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# EMERGENCY MEDICINE TRAINING PROGRAMME: CURRICULUM AND ASSESSMENT SYSTEM

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Iraqi Medical Specialty Board



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## 1. Introduction

Emergency Medicine (EM) is a rapidly developing speciality. It is one of the most acute specialities that utilise time to make a difference and save lives. The role of the EM doctor may start with disease prevention stage before being involved in prehospital care and finally managing acute injury or illness in hospital. These require acquisition of broad and highly specialised knowledge and skills.

EM Physician (EP) practice involves dealing with people from different age groups and medical and social backgrounds who may present with variety of conditions ranging from simple injuries to life-threatening presentations. To be able to deal with all these cases and situations the EP should also have good communication, personal interaction, leadership, and team spirit skills.

EM as a speciality encompasses pre-hospital care, inter-hospital and multispeciality communications, and post hospital follow up or referral when possible. EP should be able to utilize their ability of early recognition of critical illnesses into applying immediate and safe care, resuscitations, procedures, reassessment, getting diagnosis or differential diagnosis, and then definitive care with either discharge or admission under speciality.

Modern Emergency Department (ED) is not one single physical area. ED ideally should have areas for triage, areas for separate assessment of major cases and minor injury cases, resuscitation rooms and observation bays. Areas for

managing ambulatory patients who do not need to be on trolleys all the time are becoming popular in addition to having separate areas for children and adolescents. While a junior EP may focus on working in one area during his shift, the senior EP must be available in all these areas, supervising work there, and ensuring safe and effective patient's flow.

The duration of this training program for EM is four years. The trainee can join the program after finishing 2 years of working as postgraduate house officer or intern following graduation from medical school. He/she can join the first year of the training program after passing the competition exam. This curriculum is designed with certain aims and goals to be achieved over four years of training. The curriculum will equip the future EP with all knowledge and skills required to become safe and independent EM specialist in Iraq homeland

## 2. Foundation

### 2.1 The goals of this curriculum

The aim of this curriculum is to describe the pathway of training and all competencies needed to become EM specialist. To achieve curriculum linked competencies the trainee is required to work in an emergency department and rotate through different specialties over four years. During this time, the trainee must complete all competencies in the curriculum, complete all necessary courses and pass all the speciality examinations before he or she is awarded the title of EM specialist.

### 2.2 Curriculum format

This curriculum has been written by a collaborative work between EM consultants and specialists. The curriculum has been structured to fit the four years of EM training in Iraq and Arabic countries. It has been structured based on a sound local and international curriculums and guidelines.

### 2.3 Joining the training

Doctors may join the training programme in EM only after:

1. Finishing two years of working as junior house officer, this may sometimes be followed by 1 year working as senior house officer in EM.
2. Application for the training programme is through the Iraqi Board for medical Specializations programme in Iraq.

This is a four-year programme (full 48 months) that is divided into two stages (primary and secondary) with each one for two years. Over the period of training the trainee will rotate in different specialities like EM, Acute/General Internal Medicine, Anaesthesia, Intensive/Critical Care Medicine Paediatrics, Cardiology/coronary care unit, General Surgery, Trauma and Orthopaedics, Plastic Surgery, ENT (Otolaryngology), Ophthalmology, Toxicology (Poisoning), Radiology, and Obstetrics/Gynaecology.

Over the period of different rotations, the trainee has to exhibit the abilities to

- a) Rapidly assessing the unstable patients
- b) Simultaneously commencing immediate resuscitation to stabilize these patients
- c) Appropriately utilizing resources and investigations to reach the final diagnosis
- d) Safely discharging patients or referring them to other specialities

#### 2.4 Structure of curriculum and training

This competency-based curriculum describes the competencies that each EM trainee must successfully achieve over four years to be awarded a certificate of completion of training in compliance with the Iraqi board training system. Each trainee should also have a named:

- a) Programme director (PD): Usually from the Board of specialization
- b) Educational supervisor: A Consultant or specialist from emergency medicine who supervises the trainee progress and successful completion of each training stage
- c) Clinical supervisor: A Consultant or specialist in rotating specialties who supervises and signs off the trainee in any single rotation

The trainee will have regular meetings with his/her educational supervisor and clinical supervisor to check the progress of the training and sign off process for competencies. During each rotation, the trainee will have work-based assessments (WBA) done for each competency signed by a senior doctor in speciality as explained in the curriculum. It is the responsibility of trainee to be aware of these competencies needed to be signed off over each speciality and to keep his portfolio updated.

Successful completion of the four-year training programme and obtaining certificate of a Specialist in EM will only happen if the trainee has:

- a) Successfully covered all the curriculum and was signed off for all competencies by his supervisors and programme director
- b) Passed all the examination of the Iraqi board for EM. The written exam can be taken in the first year , the mid. Clinical exam in the 3<sup>rd</sup> year and final written and clinical exam (OSCE and Oral exam) at the end of the 4th year.
- c) Successfully completed all the designated resuscitation courses
- d) Successfully completed a research that gets panel approval

## 2.5 Registration

All trainees should be registered with the Iraqi Board for medical Specializations committee in Iraq at the start of their training programme. Trainees should keep their contact details up to date as the Iraqi board for medical specializations has an electronic communication system through the web site ([www.iraqiboard.edu.iq](http://www.iraqiboard.edu.iq)). The website has an updated information about examination process.

## 3. Competencies and aims

This programme explains the competences which EM trainee will need to cover to be qualified as safe EP. Each competency has three components (knowledge, technical skills or abilities, and non-technical skills which are about interpersonal and communication skills and leadership).

These competencies are organised in five groups.

1. Generic competences: Competencies which are required over the entire training period. They need to be reviewed every year to ensure the trainee is up to the expected standard.
2. Major presentations: These are life-threatening presentations that will be encountered while working in ED.
3. Acute presentations: These are less critical, but still serious presentations that will be encountered while working in ED. Trainee should exhibit the three components of this part of competencies

(knowledge, abilities, and interpersonal and communication skills) for successful completion.

4. Practical procedures competences: These are the main procedures which should be covered over four years. Some of these are specialty specific.
5. POCUS (Point of Care Ultrasound) training: knowledge and skills needed to be covered over four years of training to achieve level one competency.

### 3 Syllabus:

Trainee should make sure that:

- a) Each single competency is covered and supported by successfully completed assessment form.
- b) All the assessment forms should be saved in the portfolio as evidence
- c) Completing assessment forms that are relevant to the competencies is the ideal way to cover portfolio. However, trainee may discuss with his trainer/supervisor other acceptable ways to cover some competencies that may be exceptionally hard to be assessed using the described forms. For example, simulation can be used instead of work-based assessments.

#### 3.1 Generic Competencies/Skills

These are the technical and non-technical skills needed to be practiced by EP while caring for patients. The assessment of these competencies can be incorporated in the assessment of other clinical skills. The acquisition of good communication skills, personal behavior, leadership, and other skills will improve the quality of care delivered to patients.

No.	Generic skills (GS)	Assessment tool(s)
GS1	Professional behavior	CBD, Min-Cex, ESE, MSF
GS2	Communication skills with colleagues	CBD, Min-Cex, ESE, MSF
GS3	Communication skills with patient	CBD, Min-Cex, ESE, MSF
GS4	Team working	CBD, Min-Cex, ESE, MSF

GS5	Confidentiality & medical ethics	CBD, Min-Cex, ESE
GS6	Breaking bad news	CBD, Min-Cex, ESE
GS7	Management of time	CBD, Min-Cex, ESE
GS8	Able to take relevant History	CBD, Min-Cex, ESE
GS9	Conducting clinical examination	CBD, Min-Cex, ESE
GS10	Decision taking and reasoning	CBD, Min-Cex, ESE
GS11	Safe prescription of medications	CBD, Min-Cex, ESE
GS12	Consenting patient	CBD, Min-Cex, ESE
GS13	Patient safety as priority	CBD, Min-Cex, ESE, MSF
GS14	Managing medical complaints	CBD, dealing with complain
GS15	Infection control	CBD, Min-Cex, ESE, MSF
GS16	Improving health of community	CBD, Min-Cex, ESE, MSF
GS17	Evidence-based guidelines	Reviewing guidelines
GS18	Audit in ED	Audit
GS19	Teaching and presentation	CBD, Min-Cex, ESE, OT
GS20	Trainee professional behavior	CBD, Min-Cex, ESE, MSF

GS1 Professional behavior
Knowledge
<ul style="list-style-type: none"> <li>• Knows the role of doctor being trustable, put patient's interest as 1st priority, honest, and decent when dealing with patients or their family.</li> <li>• Knows the need to respect patient/ their families &amp; dealing with no discrimination regardless of their gender, age, religion, ethnicity, race, cultural background, or mental status.</li> <li>• Knows how to deal with complex obstacles and difficult people.</li> <li>• Knows the importance of management &amp; leadership development skills</li> </ul>
Competency



<ul style="list-style-type: none"> <li>• Able to be an effective leader in ED</li> <li>• Exhibit good leadership with best use of resources and assignment of roles</li> <li>• Be a team player and work in integration with other people</li> <li>• Be a model to other colleagues and practice with integrity</li> <li>• Be professional to the unprofessional behavior of colleagues</li> <li>• Be compassionate, non-discriminatory, and consistency when practicing</li> </ul>	
<b>Performance</b>	
<ul style="list-style-type: none"> <li>• Shows sympathy, empathy, calmness &amp; non-confrontational way of dealing with angry people. Understand the need of not letting personal beliefs to affect decision making</li> <li>• Shows a good use of all healthcare resources prudently and appropriately</li> <li>• Understand the importance of feedback as a tool to improve practice</li> <li>• Understand the importance of professional development</li> <li>• Understand the equal right of all for access to healthcare service</li> <li>• Recognize need for reliability and accessibility throughout the healthcare team</li> </ul>	
<b>Leadership</b>	
Personal level	Consistency in behavior and mood regardless of workload
Interacting with others	Involve juniors and other doctors with discussions regarding patient care during handover time
Service management	Be a role model for others in personal behavior Help department to achieve goals of professional interaction
Service development	Introduce quality improvement changes like new rota or skill
Goals setting	Effective & collaborative work with specialties during night shift

