mater education

RMO ANAESTHETICS HANDBOOK

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WELCOME FROM THE MEU

The Medical Education Unit would like to welcome you to this rotation. Please read this handbook in conjunction with the RMO Orientation Handbook which is accessible on the MEU website via Zenworks or http://mededu.matereducation.qld.edu.au/handbooks/

MEU Contact Details

If you're experiencing difficulty with any aspect of the term, clinical or otherwise, please contact the term supervisor and/or PVMEO as early as possible.

Director of Clinical Training (DCT)	Ph. 8229
Prevocational Medical Education Officer (MEO)	Ph. 8431
Vocational Training Medical Education Officer (MEO)	Ph.1560
Medical Education Admin Officer	Ph. 8272
Medical Education Manager	Ph. 8114

INTRODUCTION

The Department of Anaesthesia is a central department providing anaesthesia services to the Mater Hospital Brisbane and the Mater Mothers' Hospitals. The Anaesthetic staff work in the operating theatres covering elective and emergency cases, Day Procedure Unit including Endoscopy, Mater Mothers' Hospital Labour and Birth Suite, preadmission clinics, and provide an acute pain service for inpatients. In addition, our staff are involved in education, research and audit in multiple areas within Mater Health Services.

The Department of Anaesthesia is located on Level 6 of the Salmon Building (near the entry to the change rooms) at the Mater Hospital South Brisbane.

Resident Medical Officers (RMO) who are rotational undertake – 5 or 10 week terms

Critical Care Senior House Officers (CCSHO) – Rotate through anaesthesia, ICU and Ward Call for up to six months.

UNIT OVERVIEW

Dr David McCormack	Acting Director of Anaesthesia
Dr Simon Maffey	Deputy Director – Obstetric and Gynaecologic Services
Dr Chris Bryant	Deputy Director – Adult Services
Dr Amir Zimmermann	Anaesthesia Resident Supervisor
	Amir.Zimmermann@mater.org.au
Rostering requests	Anaesthetic Fellow -Anaesthesia.Fellowmahmmh@mater.org.au
Ms Caitlin Briskey	Business Support Officer, Department of Anaesthesia
	Ext: 8646
	AnaesthesiaDept@mater.org.au

RMO Learning Objectives

Preoperative Assessment and Planning

By the end of the term residents will demonstrate the knowledge, skills and attitudes to effectively perform preoperative assessment of elective surgery patients and assist in the development of a plan for anaesthesia management

- Obtain an accurate medical and surgical history that covers all essential aspects to allow the formulation of an anaesthetic plan
- Conduct an appropriately focused or comprehensive physical examination, depending upon the patient's presentation, including a comprehensive airway assessment
- Synthesize relevant history, physical examination and investigations to develop an appropriate anaesthetic plan for an ASA 1 or 2 patients having routine elective surgery
- Address disease prevention and health promotion strategies for individual patients or populations.

Medical Knowledge

By the end of the term residents will demonstrate the knowledge and apply pharmacology and physiology to the care of patients under anaesthesia

- Demonstrate basic knowledge of drugs used in general anaesthesia, analgesics, anti-emetics, anticoagulants, local anaesthetics, antibiotics.
- Demonstrate an awareness of hospital policies and procedures regarding Schedule 4 and Schedule 8 drugs, and safe handling of these drugs.
- Demonstrate basic knowledge of the physiological effects of general and regional anaesthesia.
- Demonstrate basic knowledge of clinical problems and conditions which can affect anaesthesia planning and management.
    - Especially applicable are:
    - Circulatory –HTN, CCF, chest pain, cardiac arrhythmias, electrolyte disturbances, IHD, leg ulcers, limb ischemia, thromboembolic disease
    - Respiratory – breathlessness, asthma, cough, COPD, pneumonia, respiratory infection, upper airway obstruction, obstructive sleep apnoea, pleural disease
    - Critical Care / Emergency – injury prevention, non-accidental injury, minor / multiple trauma, post-op care, shock
    - Neurological – loss of consciousness, seizure disorders, syncope, delirium, headache, stroke/TIA, subarachnoid haemorrhage, spinal disease

Practical Procedures

By the end of the term residents will demonstrate that they can safely and successfully perform the following procedures independently:

- Intravenous cannulation, IV infusion setup, IV drug administration
- Airway management of the unconscious patient:
    - Bag Mask ventilation
    - LMA insertion
    - Endotracheal intubation
- Monitoring and interpretation of ECG, NIBP and pulse oximetry
- Basic life support and resuscitation
- The resident may have the opportunity to see and even perform other more complex procedures under supervision including arterial lines, central venous lines, regional anaesthesia, ultrasound guided peripheral nerve blocks

Interpersonal & Communication Skills

Residents will demonstrate the knowledge, skills and attitudes to develop effective and appropriate relationships with patients, colleagues and other health professionals.

