SURAHA SPECIALITY LABORATORY

(Department of Pathology)

Root cause analysis of outlier parameter for EQAS performance

Format No: SSL/FM/90

SL No	Check Points	Observations
	Name of Parameter (s): T. Billrubin (SDI - 3.54) T. Protein (SDI - 2.00)	**Month:** January
	Cycle No / Sample No/ Distribution No: JAN, 2023	**Year:** 2023
	CLERICAL ERRORS Date of testing - 11/01/2023	
1.	Transcription error (may be pre- or post-analytical factors)	- NIL -
2.	Wrong method has been registered for analysis or method change not updated	- NIL -
	METHODOLOGICAL PROBLEM	
3.	Instrument function checks (e.g., temperatures, blank readings, pressures) not performed as necessary, or results not within acceptable range.	- NIL -
4.	Scheduled instrument maintenance not performed appropriately.	- NA -
5.	Incorrect instrument calibration.	- NA -
6.	Standards or reagents improperly reconstituted and stored, or inadvertently used beyond expiration date.	- NA -
7.	Instrument probes misaligned.	- NIL -
8.	Problem with instrument data processing functions. The laboratory may need to contact the manufacturer to evaluate such problems.	- NIL -
9.	Problem in manufacture of reagents / standards, or with instrument settings specified by manufacturer	- NIL -
10.	Carry-over from previous specimen.	- NIL -
11.	Automatic pipettor not calibrated to acceptable precision and accuracy.	- NA -
12.	Imprecision from result being close to detection limit of method.	- NIL -
13.	QC material not run within expiration date, or improperly stored	- NIL -
14.	QC material not run at relevant analyte concentration	- NIL -
15.	Result not within reportable range (linearity) for instrument / reagent system.	- NIL -

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16.	Obstruction of instrument tubing / orifice by clot or protein.	- NIL -
17.	Incorrect incubation times.	- NIL -
TECHNICAL PROBLEM		
18.	EQA material improperly reconstituted.	- NIL -
19.	Testing delayed after reconstitution of EQA material (with problem from evaporation or deterioration).	- NIL -
20.	Sample not placed in proper order on instrument.	- NIL -
21.	Result released despite unacceptable QC data.	- NIL -
22.	QC data within acceptable limits but showed trend suggestive of problem with the assay.	It shows trend but sample was tested without taking corrective action.
23.	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.	- NIL -
24.	Manual pipetting / diluting performed inaccurately, at an incorrect temperature or with incorrect diluent.	- NIL -
25.	Calculation error or result reported using too few significant digits.	- NIL -
26.	Secondary specimen tubes incorrectly labeled.	- NIL -
PROBLEM WITH PROFICIENCY TESTING MATERIALS		
27.	PT sample with appropriate matrix to that as prescribed by the equipment manufacturer for testing of samples.	- NIL -
28.	Non-homogenous test material	- NIL -
29.	Haemolysis on an immune-haemtology program samples.	- NIL -
PROBLEM WITH EVALUATION OF RESULTS BY THE PT PROVIDER		
30.	Peer group not appropriate.	- NA -
31.	Inappropriate target value	- NA -

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32.	Incorrect data entry by PT provider	– NA –

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SL No	Check Points	Observations

CONCLUSION:

RCA done, however no major cause of outlier was identified. Cause of such errors may be random. The parameter Total Bilirubin shall be sent for ILC to NABL accredited lab and the parameter T. Protein shall be rerun. Both the parameter shall be strictly monitor in the next eqas cycle.

Saswati Sengupta

Root Cause Analysis done by: Close monitoring of control values T. Bil and T. Protein for trend identification to be done.

Remarks:

Reviewed By: Saswati Sengupta

SURAHA SPECIALITY LABORATORY
(Department of Pathology)
EQAS Corrective Action Details

Format No: SSL/FM/91

Sl. No	EQAS Agency	Sample Testing Date	Cycle No/ Sample No	Parameter Outlier	Remarks & Corrective Action Taken	Reviewed By
1	CMC Vellore	11/01/2023	Jan, 2023	T. Bilirubin	ILC has been done, After Corrective action Z-score found 0.70 and the parameter will be monitored in next cycle.	Saswati Sengupta
2	CMC Vellore	11/01/2023	Jan, 2023	T. Protein (Warning)	RCA done and it has been observed as, Random error. Parameter will be monitored in next cycle. After corrective action Z-score found 0.40 Sample has been return.	Saswati Sengupta

Lab Name	**SURAHA SPECIALITY LABORATORY**
Lab No	**16610**
Month	**January**
Year	**2023**
Constituent Group	**Chemistry II**

