



Metropolis Healthcare Ltd., EQAS

VYAS SUPER SPECIALITY HOSPITAL (1067)

Outlier And Analyte Summary Report

Outlier Details For Cycle No 230310 and Sample No 05

Report Date : 19/12/2023

Analyte	Instrument	Result Value	Standard Unit	Z-Score
X Erythrocyte (RBC) Count	Sysmex XN 330	1.06	10 ⁶ /μL	-4.14
X Haemoglobin	Sysmex XN 330	3.10	g/dL	-7.61
! Total Leucocytes (WBC) count	Sysmex XN 330	2230.00	1000/ μL	-2.04
! MCV (Mean Corpuscular Volume)	Sysmex XN 330	106.60	fL	2.32
! Hematocrit	Sysmex XN 330	11.30	%	-2.54

Legend @ : z score ≤ 2.0 - Acceptable
 ! : 2.0 < z score < 3.0 - Warning
 X : z score ≥ 3 - Unacceptable
 # : Not Evaluated
 ⊙ : Delayed Result Entry
 * : Not considered for evaluation.

Problem Classification: _____

Corrective Action: _____

Reviewed by: _____

Dated: _____

Instrument : Sysmex XN 330

Analyte	Standard Unit	Result Value	Mean	Z-Score	RMZ
X Erythrocyte (RBC) Count	mill/cu.mm	1.06	--	-4.14	-7.35
X Haemoglobin	g/dL	3.10	--	-7.61	-7.63
! Total Leucocytes (WBC) count	/c.mm	2230.00	--	-2.04	-2.09
! MCV (Mean Corpuscular Volume)	fL	106.60	--	2.32	1.65
@ MCH (Mean Corpuscular Hb)	pg	29.20	--	-0.11	0.07
@ MCHC (Mean Corpuscular Hb Concentration)	g/dL	27.40	--	-1.07	-0.95
@ Platelet Count	1000/ μ L	72.00	--	-1.89	-1.86
! Hematocrit	%	11.30	--	-2.54	-3.65
@ RDW CV%	%	14.20	--	0.83	0.86

Legend @ : Acceptable

! : 2.0 < z score < 3.0 - Warning

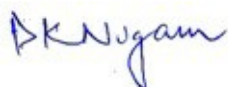
X : z score \geq 3 - Unacceptable

: Not Evaluated

⌚ : Delayed Result Entry

* : Not considered for evaluation.

Total Parameters	9
Not Evaluated Parameters	0
Evaluated Parameters	9
Outlier Parameters (X)	2
EQAS Score Haematology - CBC	77.78 %



Dr Puneet Kumar Nigam
PT coordinator & Technical Manager, MHL EQAS

Unit No. 409-416.

Commercial Building - 1A

Kohinoor Mall, Kirol Road, Kurla (W),

Mumbai - 400070

CORRECTIVE & PREVENTIVE ACTIONS FORM



ROOT CAUSE ANALYSIS, CORRECTIVE AND PREVENTIVE ACTION (CAPA)

Non Compliance Reference

No. Samp - 5 Dated 10/12/2023
Dept: Haematology (RBC)

Date: 21/12/23

Incident EQAS Sample RBC (Haematology) showed unacceptable results.

Root cause analysis/Investigation All the internal controls were under acceptable limits. Calibration is in a place. The EQA provider distributed by accident an inappropriate sample.

Done By: INDRAJEET Date & Sign: Indrajeet 21-12-23

Tool Used/ Risk Assessment Brain storming.

Immediate Correction Couldn't correct as it was already passed next step.

Corrective Action NO issue was identified as far as calibration, internal control and machine are concern.

Done By: INDRAJEET Date & Sign: Indrajeet 21-12-23

Preventive Action Daily monitoring will be done on daily basis and internal control of both high & low level will be checked until we receive another EQAS sample.
 Training given to the technicians.