- Effectively communicate and create a collaborative relationship with patients and their families, particularly during sensitive, complex or distressing situations.
- Effectively communicate health-related information to colleagues and other health professionals.
- Produce clear, concise and timely documentation after clinical encounters to optimize medical care and minimize medical errors
- Maintain accurate and comprehensive anaesthesia records, fluid and medication charts.

Practice-Based Learning & Improvement

By the end of the term residents will demonstrate the knowledge, skills and attitudes to critically evaluate performance and identify opportunities for improvement.

- Identify one's own strengths, weaknesses and limitations in one's knowledge and clinical skills.
- Seek out constructive feedback from and provide constructive feedback to colleagues and other health professionals.
- Develop a plan for improvement of one's knowledge and/or skills based on individual reflection and constructive feedback.

Professionalism

Residents will demonstrate the knowledge, skills and attitudes to carry out their professional responsibilities.

- Demonstrate sensitivity and respect toward patient individuality, including but not limited to age, gender, ethnicity, belief system, sexual orientation and disabilities.
- Demonstrate respect, honesty and integrity in all interactions with patients, their families, colleagues and other health professionals.

RMO DUTIES & RESPONSIBILITIES

- Assisting the Registrar or Consultant in the pre-operative assessment and preparation of patients and in the administration of anaesthesia during operative procedures.
    - **On the day prior to surgery** - Review of theatre list the day prior and perform a pre-operative assessment of inpatients or chart review of outpatients for the list.
    - Use CLWRota to contact Consultant and discuss plan and any learning objectives for the list.
    - **On the day of Surgery** - Pre-operative visit and assessment of patient and documentation on Anaesthetic record and discussion with your registrar or consultant on for the list.
- Maintenance of the intra-operative anaesthetic records and post-operative medication and fluid charts.
- Attendance at anaesthetics' outpatients and Acute Pain Service rounds as rostered.

SUPERVISION

Supervisors

Your Supervisor for each list will be assigned on your weekly roster on the CLWrota application. The resident term supervisor is Dr Amir Zimmermann Amir.Zimmermann@mater.org.au You should make a meeting time with Dr Zimmermann prior to your rotation for orientation to the rotation.

Scope of Practice

Scope of Practice defines the procedures, actions and processes that are permitted for residents in their current clinical setting.

All procedures and processes are to be done with supervision initially and may be repeated with more remote supervision at the discretion of your supervisor. As long as you are appropriately supervised, the department does not limit the involvement of residents in certain types of cases and procedures that residents can perform.

Your scope of practice is ascertained continually and collaboratively by you and your supervisor and is dependent on factors including your supervisor's observations and your prior experience, confidence and comfort level with tasks, and your **enthusiasm for learning.**

UNIT ORIENTATION

Term Orientation and Orientation To The Operating Theatre

If possible your term supervisor will conduct a face-to-face unit orientation with you within the first few days (when available) of the term.

The following areas will be covered:

- Start of term orientation checklist
- Daily roster (where to be and when) – CLWrota application access
- Unit policies and procedures
- Term learning objectives
- Discussion and documentation of your individual learning objectives for the term (see the 'term learning plan' below)
- Patient handover to recovery & how it is conducted
- Tour of the department, introductions to staff, location of resuscitation trolley, pre-operative and recovery areas.

- Reporting lines
- Term assessment
- handover with the previous RMO

RMOs should take time to peruse all relevant guides or handbooks for the unit before presenting for work and discuss any concerns with a Senior Registrar or consultant.

UNIT POLICIES & PROCEDURES

Patient medical records can be accessed on Verdi, and residents are encouraged to find out as much as you can about the patients on the theatre list the day before surgery. This includes anaesthetic clinic records, investigations and relevant information from previous anaesthesia charts. You can also access Qld health records for patients through Verdi using the external portal tab and accessing the QH Viewer. You should contact your consultant the day before surgery to discuss the patients booked on your list.

Consultants also need to be notified regarding changes in their patient's condition. In particular please inform your consultant of any significant problem discovered during the preoperative assessment.

