

**PARTICIPANT FINAL ASSESSMENT REPORT (SUMMARY)**

**PT SCHEME:HEMATOLOGY**

<b>Cycle No</b>	<b>C5</b>
<b>Ref.No.</b>	<b>NEUQAP610</b>
<b>Sample ID</b>	<b>NEUQAP HEM BLOOD/2023/10/C5/S7</b>

**Report Date : 21/02/2024**

**Sample : OCT 2023**

**Peer group**

	<b>Parameters</b>	<b>Labs (n)</b>	<b>Lab Value</b>	<b>Unit</b>	<b>Assigned value</b>	<b>SDPA</b>	<b>Um</b>	<b>Z-Score</b>	<b>Remarks</b>
17	Eosinophils (Automated Flowcytometry)	13	<b>7.00</b>	%	3.18	* 0.65	0.213	5.89	<b>Unsatisfactory</b>
18	Neutrophils (Automated Flowcytometry)	13	<b>62.91</b>	%	57.26	* 3.95	1.292	1.43	Satisfactory
19	Lymphocyte (Automated Flowcytometry)	13	<b>25.79</b>	%	29.65	2.32		1.66	Satisfactory
20	Monocyte (Automated Flowcytometry)	13	<b>4.02</b>	%	9.25	3.27		1.60	Satisfactory
21	Basophils (Automated Flowcytometry)	13	<b>0.28</b>	%	1.25	* 0.75	0.246	1.30	Satisfactory
22	Hematocrit (Automated Cell counter)	37	<b>30.80</b>	%	31.22	0.92	0.189	0.45	Good
23	TOTAL COUNT (Electrical Impedance)	4	<b>3.74</b>	10 <sup>3</sup> /c umm	3.99	0.51		0.48	Good
24	RBC (Electrical Impedance)	9	<b>3.64</b>	10 <sup>6</sup> /c umm	3.66	0.11		0.18	Good
25	MCV (Automated Calculated)	7	<b>84.70</b>	fl	84.70	2.26			Good
26	MCH (Automated Calculated)	18	<b>28.80</b>	pg	28.13	0.73	0.214	0.92	Good
27	MCHC (Automated Calculated)	9	<b>34.10</b>	g/dL	33.40	1.02		0.69	Good
28	HEMOGLOBIN (colorimetric)	19	<b>10.50</b>	g/dL	10.54	0.24	0.070	0.15	Good
29	PLATELET COUNT (Electrical Impedance)	10	<b>218.90</b>	10 <sup>3</sup> /c umm	222.65	26.42		0.14	Good
30	ANC (VCSn Technology)	1	<b>2.35</b>	10 <sup>3</sup> /c umm					N/A
31	AEC (VCSn Technology)	1	<b>0.26</b>	10 <sup>3</sup> /c umm					N/A

Authorised Signatory

\* denotes adjusted SDPA as per ISO 13528:2015(E)  
SDPA - Standard Deviation for Proficiency Assessment

Technical Advisor




Dr. Sujay Prasad  
Technical Manager and Program coordinator

This report is for use only by the intended participant.

Dr. Glen  
Page 2 of 20



## INVESTIGATION FORM FOR PT / EQAS OUTLIERS

Date: 04<sup>th</sup> March 2024

1. Proficiency test provider: NeuQAP October 2023 Cycle
2. Proficiency test analyte: Eosinophils (%)
3. Details of outlier / failure: 'Unsatisfactory' result with Z Score of 5.89. The value was reported as '7.00 %' against expected result of  $3.18 \pm 1.95$  %.
4. Investigation done, Root cause analysis and action taken:
  - a) Verified the data updated for transcriptional errors and method chosen for peer group comparison and found no errors. Retained sample could not be retested due to stability issues.
  - b) Internal QC, reagent stability, calibration stability, QC stability was found acceptable and equipment maintenance was also done as per schedule.
  - c) An inter laboratory comparison was initiated with the following results

Laboratory result	Referral lab result	% Difference	Acceptable criterial	Comments
0.5	0.6	18.18	≤20%	Acceptable

- d) Since, the inter laboratory comparison was acceptable, the deviation is considered as 'random error'
5. Signatures :

Lab manager / Sr. Technician:

Laboratory Director:

**Patient Name :**   
**Age / Gender :** 33 years / Female  
**Mobile No. :** 9319900388  
**Patient ID :** 7389  
**Source :** Dr PK JAIN