<b>GS2 Communication with colleagues</b>
<p>Effective &amp; professional communication with doctors in ED and other specialties. Understand &amp; agree the obligations of a doctor towards other healthcare workers. Respect the view of others</p> <p>Manage the team effectively with allocation of break time</p> <p>Utilize human factors skills to achieve the best care to patient</p>
<b>Knowledge</b>

Exhibiting a team-work behavior with good dynamics	
Understand the need to work collaboratively with others to achieve the best care	
<b>Competencies</b>	
Using email, phone, or other communication with a precise, on-time, and clear communications with healthcare workers, night team or admin staff to achieve the best care, follow up, or transfer of care for patient.	
Resolve conflict with colleagues by managing own self behavior professionally	
<b>Performance</b>	
Transparent and supportive communication between colleagues	
Confidentially in communication when dealing with confidential data	
Keep a life-work balance for him/herself and colleagues. Taking yearly leave after a proper notice time	
Flexibility in covering sick colleagues shift	
<b>Leadership</b>	
Personal level	Respect to nursing team with good communication of care plan
Interacting with others	Good collaboration with the leading nurse to manage a busy department Keep good relation with other specialities to improve care level to patient
Service management	Communicate rota to staff clearly and early Good distribution of workload between colleagues during shift
Service development	Seek feedback from other specialities regarding the communication and collaboration from ED
Goals setting	Appropriate distribution of competencies in the team during each shift. This will ensure best care when dealing with emergencies

<b>GS3 Communication skills with patient</b>	
<b>Knowledge</b>	
Understand the importance of confounders which may affect the consultation, i.e, patient's education, culture, expectations, and concerns.	
Understand the need to organise the consultation systematically in all situations	

Competencies	
Start consultation by building up a rapport with patient / relatives	
Active listening to patient's story and questions	
Asking for an interpreter in those with language barriers	
Professional and sensitive way of breaking news to the patient	
Double check patient understanding and answer any question	
Summarize and recap the interview	
Make record of your consultation in patient's records	
Explain follow up plan and safety net before discharge	
Physical or chemical restrains to be used only when permitted and in safe way	
De-escalation and appropriately management of aggressive/ psychiatric patient	
Performance	
Show empathy, compassion, respect, professionalism, patient's centered care when talking with patient. Talk to patient as equal rather than superior-inferior.	
May offer second opinion if patient requested and department policy permit	
Talk positively and confidently about own and other colleagues	
Be professional and respectful when talking about colleagues / assess their work	
Respect patient values regardless of their background. Act as advocate of patient and act in their best interest	
Leadership	
Personal level	Active and uninterrupted listening to patient
Interacting with others	Feedback to colleagues with communication difficulties
Service management	Ask for interpreter if required
Service development	Help department in building up a documentation of record system
Goals setting	Communication skills and values to be part of department teaching to trainee

<b>GS4 Team-working and safe management of patient</b>	
Capability to be a team-worker and, if needed. a team leader for different teams for a better care for the patient	
<b>Knowledge</b>	
Knows the hinders of effective performance and how to address them	
Knows the importance of effective cooperation and team working	
Knows own duties as a team player	
<b>Competencies</b>	
Understand the importance of accurate handover to next team to guarantee the continuity of care	
Make a list of patients in department with diagnosis and plan for the handover	
Understand the importance to support to less experienced team members	
Supportive to colleague who are having physical, social, or stress problems	
Assigns task to team members. Collaborate with nursing team for a better care	
<b>Performance</b>	
Accept feedback about team performance and ways to improve skills	
New team members to have a proper induction before start working	
<b>Leadership</b>	
Personal level	Address other team members concerns and listen to them Balance leadership skills between acutely unwell & minor cases
Interacting with others	Supervision and provision of constructive feedback to junior team members
Service management	Spot doctors in-difficulty and report to their supervisor for support
Service development	Introduce a team leadership and patient safety projects to improve level of care
Goals setting	Constructive feedback to doctors and nurses regarding their team-playing performance and how to improve
<b>GS5 Confidentiality and medical ethics</b>	
<b>Knowledge</b>	

Understand the importance of keeping data of alive or deceased patient confidential	
Understand when and when not to disclose patient confidentiality	
Understand the patient religious or cultural background on ethics of decision	
<b>Competencies</b>	
Practice and encourage colleagues to respect and keep patient's confidentiality	
Ensure confidentiality is maintained in ED	
Empathic approach when discussing with family of patient the decision not to resuscitate	
<b>Performance</b>	
Respect patient's right of not to disclose his information unless this may be a potential harm for patient or others	
Ask for advice from other senior doctors if not sure about the decision of stopping resuscitation	
<b>Leadership</b>	<b>Demonstrate competence in domains &amp; evidence in setting directions</b>
Personal level	Not to discuss patient's data in public places or gossips
Interacting with others	Put patient data or pictures on social media or
Service management	Papers having patient data to be shredded rather than put in bin
Service development	Using electronic medical records with password to access patient details and investigations
Goals setting	Challenge staff who disclose patient's confidential information inappropriately and teach them

<b>GS6 Breaking bad news (BBN)</b>
<b>Knowledge</b>

<p>Aware that:</p> <ul style="list-style-type: none"> <li>• It is stressful for both doctor and patient who may be expecting them or not</li> <li>• Bad news have different meaning based on cultural or individual back ground</li> <li>• Patients differ in their responses and may want fewer or less explanation</li> <li>• Patients may be willing for their family to be with them while taking bad news</li> <li>• Be factual, honest, realistic, &amp; empathic, but don't give false hope / use jargons</li> <li>• The way of doing it reflects level of professionalism</li> <li>• Talking about post mortem examination when it is required and explain why</li> </ul>	
<p>Doing it involves:</p> <ul style="list-style-type: none"> <li>• Preparation of right place, uninterrupted interview, having the right information about disease cause, treatment, and prognosis.</li> <li>• Having a structure when delivering the information.</li> </ul>	
<b>Competencies</b>	
Demonstrate how to structurally break the bad news by preparing the scene, check understanding, explain diagnosis, complications, treatment, prognosis, & further management	
If patient was willing, involve family in decision regarding future management	
Invite all for questions	
Respond to relatives or patient verbal or body language cues	
Show sympathy, sensitivity, and empathy when breaking the news, while keep being honest with no false optimism or pessimism	
<b>Performance</b>	
<p>Able to teach others how to do it</p> <p>Leading resuscitation with relatives around</p> <p>People may have different ways in reaction to bad news that you may to accept, as long as they the way does not involve verbal or physical abuse.</p>	
<b>Leadership</b>	
Personal level	Being empathic to family of patient
Interacting with others	Debriefe your team after death, especially children
Service management	Assign a room for relatives in ED
Service development	Involving appropriate religious people in support to family
Goals setting	Develop the department policy on that

<b>GS7 Management of time</b>	
<b>Knowledge</b>	
Aware about the organization of tasks and prioritization of care as per urgency	
Aware about the need to assign tasks& manage resources for better outcomes	
Aware about the urgency to start investigation and treatment after prompt diagnosis to reduce mortality and morbidity	
<b>Competencies</b>	
Organize and prioritize the load of work efficiently	
Plan your department workload and estimate the time needed to clear	
Collected doing of tasks which can be grouped together	
Spot the most urgent task and do it promptly	
Regular re-assessment of your department workload and time needed to do	
Appropriate delegation of tasks to avoid over or under working	
<b>Performance</b>	
Stay flexible, calm, rational with prompt correction of failing situation	
Effective communication of workload and the plan to clear to nursing and ED team	
<b>Leadership</b>	
Personal level	Calm with consistency in the level of care regardless of demand
Interacting with others	Redelegation or re-tasking for those who are falling task or under stress
Service management	A holistic view on the department and utilize internal resources to clear long waiting
Service development	Organize the rota based on peak time to have a balanced doctor to patients ratio
Goals setting	Set a specified door to admission or door-discharge time

<b>GS8 Able to take a relevant focused history</b>	
<b>Knowledge</b>	
Understand the different parts of medical history	

Understand and respect the cultural, social, psychological, social, and nutritional differences due to difference in ethnicity, religion, culture, or mental status	
Understand the unistructural and different ways patient may lay their history	
Understand the occupational, social, or other risk factors for the diagnosis	
Understand that history should be followed by examination, diagnosis & treatment	
<b>Competencies</b>	
Use open and close ends standardized questions for focused and relevant history	
Time the consultation with a proper closure	
Take into account collateral history from relatives or friends	
Know that the way patient or relatives answer question may give an indirect clue	
Have a good history taking skills from children of different ages	
<b>Leadership</b>	
Personal level	Retake history or restate the question when failing to get a proper answer
Interacting with others	Be a role model for others in history taking and review the notes of junior doctors for history taking assessment
Service management	History taking style should be customized to acuity of situation
Service development	ED rounds and review of cards can be used a teaching opportunity to other on history taking skills
Goals setting	Create departmental Performa for history documentation

<b>GS9 Conducting clinical examination</b>	
<b>Knowledge</b>	
Able to perform a valid and concise clinical examination looking for positive and negative signs	
Understand the limitations to perform a full examination in certain situations	
Understand that clinical examination has limited value without history element	
<b>Competencies</b>	
Perform and timely-effective relevant examination based on presentation	



Able to recognize a self-harm signs and act on that appropriately	
Be aware about social, cultural, religious or psychological factors which may change or hinder the examination findings	
Able to examine children of all ages	
<b>Performance</b>	
Be respectful and act according to oaths and in accordance with medical ethics	
<b>Leadership</b>	
Personal level	Perform a proper examination with sympathy and respect to patient privacy and culture background
Interacting with others	Be a role model for examination in department and encourage colleague to conduct a relevant and proper examination
Service management	Examination maneuvers sometimes need to be modulated based on patient acuity or condition
Service development	Do Mini-CEX for clinical examination to assess competency
Goals setting	Create departmental Performance for examination documentation