All consultants and registrars have mobile telephones available through CLWrota Application or through switchboard. Messages for consultants and registrars may be also left with the Departmental Secretary, extension 8646.

OUTPATIENT ANAESTHETIC CLINIC

The Department has an Adults Anaesthetic Outpatient Clinic every Monday afternoon, Tuesday morning and afternoon, and Thursday and Friday morning. Outpatients with significant medical problems or those who are undergoing major procedures are assessed at this clinic. We may then give advice on preoperative preparation and the patient's suitability for general or local analgesia prior to their booked admission. You may find advice on anaesthetic management in the Outpatient notes, or there may be an anaesthetic chart in the patient's notes from a previous assessment. Scanned records are usually available on Verdi within 48hrs.

PREOPERATIVE ANAESTHETIC INVESTIGATIONS

There are certain investigations which are performed routinely before certain anaesthetics. They may relate to the patients underlying condition (eg Thyroid function), the surgery (eg FBC and G&H if bleeding is expected) or the Anaesthetic (eg platelet count prior to spinal or epidural anaesthesia). These should be reviewed the day prior. Mostly these are identified in the preoperative clinic, if you think further investigations are required for your patient; please discuss this with your Consultant for that list.

In Theatre

Once the patient is brought to the Anaesthetic bay, secure IV access, discuss with consultant the preferred gauge and side for the particular surgery – often the left side is preferable, but there are some instances where this will change. The gauge of the cannula will depend on the type of surgery to be performed and the patients' access.

You may then be involved in obtaining medication from pharmacy or recovery to allow preparation of the drugs for anaesthesia. Talk with your consultant and the anaesthesia assistant to develop a plan for anaesthesia including airway management.

While in theatre, record medications administered, patient's observations including heart rate, BP, oxygen saturations, end-tidal CO2 etc. for the duration of the procedure. You can also complete the IV fluid order and drug chart for postoperative pain medication.

Post Operative Pain Control

Anaesthetists prescribe post-operative pain relief for patients undergoing surgery; this will vary depending on the patient and type of surgery. When prescribing post-operative pain relief on the medical chart; please discuss with your supervisor appropriate medications and dosages. Anaesthetists also provide an acute pain service to review patients who underwent neuraxial anaesthesia or had peripheral nerve blockade or were prescribed patient controlled analgesia systems. The resident should ensure they are familiar with how to add patients to the acute pain service and discuss this with their supervisor.

The Acute pain service sees postoperative patients on the pain round to assess efficacy of pain management, monitor for complications and to adjust medication dosages as required. There are two consultant led teaching pain rounds each week. Residents help with pain rounds by documenting pain assessments and plan in the progress notes and by prescribing medications in the medication chart.

COMMUNICATION AND ADVICE- ASK THE ANAESTHETIST!

Lastly, communicate. If you don't know what to do, ask! No questions are silly if you are uncertain. ASK us on the wards, in theatres, over coffee, in the corridors. If you remember that the proposed operation may be simple, but the patient may have medical reasons which make anaesthesia high risk, you will appreciate the difference in our approach to surgery from that of the surgeons. The more you discuss your patient's care with us, the better prepared we will be to prevent the unexpected.

UNIT EDUCATION & TRAINING OPPORTUNITIES

Every list should be considered a learning opportunity and by preparing for the list and discussing with your supervisor you can plan learning outcomes for the list or specific cases.

CCSHO's have a specific tutorial program please see the CCSHO tutorial roster for details.

There is registrar teaching on at 2pm most Wednesday afternoons that residents are welcome to attend this is help either in the registrar tutorial room on level 5a of the Salmon building or in MEPIC. Please confirm details on the day.

Morbidity and Mortality Meetings (M&M) are held on the week 4 Monday morning at 0715 in the registrar tutorial room on level 5a of the Salmon building.

Journal Club is held fortnightly on a Thursday morning at 0715 in the registrar tutorial room on level 5a of the Salmon building.

Residents are expected to attend the hospital based resident teaching, please let your supervisor know at the beginning of the list as this is protected teaching time.

UNIT ROSTER & TIMETABLES

Rostered Hours

For RMOs rotating through Anaesthetics working 5 days a week in Anaesthetics - the rostered hours are 0730 to 1630 with a ½ day RDO a fortnight on a Friday afternoon. (Working 0800 to 1200) This roster includes a 1 hour lunch break.

