



CA/PA LOG FOR ILC & EQAS OUTLIER

Department: Hematology (Pathology Lab) Date of Sample Run: 05/04/2022 Date of CA/PA: 31/5/2022

Name of Survey: ISHTM - AIIMS EQAP Cycle No: 155-J Sample No: 3752
 New Delhi

Error Details

Analyte Name	Initial Reported Value	Target & Acceptable Range	Z-Score/ %CV	Comments
PI+ X10 ³ /μl	① 374 ② 370 sum of 2 values 374+370=744	286	9.09	① Among lab (EQAS) CBC result of PI+ unacceptable may be due to random error ② Within lab (IGA): - precision acceptable

Root Cause Analysis (RCA)

Error Type:

Pre-Analytical Analytical Post Analytical

Classification of the Error

Refer QSP 36: PT sample handling for classifying the error

- i. Clerical error
- ii. Methodological problem
- iii. Technical problem
- iv. Problem with proficiency testing materials - may be
- v. Problem with evaluation of results by the PT provider
- vi. No explanation after investigation

RCA Details:

IQC data of same day (Two level L1 & L2) control data analysed & results are within acceptable limits.

↓
 Possibility of Random error most likely

Document No: GEN-09	Document Name: CA/PA Log For ILC & EQAS Outlier	
Issue No: 01	Issue Date: 01.01.2022	Status: Controlled
Amendment No: 00	Amendment Date: NA	Page 1 of 2
ISSUED BY : QA DEPARTMENT		APPROVED BY : HEAD OF DEPARTMENT

XN-L admin

Instrument Nickname: XN-L

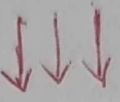
Material: XN-L Control Level12

Lot No.: QC-20141402

Exp. Date: 2022/04/26

QC Data

Date	Time	PLT-I	PLT-O	PDW	PCT	MPV	P-LCR
2022/04/05	09:34	238	251	8.0	0.22	9.1	12.8
Mean		238	251	8.0	0.22	9.1	12.8
SD		---	---	---	---	---	---
CV (%)		---	---	---	---	---	---
UL		275	333	10.9	0.30	11.0	31.1
Target		239	256	8.4	0.23	9.6	16.8
LL		203	179	5.9	0.16	8.2	2.5



Instrument Nickname: XN-L

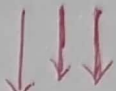
Material: XN-L Control Level 1

QC Data Lot No.: QC-20141401

Exp. Date: 2022/04/26

XN-L admin

Date	Time	PLT-I	PLT-O	PDW	PCT	MPV	P-LCR
2022/04/05	09:30	62	69	7.7	0.07	10.7	24.5
Mean		62	69	7.7	0.07	10.7	24.5
SD		---	---	---	---	---	---
CV (%)		---	---	---	---	---	---
UL		80	107	11.3	0.09	11.7	38.1
Target		57	63	8.1	0.06	10.2	20.6
LL		34	19	4.9	0.03	8.7	3.1





Corrective Action Taken: - All reagents were checked for integrity
- Back ground check was also acceptable

Repeat Analysis Data

Analyte Name	Initial Reported Value	Target & Acceptable Range	Z-Score	Re-assayed Result	Comments

Preventive Action Taken:

- ① Lab personells were demonstrated properly how the EQAS sample is to be handled & precautions to be taken while mixing of sample.

Kawora

Done By (Name & Sign)

Mr. K.A. Vora
(Lab. Tech.)

Jmait

Verified By (Name & Sign)

(Dr. P. S. Drait)
MD Path.

Jmait

Approved By (Name & Sign)

(Dr. P. S. Drait)
MD Path.

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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. : 3752

Distribution No.: 155-J

Month/Year: March/2022

Instrument ID: Sysmex XN550,5Part,SN.20102

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: 31-05-2022[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	5	4.9	9.9	10.56	0.0580	-0.47	0.1	0.1	0.0100	0.00
RBC x10 ⁶ /µl	1	4.8	4.7	9.5	9.37	0.0140	0.36	0.1	0.05	0.0040	0.96
Hb g/dl	1	14.1	14.1	28.2	28	0.0370	0.25	0	0.1	0.0100	-0.67
HCT%	1	42.9	42.4	85.3	84.1	0.1710	0.29	0.5	0.5	0.0310	0.00
MCV-fl	1	90.2	89.4	179.6	179.8	0.2720	-0.03	0.8	0.3	0.0310	0.96
MCH-Pg	1	30	29.4	59.4	59.55	0.1010	-0.07	0.6	0.3	0.0200	1.01
MCHC-g/dl	1	33.3	32.9	66.2	66.5	0.1520	-0.09	0.4	0.3	0.0230	0.34
Plt. x10 ³ /µl	1	374	370	744	286	2.24	9.09	4	8	0.55	-0.48
Retic %	2	4.5	4.3	8.8	8	0.15	0.21	0.2	0.4	0.03	-0.54

P.S . Assesment

YOUR REPORT		CONSENSUS REPORT
DLC%	3	Nrbcs=0 , Poly=05 L=01, E=00, Mono/Promono= , B1=95 P.M.=0, Mye=0, Meta=0, Other=
RBC Morphology	3	Majority of the RBCs are Normochromic Normocytic and Many Microcytic Hypochromic RBCs
Diagnosis	3	Acute Leukemia

