CHRISTIAN MEDICAL COLLEGE

DEPARTMENT OF CLINICAL BIOCHEMISTRY

CMC EXTERNAL QUALITY ASSURANCE SCHEME

MONTHLY SUMMARY REPORT - MAY 2022

PC-1024

Lab Name	**ESIC MEDICAL COLLEGE AND HOSPITAL**	**Lab No**	**7760**
Constituent Group	**Chemistry I**	**Date of Result Entered :**	**15/05/2022**
PT item	**Lyophilized Serum**	**Date of Report Published :**	**08/06/2022**

Sl.No	Analyte	Method / Principle Name	Analyzer Name	No of Participants	DV	Participants CV	Participants SD	Your Value	SDI	U
1	GLUCOSE	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	296	179.51	4.12	7.39	160 mg/dL	-2.64	0.86
2	UREA	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	303	64.05	4.50	2.88	60 mg/dL	-1.41	0.33
3	CREATININE	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	298	2.49	4.61	0.12	2.4 mg/dL	-0.78	0.01
4	T.BILIRUBIN	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	297	3.23	8.12	0.26	2.86 mg/dL	-1.41	0.03
5	T-PROTEIN	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	295	5.54	4.59	0.25	5.6 g/dL	0.24	0.03
6	ALBUMIN	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	295	3.32	4.89	0.16	3.2 g/dL	-0.74	0.02
7	CALCIUM	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	292	10.85	3.81	0.41	10.6 mg/dL	-0.61	0.05
8	PHOSPHORUS	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	245	4.83	5.76	0.28	5.2 mg/dL	1.33	0.04
9	URIC ACID	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	291	4.68	3.59	0.17	4.6 mg/dL	-0.48	0.02
10	CHOLESTEROL	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	275	115.56	5.15	5.95	122 mg/dL	1.08	0.72
11	TRIGLYCERIDE	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	275	124.13	5.18	6.43	144 mg/dL	3.09	0.78
12	HDL CHO	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	271	23.24	6.71	1.56	23 mg/dL	-0.15	0.19
13	SODIUM	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	228	139.36	2.87	4.00	145 mmol/L	1.41	0.53
14	POTASSIUM	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	230	4.82	2.86	0.14	5 mmol/L	1.30	0.02
15	CHLORIDE	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	177	100.24	2.68	2.68	103 mmol/L	1.03	0.40
16	AST	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	296	90.21	6.78	6.12	93 U/L	0.46	0.71
17	ALT	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	295	57.87	9.95	5.76	46 U/L	-2.06	0.67

18	ALP	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	300	91.80	8.27	7.60	81 U/L	-1.42	0.88
19	AMYLASE	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	163	47.62	12.67	6.03	51 U/L	0.56	0.95
20	IRON	Dry Chemistry I	Ortho Clinical Diagnostics / Fuji - Dry Chemistry Series	85	89.78	9.63	8.64	79 ug/dL	-1.25	1.87
21	MAGNESIUM	Dry Chemistry	Ortho Clinical Diagnostics Dry Chemistry Series	112	2.63	5.36	0.14	2.5 mg/dL	-0.92	0.03

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 :
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CMC EQAS Coordinator
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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 ********

Response to NC from Clinical Biochemistry Laboratory

NC 1 Response:

a. LDL Cholesterol EQAS result not available:

Clinical Biochemistry Laboratory, ESIC Medical College, Faridabad is running External Quality Assurance Scheme (EQAS) with CMC Vellore. As per Chemistry I group of CMC Vellore, LDL is not a part of constituent Group of EQAS as it is a calculated parameter. Thereby LDL Cholesterol EQAS result is not available.

LDL Cholesterol is a calculated parameter using Friedewald's Formula. It is calculated using values of Total Cholesterol, Triglycerides and HDL-cholesterol values.

LDL-C = (Total Cholesterol) − (HDL-C) − (TGs/5)

The EQAS results for these individual parameters (Total Cholesterol, Triglyceride and HDL - Cholesterol) used in the above formula are provided in CMC, Vellore EQAS reports.

NC 1 Response:

b. For Root Cause Analysis

QC was checked for 05th May 2022 date of EQAS report published and it turned out to be within acceptable limits. The parameter was under observation with all QC checks on daily basis , and following the EQAS report for the next month(May-2022) it was found to be within acceptable limit.(Interpretation : Good, SDI- 1.33). EQAS Report for month of May 2022 is attached.

Therefore, this outlier could be due to Random error

Annexure 1: EQAS May 2022

NC 3 Response:

a. Calibration certificate with signature and Latest control run results in Annexure 2.