For CCSHOs working a five day week allocated to Anaesthetics the hours are 0800 to 1600. For CCSHOs allocated to the ICU/Anaes weeks the hours are 0800 to 1730 for the four day week.

As you are not expected to work longer than your rostered shift, you should make sure that your consultant is aware of your rostered hours. Overtime will not be paid should you wish to stay later than your rostered hours.

Any un-rostered overtime needs to be authorised prior to the event and signed by the Duty Anaesthetic Consultant on each occasion - Public EXT 6908, Mothers EXT 6919.

In accordance with the RMO Award Section 4.3 payment of un-rostered overtime will NOT occur unless the above authorisation has been completed.

Weekly Roster

The Department prepares a weekly duty roster that states which consultants, registrars and residents are allocated to each list during the following week, this is finalised and sent out Thursday afternoon. The roster is electronically disseminated using the CLWRota App.

Please see Gina the Senior Administrative Officer for the Anaesthetic Department for logon information. You can also ask Gina to email the roster to you.

In the operating theatre, you may be allocated to an all-day theatre list, or you may be rostered to different lists for the morning and afternoon sessions. Please be aware that some theatre lists commence at 0800, and the majority at 0830. You may also be allocated to the Acute Pain Service or an outpatient clinic. There is also the opportunity to observe in the obstetric theatres towards the end of your term. Please discuss this with the term Supervisor and Anaesthetic fellow on for rostering. If you are unsure of your roster, or daily allocation please contact the Duty Anaesthetist for the day on extension 6908.

Protected Teaching Time and Professional Development

RMOs attend the Medical Education Unit (MEU) sessions (held on Tuesdays and Thursdays 12:30-13:30). MEU education sessions occur during protected teaching time (PTT) – i.e., you are released from clinical duties during these times after consultation with the relevant clinical supervisor.

Logbook

CPD at the Mater includes developing and maintaining a written record of your achievement towards meeting the units learning objectives. The LOGBOOK is submitted to the MEU twice per term (mid- and end-of-term) after the assessment meetings with your mid- and end-term assessment forms. Please refer to the RMO handbook for details.

Attendance at the required proportion of education sessions and timely completion of logbooks is considered when applying for future positions at the mater, requesting referee reports and for interns, AHPRA registration.

Assessment and Feedback

It remains the responsibility of the resident to ensure completion of mid and end of term assessments; assessments must be signed off by the Term Supervisor. If you're experiencing difficulty with any aspect of the term, clinical or otherwise, please contact the term supervisor and/or medical education early.

The Assessment Process

The assessment process is consistent with the guidelines and based on the assessment form – outcome statements. The first page of the assessment form contains stepped instructions for both yourself and your

supervisor. The Mid-Term Assessment process is formative and focusses on the learning and development needs of the medical intern. This assessment aims to capture the intern's current performance, strengths and weaknesses, and looks at opportunities to extend and enhance current skills and knowledge.

The End-of-Term Assessment is summative. This consists of a formal face to face meeting where your progress is discussed and a written form completed. The supervisor determines the resident's ability to practice safely, work with increasing levels of responsibility, apply existing knowledge and skills, and learn new knowledge and skills essential for national medical registration, and indicates a score against each domain. The score should be based on a clear understanding of the resident's role as a supervised, beginning practitioner who is not yet fully independent, and the accumulated knowledge and judgement of term supervisors for their experience in resident training and assessment. There are three levels, namely (1) satisfactory (meets performance expectations), (2) borderline (further assessment and remediation may be required before the resident can meet performance expectations), and (3) unsatisfactory (has not met performance expectations). A satisfactory summative assessment enables progression to the next rotation. Where the resident's global score is borderline or unsatisfactory, early remediation is essential and is documented using the Improving Performance Action Plan (IPAP) process. If you are experiencing difficulty with any aspect of the term, clinical or otherwise, please contact the term supervisor and/or Medical Education Unit, early.

The Assessment Form

It is the responsibility of the RMOs to seek a mid-term and end-of-term assessment with their term supervisor. The RMO Assessment Form 2018, with instructions, will be distributed to all junior doctors prior to the due dates. The form is also available on the MOVES Medical Education site under Essential Information, Key Forms.

Before meeting with your supervisor, complete and sign the Self-Assessment Form (SAF). You are encouraged to discuss your SAF with your supervisor. At the meeting, your supervisor will discuss your assessment according to the assessment form outcome statements and the agreed learning objectives, and complete the supervisor's assessment component on the RAF.

