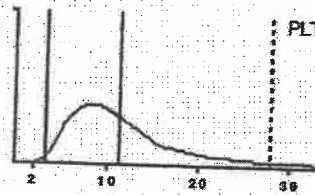
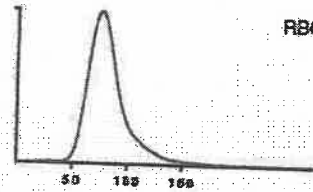
Control failed

RBC Susp. Pathologies

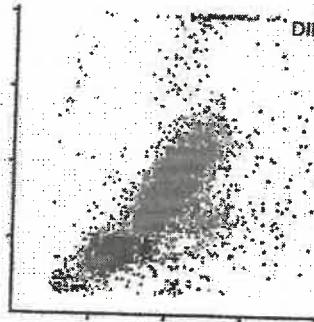
PLT aggregate ?

Neutrophilia

			Range
RBC	4.66	10 ⁹ /μL	3.80 - 6.00
HGB	12.8	g/dL	11.5 - 17.0
HCT	39.7	%	35.0 - 52.0
MCV	85.2	μm ³	76.0 - 100.0
MCH	27.5	pg	27.0 - 34.0
MCHC	32.3	g/dL	32.0 - 35.0
RDW-CV	15.1	%	11.0 - 17.0
RDW-SD	49.6	h μm ³	37.0 - 49.0
Range			
PLT	266	* 10 ³ /μL	150 - 400
PCT	0.29	* %	0.15 - 0.40
MPV	10.9	* μm ³	8.0 - 11.0
PDW	17.8	* μm ³	11.0 - 22.0
P-LCC	106	10 ³ /μL	44 - 140
P-LCR	39.8	%	18.0 - 50.0



			Range		Range
WBC	12.39	h 10 ⁹ /μL	3.50 - 10.00		
Range					
	#		Range	%	Range
NEU	8.47	H	1.60 - 7.00	69.1	40.0 - 73.0
LYM	2.93		1.00 - 3.00	23.9	15.0 - 45.0
MON	0.50		0.20 - 0.80	4.0	4.0 - 12.0
EOS	0.28		0.00 - 0.50	2.3	0.5 - 7.0
BAS	0.09		0.00 - 0.15	0.7	0.0 - 2.0
LIC	0.12	h	0.00 - 0.10	1.0	0.0 - 1.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

3/03/2023 03:53:54 PM

Printed by : LUPIN

S/N106YAXH03393

1

Results

Run Date 03/03/2023 03:54:41 PM

Operator LUPIN

Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

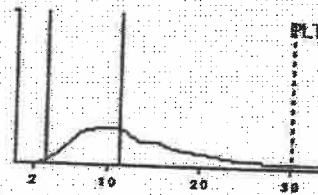
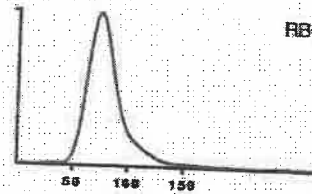
Sample ID DH VALI DAY-4
Rack/Pos
Department
Physician
Type Standard

Age

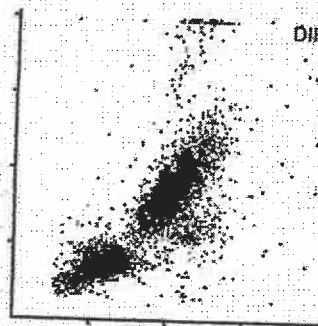
			Range
RBC	5.31	10 ⁶ /μL	3.80 - 6.00
HGB	14.2	g/dL	11.5 - 17.0
HCT	44.4	%	35.0 - 52.0
MCV	83.6	μm ³	76.0 - 100.0
MCH	26.8	pg	27.0 - 34.0
MCHC	32.0	g/dL	32.0 - 35.0
RDW-CV	14.6	%	11.0 - 17.0
RDW-SD	47.9	μm ³	37.0 - 49.0
PLT	204	* 10 ³ /μL	150 - 400
PCT	0.25	* %	0.15 - 0.40
MPV	12.5	H* μm ³	8.0 - 11.0
PDW	23.9	h* μm ³	11.0 - 22.0
P-LCC	106	10 ³ /μL	44 - 140
P-LCR	52.2	h %	18.0 - 50.0

Recommended actions

- Slide review
- Alarms**
- Control failed
- WBC
- LYM Interference
- PLT
- RBC PLT Interference
- Susp. Pathologies**
- Macroplatelets
- PLT aggregate or NRBC ?



