

**PROPOSAL FOR A UNIFIED
LECTURE EDUCATION SERIES
FOR JUNIOR MEDICAL OFFICERS**



EDUCATION PORTFOLIO

NSW JMO FORUM

2010

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HOSPITAL EDUCATION SURVEY

Over April and May 2010, a survey was conducted by the Education Portfolio of the NSW JMO Forum regarding the current state of JMO education and teaching with the aim of using the findings to produce a series of recommendations for improvement. The DPETs and JMO Managers of the 53 hospitals in NSW and the ACT that employ PGY1 and PGY2 medical officers in IMET-accredited terms were contacted and asked to provide detailed answers to the following questions:

- 1) Does the hospital hold regular JMO teaching sessions?
- 2) How often do these occur?
- 3) How long are these sessions?
- 4) Are these sessions designated protected teaching time?
- 5) How are these sessions protected?
- 6) Does the hospital receive any teaching input from other hospitals (e.g. videoconferencing, combined sessions)?
- 7) Is there a set JMO teaching schedule for the year?

SURVEY RESULTS

A response was received from 45 of the 53 hospitals contacted, representing an 85% response rate. Of these 45 hospitals, 43 provided regular JMO teaching sessions (the remaining two hospitals employed a small number of PGY2 medical officers seconded for short periods only). Most hospitals hold weekly teaching sessions, with 3 hospitals reporting fortnightly sessions. The average amount of teaching held per week was 1.5 hours, with 24 hospitals reporting 1 hour per week and 17 hospitals reporting more than 1 hour per week. One hospital reported 4 hours per week of JMO teaching.

39 of the 43 hospitals that stated they hold regular JMO teaching sessions also stated that these sessions were designated protected teaching time. 22 of these 39 hospitals (56%) report that this teaching is protected by the collection of pagers from the JMOs, either by the JMO manager or by the individual JMO's supervising registrar. Of the remaining 17 hospitals, 4 report that teaching sessions are policed by attendance records, and 10 report that the wards are instructed not to page the JMOs during the designated time.

Other findings of note from the survey are that 10 hospitals have separate teaching sessions for JMOs and RMOs (the remaining 33 have single combined sessions), and only 4 hospital networks have teaching sessions shared between sites, despite many other sites reporting the facilities are in place but not used for a variety of reasons.

24 of the hospitals contacted kindly provided examples of their JMO teaching schedule, ranging from the current term to the full 2010 clinical year.

THE AUSTRALIAN CURRICULUM FRAMEWORK FOR JUNIOR DOCTORS

The Australian Curriculum Framework for Junior Doctors is an educational template outlining the learning outcomes required of prevocational doctors, with the aim that these outcomes will be achieved through clinical rotations, education programs and individual learning. The collaborative project was first published in 2006 and revised in 2009, and is built around three key learning areas (Clinical Management, Communication, and Professionalism) that are further subdivided into learning topics that have been identified in the literature and from supervisor's experiences as being critical to both safe prevocational practice and a basis for future training. It was subsequently considered a sound basis from which to form a proposed standardised state-wide educational program for junior doctors.

DEVELOPMENT OF THE LECTURE SERIES

A number of considerations were taken into account during the development of the draft lecture series:

- Based on the findings of the hospital JMO teaching survey that most hospitals currently provide a minimum of 1-1.5 hours of JMO teaching per week, it was decided that a lecture schedule aimed at one hour per week would be potentially achievable by all sites.
- Given the majority of sites combined JMOs and RMOs in their teaching sessions due to small numbers, it was decided that it would be a recommended one-year teaching schedule aimed for delivery during internship rather than separate JMO and RMO schedules.
- A common comment from many hospitals, particularly smaller metropolitan and regional/rural centres, was that the lack of various specialty practitioners often limited the topics that could be taught. In response to this, the topics for the lecture series have been carefully selected from the Australian Curriculum Framework to ensure they could potentially be given by any level of seniority from registrar upward if no specialist in that field is available locally.
- It was also noted by many smaller sites that their teaching schedules were often not determined far in advance as the topics depended highly on who was available to give a lecture and what they would deliver. The proposed lecture series has incorporated a number of “free weeks” to give a degree of flexibility to the schedule. It also allows for individual sites to potentially repeat sessions they feel are of great importance to junior medical staff, or to give other lectures not on the schedule based on local specialist availability and interest.
- A common comment from many junior medical officers with regards to their education schedules was a disappointment that certain topics were delivered late in the year when they felt these topics would have been of

