SPECIALIST TRAINING PROGRAM IN

Emergency Medicine

Five Year Residency Training Program
Dubai Department of Health and Medical Services

WELCOME FROM THE PROGRAM DIRECTOR

Welcome to your journey through the specialty of Emergency Medicine! You are among a very few select and privileged individuals. Not only because you are part of an EM residency, but also because at Dubai you are a part of the original, and only Program in the UAE

During the 5-year Program, you will find it to be both a very exciting yet demanding experience. During your residency you will be training in many different specialty areas of medicine and surgery.. You will learn what are the emergent, urgent and non-urgent problems of each specialty. You will also be working at other hospitals such as Al Wasl. , and at each different hospital and in each different department you will be setting the original standard for an ambassador of the specialty of Emergency medicine in Dubai. The goal of the Emergency Medicine Residency Programme in Dubai is to make you not only excellent and world class emergency physicians, but also to put Dubai on the Emergency medicine map and to make this a residency programme of choice for graduates both in Dubai and overseas.

I. INTRODUCTION

This document sets out the program for Emergency Medicine (known hereafter as EM) training in the Residency Program of Department of Health and Medical Services, (DOHMS), Dubai.

This document describes the entry requirements, knowledge and skills content, rotations, assessment methods accreditation and certification for training in EM. It is expected that trainees will acquire the training and experience necessary for independent practice in EM. The requirements of this programme meet, and in some cases exceed, those of well established postgraduate training programs in EM in Europe and North America.

After satisfactory completion of the five year program, plus one year post-residency experience, the graduates will be certified in Emergency Medicine

II. Mission and Vision

The mission of the program is to develop and train Emergency Physicians (EP's) who are competent to practice Emergency Medicine independently in any setting.

III. Goals and Objectives

The goals and objectives of the program reflect the mission and vision statements.

General Objectives

The training program will provide a broad educational experience in recognition and treatment of undifferentiated acute emergencies across the whole spectrum of medicine, surgery, psychiatry, obstetrics and gynaecology and paediatrics. Upon completion of training, the graduate is expected to be a competent specialist in EM and capable of independent practice.

During training, the resident will have acquired a thorough knowledge of the theoretical basis of EM, including its foundations in the basic medical sciences and be exposed to research activities. The graduate will be able to access and apply relevant knowledge and skills to clinical practice and provide effective consultation services with respect to patient care, education and medico-legal issues.

The resident in EM must acquire:

- Knowledge and expertise in clinical management for the first hours of all acute and undifferentiated cases presenting to the Emergency department(ED) comprising the entire spectrum of medical, surgical, trauma and paediatric cases.
- The knowledge, skills and attitudes relating to gender, culture and ethnicity pertinent to Emergency Medicine and incorporate these in research activities.

The Specific Objectives (Summary)

The resident in EM is required to attain sufficient training and knowledge of:

- Basic science related to EM including relevant clinical applied anatomy.
- The pathophysiology, differential diagnoses and management of EM conditions
- Appropriate skills in instrumental diagnostic procedures (including limited ultrasound of abdomen and pericardium for effusion)
- Indications for either admission, discharge with and without follow up or referral
- Laboratory investigation
- Pharmacological agents and principles of contrast media used in EM practice
- Clinical competence in emergency settings
- Principles of Intensive care, management of shock and resuscitation
- Local and regional anesthesia
- Clinical audit
- Medical ethics, health economics, medico-legal matters, risk management, medical statistics, information technology and health service management
- Research methods
- Teaching and training others in EM
- Making oral presentations at professional meetings effectively.

I. Competencies as an Emergency Physician

At the completion of training, the resident will have acquired various competencies and will function effectively as:

Medical Expert/Clinical Decision-Maker

Consultants will possess a defined body of knowledge and procedural skills, which are used to collect and interpret data, make appropriate clinical decisions, and carry out diagnostic and therapeutic procedures within the boundaries of their discipline and expertise. Their care is characterized by up-to-date (and whenever possible evidence-based), ethical, and cost-effective clinical practice and effective communication in partnership with patients, other health care providers, and the community. The role of medical expert/clinical decision maker is central to the function of the specialist clinician.

The Resident in EM is required to attain sufficient knowledge, diagnostic expertise, judgment and skills in the entire spectrum of EM cases including

- Trauma and critical illness, including emergency and intensive care
- Acute medical and surgical paediatrics, including resuscitation, diagnosis and referral.
- The patient in crisis
- Interventional imaging technologies
- Diagnostic laboratory procedures and their interpretation
- Multidisciplinary care
- Continuing professional development
- Life-long learning
- Health information systems

Communicator

In order to provide humane, high-quality care, Consultants establish effective relationships with patients, other physicians, and other health professionals. Communication skills are essential for the functioning of a specialist, and are necessary for obtaining information from, and conveying information to, patients and their families. Furthermore, these abilities are critical in eliciting patients' beliefs, concerns, and expectations about their illnesses, and for assessing key factors impacting on patients' health.

General Requirements include the ability to:

- Establish therapeutic relationships with patients/families
- Obtain relevant history from patients/families/communities Listen effectively
- Discuss appropriate information with patients/families and the health care team

Specific Requirements

- recognize that being a good communicator is an essential function of an Emergency Physician, and understand that effective communication can foster patient satisfaction and compliance as well as influence the manifestations and outcome of a patient's illness.
- establish relationships with the patient that are characterized by understanding, trust, respect, empathy and confidentiality.
- gather information not only about the disease but also about the patient's beliefs, concerns and expectations about the illness, while considering the influence of factors such as the patient's age, gender, ethnic, cultural and socioeconomic background, and spiritual values on that illness.
- deliver information to the patient and family in a humane manner and in such a way that it is understandable, encourages discussion and promotes the patient's participation in decision-making.
- understand and demonstrate the importance of cooperation and communication among health professionals involved in the care of individual patients such that their roles are delineated and consistent messages are delivered to patients and their families.
- demonstrate skills in working with others who present significant communication challenges as a result of an ethno-cultural background which is different from the clinician's own, or who exhibit anger or confusion.

Collaborator

Consultants work in partnership with others who are appropriately involved in the care of individuals or specific groups of patients. It is therefore essential for Consultants to be able to collaborate effectively with patients and a multidisciplinary team of expert health professionals for provision of optimal patient care, education, and research activities.

General Requirements

- Consult effectively with other physicians and health care professionals.
- Contribute effectively to other interdisciplinary team activities.

Specific Requirements

- Develop an ability to work effectively and harmoniously with other health care workers.
- Function competently in the initial management of conditions that, in major centers, fall within the realm of other specialties.

- Participate in an interdisciplinary team meeting, demonstrating the ability to accept, consider and respect the opinions of other team members, while contributing personal specialty-specific expertise.
- Understand how health care governance influences patient care, research and educational activities at a local, provincial, regional, and national level.
- Effectively communicate with the members of an interdisciplinary team in the resolution of conflict, provision of feedback, and where appropriate, be able to assume a leadership role.

Manager

Consultants function as managers when they make everyday practice decisions involving resources, co-workers, tasks, policies, and their personal lives. They do this in the settings of individual patient care, practice organizations, and in the broader context of the health care system. Thus, Consultants require abilities to prioritize and effectively execute tasks through teamwork with colleagues and make systematic and rational decisions when allocating finite health care resources. As managers, Consultants take on positions of leadership within the context of professional organizations and the health care system.

General Requirements

- Utilize resources effectively to balance patient care, learning needs, and outside activities.
- Allocate finite health care resources wisely.
- Work effectively and efficiently in a health care organization.
- Utilize information technology to optimize patient care, life-long learning and other activities.

Specific Requirements

- Understand how to function effectively in health care organizations, ranging from individual clinical practice to local, regional and national surgical associations.
- Understand the structure, resourcing, and operation of the Emirates health care system, and function effectively within it, as well as being capable of playing an active role in its evolution.
- Acquire the ability to access and apply a broad base of information to the care of ambulatory patients, and those in hospitals and other health care settings.
- Make clinical decisions and judgments based on sound evidence for the benefit of individual patients and the population served.
- Understand population-based approaches to health care and their implication for medical practice and prioritization to access for services.

Health Advocate

Consultants recognize the importance of advocacy activities in responding to the challenges represented by those social, environmental, and biological factors that determine the health of patients. They recognize advocacy as an essential and fundamental component of health promotion that occurs at the level of the individual patient, the practice population, and the broader community. Health advocacy is appropriately expressed both by the individual and collective responses of specialist physicians in influencing public health and policy.

General Requirements

- Identify the important determinants of health affecting patients.
- Contribute effectively to improved health of patients and communities.
- Recognize and respond to those issues where advocacy is appropriate.

Specific Requirements

Demonstrate an understanding of the following:

- Determinants of health by identifying those that are the most important (i.e., poverty, unemployment, early childhood education, social support systems), being familiar with the underlying research evidence, and applying this understanding to common problems and conditions in general surgery;
- Determination of the patient's status with respect to one or more of the determinants of health and adapting management accordingly; and assessing the patient's ability to access various services in the health and social system;
- The need to work collaboratively with specialty societies and other associations in identifying current "at risk" groups and application of available knowledge regarding prevention to "at risk" groups.

Scholar

Consultants engage in a life-long pursuit of mastery of their domain of professional expertise. They recognize the need to be continually learning and model this for others. Through their scholarly activities, they contribute to the appraisal, collection, and understanding of health care knowledge, and facilitate the education of their students, patients, and others.

General Requirements

- Develop, implement and monitor a personal continuing education strategy.
- Critically appraise sources of medical information.
- Facilitate learning of patients, interns, students and other health professionals.
- Contribute to development of new knowledge.

Specific Requirements

The Resident in EM will develop an inquiring mind and a critical attitude to scientific literature, as well as an ability to adapt to innovations and development which will occur during a career in EM

Clinical:

- Identify clinical problems in EM
- Recognize and identify gaps in knowledge and expertise
- Formulate a management plan:
- Conduct an appropriate literature search based on the clinical question
- Assimilate and appraise the literature
- Develop a system to store and retrieve relevant literature
- Consult other health professionals in a collegial manner
- Propose treatment for the clinical problem
- Evaluate the outcome
- Identify practice areas for research

Research:
• Pose a research question (clinical, basic or population health);
• Develop a proposal to solve the research question:
• Conduct an appropriate literature search based on the research question
• Identify, consult and collaborate with appropriate content experts to conduct the research
• Propose a methodological approach to solve the question
• Carry out the research outlined in the proposal
• Defend and disseminate the results of the research
• Identify areas for further research that flow from the results

Education
• Demonstrate an understanding of, and the ability to apply the principles of adult learning, with respect to oneself and others
• Demonstrate an understanding of preferred learning methods in dealing with students, residents, and colleagues.

Professional
Consultants have a unique societal role as professionals with a distinct body of knowledge, skills, and attitudes dedicated to improving the health and well being of others. Consultants are committed to the highest standards of excellence in clinical care and ethical conduct, and to continually aspiring to mastery of their discipline.

General Requirements
• Deliver the highest quality care with integrity, honesty and compassion.
• Exhibit appropriate personal and interpersonal professional behavior.
• Practice medicine ethically consistent with the obligations of a clinician.

Specific Requirements
• Acquire the training and experience to maintain competence as a specialist or sub specialist
• Assume responsibility for the overall care of the surgical patient
• Have a comprehensive knowledge of the principles of biomedical ethics and medical jurisprudence
• Maintain ethical relationships with colleagues, patients and relatives
• Recognize one's own limitations of professional competence
• Have the ability to explore and resolve interpersonal difficulties

Professional relationships
• Demonstrate ways of attempting to resolve conflicts and role strain
• Have a knowledge and understanding of the professional, legal and ethical codes to which clinicians are bound
• Have the ability to recognize, analyze and know how to deal with unprofessional behavior in clinical practice, taking into account local and national regulations

II. IV Administrative Structure

a. **Programme Director**
The programme director is responsible for the overall conduct of the Residency Programme. The Residency Programme Director is responsible to the Postgraduate Dean, and is a member of the Postgraduate Education Committee of the Continuing Education Department of DOHMS.

b. **Programme Site Co-Director**
The Programme Site Co-directors are responsible for the day to day functioning of the Residency Program at each institution participating in the Programme.

Co-directors are responsible to the Programme Director. There must be active liaison between the Programme Director and the Programme Co-directors

c. **Residency Programme Committee**
The Residency Programme Committee assists the Program Director in the planning, organization, and supervision of the Programme. The Residency Programme Committee must meet regularly, at least quarterly, and keep minutes. It is chaired by the Programme Director who is its executive officer.
This committee includes
- a representative from each participating institution,
- the Programme Site Co-Directors
- representatives of Residents in the Programme, nominated and elected by their peers in the programme. Where numbers permit this representation should consist of at least one each from Dubai and RH.

Responsibilities of the Programme Director
The responsibilities of the Program Director, assisted by the Residency Programme Committee include:
- development and operation of the Programme such that it meets the standards of accreditation for a specialty program in EM
- selection of candidates for admission to the program
- evaluation and promotion of residents in the program in accordance with policies approved by the Postgraduate Medical Education Committee.
- maintenance of an appeal mechanism. (see description of Appeal Mechanism)
- establishment of mechanisms to provide career planning and counseling for residents and to deal with problems such as those related to stress in collaboration with the Residents Affairs
- an ongoing review of the Programme to assess the quality of the educational experience and to review the resources available in order to ensure that maximal benefit is being derived from the integration of the components of the program. This review must include:
- an assessment of each component of the Programme to ensure that the educational objectives are being met

• an assessment of resource allocation to ensure that resources and facilities are being utilized with optimal effectiveness
• an assessment of the teachers in the Programme

Further to those responsibilities listed above, the Programme Director must function as a resident advocate and aid in the organization of other educational opportunities. The Program Director is responsible for assigning residents their rotation and service schedules. The Programme Director is responsible to the residents to train them well in a humane atmosphere.
The Programme Director reports to the Postgraduate Dean.

V Programme Sites.

The two sites for training are currently the Dubai Hospital and the Rashid hospital. Other services or units that are approved by the Accreditation Committee of the Postgraduate Medical Education Committee may be included in the future.

VI Entry Requirements

Prospective candidates:
• should have successfully completed basic medical training leading to MBBS, MD, or MB Ch from a recognized institution.
• must have completed a one year internship programme preferably including at least two months of EM.
• must be fully registered by the competent Authority, to practice medicine in the United Arab Emirates.
• must be successful at an Evaluation Examination which may include an oral and/or written examination and oral interview. The Office of Postgraduate Education in collaboration with the Admission Committee will supervise the Evaluation. Applications will be submitted on line in response to advertisement.

VII. Number of Posts and Duration of Training

The number of posts per academic year is 10. This will be reviewed after accreditation visit. The duration of training will be 5 years of formal training and one year of post-residency experience.

VIII. Programme Structure and Rotations

Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
R1	**Emergency Medicine (36 wks RH, and 12 wks DH)**										
Part 1, Arab Board plus MCEM/entry exam for overseas fellowship											
R2	Rotations(12 weeks each) though general medicine, general surgery, Orthopaedics**, 6 wks Paediatric EM** , 6 weeks general paediatrics										
R3	Rotations (12wks) through ICU, anaesthetics, **24 wks EM.**										
R4	Rotations (6 wks) through OB/GYN, psychiatry, 4x 6 week elective rotations chosen from ENT/ophthalmology/emergency radiology/cardiology/respiratory medicine or other relevant medical or surgical subspecialty, of which two 6 week electives may be spent in approved centre's overseas**. 12wks EM**										
Board Eligibility											
SSpReg	Part 2 Arab Board plus FCEM/exit exam for overseas Fellowship Emergency Medicine					**EM RH or DH**					
SSpReg	Subspecialty of Emergency Medicine or Emergency Medicine					May be local or in approved centre overseas					
Board Certification plus subspecialty certification											

IX Assessments

Residents will form part of the core service provision of the rotation specialty at a grade appropriate to their level of experience, and will not be classed as supernumerary. They will be required to have reached a satisfactory level of appraisal within the rotation specialty before the rotation is counted towards training. Any unsatisfactory evaluation may mean repeating the rotation before the trainee can progress.

The continuous appraisal and regular assessments of trainees with feed-backs are essential elements of the program.
There will be a formal assessment (Written, Vival and Skills) at the end of Year 1
In Year 2, there will three monthly DOPS and a formal evaluation at the end of the year.
Assessment if Year 3 will be based on the logbook and three monthly feedbacks. Progress from one year to the next will be dependent on satisfactory performance.
Residents are required to document their activities during the program in a logbook of procedures and interventions and retain the documentation. The entry is to be signed by the Resident as well as by the responsible Trainer. At the completion of the Rotation all documents, the Logbook and assessment records will be forwarded to the EM Residency Committee.

A. The trainee's log book, and copies of reports which record the trainee's procedural and diagnostic experience, which should indicate the degree of supervision -

- (A) Assisting senior Emergency Physician(EP)
- (S1) Performing a procedure under direct supervision-Consultant
- (S2) Performing a procedure under supervision-Consultant present in the procedure room
- (P) Performing a procedure without direct supervision
- (T) Supervising a more junior trainee.

Analysis of the content of the logbook will be used to assess both the experience of the trainee and the training post. This can be more easily facilitated by the use of a computerized record and, if data from successive trainees is aggregated, provides the means to assess training posts. The EMRC (Emergency Medicine Residency Committee) therefore requires that trainees submit a minimum data set, derived from their logbooks, to their Program Director at 6 monthly intervals, preferably on disc using approved software. Courses and meetings attended should also be recorded in the logbook.

B. Regular appraisal and feedback as well as trainee's reports of their personal evaluation at the end of every rotation.

C. Minimum requirements for numbers of procedures: a minimum number of cases to be operated upon or examined by the trainee (Appendices A, B). In addition methods of assessment of competencies, both clinical and operative, should be developed.

D.SPECIALTY EXAMINATION IN EMERGENCY MEDICINE

A.. The graduates are expected to have successfully challenged other Board examinations (Arab Board, UK Royal College of Emergency Medicine) by the end of the five years of formal training. After successful completion of board exams and the post fellowship year candidates will be considered for board certification in Emergency medicine.

X Vacation

Each year will include four weeks of vacation that may be taken at any time in the program with the approval of the Program Director and the Supervisor of the affected rotation.

Every effort will be made to avoid significantly impacting the educational experience in any single rotation that might occur should a prolonged period of leave be taken within a single rotation.