Once completed and both you and your supervisor have signed, make a photocopy for your own records and send a copy to the MEU with your signed SAF. This can be done by handing it in to MEU, faxing it to 3163 8094 (please make sure that the ticks are in black and are visible if you fax it), scanning and emailing it to mededu@mater.org.au.

Feedback

Your clinical supervisor/s will provide regular written feedback regarding your progress via your assessment forms, and verbal feedback hopefully on a daily basis. If you have concerns or would like more regular feedback, speak to your supervisor in the first instance and MEU if required. At the end of your rotation, you are required to complete the online term evaluation and provide valuable feedback on your supervision.

Term Evaluation

At the end of term, all RMOs complete an evaluation survey on their experience in the unit. Evaluations are based on the clinical component of the rotation. The request to complete the Term Evaluation is done electronically using Survey Monkey, and the link is sent to your Mater email prior to the end of each term. Completion of the online survey is mandatory but confidential and reviewed by the MEO. All term evaluations are managed very discretely; de-identified, collated and summarised prior to the DPET and Term Supervisors receiving feedback. Please note: if you are undertaking a secondment or going on ARL (half-term), your evaluation should be completed before you leave.

APPENDIX

Basic Anaesthetic Plan

The following outlines the basic principles that need to be considered when preparing an anaesthesia plan for each patient.

1. GA/Neuraxial/Sedation
2. Anaesthesia Triad (induction, maintenance, emergence)
    - Hypnosis
    - Analgesia
    - Paralysis
3. Airway
    - ETT vs LMA
4. Monitoring
    - Standard +/- art line, central line, etc
5. Pain
    - Multimodal analgesia
    - Oral vs PCA
    - Regional blocks
    - Infusions (i.e. ketamine)
6. Post op care
    - PACU
    - HDU vs ICU

Preoperative Assessment

Australia and New Zealand College of Anaesthetists (ANZCA) Guidelines on Pre-Anaesthesia Consultation and Patient Preparation

https://www.anzca.edu.au/resources/professional-documents/guidelines/ps07-guidelines-on-pre-anaesthesia-consultation-an

Preoperative assessment in patients presenting for elective surgery - Review article

Anaesthesia & Intensive Care Medicine, Volume 16, Issue 9, September 2015, Pages 425-430, Carol E. Gray, Julie Baruah-Young, Christopher J. Payne

Preoperative assessment of patients undergoing elective surgery is vital to ensure patients have underlying co-morbidities identified, appropriate investigations performed and are optimized prior to the day-of-surgery. Anaesthetic pre-assessment is usually initiated at a pre-assessment clinic. A thorough assessment should include a careful history and examination as well as assessment of both the airway and functional capacity. This article provides a systematic approach to the assessment process.

Link below through UQ library

https://www.clinicalkey.com.au/service/content/pdf/watermarked/1-s2.0-S1472029918301504.pdf?locale=en_AU&searchIndex=

Induction of Anaesthesia

Induction of anaesthesia - Review article Anaesthesia & Intensive Care Medicine, Volume 13, Issue 9, September 2012, Pages 401-406 Rachael Croft, Stephen Washington

Induction of anaesthesia is both the conduct of rendering a patient unconscious and the effect produced by adequate concentrations of an anaesthetic in the brain. It is followed by maintenance, emergence and recovery. Prerequisites are a suitable location, trained assistance, adequate monitoring, a range of drugs and devices, and dedicated emergency equipment. Induction can be intravenous or inhalational depending on clinical scenario or patient age. Rapid sequence induction is used to manage aspiration risk; other methods of induction are also described. Induction can be complicated by drug, airway, co-morbidity, or other factors addressable by professional guidelines or locally agreed protocols.

https://www.clinicalkey.com.au/service/content/pdf/watermarked/1-s2.0-S1472029918301309.pdf?locale=en_AU&searchIndex=

Airway Assessment

Morgan & Mikhail's Clinical Anesthesiology, 5e, John F. Butterworth IV, David C. Mackey, John D. Wasnick (2013), Chapter 19 see section on airway assessment.

https://accessmedicine-mhmedical-com.ezproxy.library.uq.edu.au/content.aspx?bookid=564&sectionid=42800551#57232559

Basic Clinical Anesthesia edited by Paul K. Sikka, Shawn T. Beaman, James A. Street. Sikka, Paul K 2015

https://link-springer-com.ezproxy.library.uq.edu.au/content/pdf/10.1007%2F978-1-4939-1737-2_4.pdf