CHRISTIAN MEDICAL COLLEGE

DEPARTMENT OF CLINICAL BIOCHEMISTRY

CMC EXTERNAL QUALITY ASSURANCE SCHEME

MONTHLY SUMMARY REPORT - JUNE 2023

PC-1024

Lab Name	**MEDITRUST DIAGNOSTIC CENTRE**	**Lab No**	**18608**
Constituent Group	**Chemistry II**	**Date of Result Entered :**	**20/06/2023**
PT item	**Lyophilized human serum based**	**Date of Report Published :**	**04/07/2023**

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	Any Analyser (Automation / Semi Automation)	1526	266.99	9.70	25.91	202.98 mg/dL	-2.47	1.33
2	UREA II	Urease UV / GLDH II	Any Analyser (Automation / Semi Automation)	1025	47.23	11.49	5.42	54.03 mg/dL	1.25	0.34
3	CREATININE II	Jaffes Kinetic-Alkaline Picrate II	Any Analyser (Automation / Semi Automation)	1158	1.04	15.24	0.16	1.34 mg/dL	1.90	0.01
4	T.BILIRUBIN II	Diazonium Salt (Colorimetric) / Jendrassik II	Any Analyser (Automation / Semi Automation)	1337	4.71	15.27	0.72	2.28 mg/dL	-3.38	0.04
5	T-PROTEIN II	Biuret - Colorimetric II	Any Analyser (Automation / Semi Automation)	1248	5.94	9.76	0.58	7.31 g/dL	2.36	0.03
6	ALBUMIN II	BCG - Colorimetric II	Any Analyser (Automation / Semi Automation)	1229	3.50	9.29	0.32	3.51 g/dL	0.03	0.02
7	URIC ACID II	Enzymatic / Uricase Colorimetric II	Any Analyser (Automation / Semi Automation)	1129	4.67	17.89	0.84	4.76 mg/dL	0.11	0.05
8	CHOLESTROL II	CHOD-PAP II	Any Analyser (Automation / Semi Automation)	1590	128.46	11.58	14.88	143.89 mg/dL	1.04	0.75
9	TRIGLYCERIDE II	GPO-PAP / Enzymatic Colorimetric / End Point II	Any Analyser (Automation / Semi Automation)	1346	160.03	14.05	22.49	187.37 mg/dL	1.22	1.23

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.

LAB ADDRESS :
MEDITRUST DIAGNOSTIC CENTRE
439, ANUKUL CHANDRA ROAD
GARIA
WEST BENGAL700084

Pamela Christudoss

Coordinator Contact Details:
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Contact Number: 0416-2283102

Dr. Pamela Christudoss
CMC EQAS Coordinator
Christian Medical College, Vellore

Homogeneity and Stability of the sample is passed.
Data in CMC EQAS reports is confidential
CMC EQAS does not sub contract any components
********* End of Report ********

Meditrust Diagnostic
Health is the first step to prosperity.

INV. No.	MTR-INV-G-248/2023(15079)	Barcode No	45775
Patient Name	**Ms. MEHERUN KHATUN**	Invoice Generated	06/07/2023 03:14 PM
Age/Gen	27 Years | Female	Sample Received	06/07/2023 03:14 PM
Referred By	**Dr. A. ISLAM**	Report Generated	06/07/2023 07:13 PM
Source	south60 OSS*		

Report Of Biochemistry Examination

Investigation	Result	Unit(s)	Reference Range
UREA			
Serum Urea Method (Urease-GLDH)	24	mg/dL	15 - 40
CREATININE			
Serum Creatinine Method (Enzymatic Method)	0.82	mg/dL	0.6 - 1.1

ADVICE : CKD RISK MAP

KDIGO guideline, 2012 recommends Chronic Kidney disease (CKD) should be classified based on cause, GFR category and albuminuria (ACR) category.

GFR & ACR category combined together reflect risk of progression and helps clinician to identify individuals who are progressing at more rapid rate than anticipated

BILIRUBIN (TOTAL AND DIRECT)			
Serum Bilirubin (Total) Method (Jendrassik & Grof Method)	0.89	mg/dL	Upto 1.0
Serum Bilirubin (Conj) Method (Jendrassik & Grof Method)	0.21	mg/dL	Upto 0.25
Serum Bilirubin (Uncon) Method (Calculated)	0.68	mg/dL	<0.75