Verification of CAPA Done

Done By: Dr. Anil Kumar Date & Sign: Anil 21/12/23

Prepared By INDRAJEET

Immediate Incharge Anil

HOD Anil



Metropolis Healthcare Ltd., EQAS

VYAS SUPER SPECIALITY HOSPITAL (1067)

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Outlier Details For Cycle No 230310 and Sample No 05

Report Date : 19/12/2023

Analyte	Instrument	Result Value	Standard Unit	Z-Score
X Erythrocyte (RBC) Count	Sysmex XN 330	1.06	10 ⁶ / μ L	-4.14
X Haemoglobin	Sysmex XN 330	3.10	g/dL	-7.61
! Total Leucocytes (WBC) count	Sysmex XN 330	2230.00	1000/ μ L	-2.04
! MCV (Mean Corpuscular Volume)	Sysmex XN 330	106.60	fL	2.32
! Hematocrit	Sysmex XN 330	11.30	%	-2.54
Legend @ : z score \leq 2.0 - Acceptable ! : 2.0 < z score < 3.0 - Warning X : z score \geq 3 - Unacceptable # : Not Evaluated ⊙ : Delayed Result Entry * : Not considered for evaluation.				

Problem Classification: _____

Corrective Action: _____

Reviewed by: _____

Dated: _____

Name :
 Sample No. : MHL EQAS HCBC 05
 Patient ID :
 Ref.By.Dr. :

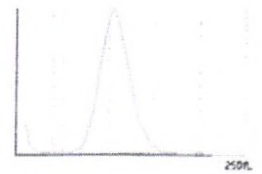
Date : 10/12/2023
 Age/Sex : /
 Report Generation: 10/12/2023
 Ward:

Result Unit Normal Range

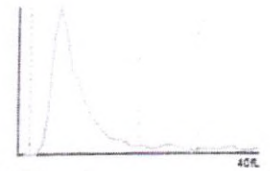
RBC	1.06 - [10 ⁶ /uL]	(2.50 - 5.50)
HGB	3.1 - [g/dL]	(8.0 - 17.0)
HCT	11.3 - [%]	(26.0 - 50.0)
MCV	106.6 [fL]	(86.0 - 110.0)
MCH	29.2 [pg]	(26.0 - 38.0)
MCHC	27.4 - [g/dL]	(31.0 - 37.0)
RDW-SD	55.0 + [fL]	(37.0 - 54.0)
RDW-CV	14.2 [%]	(11.0 - 16.0)
PLT	72 [10 ³ /uL]	(50 - 400)
PDW	8.6 - [fL]	(9.0 - 17.0)
MPV	10.1 [fL]	(9.0 - 13.0)
P-LCR	22.7 [%]	(13.0 - 43.0)
PCT	0.07 - [%]	(0.17 - 0.35)

			Absolute Values	Normal Range
WBC	2.23 - [10 ³ /uL]	(3.00 - 15.00)		
NEUT	46.2 * [%]	(37.0 - 72.0)	1.03 [10 ³ /uL]	(1.78-5.38)
LYMPH	5.4 * [%]	(20.0 - 50.0)	0.12 [10 ³ /uL]	(1.32-3.57)
MONO	46.2 * [%]	(0.0 - 14.0)	1.03 [10 ³ /uL]	(0.30-0.82)
EO	2.2 [%]	(0.0 - 6.0)	0.05 [10 ³ /uL]	(0.04-0.54)
BASO	0.0 [%]	(0.0 - 1.0)	0.00 [10 ³ /uL]	(0.01-0.08)
IG	2.2 * [%]	(0.0 - 72.0)	0.05 [10 ³ /uL]	(0.01-0.06)

RBC



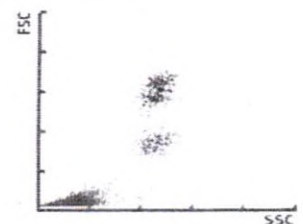
PLT



WDF



WDF-CBC



ESR : _____ mm/hr

Peripheral Smear :

(Technician Sign.)

(Pathologist Sign.)

