CHRISTIAN MEDICAL COLLEGE

DEPARTMENT OF CLINICAL BIOCHEMISTRY

CMC EXTERNAL QUALITY ASSURANCE SCHEME

MONTHLY SUMMARY REPORT - JANUARY 2023

PC-1024

Lab Name	**TELANGANA DIAGNOSTIC HUB**	**Lab No**	**18032**
Constituent Group	**Chemistry I**	**Date of Result Entered :**	**25/01/2023**
PT item	**Lyophilized Serum**	**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	Hexokinase	Any Analyser (Automation / Semi Automation)	157	174.21	4.68	8.15	175 mg/dL	0.10	1.30
2	UREA	Urease UV / GLDH	Any Analyser (Automation / Semi Automation)	588	31.57	10.65	3.36	14 mg/dL	-5.23	0.28
3	CREATININE	Enzymatic Colorimetric	Any Analyser (Automation / Semi Automation)	138	1.39	10.91	0.15	1.23 mg/dL	-1.05	0.03
4	T.BILIRUBIN	Others (DPD, Vanadate Oxidation)	Any Analyser (Automation / Semi Automation)	205	3.20	12.17	0.39	4.3 mg/dL	2.82	0.05
5	T-PROTEIN	Biuret - Colorimetric	Any Analyser (Automation / Semi Automation)	956	5.25	9.77	0.51	5.1 g/dL	-0.29	0.03
6	ALBUMIN	BCG - colorimetric	Any Analyser (Automation / Semi Automation)	674	3.31	8.11	0.27	3.2 g/dL	-0.41	0.02
7	CALCIUM	OCPC (O - Cresolpthalein Compleazone)	Any Analyser (Automation / Semi Automation)	177	9.32	8.24	0.77	8.9 mg/dL	-0.55	0.12
8	URIC ACID	Enzymatic / Uricase Colorimetric	Any Analyser (Automation / Semi Automation)	939	4.83	16.02	0.77	4 mg/dL	-1.07	0.05
9	CHOLESTEROL	CHOD-PAP	Any Analyser (Automation / Semi Automation)	974	113.44	5.89	6.68	118 mg/dL	0.68	0.43
10	TRIGLYCERIDE	GPO-PAP / Enzymatic Colorimetric / End Point	Any Analyser (Automation / Semi Automation)	935	109.13	7.82	8.54	120 mg/dL	1.27	0.56
11	HDL	Direct method / Enzymatic colorimetric	Any Analyser (Automation / Semi Automation)	780	30.17	20.45	6.17	26.7 mg/dL	-0.56	0.44
12	SODIUM	ISE - Direct	Any Analyser (Automation / Semi Automation)	969	132.67	2.93	3.88	139.3 mmol/L	1.71	0.25
13	POTASSIUM	ISE - Direct	Any Analyser (Automation / Semi Automation)	997	3.42	5.15	0.18	3.52 mmol/L	0.57	0.01
14	CHLORIDE	ISE - Direct	Any Analyser (Automation / Semi Automation)	809	97.51	4.13	4.03	106.3 mmol/L	2.18	0.28
15	AST	UV kinetic(with & without PLP (P-5-P))	Any Analyser (Automation / Semi Automation)	967	50.29	10.00	5.03	65 U/L	2.92	0.32
16	ALT	UV kinetic(with & without PLP (P-5-P))	Any Analyser (Automation / Semi Automation)	958	57.78	13.00	7.51	68 U/L	1.36	0.49
17	ALP	PNP AMP kinetic	Any Analyser (Automation / Semi Automation)	793	101.50	10.81	10.97	91 U/L	-0.96	0.78
18	AMYLASE	Enzymatic Colorimetric / G7PNP Blocked	Any Analyser (Automation / Semi Automation)	154	44.10	17.79	7.84	56 U/L	1.52	1.26

