REPORT ON ANAESTHESIOLOGY AND CRITICAL CARE SHORT APPOINTMENT

This four-week assignment comprises 1-2 day short appointments at various segments in the Teaching Hospitals of Peradeniya and Kandy, and the Faculty of Medicine, University of Peradeniya. This time period shall provide with an opportunity for self learning and help to develop essential skills necessary in anaesthesia and emergency care. The guidance necessary for training is provided by a booklet and the introductory lecture conducted at the inception. Students' skills will be assessed at the end of this appointment through an OSCE examination. The students should obtain 50% marks at OSCE and have 80% attendance to be considered to have successfully completed the Anaesthesiology appointment. This has been a prerequisite to obtain admission to the Final MBBS Examination.

OBJECTIVES OF SHORT APPOINTMENT

**To enable the students to recognize and optimize the management of medical problems preoperatively and prepare a patient for surgery minimizing risks.

**To enable the students to understand the implications of anaesthesia in the management of a surgical patient postoperatively.

**To enable the students to acquire basic knowledge and skills to initiate adequate resuscitation of a patient in an emergency.

**To enable the students to learn how to transport safely, monitor and maintain vital system supports of a patient until a specific diagnosis and treatment is established.

**To enable the students to enhance their ability to work swiftly and efficiently in a team with due respect for differences in opinions.

**To enable the students to develop professional communication skills maintaining focus and relevance amongst colleagues, other hospital staff, patients and their relatives.

**To enable the students to understand the safe and appropriate use of medical devices in practice.

Introductory Lecture of the Short Appointment

The introductory lecture of the short appointment is compulsory. It is usually conducted by a senior staff member of the Dept of Anaesthesiology. The students will receive the log book, a personalized schedule and a personal attendance sheet in this session. The students will also be informed on how best to utilize this self-learning opportunity, sources of information, self-appraisal, self-introduction, small group learning, conflict resolution, obtaining leave, maintaining 'diary', and where to seek help. A brief introduction concerning the end of appointment OSCE and its style and content will be made. This shall be the most suitable forum to clarify the students' queries and doubts.

Lecture-Demonstration on Cardio-Pulmonary Resuscitation

This is a compulsory group class conducted by a Consultant Anesthesiologist at the Teaching Hospital, Peradeniya. The students will be introduced to basic principles of resuscitation and the necessary skills in the procedures. Proper use of laryngoscope, Ambu bag, endotracheal tubes, laryngeal masks and the defibrillator are some of the essential procedures the students would witness here.

ESSENTIAL CLINICAL SKILLS: ANAESTHESIOLOGY

1. Study preoperative preparation of the patients including premedication, observe and discuss their anaesthesia, recovery and convalescence.
2. Learn to summarize important preoperative clinical problems and their optimization
3. Learn monitoring during anesthesia and recovery and interpretation of abnormalities.
4. Learn air way management - oro-phyaryngeal airway, laryngeal mask, endotracheal intubation, jaw maneuvers, positioning.
5. Study post operative management including techniques of pain relief.
6. Learn endotracheal intubation, insertion of a laryngoscope and oro-pharyngeal airway under direct supervision

ESSENTIAL KNOWLEDGE: ANAESTHESIOLOGY

At the end of the appointment students are expected to know:

1. The types of anaesthesia available, methods available for each type and their indications, contra indications and adverse effects.
2. The principles and steps in preoperative patient preparation.
3. The management of common medical disorders perioperatively and in anaesthesia (Hypertension, ischemic heart disease, diabetes, valvular heart disease, asthma, obesity etc).
4. The advanced monitoring techniques available in the operating theatre and

interpretation.

5. The management of immediate post operative period.
6. Surgical stress response.
7. The pain relief techniques and their adverse effects including the pain relief in labour.
8. Complications which can occur during anaesthesia.
9. Fluid balance and use of intravenous fluids.