ATTENDANCE SHEET



Topic Of Training: <i>Interpretations of the card Tests.</i>	
Name Of The Trainer: <i>Dr. Ashok Kumar Shah.</i>	Date: <i>25/12/2023</i>
Venue: <i>Central Research Lab Vmch.</i>	Time: <i>1pm to 2pm</i>

SN	Name	Designation	Department	Sign
1.	<i>Hemant Pandit</i>	<i>Lab. Tech.</i>	<i>Central Lab</i>	<i>Hemant</i>
2.	<i>Indrajeet</i>	<i>Lab Tech.</i>	<i>Central Lab</i>	<i>Indrajeet</i>
3.	<i>Sharwan</i>	<i>SR. Lab Tech.</i>	<i>CENTRAL LAB</i>	<i>Sharwan</i>
4.	<i>Manisha Benival</i>	<i>Lab technician</i>	<i>Central lab</i>	<i>Manisha</i>
5.	<i>Anupam maity</i>	<i>Lab Tech</i>	<i>Central Lab</i>	<i>Anupam</i>
6.	<i>Divya Bhati</i>	<i>Lab Tech.</i>	<i>Central Lab</i>	<i>Divya</i>

S. No.	Name	Designation	Department	Sign

Signature of Trainer: 

ATTENDANCE SHEET



Topic Of Training:	Transcription of Reports.		
Name Of The Trainer:	Dr. Anitha Sreekar	Date:	26/12/2023
Venue:	Central Research Lab vm ch	Time:	1pm to 2pm.

SN	Name	Designation	Department	Sign
1	MANISHA BENIWAL	Lab technician	Central Lab	<u>Manisha</u>
2	Hemant Pandit	Lab. Tech.	Central Lab	Hemant
3	INDRAJEET	Lab Techs	Central Lab	<u>Indrajeet</u>
4	SHAWAN GAELOT	SR. Lab Techs	Central Lab	<u>Shawan</u>
5	Divya Bhati	Lab technician	Central Lab	<u>Divya</u>
6	Anupam Maity.	Lab Tel	Central Lab	<u>Anupam</u>

ATTENDANCE SHEET



Topic Of Training: <u>Standardization, calibration & Internal & External QA (EQAS)</u>	
Name Of The Trainer: <u>Dr. Ashok Kumar Shah</u>	Date: <u>27/12/2023</u>
Venue: <u>Central Research Lab Umesh</u>	Time: <u>1pm to 3pm</u>

SN	Name	Designation	Department	Sign
1	INDRAJEET	LAB TECHNICIAN	CENTRAL LAB	Indrajeet
2	SHARWAN UCHHOT	SR. LAB TECHNICIAN	CENTRAL LAB	
3	Hemant Pandit	Lab. Tech.	central lab.	Hemant
4	Manisha Beniwal	lab. technician	Central lab.	Manisha
5	Anupam maity	Lab Tech.	Central lab	Anupam
6	Divya Bhati	Lab Tech.	Central lab	Divya

CORRECTIVE & PREVENTIVE ACTIONS FORM



ROOT CAUSE ANALYSIS, CORRECTIVE AND PREVENTIVE ACTION (CAPA)

Non Compliance Reference

No. Samp. 5 Dated 10/12/2023

Dept: Haematology. [HbJ]

Date: 21/12/23

Incident EQAS Sample Hb (Haematology) showed unacceptable results.

Root cause analysis/Investigation

All internal controls were under acceptable limits. Calibrations is in place. The EQA provider distributed by accident an inappropriate sample.

Done By: INDRAJEET Date & Sign Indrajeet 21-12-23

Tool Used/ Risk Assessment Brain storming

Immediate Correction couldn't correct as it was already passed next step.

Corrective Action

No issue was identified as far as calibrations, internal controls and machine are concern.

Done By: INDRAJEET Date & Sign: Indrajeet 21-12-23

Preventive Action

Daily monitoring will be done on daily basis and internal control of both high and low level will be checked until we received another EQAS sample.

Training given to the technicians.