greater benefit to their clinical practice if delivered early in the year. With this in mind, the topics chosen from the Australian Curriculum Framework for delivery in the lecture series were allocated into one of the five terms of the clinical year. Those topics considered to be of greatest importance early in the year (primarily those centred around common after-hours problems encountered on ward overtime shifts) were placed in term one, with the topics becoming increasingly more specialised heading through to term 5. This progressive specialisation was considered to be preparing the intern for the more advanced terms likely to be involved in the ensuing RMO year (for example, more advanced procedural skills, some basics of intensive care medicine).

- The standardisation of certain topics to be delivered in a particular term at every site in NSW/ACT would negate any disadvantage posed by secondment from the network home hospital to other sites. It would potentially eliminate the risk of JMOs receiving teaching on a topic multiple times whilst missing out on others entirely due to the varying teaching schedules between different sites.
- Whilst there are recommended topics for each term, the order in which these are delivered has been left to the discretion of the individual hospital. This is to allow the hospital to at least partially tailor the education schedule to suit their local specialists and their availability.

LECTURE SERIES

TERM 1	TERM 2	TERM 3	TERM 4	TERM 5
ACLS	Analgesia and pain management	Pleural and ascitic taps and drains: the when, why and how	Introduction to ENT medicine	Vascular surgery
Chest pain and acute coronary syndrome	Interpreting chest and abdominal xrays	Geriatric medicine	Fundamental orthopaedics	Urology
Assessing shortness of breath	Gastrointestinal bleeding	Recognition of the sick child	Intracerebral events	Introduction to oxygen delivery systems and intensive care medicine
Assessing syncope and loss of consciousness	ECG interpretation and management of arrhythmias	Introduction to trauma	Psychiatry 102: the psychotic patient, drug overdose, and withdrawal syndromes	Oncology and palliative care
Management of diabetes	Perioperative assessment and management	Anticoagulants and their use	Basic anaesthesiology	Advanced lines
Fluid and electrolyte management	Antibiotics and their use	Looking after the junior medical officer	O&G emergencies	Radiology essentials
Assessing abdominal pain	Pathology tests: ordering and interpretation	Psychiatry 101: depression, anxiety, and Mental Health Act	Introduction to ophthalmology	Neonatal and paediatric resuscitation
Assessing and managing delirium	The hard stuff: death certification, breaking bad news, communicating with difficult patients and families	Medicolegal issues: privacy and confidentiality, informed consent, and open disclosure	Wounds, dressings and suturing	
The deteriorating patient				
Management of blood pressure				

LEARNING OBJECTIVES

In addition to creating the unified lecture series, it was decided to create a set of learning objectives of each lecture. It was hoped that this would provide a basic lecture outline from which individual lecturers could build upon using their own knowledge and expertise.

The learning objectives for each topic were created using a combination of relevant points listed in the Australian Curriculum Framework for Junior Doctors and the personal experience of the members of the NSW JMO Forum Education Portfolio.

TERM 1 - ADULT CARDIOPULMONARY LIFE SUPPORT

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Basic life support measures
2. Airway
 - a. Basic airway manoeuvres
 - b. Airway adjuncts
3. Cardiopulmonary resuscitation
 - a. Adult guidelines
 - b. Paediatric guidelines
4. Use of cardiac drugs
5. Defibrillation

TERM 1 – CHEST PAIN AND ACUTE CORONARY SYNDROMES

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. The call to see someone with chest pain – what do I need to know first?
2. Differential diagnoses of chest pain and how to differentiate between them - pulmonary, cardiac, epigastric, musculoskeletal
3. Investigations
 - a. ECG – criteria for ischaemic changes
 - b. CXR
 - c. Troponin – when to order, what does the result mean, and what to do with a positive result
 - d. D-dimer – when to order, what does the result mean, and what to do with a positive result
4. Basic management principles on the ward
 - a. Oxygen and nitrates
 - b. Morphine
 - c. Antiplatelet agents (indications / contraindications / dosing)
 - d. Anticoagulants (indications / contraindications / dosing)
5. Definitive management of ACS
 - a. Definitions (STEMI / NSTEMI / UAP)
 - b. Thrombolysis – mechanism, contraindications, complications
 - c. Angiography – preparation, types of stents, complications