<b>Decision taking and reasoning</b>	
<b>Knowledge</b>	
Understand how to utilize history & clinical examination to hypothesize a possible clinical problem that can be verified and used to create possible diagnosis and action plan.	
Understand how to utilize clinical guidelines and experts' opinions to verify the diagnosis and decided about the best treatment	
Understand the risk factors of possible diseases and the natural history of progression if was left untreated	
Knows the meaning of sensitivity, specificity, risk ratios, and predictive values of diagnostic tests	
<b>Competencies</b>	
Use clinical features and history to reach a possible diagnosis	
Ability to recognize serious presentation and respond to them promptly	

Formulate and management plan and articulate this clearly to nurse and patient	
Utilize evidence base and literatures to guide treatment	
<b>Performance</b>	
Aware that patient most of times has the choice to have treatment or not	
<b>Leadership</b>	
Personal level	Aware about risk of pre-assessment bias, for example from nursing assessment
Interacting with others	Ensure junior doctors using reasoning to rule out higher risk degases first
Service management	Act on the working diagnosis and in patient's best interest
Service development	Ensure risk and scoring calculators available and used
Goals setting	Create evidence-based guidelines to help in reaching the mostly likely diagnosis and management plan

<b>GS11 Safe prescription of medications</b>	
<b>Knowledge</b>	
Aware about the commonly used medications indications, CI , and SE	
Aware about medications which need drug level monitoring	
Aware about effect of age and medical illnesses on drug metabolism	
<b>Competencies</b>	
Be aware about possible drugs interaction and make patient aware of this	
Provide a simple and correct explanation to patient on how to use medicine	
<b>Performance</b>	
Be aware of need the effect of and need to avoid polypharmacy when possible	
Aware about over the counter& herbal medicines effects on treatment	
<b>Leadership</b>	
Personal level	Empathy to patient in pain and safe prescription of analgesia
Interacting with others	Explain to junior how to write safe prescription

Service management	Audit your department compliance with good prescription
Service development	Suggest to hospital the safe stock level and type of medication in ED pharmacy
Goals setting	Suggest new medication to ED pharmacy based on Evidence based

GS12 Consenting patient	
Knowledge	
<p>Know how to get an informed consent from patient or his relatives</p> <p>Understand that patient's mental status and medical condition may affect ability to give a consent</p>	
Competencies	
Explain the procedure to patient or his relative in clear and simple way	
Always be honest about other therapeutic or diagnostic options	
Performance	
Understand that fully awake competent adult has the right to refuse treatment	
Understand that patient religious or moral background could be the reason to refuse treatment.	
Understand the need to be honest with patient & not to hide any other options	
Leadership	
Personal level	Consent pertinent and document this in his notes
Interacting with others	Patient should always sign a self-discharge form when leaving ED against medical advice
Service management	Audit department compliance with consent procedure
Service development	Develop an easy-to-understand consent form
Goals setting	Teach staff about capacity assessment in patient

CC13 Putting patient safety as a priority	
Knowledge	
Aware about the principle of risk assessment and its usage to expect potential harm	
Aware that nothing should compromise patient's safety	
Able to honest explain to patient the risk of treatment so patient can decide on	
Competencies	
Reassess patient if any deterioration or no response to treatment	
Aware about the SE and Cis of medication an procedures	
Prompt respond to patient with deteriorating vital signs or critical lab results	
Performance	
Encourage team feedback on patient's safety issue and use tis to improve performance	
The need to take appropriate action against a team member who act unsafely	
Be aware about own limitation and know when to ask for help	
Leadership	
Personal level	Assess risk associate with some types of presentations: ex. patient with infection or aggressive patient
Interacting with others	Communicate the risky presentation to nursing team
Service management	Patient with risk may need to be isolated, example those with infection
Service development	Create a risk assessment system in triage and ED
Goals setting	Understand that delay in seeing patient is a risk by itself. Create a system to facilitate flow in ED

CC14 Dealing with complaint and medical errors
Knowledge

<p>Able to Identify probable causes of complains (dishonesty or poor communication)</p> <p>Use a de-escalation approach to stop the progression to complain</p> <p>Being non-confrontational when dealing with agitated patient</p> <p>Feedback to the staff who made something wrong to rectify their practice</p> <p>Understand that value of apology as a mean for de-escalation rather than accepting complain</p>	
<b>Competencies</b>	
Aware about the complaint process in the department	
Be honest with patient when a medical error was done	
Know how to apologize to patient or his family about a medial error	
Understand how to learn from a medical error or near miss to improve service	
<b>Performance</b>	
Understand the right of patient or his family to make a complaint	
<b>Leadership</b>	
Personal level	Be prepared to accept criticism from patient and use this to improve level of care
Interacting with others	Support to junior doctors in dealing with complaint
Service management	Explain to patient the process of making complaint when they need to do
Service development	Utilize complaints to achieve a better care for patients in ED
Goals setting	Audit the most common cause of complaints in ED and create a mitigation plan to minimize this

<b>GS15 Infection control in ED</b>	
<b>Knowledge</b>	
Know the Principe of infection control	
Know the principle of preventing infection in high risk group and avoid complications from over prescription of antibiotic , i.e. MRSA , C- diff	
<b>Competencies</b>	

Aware of the risk of infection from patient looking after	
Aware about local communicable disease and causes of travelers' diarrhea or fever	
Use guidelines when prescribing antibiotic	
Use aseptic technique when doing all procedure	
<b>Performance</b>	
Encourage staff to do hand hygiene & being vigilant about infectious diseases	
<b>Leadership</b>	
Personal level	Always have clean scrubs or bare below elbow shirts Encourage colleague to use hand gel
Interacting with others	Remind other about hand hygiene
Service management	Ensure antibiotic prescription protocol is available Check that the prescribed antibiotic is patching the protocol
Service development	Do an audit on Antibiotic prescription
Goals setting	Develop your department infection control, isolation, hand hygiene monitoring and antibiotic prescription policies

<b>GS16 Improving health of community</b>	
<b>Knowledge</b>	
Realize the importance of equity in health care provision to people Know how to develop the health care to the community	
<b>Competencies</b>	
Use ED consultation to give advice to improve physical wellbeing and encourage healthy lifestyle	
<b>Performance</b>	
Be part of the health system to improve the wellbeing of individuals and promote for screening and treating any non-emergency conditions	
<b>Leadership</b>	
Personal level	Remind patient about the importance of healthy lifestyle

Interacting with others	Remind junior doctor to always ask about alcohol, drugs and smoking history as part of medical history
Service management	Direct patient with smoking, alcohol, or drugs problems to the right service
Service development	Handout to be developed which advise about the effects of smoking, alcohol or drugs addictions and help available
Goals setting	ED collaboration with addiction centers and primary healthcare to promote a healthier lifestyle

GS17 Evidence-based guidelines	
Knowledge	
Aware of the importance to have an evidence-based guideline to guide the management of patient	
Have basic statistical knowledge about the level of evidences, types of studies, and the meaning of statistical terms	
Competencies	
Update to create an evidence-based guideline for common conditions in ED	
Able to search the common evidences searching engines and extract data from papers and apply this to his guidelines and practice	
Performance	
Keep up to date with the international guidelines	
Leadership	
Personal level	Use guidelines to support your decision during discussions
Interacting with others	Work with other specialties to have a joint guideline
Service management	Make sure ED doctors will always have access to these guidelines either as soft or hard copy
Service development	Help on updating guidelines in ED
Goals setting	Use the national guidelines issued by ministry or deanery

GS18 Audit in ED	
Knowledge	
Understand that audit will help in improving the quality of care to patient	
Know different types of audits and how to close the audit cycle	
Competencies	
Complete an audit during training	
Performance	
Understand that audit will help to standardize and improve care level	
Leadership	
Personal level	Use audit as a tool to measure department safety and effectiveness
Interacting with others	Encourage junior and staff to be involved in audit
Service management	Utilize audit findings to make a good change in the department
Service development	Repeat audit after that to check if changes have made any difference in the outcome
Goals setting	Help your department to implement audit as service effectiveness measuring tool

CC19 Teaching and presentation	
Knowledge	
Aware how to deliver presentation or teaching, e.g. Setting up the environment and method, explain your objectives, ...etc	
Have a clear learning outcomes	
Use different ways to deliver teaching and ask questions	
Competencies	



Finish 2-3 presentations and do bedside teaching using variable teaching techniques to deliver presentation or deliver bedside teaching. Get Work based assessment done for that by the supervisor.	
<b>Performance</b>	
Understand the importance of teaching by doctor to improve care to patient	
<b>Leadership</b>	
Personal level	Use all opportunities to do teaching
Interacting with others	seek feedback from audience about your teaching
Service management	Use handover time as a chance to do teaching
Service development	The named supervisor of each trainee will assess the trainee when deliver teaching
Goals setting	Evidences of delivering teaching to be submitted to supervisor

<b>GS20 Trainee professional behavior</b>	
<b>Knowledge</b>	
<p>Respect people and treat them with no discrimination regardless of their age, gender, social, cultural, religious, ethnic, mental status, or disability backgrounds.</p> <p>Be honest and fair with patient</p> <p>Have a nice and non-confrontational attitude</p> <p>Do not let your personal belief biases or impact your professional decision or provision of service</p>	
<b>Competencies</b>	
Work with integrity, non-discriminatory, compassion, humanity, humbleness, and respect with people regardless of their different ethnic or culture background	
Act appropriately on the unprofessional behavior of other doctors	
<b>Performance</b>	

Have multisource feedback form filled by a different staff about you on a yearly base.	
<b>Leadership</b>	
Personal level	Accept criticism and work to improve your level of care
Interacting with others	Encourage junior doctors to be role model for doctor in the community and during work
Service management	ED to encourage an equity in the delivery of service to all patients
Service development	Teach the value of above approach to staff
Goals setting	ED by acting as role model will improve the idea of society and trust in doctors and hospital

### 3.2 Clinical presentations

Patients usually come to ED with a problem rather than a diagnosis. This curriculum has been categorized based on problem type rather than diagnosis. These problems have been subdivided into major (life threatening) and acute (severe and urgent) problems. All assessment for major presentations should be signed off only by a specialist.