Verification of CAPA Done

Done By: Dr. Aritha Seeni Date & Sign Aritha Seeni

INDRAJEET

Prepared By

Aritha

Immediate Incharge

Aritha

HOD



Metropolis Healthcare Ltd., EQAS

VYAS SUPER SPECIALITY HOSPITAL (1067)

Outlier And Analyte Summary Report

Outlier Details For Cycle No 230310 and Sample No 05

Report Date : 19/12/2023

Analyte	Instrument	Result Value	Standard Unit	Z-Score
X Erythrocyte (RBC) Count	Sysmex XN 330	1.06	10 ⁶ /μL	-4.14
X Haemoglobin	Sysmex XN 330	3.10	g/dL	-7.61
! Total Leucocytes (WBC) count	Sysmex XN 330	2230.00	1000/ μL	-2.04
! MCV (Mean Corpuscular Volume)	Sysmex XN 330	106.60	fL	2.32
! Hematocrit	Sysmex XN 330	11.30	%	-2.54
Legend @ : z score ≤ 2.0 - Acceptable ! : 2.0 < z score < 3.0 - Warning X : z score ≥ 3 - Unacceptable # : Not Evaluated ⊙ : Delayed Result Entry * : Not considered for evaluation.				

Problem Classification: _____

Corrective Action: _____

Reviewed by: _____

Dated: _____

Name :
 Sample No. : MHL EQAS HCBC 05
 Patient ID :
 Ref.By.Dr. :

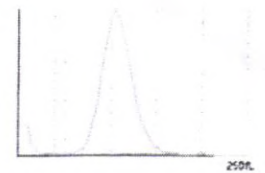
Date : 10/12/2023
 Age/Sex : /
 Report Generation: 10/12/2023
 Ward:

Result Unit Normal Range

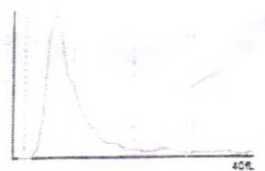
RBC	1.06 - [10 ⁶ /uL]	(2.50 - 5.50)
HGB	3.1 - [g/dL]	(8.0 - 17.0)
HCT	11.3 - [%]	(26.0 - 50.0)
MCV	106.6 [fL]	(86.0 - 110.0)
MCH	29.2 [pg]	(26.0 - 38.0)
MCHC	27.4 - [g/dL]	(31.0 - 37.0)
RDW-SD	55.0 + [fL]	(37.0 - 54.0)
RDW-CV	14.2 [%]	(11.0 - 16.0)
PLT	72 [10 ³ /uL]	(50 - 400)
PDW	8.6 - [fL]	(9.0 - 17.0)
MPV	10.1 [fL]	(9.0 - 13.0)
P-LCR	22.7 [%]	(13.0 - 43.0)
PCT	0.07 - [%]	(0.17 - 0.35)

			Absolute Values	Normal Range
WBC	2.23 - [10 ³ /uL]	(3.00 - 15.00)		
NEUT	46.2 * [%]	(37.0 - 72.0)	1.03 [10 ³ /uL]	(1.78-5.38)
LYMPH	5.4 * [%]	(20.0 - 50.0)	0.12 [10 ³ /uL]	(1.32-3.57)
MONO	46.2 * [%]	(0.0 - 14.0)	1.03 [10 ³ /uL]	(0.30-0.82)
EO	2.2 [%]	(0.0 - 6.0)	0.05 [10 ³ /uL]	(0.04-0.54)
BASO	0.0 [%]	(0.0 - 1.0)	0.00 [10 ³ /uL]	(0.01-0.08)
IG	2.2 * [%]	(0.0 - 72.0)	0.05 [10 ³ /uL]	(0.01-0.06)

RBC



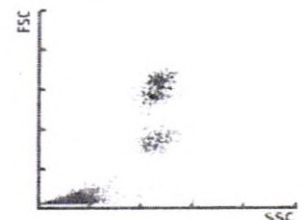
PLT



WDF



WDF-CBC



ESR : _____ mm/hr

Peripheral Smear :

(Technician Sign.)

(Pathologist Sign.)