TERM 1 – ASSESSING SHORTNESS OF BREATH

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Differential diagnoses of acute shortness of breath and how to distinguish between them on history and examination (including APO, LRTI, PE, asthma, pneumothorax, MI)
2. Investigation of acute SOB and interpretation of results (including CXR, ABG, blood tests, sputum M/C/S, atypical serology, spirometry)
3. Acute management
 - a. Oxygen
 - b. Bronchodilators
 - c. Diuretics
 - d. Antibiotics
 - e. Steroids
 - f. Pleural taps and chest drains

TERM 1 – ASSESSING SYNCOPE AND LOSS OF CONSCIOUSNESS

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Basic approach to someone with LOC/syncope
 - a. Important points on history and examination
 - b. Initial management steps
2. Common conditions that cause LOC/syncope
 - a. Vasovagal syncope
 - b. Hypoglycaemia
 - c. CVA/TIA
 - d. Seizure
 - e. Cardiac arrhythmias
3. Emergency management of LOC/syncope
4. Diagnostic tests and their interpretation
 - a. CT brain
 - b. BSL
 - c. ECG and arrhythmias
 - d. EEG
 - e. Postural blood pressure readings
5. Overview of definitive treatment
 - a. Anticonvulsants
 - b. Antihypertensives

TERM 1 – MANAGEMENT OF DIABETES

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Hypoglycaemia
 - a. Presentation and manifestations
 - b. Causes
 - c. Oral vs IV treatment
2. Hyperglycaemia
 - a. Causes – e.g. withheld medications/poor compliance, new onset DM, gestational DM, acute stress, steroid treatment
 - b. When to treat
 - c. Treatments – oral hypoglycaemics, sliding scale insulin
3. Diabetic ketoacidosis
4. HONK
5. The fasting pre-op patient with diabetes
 - a. Type 1 diabetic + insulin-dependent type 2 diabetic
 - b. Non-insulin dependent Type 2 diabetic

TERM 1 – FLUID AND ELECTROLYTE MANAGEMENT

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Available intravenous fluids
 - a. Crystalloids
 - b. Colloids
 - c. Blood products
2. How to develop a fluid management plan
 - a. What fluid to give
 - b. How much fluid to give
 - c. Monitoring fluid balance (BP / urine output / EUCs)
3. Electrolyte disorders and how to manage them
 - a. Hyponatraemia
 - b. Hypernatraemia
 - c. Hypokalaemia
 - d. Hyperkalaemia
 - e. Phosphate
 - f. Magnesium
4. Use of blood products
 - a. Packed red blood cells – when to transfuse, how many units, infusion rates, consent
 - b. Platelets – when to use, typing, length of effect
 - c. Albumin – 4% or 20%, indications
 - d. Fresh frozen plasma

TERM 1 – ASSESSING ABDOMINAL PAIN

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Important points on history and examination
2. Common causes
 - a. Bowel obstruction and ileus
 - b. Other GI problems (appendix / cholecystitis / cholangitis / hernia)
 - c. Urinary tract problems (UTI / renal stones / retention)
 - d. Gynaecological problems (PID / ovarian cysts / ectopic)
3. Diagnoses NOT to be missed
 - a. Perforated viscus
 - b. Ischaemic bowel / strangulated hernia
 - c. Ruptured AAA
 - d. Ectopic pregnancy
4. Investigations
 - a. Blood tests (including LFTs, lactate, Hb, WCC)
 - b. Abdominal xrays
 - c. When to order other imaging modalities (USS / CT)
5. How do I manage this?
 - a. Analgesia
 - b. Aperients
 - c. Nasogastric tubes
 - d. When to consider operative management