1. In newborns with CB levels ≥0.5 mg/dL and <2 mg/dL, the infection must be ruled out, and the newborn should be observed. In newborns with levels ≥2 mg/dL, a more in-depth assessment of the hepatobiliary system is indicated. (interpreting conjugated bilirubin level in newborns,[Epub 2010 Nov 12])

~~~~~~ End of report ~~~~~~

Dr. Aniruddha Saha
MBBS, MD
Consultant Pathologist

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WESTERN DIAGNOSTIC CENTRE PVT. LTD.
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98316 06907 | 06905 | 06904 | 06903 | 06187 | 80020
info@wdcpl.com www.wdcpl.com

Patient ID : 8079
Patient Name : MS. MEHERUN KHATUN
Age / Sex : 27 years / Female
Referred By : SELF

Bill No : 15108
Registered On : Jul 07, 2023, 10:34 a.m.
Collected On : Jul 07, 2023, 10:36 a.m.
Reported On : Jul 07, 2023, 02:04 p.m.

Test Description	Value(s)	Units	Reference Range
Biochemistry			
Serum Bilirubin Total	0.91	mg/dL	0.30 - 1.00
Method : Malloy And Evelyn			
Conjugated Bilirubin	0.22	mg/dL	0.10 - 0.30
Unconjugated Bilirubin	0.69	mg/dL	0.20 - 0.70
Method : Calculated			

END OF REPORT

Clinical correlation suggested

Checked By : Rabindra Nath Mahata

Dr. Kamalesh Chatterjee
Ph.D F.A.I.C.(U.K)
Consultant Biochemist

Reported By : Rabindra Nath Mahata

Registered By : Arun Kumar Saha

MC-4932

Meditrust Diagnostic

MEDITRUST DIAGNOSTIC CENTRE

(Department of Pathology)

Root cause analysis of outlier parameter for EQAS performance

Format No: MDC/FM/92

SL No	Check Points	Observations
	Name of Parameter (s): T. Bilirubin [SDI = (-3.38)]	**Month:** JUNE
	Cycle No / Sample No/ Distribution No: June, 2023	**Year:** 2023
	CLERICAL ERRORS Date of testing - 20/06/2023	
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 -

Meditrust Diagnostic

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Root cause analysis of outlier parameter for EQAS performance

Format No: MDC/FM/92

SL No	Check Points	Observations
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 -

Meditrust Diagnostic

MEDITRUST DIAGNOSTIC CENTRE

(Department of Pathology)

Root cause analysis of outlier parameter for EQAS performance

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SL No	Check Points	Observations
32.	Incorrect data entry by PT provider	— NA —

MEDITRUST DIAGNOSTIC CENTRE

(Department of Pathology)

Root cause analysis of outlier parameter for EQAS performance

Format No: MDC/FM/92

SL No	Check Points	Observations

CONCLUSION:
RCA done, however no major cause of Outlayer was identified. cause of such errors may be random. The parameter Total Bilirubin shall be send for ILC to NABL accredited lab. The parameter shall be strictly monitor in the next eqas cycle.

Root Cause Analysis done by: close monitoring of control values T. Bill for trend identification to be done.

Remarks:

Reviewed By:

Meditrust Diagnostic

MEDITRUST DIAGNOSTIC CENTRE
(Department of Pathology)
EQAS Corrective Action Details

Format No: MDC/FM/93

Sl. No	EQAS Agency	Sample Testing Date	Cycle No/ Sample No	Parameter Outlier	Remarks & Corrective Action Taken	Reviewed By
1.	CMC Vellore	20/06/2023	June, 2023	T. Bilirubin	ILC has been done, After corrective action Z-Score found 0.70 and the parameter will be monitored in next cycle.	
2.	CMC vellore	20/06/2023	June, 2023	Glucose (warning)	RCA done and it has been observed as Random error. Parameter will be monitored in next cycle. After corrective action Z-score found 0.70 Sample has been rerun.	
3.	CMC vellore	20/06/2023	June, 2023	T-Protein (warning)	RCA done and it has been observed as Random error. Parameter will be monitored in next cycle. After corrects action Z-Score found 0.70 sample has been rerun.	

MEDITRUST DIAGNOSTIC CENTRE
(Department of Pathology)

Laboratory 1 : WESTERN
Laboratory 2 :
Laboratory` 3 :

Sl. No	Date of Testing	ID No	Parameter	MDC	Lab 1	Lab 2	Lab 3	Mean	SD	Z-Score
1	07.07.2023		T.BILIRUBIN	0.89	0.91			0.9	0.014142	-0.70711

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

Corrective action (≥ 2 Z-score)	Reviewed By
NA