			Range			Range
WBC	6.12	* 10 ³ /μL	3.50 - 10.00			
	#		Range	%		Range
NEU	3.34	* 1.60 - 7.00	54.9	* 40.0 - 73.0		
LYM	2.14	* 1.00 - 3.00	35.2	* 15.0 - 45.0		
MON	0.38	* 0.20 - 0.80	6.2	* 4.0 - 12.0		
EOS	0.16	* 0.00 - 0.50	2.6	* 0.5 - 7.0		
BAS	0.07	* 0.00 - 0.15	1.1	* 0.0 - 2.0		
LIC	0.03	* 0.00 - 0.10	0.5	* 0.0 - 1.0		



Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Monocyte | Myelocyte | Polychromasia |
| Eosinophil | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

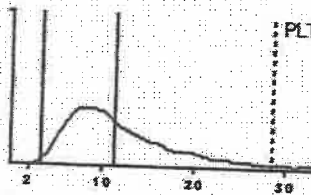
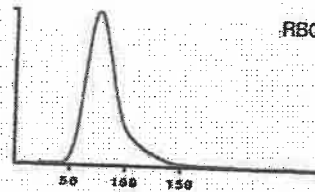
Results

Run Date 03/04/2023 04:00:46 PM
Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

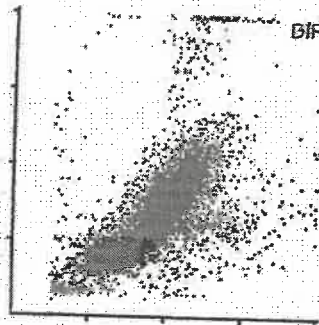
Operator LUPIN
Sample ID PS VALI DAY-5
Rack/Pos
Department
Physician
Type Standard

				Range
RBC	4.66	*	10 ⁶ /μL	3.80 - 6.00
HGB	12.6		g/dL	11.5 - 17.0
HCT	39.6	*	%	35.0 - 52.0
MCV	85.1	*	μm ³	76.0 - 100.0
MCH	27.0		pg	27.0 - 34.0
MCHC	31.7	L	g/dL	32.0 - 35.0
RDW-CV	15.0		%	11.0 - 17.0
RDW-SD	49.6	h	μm ³	37.0 - 49.0
Range				
PLT	262	*	10 ³ /μL	150 - 400
PCT	0.30	*	%	0.15 - 0.40
MPV	11.4	h*	μm ³	8.0 - 11.0
PDW	20.5	*	μm ³	11.0 - 22.0
P-LCC	112		10 ³ /μL	44 - 140
P-LCR	42.9		%	18.0 - 50.0

Recommended actions
Slide review
Alarms
Control failed
WBC
LYM interference
Susp. Pathologies
PLT aggregate or NRBC ?



				Range
WBC	11.38	h*	10 ³ /μL	3.50 - 10.00
Range				
	#		Range	%
NEU	7.01	h*	1.60 - 7.00	62.1 *
LYM	3.42	h*	1.00 - 3.00	30.4 *
MON	0.45	*	0.20 - 0.80	4.0 *
EOS	0.29	*	0.00 - 0.50	2.6 *
BAS	0.10	*	0.00 - 0.15	0.9 *
LIC	0.11	h*	0.00 - 0.10	1.0 *



Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Monocyte | Myelocyte | Polychromasia |
| Eosinophil | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

Results

Run Date 03/04/2023 04:02:58 PM

Operator LUPIN

Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

Age

Sample ID DS VALI DAY-5
Rack/Pos
Department
Physician
Type Standard

				Range
RBC	5.33	*	10 ⁹ /μL	3.80 - 6.00
HGB	14.0		g/dL	11.5 - 17.0
HCT	44.5	*	%	35.0 - 52.0
MCV	83.4	*	μm ³	76.0 - 100.0
MCH	26.3	I	pg	27.0 - 34.0
MCHC	31.6	L	g/dL	32.0 - 35.0
RDW-CV	14.9		%	11.0 - 17.0
RDW-SD	47.9		μm ³	37.0 - 49.0
Range				
PLT	216	*	10 ³ /μL	150 - 400
PCT	0.30	*	%	0.15 - 0.40
MPV	13.7	H*	μm ³	8.0 - 11.0
PDW	27.2	H*	μm ³	11.0 - 22.0
P-LCC	130		10 ³ /μL	44 - 140
P-LCR	60.1	h	%	18.0 - 50.0