TERM 1 – ASSESSING AND MANAGING DELIRIUM

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Definitions – delirium versus dementia
2. Acute management of delirious difficult/aggressive/agitated pt:
 - a. Communication techniques
 - b. Staff/security involvement
 - c. Use of anti-psychotics – what to use/when/how much
 - d. Use of benzodiazepines - what to use/when/how much
3. The delirious older patient
 - a. Assessment – collateral history and examination
 - b. Causes to consider – CVA, seizure, infection, medications
 - c. Investigations
4. The delirious post-operative Patient
 - a. Assessment –predisposition, anaesthesia, medications
 - b. Causes to consider – infection, medications, MI/PE
 - c. Investigations

TERM 1 – THE DETERIORATING PATIENT

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. How to spot the deteriorating patient
2. Initial assessment
 - a. ABCDEFG
 - b. Relevant investigations
3. Taking and interpreting ABGs and VBGs
4. Calling for help
 - a. Medical/surgical registrar versus calling ICU
5. Management until help arrives
 - a. Resuscitation measures
 - b. Oxygen
 - c. Fluids
 - d. Medications to consider
6. The deteriorating surgical patient
 - a. Differences from the deteriorating medical patient

TERM 1 – MANAGEMENT OF BLOOD PRESSURE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Overview of physiological mechanisms controlling blood pressure
2. Approach to the hypotensive patient
 - a. Determining the cause(s)
 - b. Initial management steps
3. Approach to the hypertensive patient
 - a. Current hypertensive guidelines
 - b. Management of hypertensive emergency/crisis
 - c. Commencing and modifying BP management in hospital
4. Evidence based pharmacotherapy choices
 - a. Initiating antihypertensive therapy
 - b. Role of additive strategies and combination regimens

TERM 2 – ANALGESIA AND PAIN MANAGEMENT

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Review of the physiological mechanism of pain
2. Analgesic agents
 - a. Paracetamol
 - b. Non-steroidal anti-inflammatory agents
 - c. COX-inhibitors
 - d. Opiates + opiate analogues
 - e. Ketamine
 - f. Anticonvulsants
3. How to devise an analgesic regime and case studies/examples
 - a. Choosing an initial agent
 - b. Combining agents
 - c. Opiate conversion
 - d. The nil-by-mouth patient
 - e. PCA
 - f. Neuropathic pain
 - g. The chronic pain and IVDU patient
4. Who to contact about pain issues and when

TERM 2 – INTERPRETING CHEST AND ABDOMINAL XRAYS

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. System for reading and interpreting chest xrays
2. Common CXR problems
 - a. Recognising pneumothorax (including clinical correlation)
 - b. Pneumonia – aspiration and lobar
 - c. Fluid problems – APO, effusions, pericardial/mediastinal fluid
 - d. Checking position of lines (NGT / ETT / PICC / CVC)
 - e. Solitary lesions and atypical pathology (e.g. TB, mediastinal masses, pericarditis)
 - f. Raised hemidiaphragm
 - g. Free intra-abdominal air
 - h. Rib fractures
3. Appropriate use of AXR to help diagnosis
4. Recognising acute abdominal common problems:
 - a. Bowel obstruction
 - b. Perforated viscus
 - c. Volvulus
 - d. Constipation/faecal loading
 - e. Renal and ureteric calculi

TERM 2 – GASTROINTESTINAL BLEEDING

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Acute stabilization of patient with profuse GI bleeding
2. Haematemesis
 - a. Causes
 - b. Investigation
 - c. Management (including PPI infusions, use of octreotide)
 - d. Prevention of recurrence
3. PR bleeding
 - a. Causes
 - b. Investigation (radiology vs surgical)
 - c. Management
 - d. Prevention of recurrence
4. Malaena
 - a. Causes (gastric vs small bowel vs colonic source)
 - b. Investigation
 - c. Management
 - d. Prevention of recurrence

TERM 2 – ECG INTERPRETATION AND MANAGEMENT OF ARRHYTHMIAS

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Revision of principles of ECG interpretation
2. ECGs in the arrest call – malignant arrhythmias and ALS guidelines
3. Atrial tachyarrhythmias
 - a. AF – causes, pharmacotherapy (actions / usage / dosing)
 - b. Atrial flutter – differentiating from AF with RVR
 - c. Anticoagulation in AF/flutter - CHADS2, other contraindications
 - d. SVT – diagnosis, management options (drugs vs cardioversion)
 - e. Cardioversion – indications, role of anticoagulation
4. Ventricular tachyarrhythmias
 - a. VEBs – ECG and clinical assessment, need for management
 - b. NSVT - in the setting of MI, other causes for NSVT eg failure
 - c. Prophylaxis – electrolyte management, beta blockade
5. Bradyarrhythmias
 - a. ECG diagnosis – heart blocks, bundle branch blocks, junctional rhythm, ventricular escape and what they look like on ECG
 - b. Management principles
 - i. when do bradyarrhythmias need to be treated
 - ii. Pharmacotherapy - isuprel, atropine
 - iii. Temporary pacing wires – indications, procedure, loss of capture