ATTENDANCE SHEET



Topic Of Training: Interpretations of the card tests.	
Name Of The Trainer: Dr. Ashok Kumar Shah.	Date: 25/12/2023
Venue: Central Research Lab VMCH.	Time: 1pm to 2pm

SN	Name	Designation	Department	Sign
1.	Hemant Pandit	Lab. Tech.	Central Lab	Hemant
2.	Indrajeet	Lab Tech.	Central Lab	Indrajeet
3.	Sharwan	SR. Lab Tech.	CENTRAL LAB	Sharwan
4.	Manisha Benival	Lab technician	Central lab	Manisha
5.	Anupama Maity	Lab Tech	Central Lab	Anupama
6.	Divya Bhati	Lab Tech.	Central Lab	Divya

Analyte	Instrument	Result Value	Standard Unit	Z-Score
X Erythrocyte (RBC) Count	Sysmex XN 330	1.20	10 ⁶ /μL	-10.55
X Haemoglobin	Sysmex XN 330	3.70	g/dL	-7.64
X Hematocrit	Sysmex XN 330	12.60	%	-4.75
! Total Leucocytes (WBC) count	Sysmex XN 330	5040.00	1000/ μL	-2.14
Legend @ : z score ≤ 2.0 - Acceptable ! : 2.0 < z score < 3.0 - Warning X : z score ≥ 3 - Unacceptable # : Not Evaluated ⊙ : Delayed Result Entry * : Not considered for evaluation.				

Problem Classification: _____

Corrective Action: _____

Reviewed by: _____ **Dated:** _____

Instrument : Sysmex XN 330

Analyte	Standard Unit	Result Value	Mean	Z-Score	RMZ
X Erythrocyte (RBC) Count	mill/cu.mm	1.20	--	-10.55	-7.35
X Haemoglobin	g/dL	3.70	--	-7.64	-7.63
X Hematocrit	%	12.60	--	-4.75	-3.65
! Total Leucocytes (WBC) count	/c.mm	5040.00	--	-2.14	-2.09
@ MCV (Mean Corpuscular Volume)	fL	105.00	--	0.98	1.65
@ MCH (Mean Corpuscular Hb)	pg	30.80	--	0.24	0.07
@ MCHC (Mean Corpuscular Hb Concentration)	g/dL	29.40	--	-0.82	-0.95
@ Platelet Count	1000/ µL	143.00	--	-1.82	-1.86
@ RDW CV%	%	14.80	--	0.88	0.86

Legend @ : Acceptable

! : 2.0 < z score < 3.0 - Warning

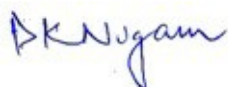
X : z score ≥ 3 - Unacceptable

: Not Evaluated

Ⓞ : Delayed Result Entry

* : Not considered for evaluation.

Total Parameters	9
Not Evaluated Parameters	0
Evaluated Parameters	9
Outlier Parameters (X)	3
EQAS Score Haematology - CBC	66.67 %



Dr Puneet Kumar Nigam
PT coordinator & Technical Manager, MHL EQAS
Unit No. 409-416.
Commercial Building - 1A
Kohinoor Mall, Kirol Road, Kurla (W),
Mumbai - 400070

CORRECTIVE & PREVENTIVE ACTIONS FORM



ROOT CAUSE ANALYSIS, CORRECTIVE AND
PREVENTIVE ACTION (CAPA)

Non Compliance Reference

No. Sample 6 Dated 10/12/2023
Dept: Haematology (RBC)

Date: 21/12/23

Incident EQAS Sample RBC Sample 6 (Haematology)
Shared unacceptable results.

Root cause analysis/Investigation All internal control were under
acceptable limits. Calibration is in a place
The EQA provider distributed by accident an
inappropriate sample

Done By: INDRAJEET Date & Sign Indrajeet 21-12-23

Tool Used/ Risk Assessment Brain storming automatic mistake

Immediate Correction couldn't correct as it was already passed next step.

Corrective Action
No issue was identified as far as calibrating
internal control and machine are concern.

Done By: INDRAJEET Date & Sign: Indrajeet 21-12-23

Preventive Action
Daily monitoring will be done on daily
basis and internal control of both high & low
level will be checked until we received another
EQAS sample. Training given to lab technician.