Recommended actions

Slide review

Alarms

Control failed

WBC

LYM interference

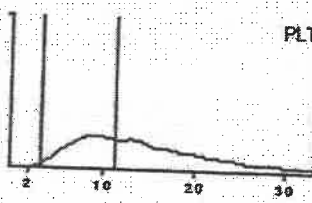
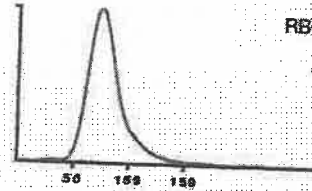
PLT

RBC PLT Interference

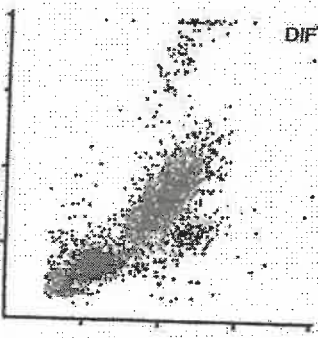
Susp. Pathologies

Macroplatelets

PLT aggregate or NRBC ?



				Range
WBC	5.15	*	10 ⁹ /μL	3.50 - 10.00
Range				
	#		Range	%
NEU	2.51	*	1.60 - 7.00	49.0
LYM	2.05	*	1.00 - 3.00	39.9
MON	0.33	*	0.20 - 0.80	6.3
EOS	0.16	*	0.00 - 0.50	3.0
BAS	0.09	*	0.00 - 0.15	1.8
LIC	0.01	*	0.00 - 0.10	0.3



Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Monocyte | Myelocyte | Polychromasia |
| Eosinophil | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

Results

Run Date 03/05/2023 04:07:10 PM

Operator LUPIN

Last Name

Sample ID PS VALI DAY-6

First Name

Rack/Pos

Gender

Age

Department

Patient ID

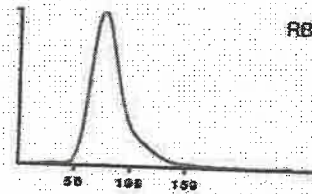
Physician

Birth Date

Type Standard

Sample comments

			Range
RBC	4.63	10 ⁶ /μL	3.80 - 6.00
HGB	12.9	g/dL	11.5 - 17.0
HCT	39.6	%	35.0 - 52.0
MCV	85.4	μm ³	76.0 - 100.0
MCH	27.9	pg	27.0 - 34.0
MCHC	32.6	g/dL	32.0 - 35.0
RDW-CV	15.5	%	11.0 - 17.0
RDW-SD	50.4	h μm ³	37.0 - 49.0



Recommended actions

Slide review

Alarms

Control failed

WBC

Background Noise

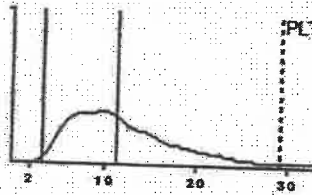
LYM Interference

Abnormal Differentiation

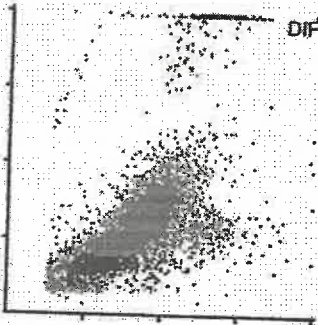
Susp. Pathologies

PLT aggregate or NRBC ?

			Range
PLT	267	* 10 ³ /μL	150 - 400
PCT	0.31	* %	0.15 - 0.40
MPV	11.6	h* μm ³	8.0 - 11.0
PDW	21.6	* μm ³	11.0 - 22.0
P-LCC	122	10 ³ /μL	44 - 140
P-LCR	45.7	%	18.0 - 50.0



WBC	#	Range	%	Range
9.53	*	10 ³ /μL	3.50 - 10.00	
NEU	6.27	* 1.60 - 7.00	66.1	* 40.0 - 73.0
LYM	2.25	* 1.00 - 3.00	23.8	* 15.0 - 45.0
MON	0.57	* 0.20 - 0.80	6.1	* 4.0 - 12.0
EOS	0.32	* 0.00 - 0.50	3.4	* 0.5 - 7.0
BAS	0.06	* 0.00 - 0.15	0.6	* 0.0 - 2.0
LIC	0.06	* 0.00 - 0.10	0.7	* 0.0 - 1.0



Slide Review

Neutrophil	Myeloblast	Anisocytosis
Lymphocyte	Promyelocyte	Hypochromia
Monocyte	Myelocyte	Polychromasia
Eosinophil	Metamyelocyte	Poikilocytosis
Basophil	Blast	Microcytosis
Atypical Lymphocyte	Target Cell	Macrocytosis
Other	Sickle Cell	Platelet Clumps