3.2.1 Adult Major Presentations (AMP)		
Code	AM Presentations	Assessment tool
AMP1	Unconscious adult	Min-CEX /CBD
AMP2	Shocked adult	Min-CEX /CBD
AMP3	Septic adult	Min-CEX / CBD
AMP4	Major Trauma adult	Min-CEX
AMP5	Cardiorespiratory arrest	Min-CEX / ALS
AMP6	Anaphylaxis adult	Min-CEX/ Simulation

<b>AMP1 Unconscious adult</b>
<b>Knowledge</b>
Knows the main causes of low dropped level of consciousness (CNS or metabolic)
Knows the sub-causes (hypoglycemia, drugs, infection, trauma, hypoxia, vascular, raised ICP, epilepsy, hypotension, and endocrine)
Knows the required investigation and management plan
<b>Competencies</b>
Able to do the initial assessment ( A, B, C, D, E)
Protect cervical spines and check blood sugar
Examination of the CNS and assess initial GCS
Take collateral history using AMPLE format
Do relevant bedside investigations and order further investigations
Prompt correction of any abnormality, e.g, treat seizure, correct hypoglycemia, IV Abx, ...etc
<b>Performance</b>
Understand the urgency of situation and need to act promptly
Understand the possibility of involving other specialties to stabilize case, e.g. radiology for CT head, ICU for intubation and ventilation, ..etc

<b>AMP2 Shocked adult</b>
<b>Knowledge</b>
Knows the main types of shocks, eg. Hypovolemic, cardiogenic, distributive... etc
Knows the causes for each type, e.g , bleeding, MI,..etc
Knows the types of monitoring and bed side investigations
Knows about further investigations required, e.g CT , FAST scan, cbc, ..etc
Knows types and how to prescribe fluids and inotropes.
<b>Competencies</b>
Able to do the initial assessment (A, B, C, D, E)
Prescribe the initial treatments (IV access, O2, fluids) and ask for blood gas

Use the invasive and non-invasive monitoring to assess response
Able to do IO or utilize POCU to get peripheral IV access (or central line if required) and also doing arterial line
Act on the results of initial investigations and rectify abnormalities
Ask for specialty teams input, e.g, general surgery, cardiologist, ..etc
<b>Performance</b>
Systematic and calm approach
Lead the resuscitation when required
Ask for help when required from inside or outside the department

<b>AMP3 Septic adult</b>
<b>Knowledge</b>
Knows the differences between and outcomes of SIRS, sepsis, and septic shock
Knows the common organism which may cause this
Knows how to safely and early consider IV fluids and inotropes
Knows the hospital protocol for first line empiric therapy
Knows when to intubate and indications for renal replacement therapies
<b>Competencies</b>
Able to do the initial assessment (A, B, C, D, E)
Start the initial treatments (IV access, blood culture and blood gas, O2, IV fluids, and IV antibiotics)
Able to do IO or utilize POCU to get IV access, central line, do Arterial line, do endotracheal intubation (ETT) and ventilation
Check lactate, central venous oxygen saturation and infection markers Looking for sources of sepsis by doing appropriate investigations
<b>Performance</b>
Prompt recognition and treatment will help to reduce mortality from multiorgan failure

Team working with ED staff and other specialties ( ICU, microbiology) to get the best level of care
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AMP4 Major Trauma
Knowledge
Know how to do primary and secondary survies
Know how stabilize spines
Know how to do cricothyroidotomy
Know how to do IV access, IO, CVL, arterial line
Know how to recognize major life-threatening trauma to chest or abdomen
Know how to do needle thoracocentesis
Know how to insert surgical chest drain
Know how to diagnose those with diaphragmatic rupture, esophageal rupture, aortic arch rupture, trachea-bronchial tree rupture, pulmonary contusion, myocardial injury, and ribs or sternal injuries
Know how to treat hypovolemic shock from bleeding
Know how to do and interpret FAST scanning
Know how to diagnose and manage skull fracture or IC bleeding, including secondary prevention
Know how to apply RSI in major trauma
Know to investigate for and manage cervical spines injury
Competencies
Demonstrate how to assess trauma patients & do primary and secondary survey
Demonstrate how to protect airway, do oxygenation and ventilation
Demonstrate how to do C-spines immobilizations and logroll
Demonstrate how establish IV/ IOP/ CVL access and treat hemorrhagic shock
Demonstrate how to identify tension pneumothorax, do needle decompression and insert chest drain
Order and interpreter initial investigate, like x-ray series and CT
Demonstrate howto do U. catheter, NG tube , safely prescribe analgesics

<b>Performance</b>
To have good team working, communication and leadership skills
Walk calmly and treat conditions by priority
Prompt referral to specialty team when life or limb-saving conditions

<b>AMP5 Cardiorespiratory arrest</b>
<b>Knowledge</b>
Know the causes of cardiac arrest, especially special circumstances
Know the need to rule out reversible causes of cardiac arrest
Know the different arrest or peri-arrest algorithms in ACLS and APLS
Know the medications get used in cardiac arrest indications and CIs
Know how to treat different types of arrhythmias as per ACLS / APLS
Know about post ROSC care for patient as per ACLS/ APLS
<b>Competencies</b>
Able to do promptly do the initial assessment (A, B, C)
Able to show safe BLS with proper use of bag-valve-mask (BVM) for ventilation
Able to follow advanced life support algorithms
Able to do safe defibrillation and safe cardioversion
Able to do safe pacing in symptomatic and unstable bradycardia
Able to do RSI
Able to lead cardiac arrest with proper ruling out of reversible causes
<b>Performance</b>
Prompt response in peri-arrest patients to treat reversible causes of cardiac arrest, especially hypoxia and hypotension
Being a team-player and Team leader in a calm and efficient way.
Being able to work in the best interest of patient when it comes to escalation of care to RCU or when to stop CPR

<b>AMP6 Anaphylaxis in adult</b>
<b>Knowledge</b>

Know the causes of anaphylaxis and pathophysiological mechanism
Know the clinical presentation of anaphylaxis and how to differential from an acute allergic reaction
Know the management of anaphylaxis as per the ACLS/ APLS anaphylaxis guidelines
Know when it is safe for discharge and what type of follow up patients is required
<b>Competencies</b>
Able to recognize anaphylaxis from clinical presentation
Able to perform a prompt initial assessment looking for A, B, C compromise, especial laryngeal oedema or bronchospasm or low blood pressure.
Able to early prescribe the initial treatment as per algorithm (O2, IM adrenaline, fluid, antihistamine, hydrocortisone, salbutamol)
Able to secure IV access and ask for monitoring
Send for relevant investigations as e.g (tryptase, C1 esterase inhibitor)
<b>Performance</b>
Be a clam and systematic leader with a proper application of the algorithm parts
Ask for specialty team help when indicated and organize OP follow with allergy clinic

3.2.2 Adult Acute Presentations (AAP)		
Code	Adult Acute Presentations	Assessment tool
AAP1	Management of unstable airway	CBD, Min-Cex, ESE
AAP2	Cough	CBD, Min-Cex, ESE
AAP3	Shortness of breath	CBD, Min-Cex, ESE
AAP4	Peripheral and central cyanosis	CBD, Min-Cex, ESE
AAP5	Need for ventilation	CBD, Min-Cex, ESE
AAP6	Chest Injuries in major trauma	CBD, Min-Cex, ESE
AAP7	Chest Pain	CBD, Min-Cex, ESE
AAP8	Tachycardia	CBD, Min-Cex, ESE

AAP9	Collapse query cause & Syncope	CBD, Min-Cex, ESE
AAP10	Abdominal pain and renal colic	CBD, Min-Cex, ESE
AAP11	Abdominal mass/ constipation/ swelling	CBD, Min-Cex, ESE
AAP12	Vomiting and Nausea	CBD, Min-Cex, ESE
AAP13	Acute or chronic diarrhea	CBD, Min-Cex, ESE
AAP14	Upper GI bleeding (Malena or hematemesis)	CBD, Min-Cex, ESE
AAP15	Rectal bleeding & anal pain	CBD, Min-Cex, ESE
AAP16	Liver failure and Jaundice	CBD, Min-Cex, ESE
AAP17	Abdominal injuries in trauma	CBD, Min-Cex, ESE
AAP18	Emergencies in pregnant woman	CBD, Min-Cex, ESE
AAP19	PV bleeding	CBD, Min-Cex, ESE
AAP20	Acute & chronic pelvic pain	CBD, Min-Cex, ESE
AAP21	Headache	CBD, Min-Cex, ESE
AAP22	Seizure	CBD, Min-Cex, ESE
AAP23	Weakness and Paralysis due to CVA	CBD, Min-Cex, ESE
AAP24	Adult with psychosis or depression	CBD, Min-Cex, ESE
AAP25	Disturbed mental status/ delusion	CBD, Min-Cex, ESE
AAP26	Aggression or abnormal behavior	CBD, Min-Cex, ESE
AAP27	Adult with Head Injury	CBD, Min-Cex, ESE
AAP28	Sudden vision loss	CBD, Min-Cex, ESE
AAP29	Painful and painless red eye	CBD, Min-Cex, ESE
AAP30	Face fracture	CBD, Min-Cex, ESE
AAP31	Earache	CBD, Min-Cex, ESE
AAP32	Vertigo	CBD, Min-Cex, ESE
AAP33	Spontaneous epistaxis	CBD, Min-Cex, ESE
AAP34	Tooth injuries or emergencies	CBD, Min-Cex, ESE
AAP35	Infection of throat	CBD, Min-Cex, ESE
AAP36	Cervical spines injuries & neck pain	CBD, Min-Cex, ESE
AAP37	Testicular emergencies	CBD, Min-Cex, ESE
AAP38	Penile emergencies	CBD, Min-Cex, ESE
AAP39	Sexually transmitted disease	CBD, Min-Cex, ESE