XI. Evaluation of the Programme

i. Residency Programme Committee

The Residency Programme Committee under the leadership of the Programme Director will be responsible for the ongoing evaluation of the programme. This will include an assessment of the strengths and weaknesses of the programme and recommendation of improvements. As well, all residency training sites, including elective experiences will be assessed and evaluated. Formal evaluation of all of the teaching staff affiliated with the programme. Discussion regarding the programme will occur at all residency programme committee meetings and a formal evaluation of the programme accompanied by a report should occur on a yearly basis.

ii. Internal Review

The internal review is intended as a mechanism to assist the sponsor in maintaining the quality of Residency Programme and providing the Programme Administrators with information about the strengths and weaknesses of the Programme so that necessary corrective measures may be taken.

The internal review should be initiated by the Postgraduate Dean and the team should include: a Programme Director from another Programme, a staff member from another discipline who is experienced in postgraduate medical education, and a resident from another discipline. The review team should have available all documentation regarding the Programme. A series of interviews should take place with the Programme Director, teaching staff, members of the resident group, and with the Residency Programme Committee.

Visits to individual sites should occur when indicated. The internal review team should review all residency education sites and elective experiences. There should be a careful assessment of the quality of the program and the degree to which it fulfills its Goals and Objectives.

The written report of the internal review should include the strengths and weaknesses of the Programme and specific recommendations for continued development and improvements. This report should be submitted to the Postgraduate Dean, Chair of the department, the Programme Director, and members of the Residency Programme Committee.

Internal Review should take place every two years

iii. External Review

The Programme should undergo an external review every 5 years. The process of the external review is similar to that of the internal review with the exception of the make up of the review committee. The external review is initiated by the Postgraduate Dean for Medical Education and the team should include: a representative of an accrediting body in EM, a Programme Director from another EM Programme accredited by the aforementioned body, a faculty member from another discipline who is experienced in postgraduate medical education, and a resident from an accredited external program.

The external review committee would generate a report that should include the strengths and weaknesses of the program and specific recommendations for continued development and improvements.

This report should be submitted to the Postgraduate Dean and made available to the Chair of the Department, the Programme Director, and members of the Residency Programme Committee.

XII. The Certification

On satisfactory completion of the entire programme of specialist training, the Programme Director will notify the Postgraduate Dean.

The authorized signatories on the certificate will be the Programme Director, Director General/Assistant Director General (MA) and Postgraduate Dean

XIV. References

1. The Arab Board of Medical Specialization. Jokhadar, M.D., F.A.C.C., Secretary General Arab Board for Medical Specializations

13/33

2. The College of Emergency Medicine Training Guidelines, UK College of Emergency Medicine

Appendix 1

SYLLABUS

The following pages comprise schedules of knowledge and skills, which provide a syllabus for training in Emergency Medicine. The knowledge required includes basic science. The syllabus should be taken in conjunction with the relevant general objective. It represents the minimum to be achieved in training.

A.

CanMEDS Role	Description
1. Medical Expert	• The central role • Demonstrate diagnostic and therapeutic skills for ethical and efficient patient care • Access and apply relevant information to clinical practice • Demonstrate effective consultation services with respect to patient care, education, and legal opinions
2. Communicator	• Establishes therapeutic relationships with patients and families • Obtains and synthesizes relevant history and information from patients, families, and health care team
3. Collaborator	• Effectively consults with other physicians and health care professionals • effectively works within an inter-disciplinary health care team , including patients, colleagues and other health care professionals. • Collaborative care and shared decision making • Conflict resolution
4. Manager	• Utilizes time and resources effectively to balance patient care, learning needs, outside activities • Allocates finite health care wisely • Utilizes information technology to optimize patient care, continued self learning and other activities
5. Advocate	• Identifies important determinants of health affecting patients. • Contributes effectively using their expertise and influence to advance the health and well being of patients, communities and populations • Recognizes and responds to those issues where advocacy is appropriate

6. Scholar	• Critically appraises sources of medical information • Facilitates learning of patients, students, residents and other health care professionals • Contributes to the development of new knowledge • Develops, implements and documents personal education strategy.
7. Professional	• Delivers the highest quality of care with integrity, honesty and compassion • Exhibits appropriate personal and interpersonal professional behaviours • Practices medicine ethically consistent with the obligations of a physician.

EMERGENCY MEDICINE & CanMEDS

The following table demonstrates how the CanMEDS objectives are addressed in the Emergency Medicine Program:

B.

CanMED Role	Activity
1. Medical Expert	• Clinical rotations • Specialty rotations such as Paediatrics at Al Wasl and Toxicology overseas • Teaching Rounds • Interactive Sessions • Journal Club • Epidemiology courses (R1) • Self Assessment with the annual exam
2. Communicator	• Journal Watch presentation • Case Presentations • Journal Club presentations • Grand Rounds presentations • Practice Oral exams • Clinical rotations • Special Rounds presentations (teaching, witnessed resuscitation, breaking bad news, conflict resolution) • Research presentation at national and international scientific meetings

3. Collaborator	• Clinical rotations • Journal Club • Research projects
4. Manager	• Clinical rotations • Administration rotation
5. Health Advocate	• Clinical rotations
6. Scholar	• Clinical Teaching rotation • Journal Watch • Grand Rounds • Research Project • Area of Interest • Subscription to peer reviewed journals • Attendance at conferences

PROGRAM

ROUNDS

Journal Club

Article Distribution: This should be done 1 WEEK PRIOR to Journal Club. We need time to read!

Summary: Provide a written summary, less than 1 page, on what was learned. Also, provide access to reference articles/resources.

Goals

Scholar

1. To keep residents and staff abreast of current cutting edge literature and best literature.
2. To learn the techniques of critical appraisal as they apply to different study designs.
3. To learn the three general critical appraisal skills of evaluating the validity of study methods, appreciating the strength and precision of results and applying the results with an eye to changing practice or informing decision-making.
4. To learn and apply the EBM concepts and skills.
5. To learn skills and habits that will allow lifelong reading behaviour and learning habits.
6. To become aware of important publications outside the EM literature.

Medical Expert

1. To develop knowledge on key topics and the supporting literature.
2. To improve clinical practice consistent with the latest research findings and critically appraised best evidence.
3. To integrate critically appraised best evidence into decision making through considerations that include values and perspectives that relate to the ethical, managerial, professional and health advocate dimensions of an emergency physician.

Communicator

1. To develop and hone interactive teaching and presentation skills.
2. Based on the knowledge and insights gained, to effectively and impressively communicate with your patients and colleagues in other specialties on critical and up to date issues.
3. Consideration should be given to reaching a wider audience of EM colleagues through peer-reviewed publication of your Journal Club summaries (posting on website, writing letters to editors, publishing summaries).

Collaborator

1. To work as a team with other residents
2. To invite and interact in a dynamic learning environment with special guests who are experts on the topic or issues being presented.

Format
If you are doing an EBM format, choose 1 article that highlights the EBM concept that you want the residents to learn. The article should not be more than 2 years old. A good EBM reference is JAMA's "Users' Guide to the Medical Literature: A Manual for Evidenced-based Clinical Practice". At the end of your session, please provide a brief summary, either written or distributed on-line. This should highlight the concept taught and indicate on-line references for review.
If you are assigned to do a topic or "theme" you will present and critically appraise 2 or 3 cutting edge and up to date articles. In addition to presenting the articles, you should briefly present your search strategy. The resident is strongly encouraged to invite a guest to JC who can act as an expert on this topic. A brief summary should be provided at the end of the session, either written or on-line.

Journal Watch

UP TO DATE! CURRENT! CUTTING EDGE! For both resident and staff alike, keeping up to date with the best that the literature has to offer amongst the plethora of publications is indeed difficult. With that in mind, the goal of journal watch is to briefly inform the residents and staff about an interesting, relevant and key Emergency Medicine or Emergency-related article.
In order to do this:

1. The article must be current.
2. The article must be pertinent to Emergency Medicine.
3. It is an article that everyone should know about.
4. You can peruse the journals in the library or use EM abstracts, Journal Watch.
5. (www.jwatch.org), American College of Physicians Journal Club (see attached and/or www.acponline.org) and other such sources in order to select your article and for format.
6. You have 5-10 minutes . . . no more.
7. Allow 2 minutes for questions at the end.
8. REMEMBER: You are not reciting the article. You are critically appraising it. You must present whether or not this is a good article and explain why, and if it will change your practice.
9. You should provide a brief summary of the article on a single page (one side only). 10. You can present a second article if it is related to the first. It must be done rapidly, respecting the 10-minute time limit.

Goals of Journal Watch
Scholar

1. To keep residents and staff abreast of current cutting edge literature and the best literature.
2. To learn and apply critical appraisal skills and EBM concepts as they apply to the selected article.
3. To learn skills and habits that will allow lifelong reading behaviour and learning habits.
4. *To become aware of important literature outside the domain of Emergency Medicine literature.*

Please check the appropriate box: (1) Unsatisfactory; (2) Needs Work; (3) At Level; (4) Particular Strength

MEDICAL EXPERT (basic scientific & clinical knowledge, history & physical, interpretation & utilization of information, clinical judgement & decision making, technical skills) Clinical knowledge appropriate for level 1 2 3 4 Approaches presenting problems appropriate for level 1 2 3 4 Safely performs procedural skills appropriate for level 1 2 3 4
COMMUNICATOR (inter-professional relationships, communication with health professionals, patients, and families, written communication) Verbal with patients, families, health care team 1 2 3 4 Written (charting, orders) 1 2 3 4
COLLABORATOR (interacts & consults effectively with all health professionals by recognizing & acknowledging their roles & expertise, delegates effectively) 2 3 4
MANAGER (understands & uses information technology, uses health care resources cost-effectively, organization of work & time management) 1 2 3 4 R3-5 manages flow 1 2 3 4
HEALTH ADVOCATE (advocates for patient and community) 1 2 3 4
SCHOLAR (motivation to read & acquire knowledge, critical appraisal skills, teaching skills) 1 2 3 4 R3-5 resident teaching skills 1 2 3 4
PROFESSIONAL (integrity & honesty, sensitivity & respect for diversity, responsibility & self-discipline, recognition of own limitations, understands & applies principles of ethics) Punctual 1 2 3 4 Responsible, has integrity, ethical awareness 1 2 3 4 Recognition of own limitations, seeks advice when needed 1 2 3 4

OVERALL PERFORMANCE COMPARED TO EXPECTED LEVEL (please circle)

1_____2_____3_____4_____5 _____

Needs to catch up to be:

1. As expected at least one year beyond
2. At expected level expected level

Patient Unit Number	Presenting Problem/Diangosis	Teaching Points Learned

Procedures done (where indicated, be specific):

□ ABG
□ Lumbar Puncture
□ Arthrocentesis:
□ Nasal Packing
□ Chest tube □ RSI
□ EDTU
□ Suturing
□ Fracture/dislocation: reduction/splint/cast:
□ Taps: pleural/peritoneal:
□ I&D/foreign body removal
□ Other (specify): _____
□ Lines: peripheral/central:

Comments:

III. ROTATIONS GOALS & OBJECTIVES

ADMINISTRATION

Introduction

This rotation is designed to introduce the emergency residents to aspects of ED administration and management. The resident will be exposed to all levels of administration. Beginning in the ED, they learn about medical nursing and clerical functioning. Then branching into hospital, university and provincial/national levels.

Structure

1. During this rotation, the resident receives lectures in ED administration and hospital topics covering interdepartmental protocols and policies while learning crucial elements in reproducing the activities within their own emergency departments, utilizing protocols from a manpower and administrative aspect.
2. The residents participate in committees and meetings that are ongoing within the department and hospital.
3. The residents participate directly in the ED as a flow coordinator learning how to handle different flow situations and cases.
4. The resident is responsible for completing a project related to administrative duties including how to structure the activity. Examples include disaster planning, triage, trauma, transfer, point of care, tertiary, etc.

Evaluation

The resident is responsible for completing an administrative project. They will also be evaluated for their participation in meetings and committees.

Goals and Objectives

Medical Expert

The resident participates in management of difficult cases, unclear disposition, deciding on admissions/discharge, tertiary, and consultations. The resident focuses on re-assessment of cases already present in the ED, and they learn the evolution of the patient stay and decide on appropriate work-up based on their current state which may have evolved during the patient's stay in the ED.

Communicator

1. The resident receives sessions in answering patient complaints and dealing with potential conflicts with other departments.
2. The resident receives direct supervision in dealing with patients who are already in the ED and their anxiety in arranging discharge or changing a plan already in place.
3. The resident receives sessions on charting, progress notes, and their options, including computerization.

Collaborator
The resident participates in the multi-disciplinary team with nursing, medical and clerical staff on various local committees and teaching sessions. The resident also joins ED staff on other hospital level committees and receives sessions on working with the DPS. The resident learns about protocol development with medical, surgical and radiology departments which all work closely with the ED, thus learning about managing patient flow.

Manager
The resident is taught how to organize, manage and lead committees both on an ED level and a hospital level. This includes budgeting and staffing according to objective measures.

Health Advocate
Addressing patient complaints are taught; as well as advocating for the patients in the ED, sometimes through a long stay in the emergency.

Scholar
Mandatory projects in administrative topics

1. Attending meetings within the department led by ED doctors reviewing administrative.
2. Medical topics covering flow and management.
3. Encouraged to read academic EM material relevant to topics addressed.

ADULT EMERGENCY MEDICINE

The General Role of an Emergency Specialist

The Specialist in Emergency Medicine is foremost a Clinician who uses the requisite knowledge and skills to diagnose and manage patients presenting with a wide spectrum of acute illness and/or injury including:

1. acute life threatening events
2. exacerbations of pre-existing or chronic conditions
3. common minor presentations.
4. psycho-social issues.

He/she uses highly developed clinical reasoning skills to care for patients with acute and undifferentiated problems, often before complete clinical or diagnostic information is available.

The Specialist in Emergency Medicine is also a Leader and Collaborator, interacting effectively with other medical professions, colleagues and systems. He/she facilitates the provision of prompt, efficient, high quality and cost effective acute medical care to individuals and communities.

The Specialist in Emergency Medicine is an Academic and Community Resource, providing leadership and the Administration of Emergency Medical Systems and Programs, and the conduct of relevant Research and Education. He/she assumes these roles with the goal of advancing knowledge and improving individual or community health outcomes.

Over the 5 years the EM resident will have completed 132 weeks in adult ED.

During the 5 years of residency, there is a graded level of responsibility as the resident becomes more senior. The first three years are conducted under a more direct supervision of the attending physicians than subsequent years. The resident should focus on gaining clinical knowledge and acquiring technical expertise. By the end of the R3 year, the resident will have finished all the basic clinical rotations as well as most of the acute care or ICU rotations. Thus at this time the resident should have an approach to almost any problem that presents to the ED. The R4 year focuses on abilities to carry an increasing clinical load, concomitant management of several patients and development of teaching skills. By the end of the R4 year, the resident may be expected to run a section (majors, minors or resus) of the ED. R5 level residents will be expected to manage flow, teach while managing their own patients. In general, during the last months of training, R5 residents will assume the attending physician role, while the attending will work "as a resident".

EM residents should be actively studying around the cases they see. Depth of knowledge will be expected to increase as the resident does more literature searches. It can not be stressed enough that the Emergency Medicine resident should be orienting his/her learning around 1) clinical presentations; 2) pathophysiology and 3) the best evidence that exists in the current literature. Critical thinking is strongly encouraged so that the resident understands how to make appropriately safe evidence based clinical decisions.

It is obviously very difficult to identify specific areas of knowledge for each year of the residency. During the monthly interactive sessions, the EM resident will have read all of Tintinalli. Consequently, all of the core topics will have been covered at least twice during the residency. The resident can also refer to the objectives of the various core rotations to use as guides of what he/she should know and be able to do.

Medical Expert

1. Possesses the basic scientific and clinical knowledge necessary to rapidly assess and manage a full spectrum of patients of all ages, with acute or undifferentiated illness and/or injury, ranging from the life threatening to common minor presentations.
2. Performs appropriately selective, accurate and well organized history and physical examinations.
3. Presents the history and physical in a concise, organized approach, including all relevant information.
4. Must have an approach to and be able to develop a differential diagnosis to the common presenting complaints.
5. Be able to develop a work-up plan, understanding the indications, interpretation and limitations of:
    a. laboratory tests
    b. radiologic investigations
    c. ECGs.
6. Be able to develop a comprehensive care plan for the patient to the point of disposition (discharge, admission, consult).
7. Demonstrate an understanding of the natural history, pathophysiology, treatment of the acute and common disorders that present to the ED.
8. Selects and performs medical procedures (indications, contraindications and complications) in an appropriate, safe and skillful manner with due attention to minimizing patient risk and discomfort. The technical skills include, but are not limited to:
    a. Vascular access (peripheral and central)
    b. Wound Management (examination, anaesthesia, irrigation, debridement, closure techniques)
    c. Anaesthesia (local, nerve blocks, procedural sedation)
    d. Orthopedic procedures (reduction, immobilization, splinting and casting, arthrocentesis)
    e. Abdominal procedures (NG insertion, abdominal paracentesis)
    f. Arterial Blood gas
    g. Lumbar puncture

    l. Ophthalmologic procedures (use of slit lamp, contact lens removal, eye irrigation, extraocular foreign body removal)
    m. Hand and Foot procedures (drainage of subungual hematoma and paronychia, removal ingrown toenail, extensor tendon repair)
    n. GU procedures (Foley catheter placement, suprapubic bladder aspiration, reduction of paraphimosis
    o. Rectal procedures (anoscopy, foreign body removal, pilonidal or perianal abscess drainage, evacuation of thrombosed hemorrhoid)

Communicator

1. Demonstrates appropriately accurate, concise, timely and legible emergency charting, with follow-up notes. Charting should include interpretation/analysis of the lab and radiologic investigations.
2. Demonstrates effective verbal communication with and establishes positive (therapeutic and/or working) relationships with:
    a. Patients and their families
    b. Nurses, Respiratory Therapists, Ward Clerks, Patient Attendants, Social Worker
    c. Consultant Physicians, Residents and Medical Students within the Department, EMS personnel
    d. Consultants by telephone/in person

3. Demonstrate ability to effectively deliver "bad news" to patients/families in a professional manner.
    a. Airway management (oxygenation and ventilation techniques, RSI, rescue techniques)

    b. ACLS skills (CPR, cardioversion, defibrillation, pacemaker placement, cardiocentisis)
    c. ATLS skills (RSI, trachesostomy, FAST, DPL, decompression of a pneumothorax including chest tube, thoracotomy)
    d. ENT procedures (anterior and posterior nasal packing; Foreign body removal from ear, nose, throat; hematoma drainage of ear, septal; wick placement in canal)

4. The senior resident will be expected to handle conflict situations and facilitates their resolution.

Collaborator

1. Interacts effectively as a member of the multi-disciplinary emergency health care team, acknowledging and facilitating their roles and expertise.
2. Respect the other members of the Emergency Department and seek out their opinions and skills when necessary.
3. Demonstrate flexibility in one's role within the Emergency Department if the need arises.
4. Be capable of involving the patient and family in decision-making when appropriate.

