

DEPARTMENT OF BIOCHEMISTRY
GOVERNMENT MEDICAL COLLEGE, KARUR

- Inception since 2019
- **Laboratory services:**

We are running a 24 hours Clinical Biochemistry laboratory in the hospital campus. Following are the scope of services in our lab for the benefit of the patients attending our Medical college Hospital.

S.No.	NAME OF THE PARAMETER	S.No.	NAME OF THE PARAMETER
1	Blood Sugar – Random, Fasting, Post Prandial	21	Serum Phosphorus
2	Glucose Challenge Test (GCT)	22	Serum Magnesium
3	Glucose Tolerance Test (GTT)	23	Total Creatine Kinase
4	Blood Urea	24	CK- MB
5	Serum Creatinine	25	Troponin I/ Troponin T (Card test)
6	Serum Uric acid	26	Arterial Blood Gas analysis
7	Lipid Profile (Total Cholesterol, TGL, HDL, LDL), Total CHO/HDL ratio	27	Thyroid Hormone Analysis – Free T4, TSH
8	Serum Bilirubin – Total	28	Serum Electrolytes
9	Serum Bilirubin – Direct	29	C-Reactive Protein
10	Serum Bilirubin – Indirect	30	HbA1c
11	AST - Aspartate Transaminase	31	Lactate Dehydrogenase
12	ALT - Alanine Transaminase	32	Cholinesterase
13	ALP - Alkaline Phosphatase	33	Ferritin
14	GGT - Gamma Glutamyl Transferase	34	Urine Microprotein

15	Serum Total Protein	35	Urine Electrolytes
16	Serum Total Albumin, A:G ratio	36	Spot Urine PCR
17	Serum Amylase	37	Urine Metabolic Screening
18	Serum Lipase	38	Urine Bence Jones protein
19	Bio-chemical Analysis of fluids (CSF, Pleural and Ascitic fluid)	39	Stone analysis
20	Serum Calcium	40	Hemoglobinopathy Screening

▪ **List of Equipments - Central Laboratory - Clinical Biochemistry Lab:**

S.No.	NAME OF THE EQUIPMENT
1	FULLY AUTOMATED BIOCHEMISTRY ANALYSER - BECKMANN COULTER AU480
2	FULLY AUTOMATED BIOCHEMISTRY ANALYSER - XL640
3	FULLY AUTOMATED BIOCHEMISTRY ANALYSER - EM200
4	SEMI AUTO ANALYSER
5	ARTERIAL BLOOD GAS ANALYSER – SIEMENS - RAPID LAB 348 EX
6	CLIA – CHEMI-LUMINESCENT IMMUNO ASSAY – HORMONE ANALYSER
7	ELECTROLYTE ANALYSER - EASYLYTE
8	MEGAFUGE 8R REFRIGERATED CENTRIFUGE

▪ **List of Equipments - Central Laboratory - Department of Biochemistry:**

S.No.	NAME OF THE EQUIPMENT
1	Electrophoresis Apparatus
2	Incubator
3	Digital Spectrophotometer
4	Fume cupboard
5	Thin Layer Chromatography
6	Balance – Micro

STUDENTS PRACTICAL LABORATORY



CLINICAL BIOCHEMISTRY LABORATORY - INSTRUMENTS

BECKMAN COULTER-AU 480



HPLC FOR HBA1C & HEMOGLOBINOPATHIES

BIORAD-D10 ANALYZER



HORMONE ANALYSER
CLIA-MINDRAY CL1000i



BIOCHEMISTRY AUTOANALYZER

ERBA XL-640



- **Integrated Essential Laboratory Services:**

Apart from serving the patients attending our medical college hospital, we analyse samples received from Primary health centres and Government hospitals in Karur District, under the scheme IELS. This benefits the people all over Karur district to access certain special investigations like Thyroid function tests, HbA1c, etc.

- **NHM Project - Hemoglobinopathy Screening:**

Our Clinical Biochemistry laboratory has been selected by the National Health Mission to analyze samples of Antenatal mothers in district of Karur for screening of Hemoglobinopathy, as a pilot project, to assess the prevalence of Hemoglobinopathy in non-tribal areas. We have analyzed around 3500 samples and reports sent.

- **Academic activities:**

We take regular theory, practical & tutorial sessions to first year MBBS students as per CBME guidelines. We are also teaching students of the following paramedical courses – DMLT, BSc OT AT and Certificate courses – Emergency care technician, Dialysis technician.

- We encourage our students to participate in inter-college quiz competitions and academic fest in various medical colleges.

- **Achievements:**

1. We have conducted an Intra-college Quiz event “BIOGNOSIS” every year since 2021 till 2025.
2. We conducted a CME on “United for Mental health – Breaking down the silos” on 21st March 2025, along with the departments of Anatomy and Physiology.
3. We conducted a CME on “The Bilirubin Forum – Decoding the yellow signal from Molecule to Management” on 19th June 2025.

BIOGNOSIS'25 CME & QUIZ COMPETITION



BIOGNOSIS'24 QUIZ COMPETITION



BIOGNOSIS'23 QUIZ COMPETITION



BIOGNOSIS'22 QUIZ COMPETITION



BIOGNOSIS'21 QUIZ COMPETITION



INAUGURATION OF FULLY AUTOMATED ANALYSER (XL 640)



INAUGURATION OF RO PLANT



INAUGURATION OF HPLC ANALYSER



INAUGURATION OF FULLY AUTOMATED ANALYSER (BECKMAN)