TERM 2 – PERIOPERATIVE ASSESSMENT AND MANAGEMENT

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Pre-operative assessments/care
 - a. Assessment for anaesthesia – general vs local, ASA score
 - b. Medications and surgery
 - i. Anticoagulants
 - ii. Hypoglycaemics and insulin
 - c. Radiology
 - d. Appropriate blood tests
 - e. ECG
 - f. Appropriate fluids while fasting
 - g. Bowel prep – who needs it, what to prescribe
2. Post-operative care
 - a. Appropriate fluids in context of surgery/blood loss
 - b. When to transfuse
 - c. Analgesia - PCAs and nerve infusions
 - d. Post-op tests
 - e. When to restart pre-op medications that have been stopped

TERM 2 – ANTIBIOTICS AND THEIR USE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Classes of antibiotics and their use
2. Common infections, most common organisms, what antibiotics to use
 - a. Respiratory tract infections (e.g. pneumonia)
 - b. Urinary tract infections
 - c. Skin and soft tissue infections
 - d. Bone and joint infections
 - e. Intra-abdominal infections e.g. diverticulitis, biliary tract
 - f. Severe sepsis / septic shock
3. Rational use of antibiotics / Restricted antibiotics
4. Monitoring levels of antibiotics (e.g. Gentamicin / Vancomycin)
 - a. When to check levels – after how many doses, peak vs random vs trough levels, how often to check
 - b. How to adjust dosing (i.e. change dose vs change interval)
 - i. Hepatic and renal impairment
 - ii. Body weight calculations
5. IV and oral antibiotic therapy
 - a. Duration of IVAB and when to change to orals
 - b. Which orals to change to
 - c. Rationalisation for extended course of oral AB e.g. recurrent UTI

TERM 2 – PATHOLOGY TESTS: ORDERING AND INTERPRETATION

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Local systems for test ordering
2. Rational test ordering, with consideration of:
 - a. Costs
 - b. Clinical benefit to the patient
3. Common order sets - what they include and their interpretation
 - a. Vasculitic/autoimmune screen
 - b. Coagulopathic screen
 - c. Haemolysis screen
 - d. Hepatitis screen
 - e. Atypical pneumonia serology
4. Basic interpretation of common tests – when to be concerned
 - a. Full blood count
 - b. Electrolytes (EUC and CMP)
 - c. Coagulation profile
 - d. Liver function tests

TERM 2 – THE HARD STUFF: DEATH CERTIFICATION, BREAKING BAD NEWS, AND COMMUNICATING WITH DIFFICULT PATIENTS AND FAMILIES

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Declaring a patient deceased – practicalities
 - a. Documentation
 - b. Patient notes
 - c. Understanding the Coroners Act
 - d. Cremation documents
 - e. Completing death certificates – diagnoses and diseases
2. Communicating with patients and families
 - a. Tips and techniques for discussing difficult material (poor prognoses, death, errors)
 - b. Useful phrases

TERM 3 – PLEURAL AND ASCITIC TAPS AND DRAINS: THE WHEN, WHY AND HOW

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Emergency management of tension pneumothorax/gross ascites
2. Indications and contraindications
3. Details of the procedures
 - a. The consent process (rationale / procedure / risks)
 - b. Preparation of the patient and the equipment
 - c. Performing the procedure
 - d. Post-procedural care
4. Interpretation of results e.g. light's criteria, serum ascites albumin gradient

TERM 3 – GERIATRIC MEDICINE

A lecture on the topic should ideally include, but not be limited to, a discussion of the following points:

1. Common geriatric presentations to hospital:
 - a. Falls
 - b. Delirium
 - c. Immobility
 - d. Not coping at home
2. Recognition of the above as a geriatric syndrome which may be symptomatic of:
 - a. Underlying infection e.g. UTI, Pneumonia, Sepsis
 - b. Intrinsic factors: balance, gait, sensory abilities, underlying cognitive or neurological or cardiac condition, polypharmacy, sedatives, cardiac medications
 - c. Extrinsic factors: appropriate environment, trip hazards, managing at home, social support
3. Government packages: TACP, CACP, EACH, EACH-D
4. Levels of care e.g. home, hostel, low vs high level care
5. Assessing capacity and the MMSE
6. Role of Power of attorney and Guardianship

TERM 3 – RECOGNITION OF THE SICK CHILD

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Recognition of a sick child – ABC + Fluids In and Fluids Out
 - a. Alertness/Arousal
 - b. Breathing
 - c. Circulation
 - d. Fluids in
 - e. Fluids Out
 - f. Normal Vital Sign ranges
2. Assessing hydration and how to manage
 - a. Which fluid to use
 - b. What rate to use and how to calculate
3. Children at risk of deteriorating
4. Common paediatric presentations
5. Identifying and reporting the child at risk

TERM 3 – INTRODUCTION TO TRAUMA

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. What criteria determines a trauma call and who constitutes the trauma team?
2. Primary survey
 - a. MIST
 - b. ABCDE
 - c. AMPLE
 - d. How to determine GCS
3. Secondary survey - what does it involve, when is it done
4. Tertiary survey - what does it involve, when is it done
5. Imaging in trauma
 - a. Trauma series xrays
 - b. FAST
 - c. CT
6. Deciding when to transfer the patient to another facility

TERM 3 – ANTICOAGULANTS AND THEIR USE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Review of the basic elements of the clotting cascade
2. Pharmacology of various anticoagulants
 - a. mechanism of action
 - b. dosing
3. Anticoagulant use in AF, stroke, AMI, DVT/PE
4. Contraindications (relative & absolute) to anticoagulation in people
5. Interpretation of laboratory tests used to monitor anticoagulants and basics of adjustment of doses
6. Determining choice of anticoagulant according to co-morbidities
7. Anticoagulation and the surgical patient
 - a. DVT prophylaxis
 - b. Management in peri-operative period
 - c. Rapid reversal in emergency situations

TERM 3 – LOOKING AFTER THE JUNIOR MEDICAL OFFICER

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Importance of looking after your welfare (risks of fatigue, errors, strain on relationship, etc)
2. Looking after your own welfare:
 - a. Indicators of poor welfare/fatigue
 - b. Techniques to improve your own welfare
3. Looking after fellow JMOs:
 - a. Indicators of stress/fatigue in other JMOs
 - b. Who to refer to
 - c. Reporting
4. Services available:
 - a. Onsite at hospital – JMO managers, DPETs etc
 - b. Internet/phone
 - c. GP/Counsellors

TERM 3 – PSYCHIATRY 101: DEPRESSION, ANXIETY AND THE MENTAL HEALTH ACT

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Overview of mental state examination & basic psychiatric interview
2. Common symptoms in depression and anxiety
3. Overview of treatment options
4. Common medications used in treatment of these conditions
5. Management of emergency presentations of these conditions
6. The Mental Health Act and how to schedule a patient

TERM 3 – MEDICOLEGAL ISSUES: PRIVACY AND CONFIDENTIALITY, INFORMED CONSENT, AND OPEN DISCLOSURE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Professionalism
 - a. Compliance with legal requirements
 - b. Understanding legal aspects of medicine e.g. MHA, death certification, dealing with the police
 - c. Patient privacy and confidentiality - who can you discuss a patient's case with?
2. Open disclosure
 - a. Understanding the importance of open disclosure
 - b. Dealing with complaints
3. Consent
 - a. What can JMO's consent for?
 - b. What is required before you can consent someone

TERM 4 – INTRODUCTION TO ENT MEDICINE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. The ENT examination
 - a. The ear – basic anatomy, using an otoscope
 - b. The nose – basic anatomy
 - c. The throat – basic anatomy, laryngoscopy
2. Hearing tests
3. Common ENT presentations and their management
 - a. Epistaxis
 - b. Tonsillitis and quinsy
 - c. Epiglottitis
 - d. Otitis Media
 - e. Dysphagia
 - f. Stridor
 - g. Vertigo