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 :
TELANGANA DIAGNOSTIC HUB
GOVERNMENT GENERAL HOSPITAL

NIZAMABAD
TELANGANA503001

Pamela Christudoss

Coordinator Contact Details:
Email:clinqc@cmcvellore.ac.in
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 ********

	TELANGANA DIAGNOSTICS HUB, NIZAMABAD	Form: TD/QSP/08-EQCAR
	TITLE: EQAS CORRECTIVE ACTION FORM	Issue No. 01 Page 1 of 1

EQAS Details	CMC-EQAS
Analyte:	Chemistry-I
Month:	January-2023
Date Sample Tested:	24-01-2023 & 25-01-2023.

SPECIMEN HANDLING		
Were specimens received in an acceptable condition?	Yes ☑	No ☐
Were specimens stored according to the instructions on the result forms?	Yes ☑	No ☐
Were the samples hemolyzed?	Yes ☐	No ☑
Were samples tested within the time allowed for sample stability?	Yes ☑	No ☐
If applicable, were the samples reconstituted correctly?	Yes ☑	No ☐
Notes: CMC-EQAS Sample is reconstituted correctly with 2ml of distilled water and run 2 times consecutively		
CLERICAL ERRORS		
Were the results transcribed onto the result forms correctly?	Yes ☑	No ☐
Were the results transcribed from the result forms to the website correctly?	Yes ☑	No ☐
Were the results recorded on the correct result form?	Yes ☑	No ☐
Was the correct instrument/reagent/kit selected?	Yes ☑	No ☐
Were the results recorded in the correct units? (except for Urea)	Yes ☑	No ☐
Were the results on your evaluation the same as the results you reported?	Yes ☑	No ☐
Notes: We have crosschecked all the methods and then entered results and then submitted.		
QUALITY CONTROL		
Were quality control materials within the acceptable range on the date of PT testing? (Verify the quality control acceptable range in use.) (except for Calcium)	Yes ☑	No ☐
Is there any indication of trending or shifting of the control results?	Yes ☐	No ☑
Notes: IQC is with in the range for all analytes except for calcium.		
CALIBRATION		
Were there any problems with the most recent calibration? – for calcium.	Yes ☑	No ☐
When was the last calibration performed?	As per the manufacturer's instructions.	
How often is a calibration performed?		
When was the last calibration verification performed? → Routinely done whenever calibration is done.		
Notes: Calibration is done for every analyte as per the manufacturer's instructions and verified and then accepted.		
INSTRUMENT – Minor Technical issues. (-Seimens Atellica) Analyser.		

PREPARED BY : LAB MANAGER : SIRISHA	APPROVED & ISSUED BY: LAB HEAD: Dr. NADIPALLY DIVYA
REVIEWED BY CONSULTANT BIOCHEMIST Dr. M. SWATHI [redacted]	N. Divya.

CONTROLLED COPY

	TELANGANA DIAGNOSTICS HUB, NIZAMABAD	Form: TD/QSP/08-EQCAR
	TITLE: EQAS CORRECTIVE ACTION FORM	Issue No. 01 Page 1 of 1

Were instrument problems noted the day the samples were tested? – Minor breakdown	Yes ☐	No ☐
Has there been any recent maintenance on the analyzer?	Yes ☑	No ☐
Have you contacted your analyzer manufacturer for assistance?	Yes ☑	No ☐

Notes: Minor breakdowns like Reagent probe alignment issues & soft ware corruption issues – contacted manufacturers and rectified.

REAGENTS		
Were the reagents stored properly?	Yes ☑	No ☐
Were the reagents expired or was the open vial stability exceeded?	Yes ☐	No ☑
Have there been any changes in reagent manufacturer or formulation?	Yes ☐	No ☑

Notes: All the reagents were stored properly.

