

# Elective in Department Of Biochemistry

Hamdard Institute of Medical Science and Research and  
Associated HAHC Hospital, New Delhi

S.no.	Name of Elective	Quality control basics and its importance in clinical and endocrinology labs.
1.	Block	I
2.	Department/ area	Biochemistry
3.	Name of mentor/ supervisor	Dr. Sana Alam , Associate Professor, Biochemistry,HIMSR
4.	Co-Supervisor	Ms shazia Bano Tutor, Biochemistry, HIMSR
5.	Number of students intake	2-5
6.	Method of selection (If applicable)	Interview /as per the policy of HIMSR
7.	Objectives	<ul style="list-style-type: none"><li>• Overview of clinical biochemistry and endocrinology laboratory, machines (Beckman coulter AU480, Architect i1000SR, Bio-Rad D-10, Roche 9180 electrolyte analyzer), their principle and functioning.</li><li>• Proper SOP's for machine working and Quality control testing.</li><li>• Universal precautions for dealing with Q.C. aliquots and human samples.</li><li>• Preparation of both levels i.e. level-1 and level-2 in labs.</li><li>• Demonstration of different types of Q.C. i.e. internal and external quality control.</li><li>• Hands on training and dealing with machines.</li><li>• Preservation, freezing and thawing of Q.C. sample.</li></ul>

		<ul style="list-style-type: none"> <li>• Demonstration of different types of errors i.e. Random and systematic Errors that affect Q.C. results.</li> <li>• Demonstration of Westgard Rules and L-J charts for understanding of Q.C. results.</li> </ul>
8.	Expected outcomes	<ul style="list-style-type: none"> <li>• Successfully maintaining the Q.C. result of labs and ensuring the correct result before giving the patient's report.</li> <li>• To recognize and prevent pre-analytical, analytical and post-analytical errors in Labs.</li> <li>• Students will be trained for the relevant quality assurance including preparation of L-J chart.</li> <li>• Recognize the trouble shooting problems faced during sample testing in labs.</li> </ul>
9.	Assessment	Feedback/viva voice
10.	Log book	A google form for the day to day activity will be filled by students and record for the same will be maintained in excel sheet.

*Shazia Bano*  
Ms. Shazia Bano

Tutor, Biochemistry, HIMSR  
(Co-supervisor)

*Sana Alam*  
Dr. Sana Alam

Associate Professor, Biochemistry, HIMSR  
(Supervisor)

Forwarded and Recommended by

HOD, Biochemistry *Sana Alam*



**Dr. SANA ALAM**  
Associate Professor, Biochemistry  
HIMSR, Jamia Hamdard  
New Delhi-110062