TERM 4 – FUNDAMENTAL ORTHOPAEDICS

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Plain film x-ray description and interpretation
2. Recognition, classification schemes and basic management of common fractures:
 - a. Forearm fractures
 - b. Neck of femur fractures
 - c. Ankle fractures
 - d. Supracondylar fractures
3. Orthopaedic emergencies – identification and initial management
 - a. Cervical spine fractures
 - b. Pelvic fractures
 - c. Unstable spinal fractures
4. Orthopaedic adjuncts and when to use them
 - a. Plaster and its application
 - b. Cam boot
 - c. Range of motion brace
 - d. Zimmer splint

TERM 4 – INTRACEREBRAL EVENTS

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Review of GCS
2. Presentation of intracranial events
 - a. Haemorrhagic stroke
 - b. Ischaemic stroke
 - c. Subdural haemorrhage
 - d. Subarachnoid haemorrhage
 - e. Transient ischaemic attack
3. Seizures and management
4. Spinal cord injuries
5. Meningitis and encephalitis - presentation and management
6. Rational use of investigations including CT, MRI and lumbar puncture (including basic interpretation)

TERM 4 – PSYCHIATRY 102: THE PSYCHOTIC PATIENT, DRUG OVERDOSE, AND WITHDRAWAL SYNDROMES

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Approach to abnormal behaviour/violent patient/psychotic patient
 - a. History, examination, investigation and differential diagnoses
 - b. Acute management of psychosis including medication options
 - c. The Mental Health Act and scheduling a patient
 - d. Key factors in assessing suicide/homicide risk
2. Managing overdose
 - a. Sedatives
 - b. Alcohol and the AWS
 - c. Paracetamol
3. Common withdrawal syndromes and their management/prevention
 - a. Alcohol
 - b. Opiates
 - c. Benzodiazepines
 - d. Nicotine

TERM 4 – BASIC ANAESTHESIOLOGY

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Local anaesthesia
 - a. Common agents and doses
 - b. When and when not to use local with adrenaline
 - c. Details of procedure
2. Regional nerve blocks
 - a. Common types of blocks and when to consider them
 - b. Common agents and doses
 - c. Details of procedure
 - d. Risks and complications
3. Spinal anaesthesia
 - a. When to consider spinal anaesthesia
 - b. Agents and procedure
4. Epidural anaesthesia
 - a. Agents and procedure
5. General anaesthesia
 - a. Common agents and doses
 - b. Indications and contraindications
 - c. Rapid sequence induction protocol
 - d. Risks and complications

TERM 4 – O&G EMERGENCIES

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Pre-eclampsia and eclampsia
 - a. Definition and risk factors
 - b. Signs and symptoms – e.g. oedema, hyper-reflexia, proteinuria
 - c. Investigations – what bloods to order, urine testing
 - d. Management – initial treatment in acute change in condition, what constitutes a deterioration necessitating urgent intervention
 - e. Seizure – medications, temporising measures, definitive treatment
 - f. Complications for mother and foetus
2. Post-partum haemorrhage
 - a. Risk factors
 - b. Clinical presentation/examination and investigations
 - c. Management
 - i. Post vaginal delivery – management of third stage of labour
 - ii. Role of drugs, fluid management, blood products
 - iii. Ongoing monitoring and when to go to theatre
 - d. Secondary PPH – recognition and management

TERM 4 – INTRODUCTION TO OPHTHALMOLOGY

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Practical assessment of visual fields and visual acuity
2. Revision of ophthalmoscopy
 - a. Tips and techniques
 - b. Findings and abnormalities
3. Emergency ophthalmological problems and their management
 - a. Penetrating eye injury/ruptured globe
 - b. Chemical/flash burns
 - c. Sudden vision loss
4. Examining the eye using Slit lamp
 - a. Corneal foreign body removal

TERM 4 – WOUNDS, DRESSINGS, AND SUTURING

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Types of wounds and normal healing
2. Types of dressings available and which wound to use them on
3. How often should a dressing be changed?
4. Special wounds:
 - a. Burns
 - b. Pressure areas
 - c. Surgical wounds
 - i. Suture materials – absorbable vs non-absorbable
 - ii. Staples
 - iii. When to remove sutures/staples
5. How to identify and manage an infected wound
6. Adjuvant therapies:
 - a. VAC dressings
 - b. Maggots
 - c. Debriding