Manager

1. Work at a pace that is appropriate for level. Senior residents should be able to manage several acutely ill patients concurrently. R5s should also be able to assist in flow management and teach junior residents and students.
2. Be able to triage multiple patients arriving in the Emergency Department and see patients in order of priority.
3. Show efficient and effective use of ancillary testing including but not limited to: Blood tests, cultures, diagnostic radiology.
4. Comprehend the importance of and manage the flow of patients within the Emergency Department.
5. Effective use of consultants and of follow-up visits (i.e. clinics).
6. Be cognizant of the role of the ED and the Emergency Physician with respect to the hospital's disaster management plan.

Health Advocate

1. Understand that the patient's well being is central to all medical care.
2. Demonstrate an understanding of how preventive medicine and health promotion may be integrated into the emergency care system.
3. Demonstrate an understanding of related public health issues.
4. Be the patient's advocate at all times, particularly when they are unable to do so themselves.
5. Improves efficiency and performance through appropriate understanding and use of information technology.

Scholar

1. Continuously seeking out new knowledge e.g. texts, journals and incorporate this into daily practice.
2. The resident will have the ability to use information technology to direct self-learning as well as patient care.
3. Apply the principles and skill set of evidence-based medicine in identifying and applying best research evidence to patient care.
4. The senior resident must be able to apply landmark studies to patient care.
5. Teaches colleagues and students effectively (journal watch, case presentations, grand rounds, journal club, daily teaching). Evaluates and gives constructive feedback using valid and reliable methods.

Professional

1. Demonstrate awareness of the racial, cultural and social factors that influence the delivery of emergency care.
2. Show respect all times for the patient's:
    a. Race/ethnic background
    b. Language
    c. Socio-economic level
    d. Religion/Belief system
    e. gender
    f. Confidentiality
3. Be insightful of one's own strengths and weaknesses, and recognize when to call for back up.
4. Be able to receive and accept constructive feedback.
5. Display ethical behaviour compatible with a physician at all times with respect to:
    a. Patients and their families
    b. Allied health staff
    c. Attending Staff, residents and medical students

6. Be a role model for medical students, residents, staff physicians, nurses.
2. Maintains a healthy and sustainable balance between personal and professional lives.

Senior Residents

1. Demonstrate acceptance of all actions committed under his/her supervision.
2. Display knowledge of the professional, legal and ethical codes binding physicians.
3. Demonstrate awareness of relevant legislation applicable to the practice of Emergency Medicine.
4. Be able to recognize (and intervene) when unprofessional conduct occurs in the resident's midst as in accordance with government and professional regulations.

Residents will be expected to manage trauma cases with the Emergency Physician. The level of involvement will depend on whether the Trauma Team has been activated. Even if the Trauma Team has been activated, the resident is expected to continue actively following this patient and be up to date on the status (hemodynamic, radiologic, labs, and disposition) of the patient.

Paediatric Emergency Medicine

Goals and Objectives

A) Residency programme year 2

Medical Expert

1. Obtain a proper history and physical exam of the paediatric patient presenting to the Emergency Department.
2. Display skill in management of a critically ill paediatric patient.
3. Be knowledgeable of the indications, use and interpretation of:
    a. Laboratory testing
    b. ECG's
    c. X-rays
    d. CT Scanning
    e. Ultrasound *
    f. Nuclear Medicine *
    g. MRI *

    * indication and use only
2. Construct an appropriate differential diagnosis of the paediatric patient's presenting problems to the emergency department.
3. Explain the natural history, pathophysiology, anatomy, treatment and complications of both acute and common disorders that fall within the scope of paediatric emergency medicine.
4. Ensure comprehensive care of patients seen including following up of tests done on that visit, transfer of care and discharge planning.
5. Manage multiple (3-4) patients simultaneously.
6. Begin to lead and manage resuscitations.
7. Demonstrate competence of the following technical skills
    a. MER
        i. IV insertion
        ii. Lumbar puncture
        iii. BLS Airway skills/CPR
        iv. Defibrillation/Cardioversion
    b. SER
        i. Suturing of simple lacerations
        ii. Removal of foreign bodies
        iii. Abscess drainage
        iv. IV insertion
8. Recognize and know how to deal with suspected cased of abuse/neglect.

Communicator

1. Be capable of communicating effectively with
    a. Patients and their families
    b. Nurses, Respiratory Therapists, Unit Clerks
    c. Attending Physicians, Residents and Medical Students within the Department
    d. Consultants by telephone/in person

2. Demonstrate ability to deliver "bad news" to patients/families in a manner a professional manner.
3. Display age appropriate communication with the paediatric patient.
4. Demonstrate appropriately concise and legible emergency charting, with follow-up notes and documentation/interpretation of lab, ECG and radiological investigations.

Collaborator

1. Function as a member of the multi-disciplinary team that makes up Emergency Health Care.
2. Respect the other members of the Emergency Department and seek out their opinions and skills when necessary.
3. Demonstrate flexibility in one's role within the Emergency Department if the need arises.
4. Be capable of involving the patient and family in decision-making when appropriate.
5. Respect and highlight the role of the patient's primary physician e.g their family physician or paediatrician in their ongoing health care.

Manager

1. Manage 3-4 patients concurrently.
2. Effective use of consultants and of follow-up consultant visits (i.e. clinics).
3. Be able to triage multiple patients arriving in the Emergency Department and see patients in order of priority.
4. Show efficient and effective use of ancillary testing including but not limited to: blood work, cultures, radiology.
5. Comprehend the importance of patient flow within the Emergency Department.
6. The resident will have the skill in using the hospital computer database/information technology to help direct the individual patient's care.

Health Advocate

1. Understand that the patient's well being is central to all medical care.
2. Demonstrate an understanding of preventive medicine or harm reduction strategies that will influence patient health and well-being.
3. Be the patient's advocate at all times, particularly when they are unable to do so themselves.

Scholar

1. Continuously seeking out new knowledge e.g. texts, journals and incorporate this into daily practice.
2. Be able to apply landmark studies to patient care.
3. Apply Evidence-based medicine to ongoing Emergency Care.
4. The resident will have the ability to use information technology to direct self-learning as well as patient care.

Professional

1. Demonstrate awareness of the racial, cultural and societal facets that colour Emergency Care deliverance.
2. Show respect all times for the patient's:
    a. Race/ethnic background
    b. Language
    c. Religion/Belief system
    d. Gender/sexuality
    e. Confidentiality
3. Be insightful of one's own strengths and weaknesses, and recognize when to call for back-up.
4. Be able to receive and accept constructive criticism.
5. Display ethical behaviour commensurate with a physician at all times with respect to:
    a. Patients and their families
    b. Allied health staff
    c. Attending Staff, residents and medical students

Medical Expert

1. Properly assess, diagnosis and treat multiple patients (>4) concurrently.
2. Will lead resuscitations and treatment of hemodynamically unstable patients.
3. Supervise and teach junior residents and medical students in the clinical milieu.
4. Display effective consultation to:
    a. Community family physicians and paediatricians
    b. Community emergency departments/physicians
    c. Other hospital physicians/departments
5. Employ Evidence based-medicine to ancillary test choice.
6. Develop mastery of the following skills:
    a. MER
        i. Airway management of medical patients
        ii. Difficult IV access
    b. SER
        i. Airway management of trauma patients
        ii. Difficult IV access
        iii. Tube thoracostomy
        iv. Complicated laceration repair
        v. Reduction of fractures and dislocations
        vi. Procedural sedation
2. Show knowledge of the medical-legal aspects of patient care including but not limited to the following:
    a. Do not resuscitate orders and advanced directives
    b. Mental competency and consent
    c. Age and consent
    d. Refusal of care
    e. Power of attorney and surrogate decision-making

Communicator

1. Prove capable of leading teaching sessions to

    a. Medical Students
    b. Junior Residents
    c. Off-service residents
    d. Allied Health Care workers
2. Communicate effectively with consultants in the community and in the hospital.
3. Show ability to discuss end of life situations and advanced directives with patients and their families.

Collaborator

1. Be aware and capable of accomplishing the skills of conflict resolution.
2. Be able to assume team leadership within the department and be an effective participant in this multi-disciplinary milieu.
3. Expertly work with EMS personnel by reviewing patient care with EMS upon their arrival to the department.
4. Coordinate transfer of patients from community hospitals and outlying regions for specialized emergent care.
5. Assist referring community emergency physicians in stabilization and treatment of paediatric patients at their centers.
6. Be capable of involving the patient and family in decision-making.

Manager

1. Manage multiple (>4) patients concurrently.
2. Assume leadership of the department while on shift.
3. Ensure proper flow of patient care through department.
4. Direct human resource allocation i.e. junior residents and students while acting as physician in charge.
5. Ensure evidence based efficient use of ancillary testing.
6. Coordinate immediate and follow-up consultant care.
7. Understand the organizational chart of the Emergency Department both internally and within the context of the hospital.
8. Elucidate and recognise instances of medico-legal risk and identify potential preventive and corrective steps.

Health Advocate

1. Be able to identify patients and populations at risk and implement interventions to assist these groups.
2. In particular recognition of suspected cases of abuse/neglect.
3. Understand the major determinants of health.
4. Recognize the instances, times and events when advocating on behalf of patients is required.

Scholar

1. The resident will be able to integrate results from research into clinical practice.
2. Be able to provide constructive feedback to junior residents and medical students supervised.
3. Consolidate bedside teaching skills.
4. Apply the principal and skill set of evidence based medicine in identifying integrating the best research evidence to patient care.

Professional

1. Serve as a role model for junior residents and medical students.
2. The resident will demonstrate acceptance of all actions committed under his/her supervision.
3. Display knowledge of the professional, legal and moral codes binding physicians.
4. Demonstrate awareness of relevant legislation applicable to the practice of Emergency Medicine.
5. Be able to recognize and intervene when unprofessional conduct occurs in the resident's midst as in accordance with government and professional regulations.

ANAESTHESIA (ADULT & PAEDIATRIC)

Knowledge and skills concerning emergent airway management is core Emergency Medicine. The Emergency resident will learn this core knowledge and technical skills on core rotations: General Anesthesia and Pediatric Anaesthesia The resident will then be able to apply and master their knowledge and hone their skills on several other rotations: Adult and Pediatric Emergency Medicine, ICU (Medical, Surgical, Neurological, Pediatric, Cardiac), and Trauma. By the end of the Program, the resident must feel comfortable (both in knowledge and skill) with any emergency airway problem:

Medical Expert

1. Anatomy of the upper and lower airways (both adult and pediatric).
2. Learn relevant pre-operative historical and physical exam considerations including evaluation of the airway difficulty.
3. Demonstrate the appropriate clinical judgment regarding the need for acute airway intervention.
4. Knowledge of the principles of both non-invasive ventilation and invasive mechanical ventilation.
5. Knowledge of hemodynamics, monitoring, fluid resuscitation and blood products.
6. Knowledge of the pharmacology (mechanism of action, indications, contra-indications, side-effects, complications and doses) of the various induction agents, paralyzing agents, pressors, and vasodilators, local anaesthetic agents, and those used for procedural sedation.
7. Knowledge of at least 6 different airway “rescue” techniques for the difficult airway.
8. Understand the principles of general, regional and local anaesthesia, as well as procedural sedation. The resident must be able to describe the appropriate anatomy of regional blocks.
9. Expertly demonstrate the following skills:
    a. Insertion of oral and nasal airways.
    b. Manual ventilation (Bag-valve-mask technique).
    c. Techniques to open the airway (jaw thrust, chin lift).
    d. Techniques for managing the obstructed airway.
    e. Rapid sequence intubation (including manual in-line immobilization of the c-spine).
    f. The skills required for at least 6 airway rescue techniques (Bougie, lighted stylet, LMA, combi-tube, retrograde intubation, fibre optic, digital manipulation).
    g. Be able to assess successful intubation (including end tidal CO2).
    h. Be able to adjust settings for both the mechanical vent and CPAP/BiPAP machines.
    i. Surgical airway technique (cricothyroidotomy).
    j. Peripheral and central venous catheterization and arterial line insertion.
    k. Skills required for both regional and local anaesthesia.

Communication
The resident must be able to display effective communication with:

a. Patients and families (in various situations including pre-op, post resuscitation).
b. Anaesthesiologists, surgeons, respiratory technicians, and nurses.
c. Colleagues and peers during (especially during acute resuscitation situations).

Collaborator
The resident must be able to demonstrate:

a. The ability to work as team with anaesthetists, surgeons, respiratory technicians, nurses and orderlies.
b. The ability to work as a team both in the Emergency Department or ICU, when dealing with "semi-elective" airway issues or with the acute resuscitation.

Manager
The resident must be able to demonstrate:

1. An understanding of the role of and the appropriate consultation of the Anaesthesia service, and its role within the hospital.
2. Appropriate use of blood and blood products.

Health Advocate

1. Be able to discuss with patients and their families the risks and benefits of the various procedures and/or interventions, or be able to assist and direct them to the appropriate individuals who can inform and answer their questions or concerns.
2. Understand and act appropriately upon a patient's advanced directives.
3. Understand and discuss with patients and familiesDubai's levels of care.
4. Be the patient's advocate at all times, especially when they are unable to do so themselves.

Scholar
The resident must:

1. Keep abreast of the relevant and landmark studies.
2. Be able to critically appraise these landmark articles.
3. Be aware of web based Anaesthesia sites

Professional

The resident must be able to:

1. Be mindful of one's own limitations and know when to call for back-up (by knowing and acknowledging your strengths and weaknesses).
2. Show respect at all times for the patient's:
    a. Race/ethnicity
    b. Language
    c. Religion/Belief system
    d. Gender
    e. Confidentiality
3. Be a leader in the acute resuscitation.
4. Display ethical behaviour commensurate with a physician at all times with respect to:
    a. Patients and their families
    b. Allied health staff
    c. Attending Staff, residents and medical students
5. Be a role model to fellow physicians, nurses, residents, and medical students.

AREA OF INTEREST

Emergency Medicine has evolved significantly over the last 20 years. Consequently there are many areas of subspecialty that now fall under the domain of EM. The Emergency medicine resident has the opportunity to pursue his/her interest in one of these areas. During rotations (either consecutively or randomly) the resident will be able to develop an area of interest. These areas may be clinical (e.g. critical care, toxicology etc.) or they may be non-clinical (e.g. administration, education, informatics etc). The resident may also combine the area of interest with their research project.
In terms of goals and objectives, the ultimate goal of this block of time will be dependent on what the resident selects as his/her area of interest, and the objectives will be created to enable the resident to obtain his/her goal.

Rotation Logistics

1. Rotation Proposal: The resident will write a proposal of what he/she wants to do for this period. The proposal must be approved by the 'area of interest committee' (program director, 2 site directors, 1 chief and 1 resident elected by the residents). The proposal must be written in CanMEDS format (medical expert, communicator, collaborator, manager, health advocate, scholar, professional). Depending on the project, certain CanMEDS roles will be emphasized over others.
2. Staff Mentor/Supervisor: The resident must select a staff to be his/her supervisor for the rotation. The staff will review the proposal and advise on how to progress. The mentor/supervisor must inform the Area of Interest Committee that he/she is willing to take on that responsibility.
3. Written Contract: Based on the written proposal, the resident will sign the "contract." This contract will indicate what the project is, who the supervisor is, and the objectives for each 4 week block.
4. Evaluation of Area of Interest: The resident will provide the area of interest committee a progress report after each 4 week block. The resident will also present the final results of their work to the Area of Interest committee.

CARDIOLOGY AND CORONARY CARE UNIT (CCU)

The cardiac care curriculum consists rotations in the CCU and with the Cardiology Consult Service. The goals and objectives for these two rotations are as follows:

Medical Expert

The resident will develop expertise in the pathophysiology and management of acute and chronic cardiac disease. He or she will demonstrate knowledge of:

1. Principles of resuscitation of the patient in cardiac arrest and a mastery of ACLS protocols.
2. Immediate and long-term management of arrhythmias, including the pharmacology of anti-arrhythmic medications and indications for pacing.
3. Principles of hemodynamic monitoring and mechanical ventilation (both invasive and non-invasive) in the critically ill patient.
4. Diagnosis of acute coronary syndromes, including the roles of cardiac enzymes, resting and stress electrocardiography, echocardiography, nuclear studies, and angiography.
5. Management of acute coronary syndromes and their complications, including initial stabilization and ongoing monitoring; the roles of all medical treatment options including thrombolysis; the roles of primary and rescue PCI.
6. Diagnosis and management of acute and chronic congestive heart failure, hypertensive emergencies, endocarditis, pericarditis/myocarditis, cardiac tamponade, aortic dissection, and valvular emergencies.
7. A thorough differential diagnosis and a rational approach to investigation and management of the patient with undifferentiated chest pain, palpitations, dyspnea, or syncope.
8. Recognition and management of pacemaker problems.
9. Management of the acutely ill cardiac transplant patient.

The resident will also demonstrate the following skills:

3. ECG and plain chest radiograph interpretation.
4. Cardioversion and defibrillation.
5. External chest compressions.
6. Hemodynamic monitoring by Swan-Ganz catheterization and arterial line placement.
7. Temporary percutaneous and transvenous pacemaking.
8. Pericardiocentesis

Communicator

1. Demonstrate ability to discuss the patient's care and counsel regarding risk modification with the patient and family.
2. Demonstrate ability to deliver bad news in a sensitive, concise and understandable manner.
3. Show skill in explaining risks, benefits and obtaining consent for relevant procedures, in particular thrombolysis and PCI for acute coronary syndromes.
4. Demonstrate ability to discuss living wills, advanced directives and do not resuscitate/levels of care orders.
5. Communicate effectively with the multi-disciplinary team.
6. Communicate effectively with the cardiac arrest team during resuscitation.
7. Provide clear written documentation in the patient's chart, including consults, progress notes, and orders.