**Referral :** Dr. Parvesh Kumar Jain  
**Collection Time :** 23/02/2024, 07:32 p.m.  
**Receiving Time :** 23/02/2024, 07:32 p.m.  
**Reporting Time :** 24/02/2024, 12:59 p.m.  
**Sample ID :**



Test Description	Value(s)	Reference Range	Unit(S)
<b>Complete Haemogram</b>			
Hemoglobin (Hb) Method : Cynmeth Photometric Measurement	9.6	12.0 - 15.0	gm/dL
Erythrocyte (RBC) Count Method : Electrical Impedence	3.96	3.8 - 4.8	mil/cu.mm
Packed Cell Volume (PCV) Method : Calculated	29.4	36 - 46	%
Mean Cell Volume (MCV) Method : Electrical Impedence	74.24	83 - 101	fL
Mean Cell Haemoglobin (MCH) Method : Calculated	24.24	27 - 32	pg
Mean Corpuscular Hb Concn. (MCHC) Method : Calculated	32.65	31.5 - 34.5	gm/dL
Red Cell Distribution Width (RDW) Method : Electrical Impedence	17.1	11.6 - 14.0	%
Total Leucocytes (WBC) Count Method : Electrical Impedence	3990	4000-10000	cell/cu.mm
Neutrophils Method : VCSn Technology	52.3	40 - 80	%
Lymphocytes Method : VCSn Technology	40.7	20 - 40	%
Monocytes Method : VCSn Technology	6.3	2 - 10	%
<b>Eosinophils</b> Method : VCSn Technology	<b>0.5</b>	1 - 6	%
Basophils Method : VCSn Technology	0.20	1-2	%
Absolute Neutrophil Count Method : Calculated	2.09	2.0 - 7.0	* 10 <sup>9</sup> /L
Absolute Lymphocyte Count Method : Calculated	1.63	1-3	* 10 <sup>9</sup> /L
Absolute Monocyte Count Method : Calculated	0.25	0.2-1.0	* 10 <sup>9</sup> /L
Absolute Eosinophil Count Method : Calculated	0.02	0.0-0.5	* 10 <sup>9</sup> /L
Absolute Basophils Count Method : Calculated	0.01	1-2	* 10 <sup>9</sup> /L
Platelet Count Method : Electrical Impedence	298	150 - 410	10 <sup>3</sup> /ul
Mean Platelet Volume (MPV) Method : Electrical Impedence	8.1	7.2 - 11.7	fL



Name	:	TID/SID	:	PUP2342960/ 27253771
Age / Gender	:	Registered on	:	27-Feb-2024 / 18:03 PM
Ref.By	:	Collected on	:	27-Feb-2024 / 18:06 PM
Req.No	:	Reported on	:	27-Feb-2024 / 20:11 PM
		Reference	:	Geo lab

TEST REPORT

DEPARTMENT OF HEMATOLOGY

Complete Blood Count (CBC), EDTA Whole Blood

Investigation	Observed Value	Biological Reference Interval
Hemoglobin Method:Spectrophotometry	9.3	11.5-16.0 g/dL
Packed Cell Volume Method:Derived from Impedance	27.9	34-48 %
Red Blood Cell Count. Method:Impedance Variation	3.74	3.8-5.4 Mill/Cumm
Mean Corpuscular Volume Method:Derived from Impedance	74.7	78-100 fL
Mean Corpuscular Hemoglobin Method:Derived from Impedance	24.8	27-32 pg
Mean Corpuscular Hemoglobin Concentration Method:Derived from Impedance	33.2	31.5-36 g/dL
Red Cell Distribution Width - CV Method:Derived from Impedance	15.3	11.0-16.0 %
Red Cell Distribution Width - SD Method:Derived from Impedance	40.3	39-46 fL
Total WBC Count. Method:Impedance Variation	2290	4000-11000 cells/cumm
Neutrophils Method:Impedance Variation, Flowcytometry	23.3	40-75 %
Lymphocytes Method:Impedance Variation, Flowcytometry	69.5	20-45 %
Eosinophils Method:Impedance Variation, Flowcytometry	0.6	01-06 %
Monocytes Method:Impedance Variation, Flowcytometry	4.8	01-10 %
Basophils. Method:Impedance Variation, Flowcytometry	1.8	00-02 %
Absolute Neutrophils Count. Method:Calculated	533.57	1500-6600 cells/cumm
Absolute Lymphocyte Count Method:Calculated	1591.55	1500-3500 cells/cumm
Absolute Eosinophils count. Method:Calculated	13.74	40-440 cells/cumm