TERM 5 – VASCULAR SURGERY

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Limb ischaemia
 - a. The 6 Ps of ischaemia
 - b. Differential diagnoses
 - c. Investigations (USS, diagnostic angiogram)
 - d. Management (anticoagulation v angiogram/stenting v bypass)
2. Ulcers
 - a. Arterial vs venous – what to look for
 - b. Wet v dry gangrene
 - c. Is this infected?
 - d. Wound care principles
3. Aneurysmal disease
 - a. When to suspect an aneurysm
 - b. When to intervene
 - c. Open vs endoluminal interventions
4. Thromboembolic disease
5. Common vascular procedures
 - a. Angiogram
 - b. Endarterectomy
 - c. Thrombectomy
 - d. Amputation

TERM 5 - UROLOGY

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Common urological ward problems and what to do about them
 - a. Urinary retention
 - b. Haematuria
 - c. IDC insertion
2. Urological emergencies – including diagnosis and management
 - a. Testicular torsion
 - b. Epididymo-orchitis
 - c. Fournier's gangrene
 - d. Phimosis and paraphimosis
 - e. Renal calculi

TERM 5 – INTRODUCTION TO OXYGEN DELIVERY SYSTEMS AND INTENSIVE CARE MEDICINE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Brief review of principles of oxygenation and ventilation
2. Modes of oxygenation commonly used
 - a. Pressure-cycled modes - Pressure Support Ventilation (PSV), Pressure Control Ventilation (PCV), CPAP/BiPAP
 - b. Volume-cycled modes – Control, Assist, Assist/Control, Intermittent Mandatory Ventilation (IMV), Synchronous Intermittent Mandatory Ventilation (SIMV)
3. Non-invasive ventilation
 - a. Definition
 - b. Indications and contraindications
 - c. Common starting settings, monitoring and how to adjust settings
 - d. Complications and troubleshooting
4. Invasive ventilation measures
 - a. Definition
 - b. Determining need for intubation + contraindications
 - c. Common starting settings, monitoring and how to adjust settings
 - d. Complications - pneumothorax, VAP, vocal cord ischaemia
5. The basic ICU assessment

TERM 5 – ONCOLOGY AND PALLIATIVE CARE

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Staging, treatment, management and prognosis of common cancers
 - a. Breast
 - b. Lung
 - c. Bowel
 - d. Prostate
 - e. Melanoma and skin cancer
2. Introduction to palliative care including appropriate time and method of referral
3. Options for palliative care e.g. home vs nursing home vs hospice
4. Appropriate medical therapy during palliative care (including medications)

TERM 5 – ADVANCED LINES

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. Indications and uses of lines
 - a. PICC lines
 - b. Arterial lines
 - c. Central venous catheters
 - d. Vascaths
2. Procedures and consent
3. Dealing with lines after hours
 - a. Checking position
 - b. Common complications
 - c. Removal procedures

TERM 5 – RADIOLOGY ESSENTIALS

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. CT Brain

- a. Indications, contrast vs non-contrast, ?need for sedation
- b. Method/system for interpreting CT Brain
- c. Examples of common findings/calls on ward:
 - i. Fall – CT ? bleed
 - ii. ?stroke

2. CT Abdomen

- a. Indications, contrast vs non-contrast, oral vs IV contrast
- b. Method/system for interpreting CT Abdomen
- c. Examples of common findings/calls on ward:
 - i. ?perforation
 - ii. ?obstruction
 - iii. ?collection

3. US Abdo

- a. Indications – US Abdo vs CT Abdo
- b. Considerations – prep (fasting), size of pt
- c. Interpretation

4. US Doppler

- a. Indications
- b. Interpretation

TERM 5 – NEONATAL AND PAEDIATRIC RESUSCITATION

A lecture on this topic should ideally include, but not be limited to, a discussion of the following points:

1. BLS algorithm for neonates/children
2. ALS for neonates/children
 - a. Airway
 - b. IV Access and Fluids
 - c. Arrhythmias
 - d. Medications used