Collaborator

1. Recognition of the role of each health care team member with respect to the patient's care.
2. Demonstrate ability to resolve common team conflict problems.
3. Demonstrate ability to work in a multi-disciplinary team.
4. Be capable of involving the patient and family in decision-making.

Manager

1. Demonstrate ability to allocate cardiac care resources to the patient and population served in an evidenced-based manner.
2. Recognize resources of tertiary care cardiac care centres and the use and rationalization of these for the individual patient and the population served.
3. Be able to manage competing interests of consults from other services, including the Emergency Department, with ongoing care of cardiac patients.
4. Be capable of managing multiple critically ill patients concurrently.
5. Comprehend the role of the Cardiology Consult service and Cardiac Care Unit with respect to the hospital and community as a whole.
6. Recognize medico-legal risk and identify potential preventive and corrective steps.

Health Advocate

1. Identify the determinants of health of the individual cardiac patient.
2. Be capable of discussing with patients risk and harm reduction strategies.
3. Be the patient's advocate at all times, particularly when they are unable to do so themselves.
4. To be able to seek additional medical expertise when there is a conflict of opinion concerning patient care.

Scholar

1. Demonstrate knowledge of landmark cardiac studies, to be able to critically appraise them and understand the subsequent applicability.
2. Be consistent in reading around clinical cases and improving cardiac knowledge base.
3. Demonstrate ability to formulate a clinical question and efficiently access information required to answer clinical questions in an evidence-based manner.

Professional

1. Demonstrate awareness of the racial, cultural and societal factors that may influence delivery of care to the cardiac patient.
2. Show respect all times for the patient's:
    a. Race/ethnicity
    b. Language
    c. Religion/Belief system
    d. Gender
    e. Confidentiality
3. Be aware of one's own strengths and weaknesses, and seek help when needed.
4. Be able to receive and accept constructive feedback.
5. Display ethical behaviour compatible with a physician at all times with respect to:
    a. Patients and their families
    b. Allied health staff
    c. Attending Staff, residents and medical students
6. Serve as a role model for colleagues and other health care personnel.

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EMERGENCY DEPARTMENT ULTRASOUND

Structure

The ultrasound shifts will include didactic lectures on the use of bedside ultrasound as put forth by the Canadian Emergency Ultrasound Society (CEUS), direct one-on-one teaching of bedside ultrasound, as well as formal evaluations in the form of a written, oral, and practical exams. Each resident will be under the direct supervision of a CEUS-certified Independent Practitioner (I.P.), where they will be proctored while performing abdominal, cardiac, and pelvic ultrasound examinations on patients in the emergency department. Each exam will be logged and counter-signed by the proctoring I.P, to ensure the completion of each acceptable scan. During their 8-hr emergency shifts, they will be scheduled to work along side a CEUP IP. They will be responsible for the evaluation of all ED patients, and together with the attending staff, will make decisions regarding their management and ongoing emergency care. During this time, any bedside ultrasound examination performed by the resident may count towards their requirements only if it is reviewed by a CEUS I.P. During this training period, residents are encouraged to act if they see a positive scan, but must not draw any conclusions from a negative scan, unless they have been proctored by an I.P.

The goal of this rotation will be to provide the resident with maximum exposure to bedside ultrasound in a clinical setting for the eventual goal of becoming a CEUS-certified I.P. To become an I.P, a resident must complete 50 scans of each of the relevant areas. Definitions of an acceptable scan are:

- Heart: entire pericardium visualized to detect pericardial effusion
- Aorta: vessel visualized from subdiaphragmatic region to bifurcation in transverse view to measure diameter
- Abdomen: hepatorenal and splenorenal interfaces swept to detect free fluid; diaphragm visualized in LUQ
- Uterus: uterus visualized to detect intrauterine pregnancy (IUP) (3 criteria)

During the course of obtaining the 200 required definitive scans, the residents will be required to successfully complete a written exam (100% passing grade), as well as a practical and visual exam. Should the resident be unable to complete any part of the requirements, extra shifts may be assigned by the supervisor in order to complete unfinished training. Once all components are completed, the residents will be certified as a CEUS I.P. As part of the current Royal College requirements, the use of ultrasound guidance for vascular access will also be taught and demonstrated.

A. *Medical Expert / Clinical Decision-maker*

Basic Scientific Knowledge:

Understand the role of physics in modern ultrasound.

To understand the nature of ultrasound waves and wave properties, modes of transmission.

Define necessary terms such as:

- Frequency
- Resolution
- Penetration
- Attenuation
- Echogenicity
- Gain
- Artefact (shadowing, refraction, enhancement)

Understand the role of specific probes; their characteristics, and their uses, such as:

- Phased array probe
- Linear array
- Endocavitary probe

Understand the critical steps of correct image generation and interpretation. This may include the comprehension of

- Planes of view
- Probe placement
- Probe orientation
- Image modulation

Basic Clinical Knowledge:
Demonstrate knowledge of the following:

- Define the primary emergency applications of emergency ultrasound. To recognize the conditions which require the use of bedside ultrasound for diagnosis. These conditions include, but are not limited to:
    - o Abdominal Aortic aneurysm (AAA)
    - o Pericardial Effusion
    - o Cardiac standstill during cardiac arrest
    - o Ectopic Pregnancy
    - o Trauma/non-traumatic intrabdominal fluid
- Understand the specific indications, and limitations of bedside ultrasound for the above conditions; Specifically:
    - o Cardiac ultrasound:
        - □ Define your area of interest to generate a subcostal view of the heart when evaluating for cardiac activity and pericardial effusions
        - □ Define the relevant cardiac anatomy including pericardium, cardiac chambers, septum, valves, and aorta
        - □ Recognize the causes of cardiac arrest when assessing cardiac activity, and the causes of pericardial effusion.
        - □ To be able to differentiate between true positive and false positive results

- o Abdominal Aortic aneurysm
  - Define your area of interest in obtaining a transverse view of the abdominal aorta
  - Recognize relevant anatomy, such as the vertebral bodies, the inferior vena cava, the aorta with its major branches
  - Understanding the various locations and different types of AAA
  - To use the appropriate protocols when evaluating for a AAA

- o Abdominal Ultrasound
  - Describe the indications and limitations of bedside ultrasound in blunt and penetrating thoracoabdominal trauma.
  - To be able to evaluate the abdomen at least three sites for the presence of free fluid in traumatic and non-traumatic scenarios.
  - To define the relevant local anatomy including the liver, spleen, kidneys, bladder, uterus, and diaphragm.
  - To understand the sources of false positives and false negatives.
  - To understand the possible clinical pathways depending on your ultrasonographic findings and clinical setting.
- o First trimester pregnancy
  - Define your area of interest in obtaining transabdominal and endovaginal images of the female uterus
  - Describe the indications and limitations of focused sonography when evaluating a patient with first trimester pain and bleeding.
  - Be able to identify intrauterine pregnancy, either through the identification of a decidual reaction, gestational sac, AND yolk sac, or through the identification of a fetal pole or fetal cardiac activity
  - To identify free intraperitoneal fluid in the context of an ectopic pregnancy.
  - Understand the role of quantitative B-HCG in the evaluation of a possible ectopic pregnancy
  - To recognize the possible alternatives of an empty uterus

B. *Communicator*

By the end of the rotation, the resident will:

1. Demonstrate the ability to effectively communicate with referring and consultant colleagues regarding the relevant negative and positive sonographic findings.
2. Be able to recognize the limitations of emergency bedside ultrasonography and to request more definitive testing by consultants when required.
3. Demonstrate the ability to communicate effectively with patients and their family regarding the nature of the injury/illness suffered and anticipated management plan, showing them respect and gaining their cooperation and confidence.
4. Be able to explain to the patient the advantages, focused nature, and limitations of an emergency bedside ultrasound examination and to communicate the possible need for further radiographic testing depending on the findings at the bedside.

C. *Collaborator*

By the end of the rotation, the resident will:

1. Recognize the role of each health care team member with respect to the patient's care. Show consideration for the knowledge, skills and roles of the various members of the healthcare team.

2. Demonstrate the ability to work well with other health team members. Deal effectively with difficult issues and show the ability to resolve common team conflict problems.

3. Be capable of involving the patient and family in decision-making.

D. *Manager*

By the end of the rotation, the resident will:

1. Demonstrate the capacity to manage multiple patients concurrently, and to handle most common problems independently, while asking consultants for help in more complex situations.

2. Recognize the resources of the tertiary care emergency departments and the use and rationalization of these for the individual patient and the population served.

3. Be able to manage competing interests of consultants from other services with respect to ongoing care of patients.

E. *Health Advocate*

By the end of the rotation, the resident will:

1. Be the patient's advocate at all times, particularly when they are unable to do so themselves.

2. Display advocacy for the community at large and for society.

F. *Scholar*

By the end of the rotation, the resident will:

1. Demonstrate knowledge of current scientific literature with respect to emergency ultrasound applications and use of this knowledge daily patient management.

2. Demonstrate interest in expanding current knowledge base by reading around clinical cases.

3. Demonstrate the ability to critically-appraise research methodology and medical literature with respect to emergency ultrasound.

4. Demonstrate an interest in expanding their knowledge base of future applications of emergency ultrasound.

Once reaching the status of Independent Practitioner, the resident will be able to understand the important responsibility of teaching other health care professionals bedside US in concordance with the requirements of the Canadian Emergency Ultrasound Society

G. *Professional*

By the end of the rotation, the resident will:

1. Demonstrate awareness of the racial, cultural and social factors that influence the delivery of emergency care to patients.
2. Show respect at all times for the patient's:
    - Race/ethnic/religious background
    - Language
    - Socio-economic level
    - Gender
    - Confidentiality
3. Be aware of one's own strengths and weaknesses, and recognize when to call for back up.
4. Be able to receive and accept constructive feedback.
5. Display ethical behaviour compatible with a physician at all times with respect to:
    - Patients and their families
    - Allied health staff and practitioners
    - Attending Staff, residents and medical students
6. Be a role model for medical students, residents, staff physicians, nurses, and other allied health care personnel.

EMERGENCY MEDICAL SERVICES (EMS)/PRE-HOSPITAL CARE

Emergency residents will have the opportunity to learn about emergency medical services (EMS) through their exposure to EMS in their work in the emergency department (ED) as well as during a four-week rotation in EMS, the pre-hospital care provider for Dubai During the four-week rotation, interactive presentations as well as practical sessions will be used to educate the resident. By the conclusion of the rotation, the resident will be expected to prepare a short presentation on an EMS topic. (The resident will also have the opportunity to undertake an elective in aviation medicine.)

Medical Expert / Clinical Decision Maker

1. Direct pre-hospital patient care management
    a. Take a concise history and perform a directed physical exam
    b. Develop a differential diagnosis and assess severity of the case
    c. Initiate management in the field
    d. Initiate transport at the appropriate priority level and to the appropriate facility
2. Direct medical control
    a. Provide on-line medical control
    b. On-scene supervision of EMTs
3. Indirect medical control
    a. Participate in the creation of EMT protocols
    b. Review cases for quality assurance.
4. Emergency Medicine Systems:
    a. Explore the history of emergency medical systems
    b. contrast different organizational systems (e.g. urban vs. rural, North American vs. European)
5. Triage
    a. Contrast the different types of telephone triage
    b. understand the advantages and disadvantages of the advanced medical priority dispatch system
6. Disasters and mass casualty situations
    a. Learn how to perform field triage
    b. Understand the role of the on-scene physician and in the hospital
    c. Understand the principles of mass casualty incident command and transport from the scene
7. Aeromedicine
    a. Understand the basic principles of aeromedicine (flight physiology)
    b. Understand the roles of fixed wing versus rotary transport
    c. Participate in aeromedical transport
8. ALS and BLS
    a. Learn the differences between basic and advanced life support care
    b. understand the controversy that exists between the need for either

9. Management of Medical Problems
    a. Differentiate between equipment, techniques and medications used in the pre-hospital setting and in the ED, and understand the evidence behind what is being/should be done
10. Pediatrics
    a. Acquire knowledge of the special circumstances surrounding the prehospital care of the pediatric patient, such as unique clinical protocols, legal concerns and areas of research

Communicator

1. Establish a therapeutic relationship with patients and their families in the field.
2. Develop the ability to concisely communicate essential information when transferring care of patients in the ED.
3. Understand and demonstrate the importance of cooperation and communication among health professionals involved in the care of individual patients, including EMTs, nurses and physicians.
4. Understand the lines of communication in disaster medicine.

Collaborator

1. Demonstrate the ability to work effectively with other prehospital and in-hospital health care professionals during direct patient care.
2. Identify and describe the role, expertise and limitations of all members of the pre-hospital care team (i.e. first-responder, primary care paramedic, advanced care paramedic, critical care paramedic, physician) required to optimally achieve a goal related to patient care.
3. Participate in an interdisciplinary team meeting, demonstrating the ability to accept, consider and respect the opinions of other team members.
4. Acquire the ability to resolve conflicts between the various members of the prehospital care team.

Manager

1. Direct the EMS team during on-scene patient care.
2. Understand the structure, financing, and operation of the local EMS system and its facilities, function effectively within it and be capable of playing an active role in its change.
3. Understand the role of the EMS medical authority in the direction and management of prehospital care delivery.
4. Become sensitive to medico-legal issues in prehospital care and learn to minimize legal risk
5. Learn the role of, and demonstrate familiarity in the use of pre-hospital technology including communication equipment, GPS systems and prehospital information systems

Health Advocate

1. Understand the different levels of population: patient, specific population and the general population, and appreciate the distinct issues at each level.
2. Become sensitive to the changing role of the prehospital care provider in the local, provincial and federal levels, and advocate for advancements in their status.

Scholar

1. Demonstrate familiarity with the unique characteristics of pre-hospital research and be aware available tools for the advancement of EMS research (e.g. EMSOP, EMS Research Agenda).
2. Prepare a short review of an EMS topic for presentation at the end of the rotation.
3. Apply the principles of evidenced-based medicine to the practice of pre-hospital care and evaluate the interventions currently in use.
4. Demonstrate the fundamentals of teaching pre-hospital care providers, and adapt the level of instruction to the appropriate level of the trainee.
5. Be cognizant of current landmark EMS research.
6. Be able to critically appraise and apply EBM techniques to evaluate this literature.
7. Improve your knowledge base in EMS through the use of selected readings, journals in the field and textbooks (e.g. Prehospital Systems and Medical Oversight, Kuehl, 3rd Ed.).

Professional

1. Show respect at all times for the patient's:
    a. Race/ethnicity
    b. Socio-economic status
    c. Religion/belief system
    d. Gender/sexuality
    e. Confidentiality
2. Demonstrate knowledge and insight into ethical and legal issues that arise in the pre-hospital setting including (but not limited to) advanced directives, refusal of transport etc.
3. Serve as a mentor for EMTs and other prehospital care providers by delivering the highest quality care with integrity, honesty, and compassion.

ICU (MEDICAL, SURGICAL, NEURO)

Over the course of their training in Critical Care Medicine, the resident will have ample exposure to the critically ill patient: Medical and Surgical ICU, Pediatric ICU, Trauma Service, CCU, and of course, in the Emergency Department. A graded level of responsibility will be given to the resident as (s)he gains more Critical Care experience. A progressively greater depth of knowledge will be expected. On completion of residency training, the resident should have achieved proficiency in the recognition and initial management of problems commonly encountered in the intensive care unit. For less common problems, the trainee should gain a knowledge base that allows them to formulate a differential diagnosis, initiate a management plan, and request appropriate consultations.

Medical Expert

1. Demonstrate and apply a sound fund of basic science knowledge to patient care in the majority of cases.
2. Demonstrate and apply a fund of clinical knowledge in a manner that enables resolution of common clinical situations on a consistent basis. This includes (but is not limited to) the recognition and management of:
    a. Acute respiratory failure (and ventilator orders).
    b. Common rhythm disturbances, including knowledge of the indications, contraindications and side effects of anti-dysrhythmic therapies.
    c. Sepsis and other causes of hemodynamic instability. Must be able to classify shock, outline hemodynamic patterns, and understand the indications and contraindications of inotropes and vasopressors.
    d. Sepsis.
    e. Acute renal failure.
    f. Acute intoxications.
    g. Acute neurological insults.
    h. Electrolyte and acid base disorders (ABG interpretation).
    i. Endocrine emergencies.
    j. Coagulation disorders.
    k. Obtain an appropriate history from the patient, family, or other medical personnel, that is complete, accurate and systematic.
    l. Perform a problem-oriented physical examination with the recognition of most findings to allow for proper diagnosis and management.
    m. Develop diagnostic plans that are appropriate and reflect current standards.
    n. Accurately interpret the results of common lab and diagnostic tests.
    o. Be able to synthesize historical, physical exam and diagnostic testing information into a problem list and appropriately prioritize problems.
    p. Make judgments that are complete and sound. Arrive at appropriate decisions using the available information.
    q. Outline a therapeutic plan in conjunction with the ICU fellow or attending physician. Institute appropriate therapy.
    r. Develop an ability to recognize acute life-threatening illness and institute life sustaining supportive therapy.

s. Demonstrate adequate knowledge of monitoring techniques for the critically ill patient to allow for appropriate management.

t. Demonstrate competency in performing essential procedures with appropriate skill and manual dexterity for level of training. Carry out techniques correctly and efficiently with appropriate knowledge of indications and risks.

i) RSI and alternative airway techniques (bougie, LMA, cric).
ii) Ventilator settings.
iii) ABG.
iv) Arterial Lines.
v) Central Lines (including at least 1 IJ and SC).
vi) CVP monitoring principals (leveling, zeroing and measuring).
vii) Swan Ganz monitoring (including determination of central venous and mixed venous blood gas).
viii) Carioversion and defibrillation.
ix) Transcutaneous and transvenous pacing.
x) Pericardiocentesis.
xi) Thoracentesis.
xii) Balloon Tamponade (Blakemore tubes).
xiii) Lumbar puncture and opening pressure measurement.
xiv) Dialysis catheter placement and be aware of the various dialysis techniques and their indications.

Communicator

1. Communicates effectively and professionally with allied health professionals.
2. Must communicate calmly and effectively in acute resuscitation situations.
3. Demonstrate an ability to consistently achieve a positive rapport with patients and families, gaining their respect and confidence.
4. Must be able to clearly explain diagnosis and treatment options in an understandable fashion to both patients and their family members.
5. Develop communication skills with patients on a ventilator.
6. Must be able to deliver information and/or bad news to families in a humane manner that is understandable and encourages discussion.
7. Demonstrate an ability to write records/reports that are usually complete, orderly, systematic, generally support management, and allow a physician unfamiliar with the patient to identify the relevant daily issues.
8. In response to a consultation request from another health care provider, the resident must be able to present a well-reasoned, well-documented assessment and recommendations in written and oral form.