AAP40	Sexual assault	CBD, Min-Cex, ESE
AAP41	retention of urine	CBD, Min-Cex, ESE
AAP42	Painful micturition (dysuria)	CBD, Min-Cex, ESE
AAP43	Patient with renal failure and on dialysis	CBD, Min-Cex, ESE
AAP44	Oliguric patient	CBD, Min-Cex, ESE
AAP45	Back ache (Acute)	CBD, Min-Cex, ESE
AAP46	Fracture spine	CBD, Min-Cex, ESE
AAP47	Abuse of substance or Alcohol	CBD, Min-Cex, ESE
AAP48	Drowning & environmental emergencies	CBD, Min-Cex, ESE
AAP49	ingestion of toxins	CBD, Min-Cex, ESE
AAP50	Mass gathering and disaster medicine	CBD, Min-Cex, ESE
AAP51	Pre-hospital care	CBD, Min-Cex, ESE
AAP52	ED Observational bay admission	CBD, Min-Cex, ESE
AAP53	Upper limbs injurie	CBD, Min-Cex, ESE
AAP54	Lower limbs injure	CBD, Min-Cex, ESE
AAP55	Upper or lower limbs weakness not due to CVA	CBD, Min-Cex, ESE
AAP56	joints pain, swelling & arthritis	CBD, Min-Cex, ESE
AAP57	Swelling of upper or lower limbs not due trauma	CBD, Min-Cex, ESE
AAP58	Laceration management	CBD, Min-Cex, ESE
AAP59	Burns	CBD, Min-Cex, ESE
AAP60	Hypo and hyperglycaemia	CBD, Min-Cex, ESE
AAP61	Febrile patient	CBD, Min-Cex, ESE
AAP62	Emergency rashes	CBD, Min-Cex, ESE
AAP63	Spontaneous bleeding and bruises	CBD, Min-Cex, ESE
AAP64	Emergencies in cancer patient	CBD, Min-Cex, ESE
AAP65	Geriatric patients	CBD, Min-Cex, ESE
AAP66	Patient with chronic medical condition	CBD, Min-Cex, ESE
AAP67	Pain Management	CBD, Min-Cex, ESE
AAP68	Falls	CBD, Min-Cex, ESE
AAP69	Interpretation of blood gas result	CBD, Min-Cex, ESE
AAP70	Basics to perform a research	CBD, Min-Cex, ESE

AAP71	Needlestick injury or exposure to body fluids	CBD, Min-Cex, ESE
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<b>AAP1 Management of critical airway</b>
<b>Knowledge</b>
Know the indications for ET intubation
Know how to assess airway looking for potential hard to intubate/ ventilate one
Know how to use the RSI medications
Know the difficult to intubate / ventilate algorithm
Know the possible difficulties in ventilation for asthmatic or unwell patient
<b>Competencies</b>
Able to do pre-intubation preparation and monitoring
Able to perform ETT and LMA placements
Able to follow the failed airway algorithm and perform surgical AW if LAM failed
Able to prescribe post intubation medications
Able to setup and use the portable ventilator
<b>Performance</b>
Being competent in airway management

<b>AAP2 Cough</b>
<b>Knowledge</b>
Know the common causes of cough
Know critical causes for some types of cough
Know how to differential between different classes of cough based on history and clinical examination
Know what type of investigations are required based on the most likely diagnosis
<b>Competencies</b>
Able to assess patient fully, order and interpret the required investigations, eg CXray, blood tests, ABG,...
Able to manage the most common causes of cough

<b>Performance</b>
Explain to patient the causes of their cough
Advice patient about smoking and importance of lifestyle change
Organize any further referral and follow up as required

<b>AAP3 Shortness of breath (SOB)</b>
<b>Knowledge</b>
Know the common and uncommon causes of SOB, wheeze, and stridor eg respiratory, cardiac, acidosis and differentiate between them
Know the pathophysiology of SOB for different causes
Know the common medications used to treat respiratory distress and their SEs
Know the indication for CTPA, VQ scan, chest X-Ray
Know the NIV indication and CIs
Know the management of massive PE
<b>Competencies</b>
Able to take a full relevant history looking for respiratory, cardiac and other causes of SOB
Able to do full respiratory, cardiovascular examination, and differentiate signs of upper and lower AW obstructions
Able to understand the result of the ordered investigations: C-Xray, ABG, CTPA, ECG, and Spirometry
Able to start appropriate and prompt treatment, like O2 or antibiotics
Able to perform chest drain and pleural aspiration
Able to differentiate the indications and CIs for invasive and NIVs
Able to treat asthma or COPD exacerbations as per guidelines
<b>Performance</b>
Show prompt response and treatment to patients with respiratory distress
Ask for senior ED physician, RCU, cardiology or pulmonology as required
Show nondiscriminatory and non-judgmental way when dealing with smokers

<b>AAP4 Peripheral and central cyanosis</b>
<b>Knowledge</b>
Know the etiology of cyanosis and its types (central, peripheral, respiratory,...)
Know the differential diagnosis, e.g methemoglobinemia
<b>Competencies</b>
Able to do cardio-respiratory examination looking for different causes of cyanosis
Able to link the findings to the ordered investigations, e.g ABG, ECG, ...
Able to safely prescribe oxygen
<b>Performance</b>
Show prompt escalation and involvement of senior physicians as required
Show involvement of specialty team as required

<b>AAP5 Need for ventilation</b>
<b>Knowledge</b>
Know the types and indications for support to ventilation using O2, NIV, CPAP, IPPV
Know the indications for intubation and ventilation, e.g. ARDS, respiratory failure due to exacerbation COPD or asthma, LRTI, chest wall injury, .....etc.
Know the modalities used to assess the types of failure or response to treatment, e.g. ABG, CVO2, .....
Know the immediate & delayed complications of NIV e.g LRTI, pneumothorax,...
<b>Competencies</b>
Able to do a proper airway assessment
Able to do airway maneuvers to relieve obstructions (jaw thrust, head tilt chinlift)
Able to use airway adjuncts to correct obstructions (OPA, NPA)
Able to utilize different types of O2 masks as per the clinical scenario
Able to set the ventilator safely with appropriate settings
<b>Performance</b>
Show immediate action to treat patients with respiratory distress or failure
Show good communication with patient & his family in explaining the condition
Ask for help from senior doctor or other specialties when required

AAP6 Chest Injuries in major trauma
Knowledge
Know how the serious presentations of chest wall injuries and how to identify them based in history, examination findings, C-Xray and CT chest. These injuries are: 1)Tension or open pneumothorax, 2)Massive hemothorax, 3)Flail segment 4)Cardiac tamponade, 5)Aortic injury, 6)Cardiac tamponed, 7)Rib-sternal fractures, 8)Diaphragmatic rupture, 9)Rupture esophagus, 10)Lung-cardiac contusion, 11) Trachea- bronchial injury
Competencies
Able to investigate for above conditions, do pericardiocentesis and chest drain
Able to resuscitate and treat the acutely unwell or deteriorating patients
Performance
Show a systematic and accurate review with serial re-assessments
Show early recognition and asking for specialty input

AAP7 Chest Pain
Knowledge
Know the different causes of chest and recognize the serious causes
Know how to differentiate between different causes of chest pain
Know the presentation, risk stratification and pathophysiology of PE and ACS
Know when to refer for PCI or give thrombolysis
Know the limitations of Troponin, CTPA and VQ scans
Know the role of echo in diagnosis of PE, Aortic root dissection and ACS
Know the treatment for ACS, PE, and Aortic dissection
Know the further outpatient or inpatient investigations, e.g treadmill test, ...
Competencies
Able to take a full history and doing full examination to rule out or rule in the different causes of chest pain

Able to order the relevant investigation to confirm the probable diagnosis. e.g, ECG, Troponin, echo, CTPA,...etc
Able to initiate the prompt treatments for Aortic dissection, PE, ACS
Move the patient to appropriate area with level of monitoring or discharge with appropriate OP follow up
<b>Performance</b>
Show early assessment for people presents with chest pain
Show early involvement of senior or specialty team based on case complexity and diagnosis
Show effective communication and explanation to patient or his family
Exhibit a clear discharge plan with OP F/U and advice about lifestyle change

<b>AAP8 Palpitation</b>
<b>Knowledge</b>
Know the most common cause of palpitation and classifications of arrhythmias
Know how to safely prescribe common anti-arrhythmic agents
Know how to treat patient with AF and rare presentation of AF , e,g WPW and AF
Know the ACLS algorithms for management of arrhythmia
Recognize the need for admission, discharge with OP F/U for further lxs
<b>Competencies</b>
Able to take full history, examination and do any necessary lx
Able to interpretate ECG and recognize common arrhythmia
Able to recognize compromised and non-compromised patients with arrhythmia
Able to do 12 leads ECG, carotid sinus massage, DC cardioversion, and safe pacing
<b>Performance</b>
Show early involvement of specialty team and senior
Show good communication with patient and advice about lifestyle change

