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|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name of Book                                                 | Block 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Name of Elective                                             | Vigilance in Anaesthesia : Safe monitoring & complication prevention                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Location of hospital Lab or research facility                | Dept. of Anaesthesiology                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Name of internal preceptor (s)                               | Dr. Sandeep Kundra                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Name of external preceptor (if applicable)                   | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Learning objectives of elective                              | <ul style="list-style-type: none"> <li>a. To learn the need for peri-operative monitoring.</li> <li>b. To understand the basic physiology and physics behind the various monitors used in peri-operative monitoring.</li> <li>c. To experience monitoring patients inside Operation room (OR) and post anaesthesia care unit (PACU)</li> <li>d. To be aware and be able to diagnose complications in PACU.</li> <li>e. To observe management of peri-operative complications.</li> </ul> |
| Number of students that can be accommodated in this elective | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Pre-requisites for elective                                  | None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Learning resources for students                              | <ul style="list-style-type: none"> <li>a. <a href="https://www.asahq.org/standards-and-practice-parameters/standards-for-basic-anesthetic-monitoring">https://www.asahq.org/standards-and-practice-parameters/standards-for-basic-anesthetic-monitoring</a></li> </ul>                                                                                                                                                                                                                   |
| List of activities of student participation                  | <ul style="list-style-type: none"> <li>a. Class room teaching</li> <li>b. Bed side teaching in OR and PACU</li> <li>c. Small group discussion</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
| Portfolio entries required                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Log book entry required                                      | <ul style="list-style-type: none"> <li>a. Maintaining record of daily classes</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                 |
| Assessment                                                   | <ul style="list-style-type: none"> <li>a. Attendance</li> <li>b. Demonstration of ability to perform peri-operative monitoring</li> </ul>                                                                                                                                                                                                                                                                                                                                                |
| Other comments                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

## **ELECTIVE : Vigilance in Anaesthesia : Safe monitoring & complication prevention**

### **INTRODUCTION**

Monitoring is an essential component of clinical practice and anesthesia care. Clinicians must monitor patient physiologic variables during all types of anesthesia, in the postoperative period and in the Intensive Care unit. This is because anesthesia and surgery can cause rapid changes in vital functions. Monitoring allows early detection of changes in physiologic parameters and timely intervention to prevent and mitigate adverse effects of such perturbations. Patient and equipment monitoring is also used to titrate administration of anesthetic medication, ensure adequate oxygenation and ventilation for the patient and to detect and correct equipment malfunction. All patients who receive any kind of anesthesia or sedation are initially admitted to PACU for observation so that postoperative adverse events can be timely identified and addressed. Vital signs are monitored on arrival to PACU and this monitoring continues at fixed time intervals till the patient can be discharged from PACU as per the decided criteria.

Patient monitoring and adverse events encountered in PACU provide the students with a unique opportunity to learn, as application of these skills is not limited to anesthesia practice but are useful in all aspects of medical practice. The common complications include airway obstruction, respiratory depression, hypotension, hypertension, cardiac dysrhythmias etc. The posting in PACU will provide the student to closely observe the post-surgical patients in PACU and be part of the team for management of any of the above complications.

A major focus of care in postoperative period is to alleviate the pain which may arise after surgery. Students will be exposed to various pharmacological and interventional techniques for management of post operative pain. The students

get to observe the clinical implications and use of the analgesic agents they learn during their second professional year. Patient controlled analgesia and various regional analgesic techniques are of particular interest for students. The dedicated faculty will ensure the participation of students in patient care to make this posting a fruitful one. To summarize, this elective module has been carefully designed keeping the requirements of students in mind and to provide ample opportunity for management of post-surgical patients in PACU.