Collaborator

1. Demonstrate the ability to become an active and vital member of the Intensive Care Unit team.
2. Demonstrate an ability to give and follow appropriate instructions with nurses and allied staff, and to develop rapport, resulting in a constructive working environment.
3. Demonstrate an ability to work well with other services.
4. Deal effectively with issues and achieve good results even in difficult situations without antagonizing others.

Manager

1. Demonstrate the ability to handle most common problems independently, while asking consultants for help with specific questions in more complex situations.
2. Demonstrate the ability to order investigations and consultations in a logical and cost effective manner.
3. Participate in bed management issues. Understand and manage the flow of patients into the ICU, and timely (yet appropriate) transfer of the patient to the ward.
4. Effectively organize work in such a way that priorities are established and that coordination occurs with the other members of the team ensuring total, acute, and continuing care of patients.
5. Respond in timely fashion to consult requests from the ED and wards, balancing the needs of the critically ill patients in the ICU and elsewhere in the hospital.

Health Advocate

1. Educate the families of critically ill patients on the life-style and health issues that have led to the illnesses of their family members.

Scholar

Residents should be able to demonstrate their scholarly approach to medical practice in the following areas during participation on patient rounds, teaching sessions, and journal clubs:

1. Self-education skills; demonstrate up-to-date knowledge in major clinically applicable developments. Display effective skills in continuing education. Demonstrate an ability to identify gaps in knowledge and develop a strategy to fill the gaps.
2. Critical Appraisal of the Medical Literature; Demonstrate ability to seek out, locate and judge the strength of the evidence in the literature. Able to pose an appropriate patient-related question, execute a systematic search for evidence, and critically evaluate medical literature in order to optimize clinical decision-making.
3. Scientific Interest; Participates in the scientific activities offered in the program. Contributes actively to discussion and teaching. Able to add to and elevate the level of discussion. Incorporates a spirit of scientific enquiry and use of evidence into clinical decision-making.
4. Teaching Skills; Available, approachable. Effectively shares knowledge. Helps others to develop their potential.

5. Oral Presentation Skills; Able to give a clear, concise, effective oral presentation concerning a clinical or scientific topic with appropriate use of audiovisual aids.

Professional

1. Integrity and honesty; demonstrate an honest, straightforward approach that is respectful of others, and deserves the respect of others.
2. Show respect at all times for the patient's:
    a. Race/ethnicity
    b. Language
    c. Religion/belief system
    d. Gender
    e. Confidentiality
3. Responsibility and self-discipline; Dependable, reliable, honest and forthright in all information and facts; prompt, appropriate follow-up of patients. Non-clinical responsibilities, (e.g. rounds, teaching, etc.) are similarly dealt with.
4. Bioethics; Sensitive to bioethical issues and demonstrates a reasonable approach to them. Performs in an ethical manner with other health care professionals, patients and families.
5. Self-Assessment; demonstrates appropriate awareness of own limitations; seeks assistance and/or feedback to overcome/ compensate for limitations, and accepts advice graciously.
6. Receptiveness to Feedback: Responds constructively to new suggestions and ideas.

INTERNAL MEDICINE: WARDS & CONSULT SERVICE

The resident will spend 3 months learning general medicine while doing wards. Then, as a senior, the resident will have the opportunity to further increase medical knowledge and skills while undertaking emergency based Internal Medicine consults.

The learning of general medicine is not limited to these 2 rotations. General medical knowledge and skills will be gained while doing other core rotations: short stay medicine, intensive care, cardiology, emergency etc.

There is also plenty of opportunity to do electives and gain further experience during electives in the various subspecialties of medicine including respiratory, infectious disease, tropical medicine, medical consult service (in-hospital)

Because of the inherent variability in clinical cases coming through the ED, a resident cannot be guaranteed that he/she will deal clinically with all necessary pathologies. Therefore core supplementary reading is a "must" in order to cover the multitude of pathologies.

Medical Expert

To be able to elicit, present and document a history that is appropriately focused for the ED and/or detailed for admission.

1. To be able to perform an accurate physical exam that is focused and relevant to the clinical presentation.
2. Should be able to generate a relevant differential diagnosis and display an understanding of the pathophysiology, presentation, diagnostic work-up, and treatment of patients presenting with undifferentiated problems from the various systems listed below:
    a. Cardiology
    b. Pulmonary
    c. Gastroenterology
    d. Hematology
    e. Oncology
    f. Renal/nephrology
    g. Infectious disease including tropical medicine and immunodeficiency syndromes
    h. Autoimmune disorders
    i. Rheumatology
    j. Endocrine and metabolic
    k. Neurology
    l. Transplant
3. To be able to develop an on–going care plan and arrange appropriate disposition.
4. Demonstrate an understanding of the indications for admission to an internal medicine ward, Short stay unit, CCU, ICU etc.
6. Demonstrate superior ability in the stabilization and assessment of patients presenting with acute medical disorders.
7. Understand the issues surrounding the transport of critically ill patients within the hospital.

8. Demonstrate technical skills (listed below, but not limited to) and be knowledgeable of the indications, contra-indications, and complications of:
    a. Vascular access (peripheral and central)
    b. Arterial blood gas
    c. ACLS skills (CPR, cardioversion, defibrillation, pacemaker, cardiocentesis)
    d. Abdominal procedures (NG, paracentesis)
    e. Lumbar puncture
    f. Pleurocentesis
    g. Arthrocentesis
    h. Urinalysis
    i. ECG interpretation

Communicator

1. Demonstrate appropriately concise/detailed and legible charting, with follow-up notes and interpretation/analysis of the lab and radiological investigations.

2. Demonstrate the ability to verbally present an accurate and concise history and physical exam.
3. Demonstrate effective verbal communication with:
    a. Patients and their families
    b. Nurses, Respiratory Therapists, Unit Clerks, Patient Attendants, Social Worker
    c. Attending Physicians, Residents and Medical Students
    d. Consultants by telephone/in person
    e. Home care and discharge planning personnel

4. Demonstrate ability to deliver “bad news” to patients/families in a professional and sympathetic manner.

Collaborator

1. Work as a member of the multi-disciplinary medical health care team.
2. Respect the other members of the Internal Medicine Department and seek out their opinions and skills when necessary.
3. Demonstrate flexibility in one’s role within the Medical Ward team or the ED consulting service if the need arises.
4. Be capable of involving the patient and family in decision-making when appropriate.

Manager

1. Work at a pace that is appropriate for level, maintaining an appropriate patient load per level of training.
2. Effective use of consultants and of follow-up consultant visits (i.e. clinics).
3. Show efficient and effective use of ancillary testing including but not limited to: Blood tests, cultures, diagnostic radiology.
4. Comprehend the importance of and manage the flow of patients within the Emergency Department, from the ED to the ward, and the subsequent appropriate and timely discharge from the ward.
5. Show an understanding how timely disposition from the ward affects ED flow.
6. Incorporate the patient's family physician or primary care physician into the management plan.
7. Be cognizant of the role of the Department of Medicine within the hospital and as a tertiary/quaternary care referral center.

Health Advocate

1. Understand that the patient's well being is central to all medical care.
2. Be able to educate and counsel both patients and families regarding factors that impact on their health care status.
3. Be the patient's advocate at all times, particularly when they are unable to do so themselves.

Scholar

1. Continuously seeking out new knowledge e.g. texts, journals and incorporate this into daily practice.
2. Be able to use information technology to optimize patient care and self-directed learning.
3. Apply Evidence-Based Medicine to ongoing general medical care.
4. The senior resident must be able to apply landmark studies to patient care.
5. Active participation in the various medical rounds and teaching sessions.

Professional

1. Demonstrate awareness of the racial, cultural and societal facets that affect the delivery of medical care.
2. Show respect all times for the patient's:
    a. Race/ethnicity
    b. Language
    c. Religion/Belief system
    d. Socioeconomic status
    e. Gender/ sexual orientation
    f. Confidentiality
3. Be insightful of one's own strengths and weaknesses, and recognize when to call for back up.
4. Be able to receive and accept constructive feedback.

5. Display ethical behavior compatible with a physician at all times with respect to:
    a. Patients and their families
    b. Allied health staff
    c. Attending Staff, residents and medical students
6. Be a role model for medical students, residents, nurses.

ORTHOPEDICS

Introduction

This three month rotation is designed to expose the Emergency Medicine resident to general musculoskeletal and orthopedic pathology commonly encountered in the field of Emergency Medicine. This experience will be based in outpatient environments - primarily, but not necessarily limited to, the Emergency Department and Orthopedic Clinic settings. Both adult and pediatric experiences will be included within the same rotation. During this rotation, the resident is expected to consolidate their knowledge and skills in the primary ED management and appropriate referral for follow-up and ongoing care of common orthopedic problems. Through specific clinic experiences, the resident will amass a more specialized knowledge base and advanced skills that can be applied to their ED patient encounters, as well as to improving their ability to communicate with their consultant colleagues and allied healthcare providers. A suggested reading list, along with core teaching sessions, rounds and resident presentations, will supplement the clinical learning experiences..

During their time in clinic, the resident will be under the direct supervision of the attending orthopedic clinic staff (adult or pediatric). They will be responsible for the initial evaluation of clinic patients, and together with the attending staff, will make decisions regarding their immediate management and ongoing care. While in clinic, the resident will also have the opportunity to be involved in the initial assessment of orthopedic consultations requested by the Emergency Department. These consults will be reviewed and managed in concert with the responsible orthopedic resident and attending staff.

Evaluation

The resident will be responsible for obtaining a completed daily evaluation form from the consultant physician for each of the individual clinical experiences attended during the rotation. Daily evaluation forms will be provided to the resident at the beginning of the rotation. The resident is expected to give a blank form to the attending physician at the beginning of the experience (ED shift or clinic), and to request the completed copy along with feedback at the end of that same experience.

OBJECTIVES

Medical Expert/Clinical Decision-Maker

Basic Scientific Knowledge

Demonstrate knowledge of the anatomy and physiology of the musculoskeletal system.

Demonstrate knowledge of the principles of healing of bone, muscle, tendon and ligament injuries.

Basic Clinical Knowledge

Demonstrate knowledge of the following:

1. Mechanism and natural history of traumatic injuries to the musculoskeletal system. These include, but are not limited to:
    a. fractures
    b. dislocations
    c. sprains, strains, muscle tears
    d. tendonitis, bursitis, apophysitis
    e. back pain
    f. radiculopathies
    g. overuse syndromes

2. Accurate description of fractures & dislocations with respect to:
    a. anatomic location
    b. type/classification
    c. comminution
    d. angulation
    e. displacement
    f. open or closed
    g. articular involvement

3. Accurate description of soft tissue and non-fracture injuries with respect to:
    a. anatomic location
    b. severity/grade
    c. degree of limitation of function/range of motion

4. Pathogenesis, pathophysiology and natural history of non-traumatic disorders of the musculoskeletal system. These include, but are not limited to:
    a. infections
    b. inflammatory and rheumatologic conditions
    c. malignancies

5. Clinical presentation of traumatic and non traumatic musculoskeletal conditions.
6. Manifestation of injuries and non-traumatic syndromes in special patient populations. These include, but are not exclusive to:
    a. athletes
    b. children and adolescents
    c. the elderly
7. Principles of emergency department management of traumatic and non-traumatic musculoskeletal injuries and disorders.

8. Pharmacological agents and other modalities used in the treatment of musculoskeletal and rheumatologic disorders.
9. Complications of musculoskeletal injuries and their management.
10. Appropriate consultation and follow-up for acute musculoskeletal conditions.

History & Physical Examination

Demonstrate ability to perform a complete orthopedic/musculoskeletal history and physical examination. Examination of the following are emphasized:

a. hand
b. wrist
c. shoulder
d. foot and ankle
e. knee
f. hip
g. spine, including peripheral nerve exam

The assessment should be organized in a sequential manner, which permits a clear definition of the problem and a rational approach to differential diagnosis and management.

Interpretation & Utilization of Information

Display knowledge of indications, limitations and health risks of the following tests, as well as display appropriate utilization of their results:

a. plain radiography
b. CT scanning
c. MRI imaging
d. fluoroscopy
e. nuclear medicine
f. blood work

Display proficiency in the interpretation of plain radiography of the musculoskeletal system.

Clinical Judgment & Decision Making

Demonstrate the ability to do the following:

a. Evaluate specific symptoms and signs that occur in disease and injury states of the musculoskeletal system
b. Assess the risk of associated injuries in patients with multiple trauma or trauma to defined anatomical areas
c. Perform the appropriate clinical and imaging assessments that will identify common and important fractures/dislocations
d. Appropriately select and apply temporary immobilization techniques for a given injury or condition
e. Attend to pain and suffering caused by acute musculoskeletal injury

Technical Skills
Demonstrate proficiency at the following skills:

a. casting and splinting of non-displaced fractures
b. reduction of common fractures
c. reduction of common dislocations
d. arthrocentesis
e. common joint infiltrations
f. local and regional anaesthesia, including hematoma blocks and nerve blocks, used in the treatment of common musculoskeletal disorders
g. procedural sedation

Communicator
Inter-Professional Relationships With Physicians and Other Allied Health Professionals
Demonstrate the ability to effectively communicate with referring and consultant colleagues regarding the nature (mechanism, description) of injury/illness, performance of necessary interventions and coordination of subsequent care.
100
Demonstrate the ability to do the following on a regular and ongoing basis:

a. Work effectively with other physicians and allied professionals of the healthcare team
b. Show consideration for the knowledge, skills and roles of the various members of the healthcare team
c. Be respectful of other team members

Communications With Patients & Families
Demonstrate the ability to communicate effectively regarding the nature of the injury/illness suffered and anticipated management plan, showing them respect and gaining their cooperation and confidence.
Demonstrate the ability to discuss and explain “bad news” to the patient & family in a sensitive, concise and comprehensible manner.
Written Communication and Documentation
Consistently demonstrate the ability to document the history, physical, diagnostic formulation, and management plan in an accurate, complete and organized manner. This includes documentation that may be required in, but is not limited to:

a. initial patient evaluations
b. progress notes
c. discharge summaries
d. consultation reports

Show skill in explaining risks, benefits and obtaining consent for relevant procedures.

Collaborator

Demonstrate the ability to:

a. work within the framework of a multi-disciplinary healthcare team.
b. recognize the expertise of each health care team member and their respective role as it relates to the patient's care.
c. appropriately delegate responsibilities to members of the health care team.
d. resolve common team conflicts
e. involve the patient and family in decision-making.

Manager

Demonstrate the understanding and utilization of current information technology in managing musculoskeletal injuries and disorders.

Demonstrate the responsible allocation and rationalization of resources to the patient and population based on the best-available evidence.

Demonstrate the ability to manage competing interests of individual ongoing patient care, new patient assessment and patient flow in the ED setting.

Demonstrate the ability to manage competing interests of individual patient care and consultation requests in the clinic setting.

Demonstrate the capacity to manage multiple patients concurrently.

Understand the role of Orthopedic, Sports Medicine, Physiotherapy, Occupational Therapy and rehabilitation services with respect to the patient, hospital and community as a whole.

Coordinate/direct patients appropriately for ongoing care by Orthopedics, Sports Medicine, Physiotherapy, Occupational Therapy and rehabilitation services.

Health Advocate

Be the patient's advocate at all times, particularly when they are unable to do so themselves.

Display advocacy for the community at large and for society.

Demonstrate the ability to discuss risk and harm reduction strategies, as well as safety precautions to prevent future injury from occurring.

Scholar

Motivation to Read and Learn

Demonstrate knowledge of current scientific literature and application of this knowledge to case presentation and daily patient management.

Demonstrate interest in expanding current knowledge base by reading around clinical cases.

Critically Appraises Medical Literature

Demonstrate the ability to critically-appraise research methodology and medical literature with respect to clinical cases, as well as during organized activities such as journal club.

Teaching Skills

Demonstrate initiative to teach other health care professionals and/or patients about specific relevant health care issues.

Discuss clinical topics and/or journal articles with colleagues in the form of presentations or journal clubs.

Professional

Demonstrate awareness of the racial, cultural and social factors that influence the delivery of emergency care

Show respect all times for the patient's:

a. Race/ethnic background
b. Language
c. Socio-economic level
d. Religion/Belief system
e. gender
f. Confidentiality

Be insightful of one's own strengths and weaknesses, and recognize when to call for back up.

Be able to receive and accept constructive feedback.

Display ethical behaviour compatible with a physician at all times with respect to:

a. Patients and their families
b. Allied health staff
c. Attending Staff, residents and medical students

Be a role model for medical students, residents, staff physicians, nurses, and other allied health care personnel.

Maintain a healthy and sustainable balance between personal and professional lives.

NEUROSCIENCES (NEUROLOGY)

The Emergency Medicine Resident will experience their core Neurosciences on 2 rotations: The Neurology Consult Service and Neurosurgery. Both of these rotations are 6 weeks in duration. Further knowledge will be garnered on several other rotations including Adult and Pediatric Emergency, ICU, and Trauma.

Medical Expert

1. Display knowledge of neuro-anatomy and (patho)physiology.
2. Develop skill in the performance of both a screening and detailed neurological exam.
3. To be able to cite the criteria and perform the exam for brain death.
4. Demonstrate the ability to recognize and manage the following conditions:
    a. Acute cerebrovascular disorders (ischemic or hemorrhagic)
    b. Status epilepticus/seizure
    c. Acute spinal cord emergencies (compression, trauma, cauda equina)
    d. (Acute) headaches, status migrainosis
    e. Cranial nerve isorders
    f. Demyelinating disorders
    g. Neuromuscular disorders (Myasthenia gravis, Guillain-Barre, ALS)
    h. Pseudotumor cerebri
    i. Normal pressure hydrocephalus
    j. Peripheral neuropathies
    k. Shunt malfunction
    l. Neurological infections (meningitis, encepahilitis, abcess, shunt)
    m. Closed head injury/concussion syndromes
    n. Penetrating head injury
    o. Burr holes: indications, how to perform, complications

5. Understand the pathophysiology of raised ICP, the various management techniques and how to perform RSI when there is an elevated ICP.
6. Understand the indications for:
    a. CT(A)
    b. MR(A)
    c. EEG
    d. EMG
    e. Doppler
    f. Plain radiography

7. Develop skills in performing lumbar puncture and the subsequent interpretation of the results.
8. Develop an approach to interpreting head CTs.