TESTING PERSONNEL		
Date of last competency assessment for testing personnel 10-10-2022	Yes ☑	No ☐
Review assay procedure and proficiency test sample preparation instructions with testing personnel to ensure that instructions were followed	Yes ☑	No ☐
Review with testing personnel how samples were loaded to rule out misidentification or transposition of samples.	Yes ☑	No ☐

Notes: The technicians were trained and the faculty at T-Hub supervise the routine work, calibration and IQC and take appropriate corrective actions. EQAS sample is run routinely as patient samples.

Corrective Action: → The CMC sample (Jan) is aliquotted after run and stored at −20°C. This sample is re-run for all the analytes, crossed 2SD on 13-02-2023 and the results are in acceptable range.

1. AST value is 60 and in range (50.29 ± 2 × 5.03) now Mean ± 2SD
2. Urea value is wrongly entered as BUN value and re-run value is 30.8 and acceptable (31.57 – Mean) ± 2×3.36
3. T. Bilirubin value, re-run is 3.8 and in range (3.20 ± 2 × 0.39)
4. Chloride re-run value is 104 and in range (97.51 ± 2×4.09)

Person Performing Investigation: Mr. Shiva (L.T-Biochemistry) Date: 24 & 25 Jan-2023

Consultant Biochemist Dr. M. Swathi Date: 16-02-2023

Swathi

PREPARED BY : LAB MANAGER : SIRISHA	APPROVED & ISSUED BY: LAB HEAD: Dr. NADIPALLY DIVYA
REVIEWED BY CONSULTANT BIOCHEMIST Dr. M. SWATHI Swathi	N. Divya

	TELANGANA DIAGNOSTICS HUB, NIZAMABAD	Form: TD/QSP/08-EQCAR
	TITLE: EQAS CORRECTIVE ACTION FORM	Issue No. 01 Page 1 of 1

INVESTIGATION SUMMARY: ROOT CAUSE

Pre-analytic Phase of Testing	Analytic Phase of Testing	Post-Analytic Phase of Testing
☐ PROBLEM WITH PT SAMPLE ☐ SAMPLE PROCESSING ☐ DATA ENTRY ☐ OTHER (SPECIFY): -No-	☐ METHODOLOGICAL PROBLEM ☐ TECHNICAL PROBLEM ☐ REAGENT PROBLEM ☐ CALIBRATOR PROBLEM ☐ OTHER (SPECIFY): -No-	☑ CLERICAL ERROR ☐ REPORTING PROBLEM ☐ NO EXPLANATION AFTER INVESTIGATION. OTHER (SPECIFY): For Urea

PREVENTION

Preventive action proposed

- Here after, maintenance schedule and calibration schedule is followed as per S.O.P; IQC is reviewed daily by faculty.
- In view of frequent minor breakdowns, Preventive maintenance of instrument is recommended & contacted the manufacturer.

Preventive action Plan

- Urea value is enabled for CMC-EQAS (instead of BUN)
- All parameters IQC is maintained ~~for~~ and supervised by faculty of Biochemistry. If any outliers/trends/shifts, corrective action is taken accordingly.

Responsibility

The faculty of Biochemistry in T-Hub supervise the routine work under the guidance of consultant Biochemist and Lab Director.

Date 13-02-203 (Re-run)	Testing Personnel Mr. Shiva (L.T)
Date 16-02-2023	Department Technical In charge Dr. B. Sandeep — Dr. M. Swathi

Method - Swathi
Dr. M. Swathi
Consultant Biochemist

PREPARED BY : LAB MANAGER : SIRISHA	APPROVED & ISSUED BY: LAB HEAD: Dr. NADIPALLY DIVYA
REVIEWED BY CONSULTANT BIOCHEMIST Dr. M. SWATHI [redacted]	N. Divya

CONTROLLED COPY

CHRISTIAN MEDICAL COLLEGE

DEPARTMENT OF CLINICAL BIOCHEMISTRY

CMC EXTERNAL QUALITY ASSURANCE SCHEME

MONTHLY SUMMARY REPORT - FEBRUARY 2023

PC-1024

Lab Name	**TELANGANA DIAGNOSTIC HUB**	**Lab No**	**18032**
Constituent Group	**Chemistry I**	**Date of Result Entered :**	**20/02/2023**
PT item	**Lyophilized human serum based**	**Date of Report Published :**	**08/03/2023**