<b>AAP9 Collapse query cause and syncope</b>
<b>Knowledge</b>
Know the most common causes of collapses and syncope, red flags for cardiac or neurological ones ,and life-threatening causes of them
Know how to differentiate different types of collapses based on history, collateral history from bystander, examination findings simple bedside investigations, e.g Blood sugar, Lying and standing BP, ECG, urine dip, VBG
Know the indication for further investigation lie 24 hrs cardiac tape, Echo,..
Know types of heart block and the indications for PPM or defibrillator
<b>Competencies</b>
Able to take relevant history to differentiate collapse from syncope, fall , seizure,..
Able to do ABC, cardiac, neurological examinations, look for any AAA or seizure
Able to order and read any necessary investigation like ECG, CT brain, CT aorta, ...
Able to manage life-threatening causes of collapse or arrhythmia & need for PPM
Able to search for other injuries associate with collapse, especially in elderly
<b>Performance</b>
Show a clear plan of management and indication for admission or discharge
Organize any necessary OP F/U or Ix
Advice patient about not to drive if any suspicion of cardiac or neurological syncope

<b>AAP10 Abdominal pain and renal colic</b>
<b>Knowledge</b>
Know how to use history and physical examination to differentiate between different emergency causes of abdominal pain: 1) peptic ulcer disease 2) pancreatitis 3) cholecystitis 4) cholangitis, 5) biliary colic, 6) bowel obstruction, 7)diverticular disease, 8)viscus perforation, 9)acute appendicitis, 10)ischemic colitis 11)AAA, 12)hernias, 13)renal calculi, 14)pyelonephritis, 15)chronic inflammatory bowel disease, 16)volvulus

Know how to use history and physical examination to differentiate between different causes of loin pain: 1) renal colic, 2) infection and obstruction of the urinary tract, 3) abdominal aortic aneurysm
Know that medical examination and investigations may not be conclusive
Know the indications for urology, gynecology, or surgical referral
Know the primary and more advanced investigations required to determine the cause of pain, limitations and contraindications of these tests
<b>Competencies</b>
Able to do A, B, C, D initially assessment for unstable and unwell ones
Able to perform full history and proper abdominal examination with early recognition of the life-threatening causes of abdominal pain
Able to initiate any necessary investigations and utilize results to rule out or rule in diagnosis
Able to start early treatment including analgesia, anti-emetics, fluids, Abx,...ETC
Able to spot any gross abnormality on CT /CTKUB/ CT abdomen/ IVU, e.g Obstruction, hydronephrosis, metastases liver
Able to do bedside POCU looking for AAA
Able to recognize those who need surgery, admission or discharge
<b>Performance</b>
Show timely assessment and intervention for those who present with acute abdomen
Show an appropriate involvement of other specialties as required
Show good communication with patient and early analgesic prescription

AAP11 Abdominal mass or swelling, and constipation

**Knowledge**



Know the differential diagnosis of abdominal mass, hepatomegaly, or splenomegaly and how to differentiate each one and causes for based on history and clinical examination
Know the differential diagnosis of abdominal distention. E.g obstruction, ascites, diverticulum, ..., signs and symptoms of portal hypertension
Know the causes, signs, symptoms of ascites & spontaneous bact. peritonitis
Know the causes, signs of constipation, overflow, fecal impaction and when to refer for admission or further investigations
Know the appropriate investigation for each presentation above
<b>Competencies</b>
Able to use history, physical examination to exclude serious causes of abdominal mass and interpret the ordered investigations
Able to do ascitic tap, order any further investigation and appropriate treatment for ascites
Able to treat constipation with bulking or osmotic agents as required
Able to order the second line management and investigation for constipation when it is indicated
<b>Performance</b>
Show appropriate involvement of gastroenterology team when require
Show empathic approach to patient with good explanation and early analgesics

<b>AAP12 Vomiting and Nausea</b>
<b>Knowledge</b>
Know the causes and pathophysiology of nausea and vomiting
Know how to safely prescribe the common antiemetics, their mechanisms of action, interactions, side effects and when to combine them
Know the serious cause of vomiting and reflags which need immediate Ix
Know when to admit or refer for surgical team
<b>Competencies</b>
Able to diagnose GI obstruction, start treatment e.g NPO, NG tube, IV fluids,
Able to initiate and read any necessary Ix , e.g. X-Ray, CT, blood tests
<b>Performance</b>

Show early diagnosis and involvement of the surgical team when required
Show empathy and good communication with patient

<b>AAP13 Acute or chronic diarrhea</b>
<b>Knowledge</b>
Know the causes of diarrhea and pathophysiology for each cause
Know the makers of sinister causes of diarrhea, e.g weight loss, PR bleeding
Know when to investigate and what investigations to send
Know when to suspect, how to prevent and how to investigate and treat C-diff.
Know the principles of infection control and prevention
<b>Competencies</b>
Able to assess the level of dehydration and need for IV fluids and/or admission
Able to do full GI examination including PR examination
Able to recognize those need Ix and interpret these Ix : e.g Abd X-Ray or CT to rule out toxic megacolon or obstruction
<b>Performance</b>
Show appropriate involvement of specialty team if it was indicated
Show empathy and good communication to patient

<b>AAP14 Upper GI bleeding (Malena or hematemesis)</b>
<b>Knowledge</b>
Know the etiology of upper GI bleeding, and those at risk of that, e.g anticoagulants, steroids, NSAID, Aspirin or H. pylori
Know the scoring system used to assess severity and prognosis
Know the principles of initial treatment including inserting large IV access or central line, IV fluids, blood products, securing AW if any compromise, and use of Sengstaken tube
Know the indication of referral for urgent endoscopy
Know the need for further treatment like PPI or H. pylori eradication regimen
<b>Competencies</b>

Able to do ABC assessment and recognize or expect hypovolemic shock
Able to diagnose upper GI bleeding and differentiate from lower one
Able to establish a decent IV access or central line when required
Able to order all necessary Ixs & safely prescribed all required medications/RBCs
<b>Performance</b>
Show early involvement of surgical/ gastro team for urgent endoscopy or admission with severe ongoing or fluid/ RBCs unresponsive patients
Show safe prescription of fluid and RBCs

<b>AAP15 Anal pain and rectal bleeding</b>
<b>Knowledge</b>
Know the common etiologies of anal pain: fissure, complicated internal or external hemorrhoids, ano-rectal abscess, rectal prolapse, and pilonidal abscess
Know the common etiologies of PR bleeding: hemorrhoids, fissure, Ca, colitis, ..
<b>Competencies</b>
Able to do thorough examination include PR examination
Able to recognize those who need further inpatient or outpatient investigations
Able to recognize those who need admission or going to theatre
<b>Performance</b>
Show an empathic approach with good keep of privacy & asking for chaperone

<b>AAP16 Liver failure and Jaundice</b>
<b>Knowledge</b>
Know the main etiological categories of jaundice (prehepatic, hepatic, & post hepatic) and causes and risk factors for each category
Know the necessary Ix to rule out or rule in each cause
Know the treatment modalities for common causes of jaundice
Know the causes, symptoms, signs of liver failure and how to investigate that
Know the implications of prescriptions in liver failure patients
<b>Competencies</b>

Able to take a full history and do thorough examination to establish the cause
Able to diagnose and differentiate chronic from fulminate liver failure
Able to interpret the outcomes of the requested Ix to establish the diagnosis
Able to deal with the complications of liver failure
Able to initially investigate for and treat liver failure complications, e.g. sepsis, GI bleeding, coagulopathy, alcohol withdrawals,....
<b>Performance</b>
Show early consultation to specialty team when indicated
Show empathy to patient non-judgmental attitude for those with alcoholic liver disease

<b>AAP17 Abdominal injuries in trauma</b>
<b>Knowledge</b>
Know the possible visceral injuries with blunt or penetrating traumas: Hepatic, splenic, pancreatic, renal, intestinal, vesical, urethral or testicular injuries
Know how to do FAST scan and recognize when to send for CT or theatre
<b>Competencies</b>
Able to properly assess abdominal injury and do any repeated assessment
Able to diagnose or suspect visceral injuries without missing other injuries
Able to start the initial treatment: Analgesia, NPO, NG, fluids, .....
Able to do NG tube and urine catheter
<b>Performance</b>
Show early recognition and involvement of specialty team when required

<b>AAP18 Emergencies in pregnant woman</b>
<b>Knowledge</b>

Know the presentations, clinical findings of some life-threatening emergencies during pregnancies: e.g PE, pre-eclampsia, HELLP,.....
<b>Competencies</b>
Able to diagnose these presentations based on history, examination and Ix findings
Able to safely prescribe medications during pregnancy
<b>Performance</b>
Show early involvement of obstetric team when required for any complication
Show empathy towards parents concern & ask for chaperon during examination

<b>AAP19 Per-vaginal bleeding (PVB)</b>
<b>Knowledge</b>
Know the causes of PVB for different age, menopausal stages, & pregnancy term
Know the presentation and pathophysiology of ectopic pregnancy
Know the ideal Ix to help in the diagnosis
Know the indication for gaining Anti-D
<b>Competencies</b>
Able to take a relevant history, do full examination and ask for right Ix
Able to resuscitate patients PVB patient & shock, including removing cervical clot
<b>Performance</b>
Show sensitive approach, ask for chaperon, and involve specialty as required
<b>AAP20 Acute &amp; chronic pelvic pain</b>
<b>Knowledge</b>
Know the pelvic anatomy and relation of structures
Know the causes of acute & chronic pelvic pain, how to investigate & treatments
Know common medical treatment and when to refer for surgical intervention
<b>Competencies</b>

Able to do pelvic examination, vaginal examination using speculum, & take swabs
Able to initiate any necessary Ix and interpret the results
Able to treat common pelvic emergencies and PID
<b>Performance</b>
Show sensitive & non-judgmental approach, ask for chaperon during examination
Know early involvement of specialty team when required

<b>AAP21 Headache</b>
<b>Knowledge</b>
Know the different causes and pathophysiology of acute or chronic headaches as extracranial (cluster, migraine, ..) or intracranial headache (bleeding, Ca..).
Know the acute, life-threatening causes of headache, as in shunt failure, and signs of increased ICP and need for urgent CT/MRI
Know the typical and atypical presentations of migraine and how to treat
Know the treatment modalities for raised ICP
Know the redflags for sinister types of headache
<b>Competencies</b>
Able to take a proper headache history focusing on elements which help with Dx
Able to do a thorough neurological examination looking at cranial nerves, muscles power tone and reflexes, dermatomal sensation, optic disc, temporal artery thickness or tenderness, meningeal irritation signs, head injury signs
Able to order relevant investigation and recognize gross abnormalities on images
Able to do LP when required and interpret the CSF analysis
Able to start the correct treatment, e.g O2, analgesia, Abx, ...
<b>Performance</b>
Show prompt assessment and management for serious types of headache
Show early involvement of senior or other specialties when sinister headache dx
Show early involvement of NS for those who may need surgical intervention