Communicator

1. To be able to effectively communicate the diagnosis and treatment plan to the patient and/or his/her family, including prognosis, risk modification.
2. When working as a consultant, the resident will effectively communicate the plan both written and verbally to the appropriate health professionals.
3. Demonstrate ability to discuss living wills, advanced directives, and levels of care.
4. Be able to discuss end of life issues (including brain death, organ donation) in a compassionate, concise and understandable way with family members.
5. Show skill in explaining risks, benefits and obtaining consent for relevant procedures.
6. Communicate effectively with the multi-disciplinary team.

Collaborator

1. The resident will recognize the role of each health care team member with respect to the patient's care.
2. The resident will be cognizant of when to contact the organ donation team.
3. Demonstrate ability to resolve common team conflict problems.
4. Demonstrate ability to work in a multi-disciplinary team.
5. Be capable of involving the patient and family in decision-making.

Manager

1. Demonstrate rational utilization of the various diagnostic imaging tools.
2. Demonstrate rational utilization and understanding the roles of the neurological and neurosurgical consulting services.
3. Demonstrate appropriate out patient referral.

Health Advocate

1. The resident will act as the patient's advocate at all times.
2. The resident will discuss risks and harm reduction strategies (e.g. BP or sugar control, protective helmets, return to play).
3. Organ donation.

Scholar

1. The resident must be aware of the current literature and controversies (e.g. thrombolysis and acute CVAs).
2. The resident must be able to critically appraise the literature.

Professional

1. Must display ethical behaviour compatible with a physician at all times when working with:
    a. Patients and their families
    b. Allied health professionals
    c. Attending staff, residents and students

2. Show respect at all times for the patient's:
    a. Race/ethnicity/socio-economic background
    b. Language
    c. Religion
    d. Sex/sexuality
    e. Confidentiality
3. The resident must be cognizant of his/her own strengths and weaknesses, and know when to ask for help.
4. Be a role model for medical students, residents, nurses and other colleagues.
5. Be able to receive and accept constructive feedback.

OBSTETRICS & GYNECOLOGY

Obstetrics and Gynecology is a 4 week rotation takes place at Al Wasl Hospital.

Medical Expert

1. Demonstrate ability to perform an obstetrical and gynaecological history, exam and assessment.
2. Demonstrate the knowledge of the anatomy, physiology of gynaecological and other pelvic structures and the physiologic changes of pregnancy.
3. Demonstrate knowledge of the normal stages of labour and delivery, including their time course.
4. Able to formulate a differential diagnosis, management plan including investigations of the following conditions:
    a. Vaginal bleeding in the pregnant patient (all trimesters).
    b. Pelvic and abdominal pain in the pregnant patient.
    c. Vaginal bleeding in the non-pregnant patient.
    d. Pelvic and abdominal pain in the non-pregnant patient.
    e. Vaginal discharge/pruritis.
5. Display ability to diagnosis, investigate and manage the following emergency gynaecological and obstetrical emergencies:
    a. Abortions
        i. Threatened/Incomplete/Complete.
        ii. Septic Abortions.
        iii. Complications of Therapeutic Abortions.
    b. Placental Emergencies
        i. Placenta Abruption.
        ii. Placenta Previa.
        iii. Vasa Previa.
    c. Pregnancy
        i. Ectopic pregnancy.
        ii. Hyperemesis gravidum.
        iii. Molar pregnancy.
        iv. Pregnancy Induced Hypertension (Preeclampsia/eclampsia/HEELP).
        v. Complications of labour.
            1. Preterm labour.
            2. Premature rupture of membranes.
            3. Failure to progress.
            4. Fetal distress.
        vi. Complications of Delivery
            1. Prolapsed cord.
            2. Abnormal presentations (breech, shoulder dystocia, other).
            3. Uterine inversion.
            4. Multiple and still birth.
        ii. Neonatal resuscitation.
        iii. Calculation and significance of APGAR scores.
        iv. Isoimmunization.

v. Post partum complications.
1.Hemorrhage.
2.Retained products.
3.Endometritis.
4.Mastitis.
5.Cardiomyopathy.
6.Depression.

d. Infection
i. Pelvic Inflammatory Disease.
ii. Sexually transmitted diseases.
iii. Toxic shock syndrome.

e. Ovarian Torsion

f. Sexual assault

g. Trauma: Demonstrate an understanding of the significance and management of minor to major trauma in the pregnant patient including fetal monitoring, US, and indications for emergent delivery.

h. Know the indications and describe the technique for post mortem C-sections.

6. The resident should demonstrate the following skills:
a. Show ability to perform an uncomplicated delivery
b. Demonstrate knowledge to perform moderately difficult delivery including but not limited to:
i. Shoulder dystocia.
ii. Breech delivery.
c. Pelvic Ultrasonography
i. Detection of IUP.
d. Perinatal and neonatal resuscitation

Communicator

1. Explore facets of patient e.g. age, gender, ethno-cultural background, social support and emotional wellness and their effect on the patient's illness or pregnancy.
2. Demonstrate ability to discuss the patient's care and counsel regarding risk modification with the patient and family.
3. Demonstrate ability to discuss and explain to patients and families "bad news" in a sensitive, empathic and understandable manner.
4. Show skill in explaining risks, benefits and obtaining consent for relevant procedures.
5. Demonstrate ability to discuss living wills, advanced directives and do not resuscitate orders.
6. Communicate effectively with the multi-disciplinary team.
7. Demonstrate the ability to enquire about the possibility of abuse in a sensitive manner.

Collaborator

1. The resident will recognize the role of each health care team member with respect to the patient's care.
2. Demonstrate ability to resolve common team conflict problems.
3. Demonstrate ability to work in a multi-disciplinary team.
4. Be capable of involving the patient and family in decision-making.

Manager

1. Demonstrate evidence-based ability to allocate resources to the patient and population served.
2. Recognize resources of tertiary care gyn/obstetrical care centres and the use and rationalization of these for the individual patient and the population served.
3. Be able to manage competing interests of consults from other services, including the Emergency Department, with ongoing care of admitted patients.
4. Be capable of managing multiple patients concurrently.
5. Comprehend the role of the Obs/gyn service with respect to the hospital and community as a whole.
6. Elucidate and recognise instances of medico-legal risk and identify potential preventive and corrective steps.

Health Advocate

1. Demonstrate ability to identify the determinants of health of the individual obs/gyn patient.
2. Be capable of discussing with patients risk and harm reduction strategies.
3. Be the mother's and baby's advocate at all times, particularly when they are unable to do so themselves.

Scholar

1. Demonstrate knowledge and applicability of specialty relevant important studies.
2. Be consistent in reading around clinical cases and improving obs/gyn knowledge base.

Professional

1. Show respect all times for the patient's:
    a. Race/ethnicity.
    b. Language.
    c. Religion/Belief system.
    d. Sex.
    e. Confidentiality.
2. Be insightful of one's own strengths and weaknesses.
3. Be able to receive and accept constructive criticism.

4. Display ethical behaviour commensurate with a physician at all times with respect to:
    a. Patients and their families.
    b. Allied health staff.
    c. Attending Staff, residents and medical students.
5. Serve as a role model for colleagues and other health care personnel.

PSYCHIATRY

The EM Psychiatry rotation is a 6 week rotation based in the Psychiatry Emergency of the Rashid Hospital under the direct supervision of the emergency based psychiatrist, the resident will be responsible for assessing both the ambulatory psychiatric patients that walk in to psychiatry emergency services, and the patients referred by the Emergency Physician.

Medical Expert

The Emergency Medicine Resident must be able to:

1. Demonstrate the ability to conduct an interview with patients with acute and chronic psychiatric disorders.
2. Demonstrate ability to perform a mental status exam in patients with normal and altered mental status.
3. Demonstrate the ability to assess suicide risk and thereafter initiate appropriate management.
4. Must be cognizant of the DSM classification of psychiatric disorders:
    a. Assess and make a differential diagnosis and management plan for patients with major affective (axis I) disorders.
    b. Assess and make a differential diagnosis and management plan for patients with personality and developmental (axis II) disorders.
5. Must understand the interaction between psychiatric and medical disorders (axis III):
    a. Understand how to medically clear a patient including the role/utility/indications/limits of various laboratory and other investigative modalities.
    b. Delirium versus dementia.
    c. Dementia versus pseudodementia.
    d. Alcohol and other intoxications as well as withdrawal syndromes.
    e. Altered mental status secondary to a medical condition versus a primary psychiatric disorder.
6. Must learn the principles and demonstrate effective management of the violent patient including:
    a. Use of restraints, both physical and chemical.
    b. Safety of staff.
    c. Conflict resolution.
    d. Techniques to avoid escalation.
7. Understand the pharmacodynamics, indications, contraindications and side effects of the therapeutic agents (major tranquilizers, sedative hypnotics and anti-depressants) commonly used to treat the various psychiatric disorders.

8. Must be cognizant of the various medico-legal issues of competence, consent, “involuntary hospitalization

Communicator

1. Demonstrate appropriate documentation of the psychiatric history and physical.
2. Communicate effectively with the patient, the patient's family, and allied health personnel, in an appropriate, sensitive, concise and understandable manner.
3. Communicate effectively back to the consulting physician both verbally and written.

Collaborator

1. Understand the roles and work as part of a multi-disciplinary health care team including psychiatrists, nurses, social work, patient attendants, referring physicians.
2. Work with and understand community resources.
3. Working with and involving the patient and family in decision making and treatment plan.

Manager

1. Must demonstrate the ability to use and allocate psychiatric resources appropriately, including indications for emergency psychiatric consultation.
2. Must be able to manage competing interests between patients, families, psychiatrists, consulting (Emergency) physicians.
3. Must understand the role of Psychiatry Services within the Emergency Department, the hospital, and the community.

Health Advocate

1. Act as the patient's advocate.
2. Be capable of discussing with patients risk and harm reduction strategies.
3. Intervene on behalf of the patient obtaining appropriate social service involvement.

Scholar

1. Demonstrate interest in acquiring psychiatric knowledge by continued reading.
2. Be cognizant of emergency related landmark psychiatric literature.

Professional

1. Be mindful of one's own limitations and know when to call for back-up (by knowing and acknowledging your strengths and weaknesses).
2. Show respect at all times for the patient's:
    a. Race/ethnicity
    b. Language
    c. Religion/Belief system
    d. Gender/Sexual orientation
    e. Confidentiality
3. Be a leader in dealing with the difficult patient and show skills in conflict management.

4. Display ethical behaviour compatible with a physician at all times with respect to:
    a. Patients and their families
    b. Allied health staff
    c. Attending Staff, residents and medical students

5. Be a role model to fellow physicians, nurses, residents, and medical students.

RESEARCH

GOALS

Primary Goals

1. The ultimate goal of the research time is to introduce the resident to the basic concepts of research and to stimulate interest in pursuing a career as an emergency physician-researcher. Ideally, residents should produce an original research project. The resident will also have the option to join an on-going research project with specific tasks that he/she must complete. MINIMUM CRITERIA: The resident will be expected to bring the research project to i) submission for publication or ii) presentation at a conference research forum or iii) poster presentation. The resident will be expected to be prepared to construct a critical topic reviw(CTR) for the final fellowship examination of the FCEM in year five.

Secondary Goals

1. To provide the Emergency Medicine residents with an understanding of the principles and practices of clinical research.
2. To critically evaluate scientific literature and encourage future research in emergency medicine.
3. To familiarize residents with principles of scientific writing, grant applications, and potential funding agencies.
4. To produce fundable projects to support research
5. To present at scientific meetings and put Dubai on the International Emergency medicine Map
6. To add to and enhance the field of Emergency Medicine.
7. To expose the resident to research as a career option.

OBJECTIVES

Medical expert/Clinical Decision-Maker

1. Recognize the interface between clinical practice and the clinical research that informs evidence-based clinical practice.
2. To formulate research questions from the uncertainty that exists in Emergency Department care.

Communicator

1. To communicate effectively, both verbally and in writing research proposals.
2. To learn how to write grant proposals, abstracts, and research papers.
3. Demonstrate ability to obtain informed consent.
4. To be able to present research at either rounds and/or major conferences.

Collaborator

1. Work effectively with a research supervisor, biostatistical consultants and other members of a research team to bring a project to fruition.

Manager

1. Demonstrate time management skills that will permit timely completion of the scholarly requirements of the research objectives.
2. To manage the financial resources of the research project.

Health Advocate

1. Consider research project from a societal perspective of risk benefit and greater public good.

Scholar

1. The resident will participate in research and thereby
    a. Contribute to development of new knowledge.
    b. Become an expert in the chosen research field.

2. The resident will either:
    a. Develop an independent research project, or
    b. Join a research project/concept that has already been initiated, but has no proposed methodology.

3. The resident will:
    a. Present at the annual Resident Research Day
    b. Ideally the resident will:
        i. Present an abstract or poster presentation at a major conference
        ii. Bring the research to publication.

Professional

1. Recognize the ethical and professional obligations inherent to clinical research.
2. If necessary, interact with an institutional Research and Ethic Review Board to advocate for or defend a research proposal.

How to Proceed with the Research Project

1. Research starts with idea generation. Sources for ideas appropriate for study include experienced researchers, both in the field of Emergency Medicine as well as in related specialties, attending physicians, and other residents.
2. All residents will be supported by a research supervisor. A data bank of projects/supervisors is being developed.
3. Original Research: These studies may be experimental or observational studies or meta-analyses. Case reports are not acceptable. The research proposal must be well-developed, and will likely require multiple revisions.
4. The Emergency Medicine Residency Research Committee (RRC) is a primary component of the research curriculum. The RRC is accountable to the Program Director to meet the goal and primary objectives as previously stated. The supervisor will monitor Resident's progress. Both the resident and the supervisor will be accountable to the RRC to meet selected objectives after each research rotation (to be elaborated below). The RRC will establish links with other departments to facilitate resident projects.

5. In order to complete the residency program, the resident must have completed the minimum criteria as established between the resident, research supervisor and the RRC.

PHASES

The following research phases have been developed to provide the resident with a structure for successful completion of the goals and objectives. It is possible that residents accelerate these suggested guidelines.

PHASE I: R1

GOALS

1. To successfully complete two approved research methodology courses
2. By the end of R1, the resident should have come up with a research idea, or linked up with an on-going research project. If the resident has not done so, then the RRC has the right to assign the resident a research project.
3. To gain sufficient background information to present Grand Rounds or a topic specific journal club on a particular subject early in the R2 year.

Epidemiology Course

The resident (R1) will undertake a recognised course in Epidemiology and Biostatistics. These will occur during periods 12 and 13 the first year of the program.

Research Hypothesis

Residents should develop an area of research interest in the R1 year. The Emergency Medicine Residency Research Committee (RRC) is developing a bank of interested supervisors with accompanying fields of interest and particular projects. Residents should review the databank of projects, and perhaps read through abstracts presented in recent Emergency Conferences with the goal of developing a research idea. Indeed, finding a good research question is often the most difficult part of the Research curriculum.

. It is a good idea to validate the project before too many hours are spent delving into an impractical project; early consultation will allow greater exploration of ideas and feasibility of the study. The goal is that the resident should have a feasible research project and an appropriate supervisor prior to starting their R2 year.

Residents should initiate OVID or Medline searches during the R1 or R2 years. Help with searches can be obtained from the medical librarians in each hospital or at the Health Sciences Library. The review of previous research should be regarded as a dynamic process. After a researchable question has been asked, a literature search helps determine what has already been studied, what research designs have been employed, what controversies exist, and where your question fits in. It will allow the resident to critically appraise preceding works, and puts the intended research project in prospective by linking it to previous works. As well, the methods used by previous authors may suggest other ideas.

PHASE II: R2

Hypothesis & Methodology Development

By the end of the R2 year, the resident will have done

1. A thorough review of the literature on their research topic
2. A study hypothesis
3. Research methodology
4. Ethics approval

This information should be submitted to the RRC or presented as the Resident's Grand Rounds, (or a topic specific Journal Club). The resident will be expected to discuss his/her research idea and will receive feedback. A written proposal is a necessary working document that will allow the resident to carefully define his/her plan to test the hypothesis stated, and minimizes the risk of wasting time and resources associated with more casual or informal approach. Since the research project does involve the collaboration of others, the proposal helps formulate, structure, and communicate the resident's idea to the others.

Besides their supervisor, Residents are encouraged to consult the Research Chairpersons, and other resource persons in the Department, the Hospital or the faculty. When seeking expert opinion, study feasibility (i.e. sample size), ethical issues such as, risk to patients, informed consent, and withholding treatment to the control group should be questioned.

PRELIMINARY Methodology Proposal

The resident will improve upon and/or reformulate the hypothesis (if necessary) and then develop the research methodology. The format should include the goal of the study, a research plan, inclusion and exclusion criteria for the population to be studied, treatments, statistical considerations, potential risk to subjects, informed consent, and estimated time for completion of the study based on calculations of sample size needed and the number of potential subjects visiting the ED.

Suggested research proposal outline would include:

i) Title
ii) Abstract
iii) Introduction
iv) Review of the pertinent literature
v) Study objective or hypothesis
vi) Significance
vii) Methods:
    i. Overview of study design
    ii. Patient population

        i) inclusion criteria
        ii) exclusion criteria
    iii. Measurements
    iv. Interventions
    v. Outcome variables
    vi. Potential confounding variables
    vii. Procedures to be used in the collection of information
    viii. Method of blinding patients, experimenter, and the evaluator

8. Statistical considerations
    a) Power calculations
    b) Sample size
    c) Statistical analyses
    d) Examples of tables, charts and graphs
9. Safety
    a) Criteria for early study termination (if any)
    b) Ethical and legal considerations
    c) Adverse event reporting
    d) Patient consent
    e) Responsibilities of the investigator
10) References

The supervisor will oversee the preparation of the research proposal. Once the research proposal has been finalized, the project will be submitted to the ethics committee (if required). Early consultation with the ethics committee may help avoid late discovery of ethical issues that could complicate a mature project, thus avoiding needless protocol revisions. After approval from the ethics committee, project implementation my then proceed.

By the end of the R2 year, a written preliminary research proposal must be submitted to the RRC for review. A written proposal is a necessary working document that will allow the resident (and preceptor) to carefully define their plan to test the hypothesis stated. Revisions to the draft are expected and the resident should not feel defeated or discouraged, but view the comments constructively.