Sl.No	Analyte	Method / Principle Name	Analyzer Name	No of Participants	DV	Participants CV	Participants SD	Your Value	SDi	U
1	GLUCOSE	Hexokinase	Any Analyser (Automation / Semi Automation)	182	120.06	5.58	6.70	120 mg/dL	-0.01	0.99
2	UREA	Urease UV / GLDH	Any Analyser (Automation / Semi Automation)	648	129.71	8.40	10.90	128.7 mg/dL	-0.09	0.86
3	CREATININE	Enzymatic Colorimetric	Any Analyser (Automation / Semi Automation)	151	5.17	6.52	0.34	4.95 mg/dL	-0.65	0.05
4	T.BILIRUBIN	Others (DPD, Vanadate Oxidation)	Any Analyser (Automation / Semi Automation)	211	1.48	14.72	0.22	1.8 mg/dL	1.47	0.03
5	T-PROTEIN	Biuret - Colorimetric	Any Analyser (Automation / Semi Automation)	1100	4.63	9.80	0.45	4.1 g/dL	-1.17	0.03
6	ALBUMIN	BCG - colorimetric	Any Analyser (Automation / Semi Automation)	730	2.91	8.69	0.25	2.7 g/dL	-0.83	0.02
7	CALCIUM	OCPC (O - Cresolpthalein Compleazone)	Any Analyser (Automation / Semi Automation)	195	10.23	8.50	0.87	10.4 mg/dL	0.20	0.12
8	URIC ACID	Enzymatic / Uricase Colorimetric	Any Analyser (Automation / Semi Automation)	1011	6.92	10.14	0.70	6.2 mg/dL	-1.03	0.04
9	CHOLESTEROL	CHOD-PAP	Any Analyser (Automation / Semi Automation)	1046	98.66	7.43	7.33	100 mg/dL	0.18	0.45
10	TRIGLYCERIDE	GPO-PAP / Enzymatic Colorimetric / End Point	Any Analyser (Automation / Semi Automation)	988	87.48	8.82	7.72	92 mg/dL	0.59	0.49
11	HDL	Direct method / Enzymatic colorimetric	Any Analyser (Automation / Semi Automation)	714	28.16	19.26	5.42	20.3 mg/dL	-1.45	0.41
12	SODIUM	ISE - Direct	Any Analyser (Automation / Semi Automation)	1147	120.46	4.12	4.96	126.4 mmol/L	1.20	0.29
13	POTASSIUM	ISE - Direct	Any Analyser (Automation / Semi Automation)	1129	5.00	5.46	0.27	4.86 mmol/L	-0.51	0.02
14	CHLORIDE	ISE - Direct	Any Analyser (Automation / Semi Automation)	921	92.85	4.47	4.15	98.7 mmol/L	1.41	0.27
15	AST	UV kinetic(with & without PLP (P-5-P))	Any Analyser (Automation / Semi Automation)	1021	190.14	15.11	28.72	251 U/L	2.12	1.80
16	ALT	UV kinetic(with & without PLP (P-5-P))	Any Analyser (Automation / Semi Automation)	1025	49.30	15.70	7.74	52 U/L	0.35	0.48
17	AMYLASE	Enzymatic Colorimetric / G7PNP Blocked	Any Analyser (Automation / Semi Automation)	187	79.27	16.96	13.45	102 U/L	1.69	1.97

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 :
TELANGANA DIAGNOSTIC HUB
GOVERNMENT GENERAL HOSPITAL
NIZAMABAD
TELANGANA503001

Pamela Christudoss

Coordinator Contact Details:
Email:clinqc@cmcvellore.ac.in
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 ********