Details About RobustAnalysis

Detail About Monthly Summary

Detail about SDI

Click on the analyte to view Graphical Data

All Analyser Result | Print

Date of Result Entered : 18/01/2023

Date of Report Published : 09/02/2023

Sl.No	Analyte	Method / Principle Name	Analyzer Name	No of Participants	DV	Participants CV	Participants SD	Your Value	SDI	U
1	GLUCOSE II	GOD-POD II	Agape	472	170.54	8.84	15.07	177.1 mg/dL	0.44	1.39
2	UREA II	Urease UV / GLDH II	Agape	430	30.78	11.49	3.54	36.5 mg/dL	1.62	0.34
3	CREATININE II	Jaffes Kinetic-Alkaline Picrate II	Agape	346	1.30	11.47	0.15	1.12 mg/dL	-1.21	0.02
4	T.BILIRUBIN II	Diazonium Salt (Colorimetric) / Jendrassik II	Agape	372	3.21	14.87	0.48	4.91 mg/dL	3.54	0.05
5	T-PROTEIN II	Biuret - Colorimetric II	Agape	326	5.40	8.33	0.45	6.3 g/dL	2.00	0.05
6	ALBUMIN II	BCG - Colorimetric II	Agape	319	3.31	9.23	0.31	3.65 g/dL	1.11	0.03
7	URIC ACID II	Enzymatic / Uricase Colorimetric II	Agape	362	4.66	16.12	0.75	6 mg/dL	1.78	0.08
8	CHOLESTROL II	CHOD-PAP II	Agape	435	107.88	11.75	12.67	123.1 mg/dL	1.20	1.22
9	TRIGLYCERIDE II	GPO-PAP / Enzymatic Colorimetric / End Point II	Agape	323	104.14	11.50	11.98	106 mg/dL	0.16	1.33

SDI Range	Interpretation
Within -1.00 to +1.00	Excellent.
Within ±1.01 to ±2.00	Good.
Within ±2.01 to ±2.99	Accept with caution. Warning Signal.
Beyond ±3.0	Unacceptable performance. Action Signal.

Saswati Sengupta

Links

Modify Address	Modify Methods	Submit Lab Results	View Lab Monthly Summary
Yearly Summary	Change Password	Home	Sign-out

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9836756428 | surahaspecialitylab@gmail.com

Associate	: SSL23	Sample Type	: O.S.S.
Name	: MS SARASWATI MANNA		
Age / Gender	: 20Y / FEMALE	Received On	: 16/02/2023
ID Number	: SSL/3886/B-1042/31	Reported On	: 16/02/2023
Referred By	: DR.G.S.PANDA, DGO,MD		

DEPARTMENT OF CLINICAL BIOCHEMISTRY

Test Description	Result	Unit	Bio. Ref. Interval
Bilirubin Total	3.18	mg/dl	0.20-1.00
Methodology : Diazonium Salt/Jendrssik			
Specimen : serum			

Comment:

REMARKS : The result may be correlated with clinical findings.

Patients identification not verified and sample is not drawn by us.

End of Report

S. Sengupta

Dr. Saswati Sengupta
MBBS, MD(Path)
Reg. No. : 62563 (WBMC)

ISO 9001:2015

DIAGNOSTIC REPORT

MC-2396

SRL Diagnostics

PATIENT NAME : MS SARASWATI MANNA

REF. DOCTOR : DR. SURAHA SPECIALITY LABORATORY

CODE/NAME & ADDRESS : C000131225 SRISHTI DIAGNOSTICS 30, RASH BEHARI AVENUE, KOLKATA 700026 9123818736	ACCESSION NO : **0031WB013818** PATIENT ID : 871528730 CLIENT PATIENT ID: ABHA NO :	AGE/SEX : 20 Y Female DRAWN :16/02/2023 12:27:26 RECEIVED :16/02/2023 15:48:28 REPORTED :16/02/2023 17:25:20

Test Report Status **Final**	Results	Biological Reference Interval	Units

BIOCHEMISTRY

BILIRUBIN, TOTAL, SERUM

BILIRUBIN, TOTAL	3.16	< 10.0	mg/dL

METHOD : DIAZONIUM SALT

Interpretation(s)

BILIRUBIN, TOTAL, SERUM-Bilirubin is a yellowish pigment found in bile and is a breakdown product of normal heme catabolism. Bilirubin is excreted in bile and urine, and elevated levels may give yellow discoloration in jaundice.Elevated levels results from increased bilirubin production (eg, hemolysis and ineffective erythropoiesis), decreased bilirubin excretion (eg, obstruction and hepatitis), and abnormal bilirubin metabolism (eg, hereditary and neonatal jaundice).

An elevated bilirubin level in a newborn may be temporary and resolve itself within a few days to two weeks. However, if the bilirubin level is above a critical threshold or rapidly increases, an investigation of the cause is needed so appropriate treatment can be initiated.
Source: Wallach"s Interpretation of Diagnostic tests, 9th ed2) Wallach"s interpretation of diagnostic tests, 9th ed

****End Of Report****

Please visit www.srlworld.com for related Test Information for this accession

Dr. Chaitali Ray, PHD
Senior Biochemist cum
Management Representative

PERFORMED AT :
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SURAHA SPECIALITY LABORATORY
(DEPARTMENT OF PATHOLOGY)

Laboratory 1 : SURAHA SPECIALITY LABORATORY
Laboratory 2 : SRL DIAGNOSTICS
Laboratory` 3 :

Sl. No	Date of Testing	ID No	Parameter	Lab 1	Lab 2	Lab 3	Mean	SD	Z-Score	Corrective action (≥ 2 Z-score)	Reviewed By
1	16-02-2023		t.bill	3.18	3.16		3.17	0.014142	0.707107		Sanjoli Sengupta
1	16-02-2023		T.PROTEIN	6.3	4.73		5.515	1.110158	0.707107		Sanjoli Sengupta

Z- Score = (Lab 1 - Mean)/SD