Show empathic approach to patient, early analgesics & good explanation and F/U

### AAP22 Seizure

#### Knowledge

Know the causes of seizure and types of seizure

Know the pathway for first fit and when to request urgent CT head

Know definition & pathway for the treatment of status epilepticus including RSI

Know the common anti-epileptic medications and side effects

Know the indications for admission or doing CT head in epileptic patient presented with seizure

Know the common metabolic and neurological complications of seizure

#### Competencies

Able to obtain full history including bystanders and collateral ones

Able to demonstrate a safe management for those presented with status epilepticus including stabilization, treating possible traumatic, infective, metabolic, or malignancy underlying causes

Able to differentiate true seizure from other causes like pseudo-seizure, collapse,... based on history and examination findings

Able to safely prescribe anti-convulsant

#### Performane

Show early recognition and referral to specialty team of those with uncontrolled or frequent seizures

Show a safe practice when deciding about the need for admission or discharge

Show empathy to patient, advice against driving or risky sport

### AAP23 Weakness and Paralysis due to CVA

#### Knowledge

Know the anatomy and physiology for CNS and peripheral nervous system

Know the etiologies and presentations of a vascular accident to each anatomical part and the difference between upper and lower MN lesion & CVS classification

Know the investigation modality of choice to confirm above presentations

Know the indications for definitive airway or NG feeding

<b>Competencies</b>
Able to recognize CVA based on history of sudden onset in those with risk factors
Able to recognize the type & site of stroke based on symptoms & signs with DDX
Able to interpret the requested images and act on results
Able to recognize those who are good candidates for thrombolysis
Able to recognize the level of spinal cord lesion in those with neurological deficit
<b>Performance</b>
Show a prompt and timely assessment and action on those with acute weakness
Show early involvement of stroke specialist or neurologist as required
Show early involvement of RCU when airway or respiratory concerns are there
Show empathy & sympathy to patient & family with good communication skills

<b>AAP24 Adult with psychosis or depression</b>
<b>Knowledge</b>
Know the risk factor and psychiatric diseases which may lead to suicide
Know the major antipsychotic and anti-depressant types, Indications and CIs
Know how to diagnose psychosis and know common etiology
Know the that physical or chemical restraints needed to protect suicidal patient
<b>Competencies</b>
Able to take a direct or collateral psychiatric history and risk score depressed patient for suicide using SDAD PERSON score
Able to do full examination and mental state assessment
Able to professionally deal with aggressive or distressed patient
<b>Performance</b>
Show early referral to psychiatry admission for those who are actively suicidal
Show compassionate approach for those who are acutely depressed or suicidal

<b>AAP25 Disturbed mental status or delusion</b>
<b>Knowledge</b>
Know the causes of acute delirium or confusion



Know the underlying predisposing & possible acute exacerbating factors
Know how to investigate using blood tests +/- CT head or LP
Know how to pharmacologically control using benzodiazepines, clonidine or haloperidol
<b>Competencies</b>
Able to do recognize confusion/ delirium based on history, physical and mental status examination, with a calculation of mini-mental tests score
Able to order investigations based on possible predisposing factors and interpret the investigation results including gross CT/MRI abnormality
<b>Performance</b>
Show a good understanding of the use of the pharmacological and physical restraints
Show empathic approach with sensitive consideration of the effect of this on patient's relatives and other staff

<b>AAP26 Aggression or abnormal behavior</b>
<b>Knowledge</b>
Know the medical causes of aggression including alcohol or substances abuses/withdrawal, delirium, psychosis... etc
Know how to de-escalate and calm down aggressive patients
Know pharmacological agents which can be used to tranquilize patient
<b>Competencies</b>
Able to take full history, do full examination including mental state one
Able to give a differential diagnosis and order investigations accordingly
Able to safely prescribe rapid tranquilizers when required
<b>Performance</b>
Show a calm and empathic approach, supportive to staff and patients' family
Show early involvement of psychiatric team when required

<b>AAP27 Adult with Head Injury</b>
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<b>Knowledge</b>
Know the basic anatomical components of scalp, skull, and brain
Know the primary and secondary brain injuries and how to prevent them
Know the indications for urgent CT head in patient with head injury
Know the indications for admission and when it is safely to discharge patient
<b>Competencies</b>
Able to show the ATLS approach when assessing patient starting with ABCDE +/-neck immobilization when required
Able to take a proper history and do full neurological examination looking for signs of skull fracture or ICH
Able to act on those who develop seizure or need airway support and ETT
<b>Performance</b>
Show early and appropriate NS involvement and RCU referral when required

<b>AAP28 Sudden visual loss</b>
<b>Knowledge</b>
<p>Know the common non-CNS causes of visual loss:</p> <ul style="list-style-type: none"> <li>• Retinal artery occlusion,</li> <li>• Retinal venous occlusion</li> <li>• Retinal detachment or hemorrhage</li> <li>• Vitreous hemorrhage</li> <li>• Optic neuritis</li> </ul>
<b>Competencies</b>
Able to promptly recognize from history and doing full ophthalmological and neurological examination, send appropriate investigations, and do urgent ophthalmology referral
Able to demonstrate how to do fundoscopy
<b>Performance</b>
Show sensitive approach, early involvement of ophthalmology

<b>AAP29 Painful and painless red eye</b>
<b>Knowledge</b>
Know the anatomical parts of the eye and visual pathway
Know the etiology of redevye both painful and painless
Know how to examine eye, visual acuity (VA) and using slit lamp
Know the treatment for each condition including peri-orbital cellulitis
<b>Competencies</b>
Able to do full eye examination including VA, sub tarsal area and lid eversion
Able to demonstrate how to remove foreign body
Able to do fluorescein scan
<b>Performance</b>
Show early involvement of ophthalmology team when required

<b>AAP30 Face fracture</b>
<b>Knowledge</b>
Know the anatomical structure of face and underlying structures which may be affected by wounds: Facial nerve, parotid and lacrimal ducts
Know how to investigate for possible injuries and interpret the results
Know the management for facial bones fracture, base of orbit fracture and dental injuries
Know how to diagnose and manage any possible ocular injuries including hyphema and eyelid laceration
<b>Competencies</b>
Able to demonstrate a systematic examination of facial structures
Able to nasal packing to control nasal bleeding
Able to demonstrate a correct assessment of AW safety and need for ETT
<b>Performance</b>
Show early involvement of specialty team when required and analgesics prescription

<b>AAP31 Earache</b>
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<b>Knowledge</b>
Know the ear's anatomy, common causes of earache and treatments for them
<b>Skills</b>
Able to do full auditory examination including otoscopy
<b>Behaviours</b>
Show understanding of indication for urgent ENT referral, e.g mastoiditis

<b>AAP32 Vertigo and lightheadedness</b>
<b>Knowledge</b>
Know the physiology of balance, anatomical structure related to that
Know the causes of ataxia and central and peripheral causes of vertigo
Know the differences between vertigo, lightheadedness, and pre-syncope
<b>Competencies</b>
Able to take a full history related to above presentations to explore the causes
Able to do full neurological, auditory, cerebellar & cardiovascular examination
Able to recognize those who need investigations, organize, and interpret them
Able to explore postural hypotension as a possible cause
Able to safely prescribe any necessary medications for vertigo
<b>Performance</b>
Show an empathic approach to those presents with distress from vertigo
Show understanding of need to specialty referral when required

<b>AAP33 Spontaneous/ traumatic epistaxis</b>
<b>Knowledge</b>
Know the causes of epistaxis, e.g trauma, medication, bleeding disorders
<b>Competencies</b>
Able to do full nasal examination and recognize cause of bleeding
Able to do cauterization, nasal packing with different tampons or foley catheter

<b>Performance</b>
Show understanding of specialty involvement when required

<b>AAP34 Tooth injuries or emergencies</b>
<b>Knowledge</b>
Know the presentations of dental emergencies including abscess, avulsion, fracture, mandibular dislocation, or post extraction pain from exposed socket
<b>Competencies</b>
Able to replace an avulsed tooth correctly and treat tooth abscess
Able to reduce a mandibular dislocation
Able to do local anesthetic or infra-orbital / mental nerves blocks
<b>Performance</b>
Show early consideration of analgesia and specialty referral when required

<b>AAP35 Throat pain</b>
<b>Knowledge</b>
Know causes and differential diagnoses of sore throat
Know what investigation to send to confirm the diagnosis
Know the common medications used for treatment
<b>Competencies</b>
Able to take full history and systematic review
Able to do full ENT and neck examination
Able to recognize those who need admission or have their airway compromised
Able to prescribe safely any necessary medication
<b>Performance</b>
Show involvement of ENT specialty when required. e.g Quincke

<b>AAP36 Cervical spines injuries &amp; neck pain</b>
<b>Knowledge</b>

Know the anatomy of neck and the most common causes of neck pain
Know the signs and symptoms for serious causes of neck pain: e.g, trauma, infection, meningeal irritation signs, Ca, lymphadenitis,...etc
Know the Ix which are required to support e diagnosis
<b>Competencies</b>
Able to take full history, ask about neck injury or infection.
Able to perform full neck and neurology examination
Able to order relevant investigations to confirm the diagnosis
Able to spot those with meningitis and or signs of infection, give Abx and admit
<b>Performance</b>
Show early prescription of analgesia and referral to specialty when required