Reviewed on _____ by _____ Signature :

03/05/2023 04:16:20 PM

Printed by : LUPIN

S/N 106YAXH03393

Results

Run Date 03/05/2023 04:17:12 PM

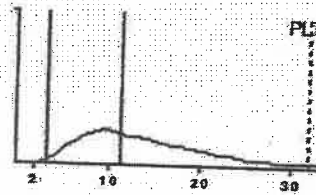
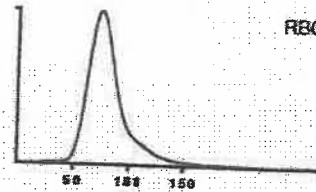
Operator LUPIN

Last Name
First Name
Gender
Patient ID
Birth Date
Sample comments

Sample ID DS VALI DAY-6
Rack/Pos
Department
Physician
Type Standard

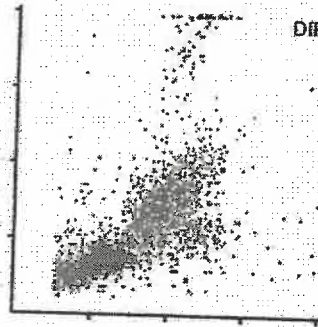
Age

			Range
RBC	5.30	10 ⁶ /μL	3.80 - 6.00
HGB	14.4	g/dL	11.5 - 17.0
HCT	44.6	%	35.0 - 52.0
MCV	84.1	μm ³	76.0 - 100.0
MCH	27.1	pg	27.0 - 34.0
MCHC	32.2	g/dL	32.0 - 35.0
RDW-CV	15.3	%	11.0 - 17.0
RDW-SD	49.6	h μm ³	37.0 - 49.0
Range			
PLT	208	* 10 ³ /μL	150 - 400
PCT	0.28	* %	0.15 - 0.40
MPV	13.4	H* μm ³	8.0 - 11.0
PDW	26.0	H* μm ³	11.0 - 22.0
P-LCC	121	10 ³ /μL	44 - 140
P-LCR	58.0	h %	18.0 - 50.0



Recommended actions
Slide review
Alarms
Control failed
WBC
LYM Interference
Abnormal Differentiation
PLT
RBC PLT Interference
Susp. Pathologies
Macroplatelets
PLT aggregate or NRBC ?

			Range			Range
WBC	4.32	* 10 ³ /μL	3.50 - 10.00			
	#		Range	%		Range
NEU	1.69	* 1.60 - 7.00	39.4	l*	40.0 - 73.0	
LYM	2.18	* 1.00 - 3.00	50.7	h*	15.0 - 45.0	
MON	0.22	* 0.20 - 0.80	5.0	*	4.0 - 12.0	
EOS	0.12	* 0.00 - 0.50	2.7	*	0.5 - 7.0	
BAS	0.09	* 0.00 - 0.15	2.2	h*	0.0 - 2.0	
LIC	0.02	* 0.00 - 0.10	0.4	*	0.0 - 1.0	



Slide Review

- | | | |
|---------------------|---------------|-----------------|
| Neutrophil | Myeloblast | Anisocytosis |
| Lymphocyte | Promyelocyte | Hypochromia |
| Monocyte | Myelocyte | Polychromasia |
| Eosinophil | Metamyelocyte | Poikilocytosis |
| Basophil | Blast | Microcytosis |
| Atypical Lymphocyte | Target Cell | Macrocytosis |
| Other | Sickle Cell | Platelet Clumps |

Reviewed on _____ by _____ Signature :

03/05/2023 04:33:45 PM

Printed by : LUPIN

S/N 106YAXH03393

14th, April 2021

To Whom so ever it may concern

Subject: Proficiency Testing

Dear Sir / Madam,

We would like to inform that performance of HORIBA Yumizen 500/550 has been successfully validated on different Proficiency testing programs, including Bio-Rad (EQAS) & Randox (RIQAS) programs. There are large number of users across the globe including India using Bio-Rad (EQAS) & Randox (RIQAS) successfully.

However, we had received few concerns specially with non-correlation of WBC counts from customers enrolled with AIIMS proficiency testing. In Initial investigation we had observed that there are limited Peer group data for HORIBA Yumizen 500/550 which might be reasons for difference in correlation. However, our technical team is working on the same and any development would be shared shortly.

Thank you for your continued trust in HORIBA Medical products & let us know should you need any additional information.



Thanking with Regards