PHASE III: R3/R4

Once the research proposal has been accepted by the EMRRC, the project will be submitted to the ethics committee (if required). After approval from the ethics committee, project implementation my then proceed.

1. Granting Application

    The resident will be guided on how to tailor their research proposal to gain acceptance by granting agencies. Applications to agencies such as national emergency associations, pharmaceutical companies and research funding from the hospital will be encouraged.

2. Project Implementation

    Recruitment of the medical staff and support personnel for data collection will be necessary to complete a study without bias, such that there is no selective entrance and processing of patients. The resident will need to develop an educational package for introduction of his/her study to ensure adequate recruitment and proper initiation of the study. It may be advisable to commence with a pilot study to rectify haunting errors in methodology. It would be extremely unusual for a study to abandoned if it passed through the above stages, and if no problems are encountered the pilot patients can be entered into the main study.

3. Data Collection & Analysis & Drafting the Research Paper

Analysis of Data

This stage may be tedious, but should not be a “fishing expedition”, if the hypothesis has been properly formulated. Excellent computer software such as SAS, Systat, Statview, Superanova all will assist the resident to analyze the data in a responsible and thoughtful manner.

Draft the Research Paper

Preparing the draft and manuscript for publication is the final objective the resident should reach. If the resident's abstract or articles are accepted for national meeting, they will be given the opportunity to travel to present their work.

SUMMARY

Phase	Year	Activity	Description	OBJECTIVES
Phase I	R1	Epidemiology course	Get adequate background for research development	Pass the courses
Select field of interest & meet with supervisor, RRC		Resident translates an idea into a feasible project.		Have a concrete project prior to at the end of their R1 year
Phase II	R2	Hypothesis development	Hypothesis development Review of literature	Submit a written ROL or present Grand Rounds on their Research topic
Methodology Proposal Preliminary Draft		Define hypothesis Write introduction & methodology +/- Modular Course, part #2		Submit to RRC a research proposal for peer-review with the objective of improving upon original draft
Final draft		Improve the methodology with repeated review by research team & supervisor; include consent form and date to be presented at ethics		Resubmit final proposal to RRC
Ethics committee		Submit protocol to ethics committee		Approval of protocol; revision of protocol if necessary and
resubmission to ethics committee				

Phase III	R3/R4	Granting & Project implementation	Learn how to procure funding and prepare implementation of protocol	Applications to granting agencies Prepare logistics of study
Data collection & analysis		Collect and analyze data. Acquire statistical assistance.	Complete data collection. Analyze the data.	
Results and conclusions		Complete research project.	Submit for presentation and publication.	

Ongoing Research: Should the resident undertake research in an ongoing research project, then the time line for progression will need to be established between the RRC, the research supervisor, and the resident. The research should be completed by the end of the R4 year.

Coordinator/secretary who will keep a grid of all the research time used

SHORT STAY MEDICINE (SSU)

A new domain of the Emergency Physician is that of "short stay" medicine. This involves taking care of patients with single system medical/surgical problems who will require hospitalization usually less than 48 hours duration. The basic goals of this rotation are for the resident to learn which patients are appropriate for a brief hospital admission, to do proper consultations in the ED, to develop in-depth knowledge (including the evidence behind) the investigation, treatment and disposition of acute medical/surgical diseases which require only brief hospital admissions.

NB. For the time being, this rotation is under trial and will replace 1 of the internal medicine ward rotations.

Medical Expert

1. Demonstrate an expertise in determining who would be and would not be an appropriate "short stay" candidate.
2. Demonstrate an expertise in Emergency Department consultation on behalf of the short stay unit.
3. Demonstrate an expertise in obtaining a proper history and physical exam.
4. Demonstrate an expertise at developing a differential diagnosis, investigation and management plan.
5. Be knowledgeable of the indications, use and interpretation (where appropriate) of:
    a. Laboratory testing
    b. ECGs
    c. Diagnostic radiology tests/procedures (X-rays, CT, US, MRI, nuclear medicine)
6. Understand the pathophysiology, presentation, evaluation and management of systemic diseases of the patients admitted to the unit. Because of the inherent variability in clinical cases coming through the ED, a resident cannot be guaranteed that he/she will see all the clinically relevant pathologies. Consequently it is the responsibility of the resident to read beyond the cases they are involved with.
7. Demonstrate technical expertise:
    a. Vascular access (peripheral and central)
    b. Wound Management
    c. MSK procedures (arthrocentesis)
    d. Abdominal procedures (NG insertion, abdominal paracentesis)
    e. Arterial Blood gas
    f. Lumbar puncture

Communicator

1. Demonstrate an expertise in documenting:
    a. Emergency consultation
    b. Admission history and physicals
    c. Follow-up notes
    d. Discharge summary.
    e. Prescriptions.

2. Be capable of communicating effectively in a multidisciplinary environment with:
    a. Patients and their families
    b. Emergency staff
    c. Attending physicians, residents, medical students
    d. Nurses, unit clerks, orderlies, respiratory technicians, social workers etc.
    e. Consultants (by phone or in person)
3. Demonstrate ability to communicate "bad news" in a professional manner.

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Collaborator

1. Understand the role of a "short stay" unit with the continuum of care in the institution.
2. Demonstrate an ability to work effective in a multi-disciplinary team, recognizing the role of each of the health care team members.
3. Be able to appropriately involve the patient and family in the decision making process.
4. Be able to effectively consult physicians and health care professionals
5. Respect and highlight the role of the patient" primary care physician, CLSC, social worker for ongoing health care on discharge.

Manager

1. Demonstrate an ability to effectively allocate and use resources (lab, radiology, consultation).
2. Be able to manage competing interests between patient care needs, ward duties, consultants, other services/departments.
3. Be capable of managing multiple patients concurrently.
4. Demonstrate an ability to (independently) manage flow of patients, from the initial consultation, admission, treatment to the point of appropriate and timely disposition.
5. Practically demonstrate an understanding of the critical role of discharge planning and arranging appropriate follow-up.

Advocate

1. Demonstrate the ability to identify determinants of health of the patient.
2. Be capable of discussing preventive medicine or harm reduction strategies that influence the patient's health and well-being.
3. Be an advocate for the patient.

Scholar

1. Continuously seeking out new knowledge e.g. texts, journals and incorporate this into daily practice.
2. Be cognizant of and appropriately apply any relevant or landmark studies.
3. Apply evidence-based medicine to on going care.
4. Demonstrate an ability to use information technology to direct self-learning as well as patient care.

Professional

1. Show respect at all times for the patient's:
    a. Race/Ethnic background
    b. Language
    c. Religion/belief system
    d. Gender/sexuality
    e. Confidentiality
2. Be insightful of one's own strengths and weaknesses (and when to call for back up)
3. Be able to receive and accept constructive feedback.
4. Display ethical behaviour compatible with a physician at all times with:
    a. Patients and their families
    b. Allied health staff
    c. Attending staff, residents, students
5. Be a role model for colleagues and other health care professionals.

TOXICOLOGY

GENERAL OBJECTIVES

During the course of their training in Emergency Medicine, residents have to acquire an understanding of Toxicology as well as be able to apply this knowledge in clinical practice.

Residents will be exposed to the area of Clinical Toxicology during their Emergency Medicine rotations where they will encounter patients presenting with deliberate self-poisoning, accidental intoxications, intoxications resulting from deliberate recreational use of substances, occupational hazards or environment injuries such as bites and stings from venomous creatures. They will also be exposed toInternational Poison Center base toxicology .

It is expected that at the end of their training, residents will have acquired the knowledge to recognize signs and symptoms of intoxication which is the effect of a drug beyond the scope of what is considered its therapeutic effect. They should be able to initiate diagnostic measures and treatment as well as identify situations where further or additional expertise is required and collaborate effectively with other consultants.

Emphasis will be placed on the recognition, appropriate management of common intoxications encountered in the emergency department and their modalities of treatment. As well, the resident should demonstrate knowledge of the differential diagnostic exercise when approaching the unknown overdose with use of laboratory results, electrocardiogram and toxidromes.

Medical Expert and clinical Decision Maker

Residents should be able to:

1. Obtain a history that is accurate, pertinent and concise for the nature of the problem.
2. Perform physical examination that is sufficient to initiate a diagnosis or management plan.
3. Discriminate types of poisoning with the knowledge of the different toxidromes.
4. Identify the need for gastrointestinal decontamination and the benefits and risks of:
    a. Gastric lavage
    b. Emesis
    c. Single and multiple dose activated charcoal
    d. Cathartics
    e. Whole Bowel irrigation
5. Demonstrate the ability to interpret accurately the results of common diagnostics tests.
6. Demonstrate knowledge in the mechanism of toxicity, usual toxic dose, stabilization and treatment modalities of the following with the following scale
    a. Extensive and detailed knowledge of this subject matter is obligatory
    b. Ability to explain the principles involved in this subject matter is expected but detailed knowledge is not required
    c. Recognition of the importance of this subject is expected by broad knowledge of the principles involved.

i. Analgesics
- Acetaminophene (1)
- NSAID's (1)
- Aspirin (1)
- Opiods including methadone (1)

ii. Autonomic agents
- Anticholinergic (1)
- Antihistamines (1)
- Serotoninergics (1)
- Benzodiazepines (1)
- Over the counter non benzodiazepines sedatives (2)
- Sympathomimetics (1)

iii. Chemicals and substance of abuse
- Alcohol (1)
- Cannabinoids (1)
- Cocaine, amphetamines, psychostimulants (1)
- CNS depressants (1)
- Nicotine and tobacco (1)
- Opioids (1)
- Psychedelics (2)

iv. CNS drugs and muscle relaxants
- Toxic alcohols, methanol, ethylene glycol, isopropyl alcohol (2)
- Anesthetics (2)
- Anticonvulsants (2)
- Cyclic antidepressants (1)
- GHB (2)
- Muscles relaxants (2)
- Neuromuscular blocking agents (1)
- Parkinson drugs (3)
- Antipsychotics, (phenothiazines and butyrophenones) (1)
- SSRI's and SNRI (1)
- Lithium (2)
- MAOI (2)
- Hallucinogens (1)
- Sedatives, hypnotics and anxiolytics (1)

v. Cardiovascular
- Antiarrhythmics (2)
- Anticoagulants (2)
- Antihypertensives (2)
- Antiplatelets (2)
- Thrombolytics and antifibrinolytics (2)
- Inotropes (2)
- Nitrates and nitrites (2)

vi. Environmental (3)
- Biological incidents
- Chemical incidents
- Plants
- Ingestions
- Contact dermatitis

vii. Gastrointestinal agents (3)
- Antacids
- Antidiarrheals
- Laxatives

viii. Toxic gases
- Carbon monoxide (1)
- Chlorine (3)
- Carbon dioxide (3)
- Cyanide (1)
- Smoke inhalation (1)
- Products of combustion (1)

ix. Hydrogen fluoride (3)

x. Vitamins, minerals and endocrine agents (3)
- Oral hypoglycemiants (2)
- Insulin (2)
- Newer diabetic drugs (3)
- Potassium salts (2)

7. Demonstrate knowledge of mechanisms of action and indications for the following antidotes:
   a. Analeptics (2)
   b. Chelation agents (3)
   c. Benzodiazepine antagonists (1)
   d. Activated charcoal (1)
   e. Cyanide treatment (1)
   f. Glucagons (1)
   g. Calcium (1)
   h. Methylene blue (2)
   i. Opiods antagonists (1)
   j. Oxygen including hyperbaric (2)
   k. Atropine (1)
   l. Protamine (2)
   m. Thiamine (1)
   n. Vitamin K (1)
   o. Folinic acid (3)

Communicator

Residents should be able to demonstrate effective communication skills by their ability to:

1. Work harmoniously within the team.
2. Being able to formulate a clear plan of action and convey information to other colleagues.
3. Deliver information to patient and families in a sensitive manner using the appropriate vocabulary for their understanding of the situation.
4. Link effectively with International Poison Centers and summarize the evidence to allow for better consultation and follow-up on the cases.
5. Produce legible and pertinent written documentation enabling another professional to access the information pertaining to the case.

Collaborator

Residents should be able to identify and act as leader of the multidisciplinary team required for the management of poisoned patients in the Emergency Department. More specifically, residents should be able to contact and request assistance of other allied health professionals when dealing with:

1. Poison control and toxicology consultant.
2. ICU physicians.
3. Psychiatry.
4. Social services, and community support organizations.

Manager

Residents should understand and be able to apply in their practice:

1. Principles of HAZMAT.
2. Principles of risk assessment.
3. Providing effective consultation when a referral from an outside hospital is made and be able to utilize resources judiciously in accepting a transfer for an intoxicated patient.

Health Advocate

Residents should be able to recognize and advise patients and their families regarding the general epidemiology and prevention of poisonings and more specifically:

1. Inappropriate use of medications.
2. Dangerous interactions between medications.
3. Long term or chronic side effect of medications.
4. Risks of polypharmacy and excessive over the counter medications use.
5. Health issues pertaining to drug and illicit substance abuse.
6. Social issues relating to the behavior of deliberate self harm and poisoning.

Scholar

Residents should be able to demonstrate an intellectual approach to medical practice in the following areas during participation on patient rounds, teaching sessions, journal clubs and interdisciplinary meetings.

1. Continuing Medical Education
    a. Show interest in self-education skills by demonstrating knowledge in the evolving concepts in the management of poisoned patients and new pharmacological developments.

2. Critical Appraisal of the Medical Literature
    a. Demonstrate the ability to research the medical literature, and then identify and critically appraise the best available evidence for any patient related question.
    b. Identify limitations in current toxicological research
3. Scientific Interest
    a. Show interest in other scientific areas closely related to clinical toxicology such as biochemistry, basic pharmacology, agricultural and occupational toxicology by recognizing potential implication of these fields into clinical practice
    b. Demonstrate ability in identifying areas in toxicology where gaps in knowledge or expertise exists by retrieving the essentials of the literature, summarizing the evidence to date and develop research ideas to fill these gaps while being able to demonstrate the clinical relevance of finding answers to the question at hand.
4. Teaching skills
    a. Residents should be able to explain the mechanisms of poisoning and share knowledge with others in a manner that helps others to develop their own skills.
    b. Residents should be available to answer questions or discuss common toxicological problems.

Professional

Residents should be familiar with medical, legal, psychiatric and social aspects of toxicology. They should approach situations with the highest level of integrity and honesty. Resident should more specifically demonstrate professionalism in the following issues:

1. Obtaining consent for therapeutic modality or research study inclusion by the patient or the next of kin.
2. Respect patients' rights to confidentiality and neutrality in the face of authorities involvement whilst fulfilling social and legal obligations as per the medical ethics code and the local regulations.
3. Recognize the limitation of medical practice in the face of threat or assault and decide when appropriate to involve legal authorities.

4. Recognize the impact of delivering care to a patient with impaired judgment due to intoxication, and their capacity to make appropriate decisions.

5. Be aware of your own strengths and weaknesses and when to ask for help. Seek appropriate advice from consultants to achieve the best therapeutic or management plan for these patients.

TRAUMA

1.. Learn the principles of pre-hospital trauma care
2.. Discuss the principles of anatomy and physiology specifically relating to traumatic disorders, in particular:
    a. the various zones of the neck
    b. the posterior chest
    c. the posterior abdomen and flanks
2. Compare blunt and penetrating mechanisms of injury, further differentiating gun shot wounds and stab wounds.
3. Describe the indications and limitations, mechanism of action, interactions and complications of pharmacologic agents used in the context of trauma:
    a. Analgesic agents
    b. sedatives and induction agents
    c. paralytic agents
    d. antibiotics
    e. vasopressor agents
    f. corticosteroids
4. Knowledge of the principles of fluid therapy in a multiply injured patient.
5. Learn a systems approach to trauma management at local and provincial levels.

Basic Clinical Knowledge

1. Describe the presentation, pathophysiology, natural history and therapy of various injuries/ syndromes related to trauma of body systems in the adult, paediatric and geriatric population. More specifically, knowledge about:

Medical Expert

Basic Scientific Knowledge

a. Immediately life-threatening injuries
b. Potentially life-threatening injuries

c. Limb-threatening injuries
d. Closed head injuries
e. Raised ICP
f. Facial trauma
g. Blunt and penetrating neck trauma
    i. zone I, II, III injuries
    ii. airway injuries
    iii. esophageal injuries
h. Blunt and penetrating chest trauma
    i. tracheobronchial injuries
    ii. penumothorax
    iii. hemothorax
    iv. aortic injuries
    v. lung contusion
    vi. diaphragmatic injuries

i. Blunt and penetrating abdominal trauma
j. Posterior chest and abdominal injuries
k. Pelvic trauma, including uro-genital trauma
l. Spinal cord trauma and syndromes
m. Extremity trauma, including peripheral vascular injuries, partial or complete amputations, fractures, tendons injuries, lacerations
n. Compartment syndrome

2. Describe special considerations in the evaluation and management of the pregnant, pediatric and geriatric trauma patient.
3. Demonstrate the principles of trauma resuscitation, stabilization, and disposition.
4. Describe principles of burn management.
5. Describe principles of inhalation injuries.
6. Assess and develop the appropriate differential diagnoses of clinical presentations in the trauma patient, describing the various potential lesions associated with specific mechanisms of injury.

7. Acquire knowledge of indications and limitations of the following tests with respect to the trauma patient: plain radiography, CT scanning, echography, angiography, endoscopy, blood work.

History & Physical Examination

1. Competently complete a clinical assessment of a trauma patient in an organized and timely fashion.
2. Demonstrate knowledge of common signs of major traumatic injuries.
3. Demonstrate knowledge of the Glasgow Coma Scale.

Interpretation and Utilization of Information

1. Assess and develop the appropriate differential diagnoses of specific clinical presentations in the adult, paediatric and geriatric population (e.g. abdominal pain, UGI bleed, LGI bleed etc).
2. Compare/ contrast the use of diagnostic peritoneal lavage, ultrasound and CT scan in the evaluation of abdominal trauma.
3. Compare/contrast the use of CT scanning, echocardiography and angiography for thoracic aortic injuries.

Clinical Judgement & Decision Making

1. Identify indications for immediate laparatomy and thoracotomy.
2. Set the priorities, and initiate the required resuscitation, stabilization, investigation and disposition of the traumatized patient.
3. Identify the needs for consultation/admission/transfer of such patients presenting to the Emergency Department.
4. Initiate the appropriate management of acute traumatic conditions in the adult, paediatric and geriatric patient according to injuries identified.