COMBINED DATA VALUES OF TOTAL PARTICIPANTS

Test parameters	S.No.	Total participants covered in the current dist. 155-J	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	252	250	87.2	81.6	2	3.6	10.8	14.8
RBC x10 ⁶ /µl	1	252	252	90.48	87.7	4.37	3.97	5.15	8.33
Hb g/dl	1	252	252	85.71	89.68	5.95	5.16	8.34	5.16
HCT%	1	252	250	90.4	88.8	5.2	4	4.4	7.2
MCV-fl	1	252	249	91.97	92.77	5.22	2.81	2.81	4.42
MCH-Pg	1	252	250	89.6	88.8	5.2	2.4	5.2	8.8
MCHC-g/dl	1	252	250	87.6	86	7.2	7.6	5.2	6.4
Plt. x10 ³ /µl	1	252	248	84.68	90.73	6.45	4.44	8.87	4.83
ReticCount%	2	252	230	92.61	94.78	4.35	0.87	3.04	4.35
PS Assessment	3	252	236	Satisfactory :94.82%, Borderline Sat. :3.58%, Unsatisfactory :1.59%					

Comments:

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

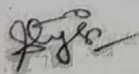
Note-7: Participants are free to use methods/analyzer of their own choice.

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.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-----

Clinical Summary - P.S-3/153 J
 nt with complaint of easy fatigues
 Hemogram



Sample No: 1/1553
 Patient ID:
 Name:
 Sample Comment:

Ward

Adapter

Pos

Doctor

Birth

Nickname

Sex

XN-L

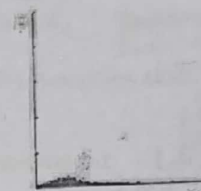
2022/04/05 09:55:40 WB

Positive

Diff. Morph. Count

WBC	5.09	[10 ³ /uL]	
RBC	4.70	[10 ⁶ /uL]	
HGB	14.1	[g/dL]	
HCT	42.4	[%]	
MCV	90.2	[fL]	
MCH	30.0	[pg]	
MCHC	33.3	[g/dL]	
PLT	370	[10 ³ /uL]	
RDW-SD	56.9	[fL]	
RDW-CV	19.7	[%]	
PDW	---	[fL]	
MPV	---	[fL]	
P-LCR	---	[%]	
PCT	---	[%]	
NEUT	2.39	[10 ³ /uL]	47.0 [%]
LYMPH	1.88	[10 ³ /uL]	36.9 [%]
MONO	0.39	[10 ³ /uL]	7.7 [%]
EO	0.21	[10 ³ /uL]	4.1 [%]
BASO	0.22	[10 ³ /uL]	4.3 [%]
IG	0.46	[10 ³ /uL]	9.0 [%]
RET	2.84	[%]	0.1335 [10 ⁶ /uL]
IRF	3.5	[%]	
LFR	96.5	[%]	
MFR	3.0	[%]	
HFR	0.5	[%]	
RET-He	22.6	[pg]	
IPF	19.8	[%]	
WBC-BF		[10 ³ /uL]	
RBC-BF		[10 ⁶ /uL]	
MI		[10 ³ /uL]	[%]
PMN		[10 ³ /uL]	
TC-BF#		[10 ³ /uL]	

WDF



WDF-CBC



RET



PLT-O



RBC



PLT



WBC IP Message
 Neutropenia
 Basophilia
 IG Present
 Blasts/Abn Lympho?
 NRBC?

RBC IP Message

PLI IP Message
 PLI Abn Distribution
 PLI Clumps?

Sample No. 1/1553
Patient ID
Name
Sample Comment

Adapter
Ward

Pos. Doctor
Birth Nickname Sex
XII L

Positive

Diff. Morph. Count

WBC	4.95 *	[10 ³ /uL]	
RBC	4.80	[10 ⁶ /uL]	
HGB	14.1	[g/dL]	
HCT	42.9	[%]	
MCV	89.4	[fL]	
MCH	29.4	[pg]	
MCHC	32.9	[g/dL]	
PLT SD	374 *	[10 ³ /uL]	
RDW-SD	57.5 *	[fL]	
RDW-CV	20.1 *	[%]	
PDW	----	[fL]	
MPV	----	[fL]	
P-LCR	----	[%]	
PCT	----	[%]	
NEUT	2.33 *	[10 ³ /uL]	47.1 *
LYMPH	1.76 *	[10 ³ /uL]	35.6 *
MONO	0.49 *	[10 ³ /uL]	9.9 *
EO	0.15 *	[10 ³ /uL]	3.0 *
BASO	0.22 *	[10 ³ /uL]	4.4 *
IG	0.13 *	[10 ³ /uL]	2.6 *
RET	2.71	[%]	0.1301 [10 ⁶ /uL]
IRF	3.8	[%]	
IFR	96.2	[%]	
WER	3.3	[%]	
WER	3.5	[%]	
RET-He	22.9	[pg]	
IPF	19.4 *	[%]	

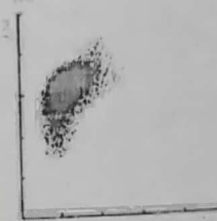
WDF



WDF-CBC



RET



PLT-O



RBC

PLT

WBC-BF	[10 ³ /uL]
RBC-BF	[10 ⁶ /uL]
MPV	[fL]
PLT	[10 ³ /uL]
TC-BF#	[10 ³ /uL]

WBC IP Message
WBC Abn Scattergram
Neutropenia
Basophilia
IG Present
Blasts/Abn Lympho?
NRBC?

RBC IP Message
Anisocytosis

PLT IP Message
PLI Abn Distribution
PLI Clumps?