

Name of Book	Block 2
Name of Elective	Mastering Vascular Access: Peripheral, Central and Arterial Techniques
Location of hospital Lab or research facility	Dept. of Anesthesiology
Name of internal preceptor (s)	Dr. Udeyana Singh
Name of external preceptor (if applicable)	-
Learning objectives of elective	a. The student should be able to identify potential sites and establish peripheral IV access. b. Enumerate indications for establishment of central venous access. c. Identify relevant anatomy and select equipment required for central venous access. d. Monitor for complications associated with central line placement. e. Identify anatomical sites for arterial catheter insertion with understanding of each site, unique risks and benefits. f. Identify indications and contraindications for arterial catheterization. g. Communicate clearly and effectively with patient relatives and develop appropriate skills for obtaining patient consent.
Number of students that can be accommodated in this elective	2
Pre-requisites for elective	Knowledge of i. Peripheral and Central venous anatomy ii. Arterial anatomy
Learning resources for students	a. Miller's Anesthesia 10th edition b. Clinical Anesthesia by Barash 9th edition
List of activities of student participation	a. Identify potential sites and establish peripheral IV access. b. Indications of central venous access and sites for the same. c. Indications and sites for arterial access. d. Complications of central venous access. e. Complications of arterial access.
Portfolio entries required	a. Daily logbook entry of peripheral IV access established. b. Documentation of atleast five central venous and arterial line insertions.

Log book entry required	Satisfactory, completion of criterion with “M” grade
Assessment	a. Attendance b. MCQs c. OSCE
Other comments	

Mastering Vascular Access: Peripheral, Central and Arterial Techniques

Intravenous access (peripheral / central) allows administration of fluids, medications and blood products directly into the cardiovascular system. Eighty to ninety percent of hospital in-patients, may require intravenous (IV) access at some stage of their hospital admission. Establishment of IV access may be done by landmark guided or ultrasound (USG) guided techniques. While failure to establish IV access is common, it is not acceptable. Anesthesiologists routinely encounter scenarios involving difficult IV access.

Arterial catheterization is a routine procedure required in operating rooms, emergency departments and intensive care units. The successful initiation of this invasive procedure for hemodynamic monitoring, arterial blood gas sampling requires sound knowledge of vascular anatomy, indications, contraindications and advanced level of skills.

In this elective posting, students will be taught relevant anatomy, equipment required, indications and complications of venous (peripheral / central) and arterial cannulation in a structured approach which provides effective care and appropriate surveillance to patients during and after these procedures.