Verification of CAPA Done

Done By: Dr. Anil Kumar Date & Sign Anil 21/12/23

INDRAJEET

Prepared By

Anil

Immediate Incharge

Anil

HOD



Metropolis Healthcare Ltd., EQAS

VYAS SUPER SPECIALITY HOSPITAL (1067)

Outlier And Analyte Summary Report

Outlier Details For Cycle No 230310 and Sample No 06

Report Date : 19/12/2023

Analyte	Instrument	Result Value	Standard Unit	Z-Score
X Erythrocyte (RBC) Count	Sysmex XN 330	1.20	10 ⁶ / μ L	-10.55
X Haemoglobin	Sysmex XN 330	3.70	g/dL	-7.64
X Hematocrit	Sysmex XN 330	12.60	%	-4.75
! Total Leucocytes (WBC) count	Sysmex XN 330	5040.00	1000/ μ L	-2.14
Legend @ : z score \leq 2.0 - Acceptable ! : 2.0 < z score < 3.0 - Warning X : z score \geq 3 - Unacceptable # : Not Evaluated ⊙ : Delayed Result Entry * : Not considered for evaluation.				

Problem Classification: _____

Corrective Action: _____

Reviewed by: _____

Dated: _____

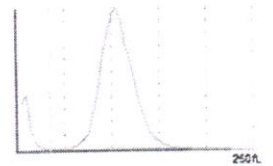
Name :
 Sample No. : MHL EQAS HCBC 06
 Patient ID :
 Ref.By.Dr. :

Date : 10/12/2023
 Age/Sex : /
 Report Generation: 10/12/2023
 Ward:

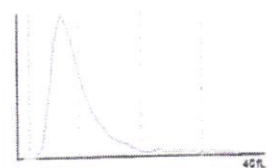
	Result	Unit	Normal Range
RBC	1.20	[10 ⁶ /uL]	(2.50 - 5.50)
HGB	3.7	[g/dL]	(8.0 - 17.0)
HCT	12.6	[%]	(26.0 - 50.0)
MCV	105.0	[fL]	(86.0 - 110.0)
MCH	30.8	[pg]	(26.0 - 38.0)
MCHC	29.4	[g/dL]	(31.0 - 37.0)
RDW-SD	55.9 +	[fL]	(37.0 - 54.0)
RDW-CV	14.8	[%]	(11.0 - 16.0)
PLT	143	[10 ³ /uL]	(50 - 400)
PDW	9.7	[fL]	(9.0 - 17.0)
MPV	9.9	[fL]	(9.0 - 13.0)
P-LCR	22.1	[%]	(13.0 - 43.0)
PCT	0.14	[%]	(0.17 - 0.35)

	Result	Unit	Normal Range	Absolute Values	Normal Range
WBC	5.04	[10 ³ /uL]	(3.00 - 15.00)		
NEUT	60.3 *	[%]	(37.0 - 72.0)	3.04	[10 ³ /uL] (1.78-5.38)
LYMPH	6.3 *	[%]	(20.0 - 50.0)	0.32	[10 ³ /uL] (1.32-3.57)
MONO	30.0 *	[%]	(0.0 - 14.0)	1.51	[10 ³ /uL] (0.30-0.82)
EO	3.0	[%]	(0.0 - 6.0)	0.15	[10 ³ /uL] (0.04-0.54)
BASO	0.4	[%]	(0.0 - 1.0)	0.02	[10 ³ /uL] (0.01-0.08)
IG	1.4 *	[%]	(0.0 - 72.0)	0.07	[10 ³ /uL] (0.01-0.06)

RBC



PLT



WDF



WDF - CBC



ESR : _____ **mm/hr**

Peripheral Smear :

(Technician Sign.)

(Pathologist Sign.)

ATTENDANCE SHEET



Topic Of Training: Interpretations of the card Tests.	Date: 25/12/2023
Name Of The Trainer: Dr. Ashok Kumar Shah.	Time: 1pm to 2pm
Venue: Central Research Lab VMCH.	

SN	Name	Designation	Department	Sign
1.	Hemant Pandit	Lab. Tech.	Central Lab	Hemant
2.	Jindrajeev	Lab Tech.	Central Lab	Jindrajeev
3.	Shrawan	SR. Lab Tech.	CENTRAL LAB	Shrawan
4.	Manisha Benival	Lab technician	Central lab	Manisha
5.	Anupam maity	lab tech	Central Lab	Anupam
6.	Divya Bhati	lab tech.	central lab	Divya