Technical Skills Required in the Specialty

1. List the indications, techniques and complications of manipulative procedural skills:
    a. endotracheal intubation with C-spine precautions
    b. cricothyroidotomy
    c. needle decompression of chest
    d. chest tube insertion
    e. resuscitative thoracotomy
    f. cardiorrhaphy (suturing the heart)
    g. diagnostic peritoneal lavage
    h. F.A.S.T. exam
    i. venous cutdown
    j. insertion of large bore peripheral lines
    k. insertion of central venous lines (IJ, subclavian and femoral)
    l. naso and orogastric tube insertion
    m. suturing of basic and complex wounds
    n. reduction of major joint dislocations
    o. pelvis immobilization
    p. Foley catheter insertion
    q. proper splinting and reduction of extremity fractures
    r. local wound exploration in penetrating trauma

2. Perform the required manipulative/procedural skills.
3. Ability to interpret specific radiological tests in a trauma patient:
    i. plain films of the cervical, thoracic, lumbar spine; chest; pelvis, extremity
    ii. focused ultrasonography of the abdomen/pericardium
    iii. CT of the head for the presence of the epidural and subdural hematoma, cerebral contusion, subarachnoid hemorrage,
    iv. perform and interpret a retrograde urethrogram

Communicator

Interprofessional Relationships With Physicians and With Other Allied Health Professionals

1. Communicate effectively with the multi-disciplinary team.

Communications with Patients

1. Demonstrate skill and behaviour towards alleviating patient anxiety, appropriate for patient age and gender.
2. Demonstrate ability to discuss the patient's care and counsel regarding risk modification with the patient and family.
3. Show skill in explaining risks, benefits and obtaining consent for relevant procedures and surgeries.

Communications with Families

1. Demonstrate ability to discuss and explain to families “bad news” in a sensitive, concise and understandable manner.
2. Demonstrate ability to discuss living wills, advanced directives and do not resuscitate orders.

Written Communication and Documentation

1. Ability to document concisely and precisely pertinent findings on history and examination as relevant to the trauma patient.

Collaborator

Interacts and Consults Effectively With All Health Professionals by Recognizing and Acknowledging Their Roles and Expertise

1. The resident will recognize the role of each health care team member with respect to the patient’s care.
2. Demonstrate ability to resolve common team conflict problems.
3. Demonstrate ability to work in a multi-disciplinary team, work as part of a trauma team.
4. Consults appropriate services for the definitive care of the patient.

Delegates Effectively

1. Demonstrates ability to delegate various parts of the evaluation and procedures during trauma resuscitation.

Manager

Uses Health Care Resources Cost-Effectively

1. Recognize resources of tertiary care trauma centres and the use and rationalization of these for the individual patient and the population served.
2. Demonstrate knowledge of trauma systems and the function it serves to the hospital and the region.
3. Comprehend the rationale, organization and resources required to create trauma centers and systems.

Organization of Work & Time Management

1. Ability to establish priorities in a single complex trauma patient under stressful conditions.
2. Be capable of managing multiple ill patients concurrently.

Health Advocate

Advocates for the Patient

1. Be capable of discussing with patients risk and harm reduction strategies.
2. Be the patient’s advocate at all times, particularly when they are unable to do so themselves.

Advocates for the Community

1. Learn principles of disaster management.
2. Be able to discuss and promote injury prevention.
3. Be aware of organ procurement procedures.

Scholar

Motivation to Read and Learn

1. Be consistent in reading around clinical cases and improving trauma knowledge base.

Critically Appraises Medical Literature

1. Demonstrate knowledge and applicability of landmark (specialty relevant) studies in trauma care.

Teaching Skills

1. Demonstrate ability to supervise students and more junior residents in the evaluation of the traumatised patient and performance of procedures.

Professional

1. Show respect at all times for the patient's:
    a. Race/Ethnic background
    b. Language
    c. Religion/belief system
    d. Gender/sexuality
    e. Confidentiality

2. Be insightful of one's own strengths and weaknesses (and when to call for back up).

3. Be able to receive and accept constructive feedback.

4. Display ethical behaviour compatible with a physician at all times with:
    a. Patients and their families
    b. Allied health staff
    c. Attending staff, residents, and students.

5. Be a role model for colleagues and other health care professionals.

IV. ELECTIVES

Residents should be using their elective time to complement core rotations concentrating on areas of weakness or interest, or to develop a field of expertise. All electives must be approved by the Program Director.

Residents will be expected to establish specific objectives for their electives before starting the rotation. These should be discussed with and submitted to the Rotation Coordinator and the Program Director. In this way we can all ensure that your elective rotation will be productive and tailored to achieve your objectives. This must be completely arranged at least two months prior to the beginning of the rotation.

The rotation supervisor will be asked to submit to the Program a formal evaluation of your rotation. All this must be completely arranged at least two months prior to the beginning of the rotation.

WRITTEN CONFIRMATION OF THE ABOVE POINTS IS A PREREQUISITE FOR APPROVAL

A block of a few months can be used as a "Fellowship" type of rotation to develop a specific area of expertise. Any resident wishing to do this will be expected to organize this block rotation with the Program Director well in advance.

RESIDENCY RESEARCH COMMITTEE (RRC)

The role of the RRC is:

1. To guide the resident through their 5 periods of research, ensuring that the resident has an appropriate research topic, research supervisor/preceptor, and that the resident is progressing at an appropriate pace.
2. To ensure that the resident produces an original research proposal. To guide and encourage the resident to bring the project to the point of a either a poster or abstract presentation at a major conference, and/or publication.
3. To ensure that residents apply the techniques of EBM and critical appraisal (learned at JC) to their research project.
4. To evaluate the progress of the research project (as outlined in the Research Goals and Objectives) on a bi-annual basis.
5. To provide the program director with written feed back/evaluation of the progress research project.
6. To encourage residents to pursue research as part of their career path.

It should be noted that the RRC is not the actual research project supervisor/preceptor.

Membership

1. The two Research Chairpersons.
2. The Program Director.

The Emergency Medicine Residency Research Committee (RRC) is accountable to the Program Director to meet the above-mentioned Goals and Objectives. Residents' progress will be monitored by their preceptor and both are accountable to the RRC to ensure selected objectives have been met after each research rotation.

CHIEF RESIDENT S

There are 5 chief resident positions with shared responsibilities, which will be divided equally by the chief residents at the start of their mandate.

1) General

1. Assist the Program Director and RPC in maintaining standards
2. Act as an advocate for the residents at all levels within the system. (Examples include interdepartmental scheduling problems, interpersonal conflicts, and 'troubleshooting the ER experience for the off-service residents).
3. Organize, attend and 'host' all academic rounds – ensure availability of necessary A/V equipment.
4. Organize "Special Events".
5. Keep record of resident attendance at weekly rounds and at monthly Journal Clubs.
6. Help in organizing staff and site evaluations.
7. Manage the resident budget, which includes Petty Cash and Pharmaceutical Teaching Fund.
8. Liaising, encouraging and scheduling different ED site Rounds.

3) Scheduling and Rounds

1. Schedule lecturers for Tuesday morning Rounds, and release the schedule by the second week of the prior month. It is the responsibility of the Chief Resident to ensure that the program's educational objectives are being met during Tuesday Rounds.
2. Ensure that the schedule for Tuesday morning Rounds posted on the e-mail List and made available on the website.
3. Ensure curriculum guidelines are being covered during weekly rounds, and cycle lectures every two years.
4. Maintain a database of lectures, to both further future scheduling and minimize topic overlap.
5. The Chief Resident is responsible for creating the scheduling template for the end of the year. This is a skeleton annual schedule to ensure that all residents give their appropriate number of presentations.
6. Schedule Journal Club dates, and confirm availability of the room

4) Other Responsibilities

1. Perform his/her academic and administrative duties as Chief Resident with professionalism; thus acting as a Role Model for the other Residents.
2. To be accessible to assist in the management of resident crises or scheduling.
3. Maintain the Resident Room, including printer paper and ink cartridges.
4. Maintaining various library subscriptions (EM Reports, EM Rap).

EMERGENCY MEDICINE SOCIETY MEMBERSHIP & JOURNALS

Middle Eastern society for Emergency medicine
Middle Eastern Journal of Emergency medicine

CAEP - Canadian Association of Emergency Physicians

ACEP and SAEM

Membership to "ACEP" - American College of Emergency Physicians (www.acep.org) and "SAEM" - Society for Academic Emergency Medicine (www.saem.org) are encouraged if not just for the two free monthly journals that are given to their members. (The Annals of Emergency Medicine with ACEP and Academic Emergency Medicine with SAEM). Both offer discounts to their members for conferences and other publications.

CEM the UK Royal College of Emergency medicine

ACEM the Australasian college for Emergency medicine

SUPERVISION OF THE RESIDENTS

Policy:

1. Clinical Teaching staff are essential and important to the successful implementation of the Dubai residency training Programme.
2. Clinical Teaching staff are expected to be familiar with the goals and objectives of the programme as well as of the rotation for which they have responsibility.
3. Clinical Teaching staff are expected provide a direct and appropriate level of clinical supervision to all residents during clinical rotations.
4. Clinical Teaching staff are expected to foster an effective learning environment by ensuring that the (a) residents share responsibility for decision-making in patient care under supervision, (b) residents have constructive feedback from the concerning clinical skills at diagnosis and management (c) participation of residents in patient care adds to the effectiveness, appropriateness and quality of care.

Procedures:

1. Clinical responsibilities must be assigned to the residents in a carefully supervised and graduated manner, so that the resident assumes progressively increasing responsibility in accordance with their level of education, ability, and experience.
2. Teaching staff supervision must include timely and appropriate feedback to the residents.
3. The resident's clinical involvement must be in fulfillment of the programmes written educational curriculum.
4. Teaching staff must demonstrate concern for each resident's well-being and professional development.
5. Teaching staff who supervise the residents have overall responsibility for patient care and are the ultimate authority for final decision.
6. Teaching staff schedules must be structured to ensure continuous supervision of residents and availability of consultation.
7. All decisions regarding diagnostic tests and therapeutics, initiated by the residents will be reviewed with the responsible Consultants during patient care rounds.
8. Patients will be seen by the team of residents, interns and medical student and their care will be reviewed with the Consultant at appropriate intervals.
9. The residents are required to promptly notify the patient's Consultant physician in the event of any controversy regarding patient care or any serious change in the patient's condition.
10. In clinics and consultation services, the Consultant or supervising physician must review overall patient care rendered by residents.
11. In the operating theatres, the Consultant or supervising physicians are responsible for the supervision of all operative cases. Consultants supervising physicians must be present in the operating room with residents during critical parts of the procedure. For less critical parts of the procedure, the Consultant or supervising physician must be immediately available for direct participation.

ASSESSMENT FORMS

Examples of In-Training Evaluation Forms for the end of rotation evaluations are shown on pages following the Case Log Book.

An example of a resident evaluation Encounter Card that would be used in day to day clinical settings is shown below:

Encounter Cards
Resident_____ Staff _____ Date _____

Clinical Situation _____

Unsatisfactory Adequate Excellent N/A

Knowledge
Unsatisfactory Adequate Excellent N/A

Professional Skills
Unsatisfactory Adequate Excellent N/A

Manual Skills
Unsatisfactory Adequate Excellent N/A

Overall

Comments: _____
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DOHMS Emergency Medicine Residency Program
Clinical ROTATION Evaluation

Resident Name: (optional)_____Rotation_____

This Form is designed to provide resident feedback to Programme Administrators concerning strengths and areas to improve in the variety and organisation of clinical exposures provided in the different clinical rotations of the Surgery Programme. The forms will be given to the rotation supervisor of each rotation at the end of the rotation. Please feel free to be candid and objective. All comments will not be traceable to the resident completing the form by the immediate supervisor.

Rank the following statements on a scale of 1 to 7 on whether you agree or disagree with them as they pertain to this rotation (1= strongly disagree; 7 = strongly agree)

Evaluation Scale:	Could not Judge	Strongly Disagree					Strongly Agree
Organization of the Rotation							
The overall workload of the rotation was appropriate (please make a comment in comments section as to if workload was too light or too heavy)	0	1	2	3	4	5	6	7
Patient Rounds were run in an efficient manner balancing teaching with patient care needs	0	1	2	3	4	5	6	7
The amount of scut in the Rotation was appropriate	0	1	2	3	4	5	6	7
The clinical material I saw provided a good exposure to the field of practice of the rotation	0	1	2	3	4	5	6	7
I was given clinical responsibilities appropriate for my level of training (please make a comment in comments section as to whether too much or too little was expected of you)	0	1	2	3	4	5	6	7
Teaching							
The academic activities of the division provided good learning opportunities	0	1	2	3	4	5	6	7
There was adequate access to internet resources and books if I needed to look something up	0	1	2	3	4	5	6	7
The bedside teaching was very good	0	1	2	3	4	5	6	7

I received my evaluation before the rotation ended	0	1	2	3	4	5	6	7
I received feedback about my performance throughout the rotation	0	1	2	3	4	5	6	7
Organisation								
There was adequate space for me to complete my work	0	1	2	3	4	5	6	7
The supervising staff were available for back up and consultation if needed	0	1	2	3	4	5	6	7
The rotation was arranged in such a way that I was able to attend other Teaching Activities	0	1	2	3	4	5	6	7
Resident – Faculty Interactions								
I felt that my contributions to the department's clinical activities were valued	0	1	2	3	4	5	6	7
My opinions were respected and I felt like a member of the team.	0	1	2	3	4	5	6	7
Overall								
Overall this rotation allowed me to meet most of the rotation specific educational objectives	0	1	2	3	4	5	6	7

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Comments:

DOHMS Emergency Medicine Residency Program
Clinical Rotation FACULTY Teaching Evaluation

Resident Name: (optional)_____Rotation_____

This Form is designed to provide resident feedback to Programme Administrators concerning strengths and areas to improve in the quality of training by providing an assessment of teaching staff in the Emergency Medicine Programme. The forms will be given to the resident at the end of each rotation. Please feel free to be candid and objective. All comments will not be traceable by the faculty in question to the resident completing the form.

Rank the following statements on a scale of 1 to 7 on whether you agree or disagree with them as they pertain to this rotation (1= strongly disagree; 7 = strongly agree) Please Rate the Faculty Member's teaching style and capacity to function as a role model.

Clinical Teaching Faculty: _____ Rotation: _____

(Note: Use a separate sheet for each supervising Faculty Member)

Could not Judge	Strongly Disagree	□	.	□	□	Strongly Agree
Medical Expert						
Up–to-date in area of practice, scientific and clinical knowledge	0	1	2	3	4	5	6	7
Promotes development of trainee's judgement and decision making	0	1	2	3	4	5	6	7
Supervised the teaching of procedural skills	0	1	2	3	4	5	6	7
Communicator						
Role model for effective & compassionate communication with patients & families	0	1	2	3	4	5	6	7
Clear written communications documentation	0	1	2	3	4	5	6	7
Collaborator						
Role model for care in interdisciplinary setting	0	1	2	3	4	5	6	7
Respectful interaction with trainees/ other colleagues in clinical situations	0	1	2	3	4	5	6	7
Provided appropriate graded responsibility to the resident during the rotation	0	1	2	3	4	5	6	7
Manager						
Role modeled the use of health care resources cost effectively	0	1	2	3	4	5	6	7
Organization of work and time management	0	1	2	3	4	5	6	7
Health Advocate						
Role-modeled just advocacy for his/her individual patients	0	1	2	3	4	5	6	7

Scholar	
Promoted critical appraisal skills in teaching and clinical work	0 1 2 3 4 5 6 7
Enthusiasm for and effectiveness at teaching	0 1 2 3 4 5 6 7
Professional Role modelled and promoted the values of:	
The highest levels of integrity and honesty	0 1 2 3 4 5 6 7
Sensitivity to and respect for diversity	0 1 2 3 4 5 6 7
Compassion and Empathy	0 1 2 3 4 5 6 7
Recognition of own limitations	0 1 2 3 4 5 6 7
Application of the principles of medical ethics to clinical situations	0 1 2 3 4 5 6 7

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Comments:

DOHMS EMERGENCY MEDICINE RESIDENCY PROGRAM
ROTATION IN-TRAINING ASSESSMENT (RESIDENT)

Name:
Period of Training FROM: TO:
Resident: I II III IV V VI Site:
Rotation:

MEDICAL EXPERT	Could not Judge		Strongly Disagree	□	□	□	Strongly Agree
Basic scientific knowledge	0	1	2	3	4	5	6	7
Basic clinical knowledge	0	1	2	3	4	5	6	7
History & physical examination	0	1	2	3	4	5	6	7
Interpretation & use of information	0	1	2	3	4	5	6	7
Clinical judgment & decision making	0	1	2	3	4	5	6	7
Technical skills	0	1	2	3	4	5	6	7

COMMUNICATOR								
Communication with other allied health professionals	0	1	2	3	4	5	6	7
Communication with patients & families	0	1	2	3	4	5	6	7
Written communication & documentation	0	1	2	3	4	5	6	7

COLLABORATOR								
Consults effectively with all health professionals	0	1	2	3	4	5	6	7
Delegates effectively	0	1	2	3	4	5	6	7

MANAGER								
Understands & uses IT	0	1	2	3	4	5	6	7
Uses resources cost-effectively	0	1	2	3	4	5	6	7
Organises work & manages time well	0	1	2	3	4	5	6	7

HEALTH ADVOCATE								
Advocates for the patient	0	1	2	3	4	5	6	7
Advocates for the community	0	1	2	3	4	5	6	7

SCHOLAR								
Motivated to acquire knowledge	0	1	2	3	4	5	6	7
Critically appraises medical literature	0	1	2	3	4	5	6	7
Teaching skills	0	1	2	3	4	5	6	7
Completion of research/project	0	1	2	3	4	5	6	7

PROFESSIONAL								
Integrity & honesty	0	1	2	3	4	5	6	7
Sensitivity & respect for diversity	0	1	2	3	4	5	6	7
Responsibility and self-discipline	0	1	2	3	4	5	6	7
Professional relationships with physicians	0	1	2	3	4	5	6	7
Recognition of own limitations, seeking advice when needed	0	1	2	3	4	5	6	7
Understands and applies principles of ethics clinical situations	0	1	2	3	4	5	6	7
GLOBAL EVALUATION OF COMPETENCE AND PROGRESS	0	1	2	3	4	5	6	7

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COMMENTS (Including Strengths, Weaknesses and Need for Special Attention).
Please use reverse side if necessary

_____
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Signature of Supervisor Date Signature of Trainee Date

DISAGREE AGREE