ESSENTIAL CLINICAL SKILLS: CRITICAL CARE

Students should witness and acquire following skills:

1. Presentation of a case summary and a management plan of a critically ill patient maintaining focus on improving and stabilizing vital functions.
2. Practices of basic and advanced life support.
   (Positioning patients, cardiac massage, insertion of ET tube,
   usage of Ambu bag, usage of laryngoscope, DC shock etc)
3. Insertion of an oro-gastric tube and gastric lavage.
4. Use of a defibrillator safely and appropriately
5. Appropriate preparation for blood transfusion and rapid infusion techniques and precautions.
6. Establishment of a simple intra venous access line and its care.
7. Learning of appropriate use of a syringe.
8. Perform of a blood gas analysis and interpret results.
9. Learning the use of a Central Venous access line and its care.
10. Learning of monitoring of a critically ill patient and interpretation of abnormalities.
11. Perform of physiotherapy especially in respiratory care.
12. Learning of management of a tension pneumothorax and an underwater seal.
13. Learning of setting up of a simple ventilator and indications for positive pressure ventilation and it's management.
14. Oxygen therapy and nebulisation techniques.

ESSENTIAL KNOWLEDGE: CRITICAL CARE

At the end of the appointment student should know:

1. Indications for ICU admission and criteria for discharge.
2. Basic and advanced life support procedure.
3. Safe transport of a critically ill patient.
4. Emergency management of a poisoned patient.
5. Principles of respiratory support (methods available, indication for artificial ventilation, setting up parameters of a mechanical ventilator, criteria for weaning etc.).
6. Principles of cardiac and circulatory support. (Assessments of blood loss and circulatory and cardiac state, methods available for cardiac and circulatory support and their indications, contraindications and adverse reactions).

7. Principles of renal support and renal replacement therapy. (Methods available and their

indications, contraindications and adverse effects).

8. Management of an unconscious patient and usage of Glasgow coma scale.
9. Aetiology, pathology, clinical features and management of fluid, electrolyte and acid-base disturbances.
10. Use of intravenous fluids, parenteral nutrition and blood and its components.
11. Management of multi-organ failure patients and multiple -trauma victims.

CONTINUOUS EVALUATION SHEET

Supervised Activity	**1st Attempt**	**2nd Attempt**
CPR		
Endotracheal Intubation		
NG Tube insertion		
IV Cannulation		
Transfusion		
Blood gas analysis		
CVP measurement		
Chest physiotherapy		
Airway management in recovery		
Ambu ventilation		
Setting up ventilator		
Urinary catheterization		
IV drug administration		
Priming IV lines without air bubbles		
Taking a 12 lead ECG		
Setting up an infusion pump		

REPORT ON LECTURE SERIES CONDUCTED FOR ANAESTHESIA

Year 4

- Introduction to Anaesthesia
- Drugs used in General Anaesthesia & Regional Anaesthesia
- Medical Disorders & Anaesthesia I
- Medical Disorders & Anaesthesia II
- Preoperative Patient Assessment & Preparation
- Post operative care & Complications
- Regional Anaesthesia
- Fluid and Electrolyte Balance
- Intra Venous Fluids & Parenteral Nutrition
- Shock
- Assessment of Blood Loss and Blood Transfusion
- Monitoring Techniques I
- Monitoring Techniques II
- Oxygen Therapy
- Management of unconscious patient

Year 5 (Final)

- Cardio Pulmonary Resuscitation and Support
- Emergency Management
- Interpreting respiratory function tests including blood gases
- Sepsis
- Cardiac Support and Inotropes
- Respiratory Support including Mechanical Ventilation
- Acute Renal Failure and Liver Failure
- Trauma
- Transport of Critically ill
- Ethics in Critical Care and Anaesthesia
- Pain Management
- Quality and Safety in Health Care
- Skills for the Intern
- Anaesthesia in Final MBBS and Course Evaluation