<b>AAP37 Testicular swelling and pain</b>
<b>Knowledge</b>
Know the serious and emergency causes of testicular swelling or pain including torsion, tumor, orchitis, infection and trauma
Know how to investigate each condition and the role of urgent U/S
Know the definitive treatment for each condition
<b>Competencies</b>
Able to take full history including history of trauma, STD, or UTI
Able to perform full testicular examination looking for signs of testicular torsion
<b>Performance</b>
Show non-judgmental approach, early analgesia, chaperoned examination
Show urgent referral to specialty team any possible or confirmed torsion

<b>AAP38 Penile emergencies</b>
<b>Knowledge</b>
Know the emergency causes of penile pain and ulcers: priapism, phimosis and para-phimosis, trauma, tear, fracture, STD ulcers ..etc

<b>Competencies</b>
Able to do full examination, recognize cases for theater or admission
Able to describe or demonstrate how to reduce phimosis
<b>Performance</b>
Show non-judgmental approach, early analgesia, chaperoned examination
Show early specialty referral of those with fracture or priapism

<b>AAP39 Sexually transmitted diseases</b>
<b>Knowledge</b>
Know the common causes and how do they present with local or systemic features
Know the required investigations to rule in or rule out and correct treatment
<b>Competencies</b>
Able to perform appropriate genital and systematic examination
<b>Performance</b>
Show non-judgmental approach, early analgesia, chaperoned examination

<b>AAP40 Sexual assault</b>
<b>Knowledge</b>
Know the importance of keeping all forensic evidence from assault patients, involvement of specialists
Know the need to treat any acute or life-threatening injuries
Know the need to provide any tetanus, hepatitis, HIV, and contraceptive covers
<b>Competencies</b>
Able to take a detailed history and do only the necessary examination
Able to liaise with police and forensic medicine doctors to get all forensic check
<b>Performance</b>
Show a sensitive approach, asking for chaperon during consultation

<b>AAP41 Retention of urine</b>
<b>Knowledge</b>
Know the most common causes of not able to pass urine
Know the necessary investigations to confirm the cause and check for AKI
<b>Competencies</b>
Able to take relevant history and do any necessary examination to confirm the cause
Able to insert a urinary catheter and supra-pubic catheter
<b>Performance</b>
Show understanding of the need for admission or specialty referral

<b>AAP42 Painful micturition (dysuria)</b>
<b>Knowledge</b>
Know the differential diagnosis of dysuria and types of UTI
Know the necessary investigations and indications for hospital admission
Know how to differential upper from lower UTI
Know when to refer for further investigations and follow up
<b>Competencies</b>
Able to take a full history and perform examination looking for pyelonephritis
Able to interpret the requested tests and act on them
Able to safely prescribe the correct antibiotic
<b>Performance</b>
Show understanding of the indications for admission or OP follow up

<b>AAP43 Patient with renal failure and on dialysis</b>
<b>Knowledge</b>
Know the types of complications which can happen with each type of dialysis
Know the indications for urgent dialysis (Hyper K, florid lung oedema,..)



Know the signs of septicemia and the implications of missed dialysis
<b>Competencies</b>
Able to recognize signs of fluid overload or high K and treat this
Able to treat any signs of line sepsis
<b>Performance</b>
Show understand of early referral to dialysis unit or RCU when indicated

<b>AAP44 Oliguric patient</b>
<b>Knowledge</b>
Know the etiology of oliguria (prerenal, renal, & post-renal), e.g hypotension, obstructive uropathy, and renal cell injury from nephrotoxic drugs
Know the definition of AKI
Know the need to monitor urine output, BP, blood gas, renal function
Know the indications and how to interpret investigations like IVU, CT, blood
Know the required treatment like IV fluids, vasopressors, diuretics,...
Know the indications for dialysis
Know the medications to safe to prescribed and what to avoid
<b>Competencies</b>
Able to take a proper history and perform full examination
Able to start the correct treatment in a timely pattern
Able to request the correct investigation and interpret the results
<b>Performance</b>
Show understanding of early recognition and treatment
Show early involvement of senior or specialty team when required

<b>AAP45 Backache (Acute)</b>
<b>Knowledge</b>
Know the causes of acute backache, red, and yellow flags of backache

Know the signs and symptoms of sinister causes of backache & ruled them out (AAA, Ca, discitis, kidney stone, cauda equina (CE), spinal cord compression
Know that with backache in elderly AAA or aortic dissection have to be R/O
Know the indications for urgent MRI (CE, spinal cord compression SCC, ....)
Know when to consider hospital admission
<b>Competencies</b>
Able to take full history, perform full back, lower limbs neurology, PR, abdominal examinations looking for signs of SCC, CE, AAA, A. dissection, kidney stone, discitis, and MSK pain.
Able to order appropriate Ix and interpret their result to help in Dx
Able to safely prescribe analgesia as per pain severity
Able to diagnose those with sinister causes of backache & do specialty referral
<b>Performance</b>
Show evidence of early involvement of specialty team when required

<b>AAP46 Fracture spine</b>
<b>Knowledge</b>
Know the spinal injuries pathophysiology and common mechanisms
Know the appropriate imaging modalities and how to read X-ray, CT and MRI
Know how to protect spines and spinal precautions for any possible fracture
<b>Competencies</b>
Able to take relevant history & perform full spinal assessment for spinal injury
Able to do spinal immobilization for any possible injuries
Able to demonstrate log roll and mobilization of spinal injuries patient
<b>Performance</b>
Show early consideration of analgesia and specialty team involvement

<b>AAP47 Abuse of Alcohol</b>
<b>Knowledge</b>

Know the emergency presentations related to alcohol: intoxication, withdrawal, Wernicke Korsakoff syndrome, head injury, ingestion of other drugs or types of alcohol, ...
Know the required investigations for each case if any required
Know when to prescribe vitamins and chlorthalidone
<b>Competencies</b>
Able to take collateral Hx & perform comprehensive examination to R/O other causes of low GCS
Treat withdrawal and Wernicke
<b>Performance</b>
Show and sympathetic and non-judgmental approach
Show consideration of referral to alcohol clinic when required

<b>AAP48 Drowning &amp; other environmental emergencies</b>
<b>Knowledge</b>
Know the presentations, assessments, and treatments for the followings 1) Near-drowning, 2) Heat stroke & exhaustion, 3) Hypothermia & frost bite, 4) Electrical burns, 5) Electrocution, 6) Drug-related hyperthermia, 7) Radiation exposure, 8) High altitude emergencies 9) Industrial chemical incidents, 10) Decompression sickness
<b>Competencies</b>
Able to assess, and treat each cases and any related complications
<b>Performance</b>
Show understanding of early specialty referral when required

<b>AAP49 Ingestion of toxins</b>
<b>Knowledge</b>
Know the common toxidromes (cholinergic, anticholinergics, opiates, serotonergic, sympathomimetics, ethanol and sedative-hypnotics and their withdrawals, and opiates withdrawal) and common antidotes (AC, acetylcysteine, NaHCO <sub>3</sub> , and hyperbaric O <sub>2</sub> )
Know the indications, CIs, and way to do decontamination via AC, gastric lavage, whole bowel irrigation (WBI), alkalization of urine, and hemodialysis
Know the pharmacology, presentation and Mx of the following toxins 1) Paracetamol, 2) Salicylate, 3) Alcohols, 4) TCA, 5) SSRIs, 6) Benzodiazepines, 7) Opiates, 8) Cocaine, 9) Amphetamine, 10) B-blockers, 11) Anticoagulants, 12) Carbon monoxide, 13) Cyanide, 14) Organophosphate, 15) Calcium channels blocker, 16) Mixed OD 17) GHB, 18) Ecstasy
Know when to send for blood tests, ECG, or drugs screening
Know how to consult a toxicology center or website to guide management
<b>Competencies</b>
Able to take full direct /collateral histories about: what, when, how much
Able to do a prompt assessment of ill OD patient with timely management
Able to order any necessary Ix guided by toxicology web or center advice and interpret the results: Drug level, ECG, ABG, biochemistry, and glucose
Able to start appropriate decontaminations, antidotes, and monitoring
Able to consider psychiatric r/w once suicidal patient is medically clear
<b>Performance</b>
Show sensitive approach & early consult to seniors / toxicologist when required

<b>AAP50 Mass gathering and disaster medicine</b>
<b>Knowledge</b>
Know the definition of major incident and its types.
Know the triage system used during MI, Persona

Know the CBRN agents, decontamination process, suitable personal protective equipment (PPE), and treatment for each
<b>Competencies</b>
Able to demonstrate a team working and possible leadership during incident
Able to do triage multiple casualties using the MI triage system
<b>Performance</b>
Show flexibility and team working skills

<b>AAP51 Pre-hospital care</b>
<b>Knowledge</b>
Know how does the pre-hospital service work in his region and country
Know types and limitations of service which can be delivered.
Know basic prehospital measures like fracture stabilization, spinal immobilizations, RSI, IV fluids resuscitation, and basic measure to resuscitate.
<b>Competencies</b>
Able to take handover from pre-hospital team
Able to give the pre-hospital team patient management advices when required
<b>Performance</b>
Show respect to pre-hospital team and good communication skills

<b>AAP52 ED Observational bay admission</b>
<b>Knowledge</b>
Know the department indications for admission to ED observational bay
Know the diagnostic pathway patient get admitted under & F/U any ordered Ix
Know the type of patients which may benefit from admission to observation bay. e.g low risk chest pain, abdominal pain with no clear cause, post ictal....etc
Know that patient will need their regular medications prescribed
<b>Competencies</b>
Able to liaise with specialty, diagnostic services & other teams to finish Rx
Able to make a clear management to follow

<b>Performance</b>
Show ability to perform ward rounds in a timely and proper way
Show proper handover to other teams, review of plan of management and Ix

<b>AAP53 Upper limbs (UL) injuries</b>
<b>Knowledge</b>
Know the clinical signs, x-ray findings, & treatment modalities for phalanges, scaphoid, distal radius, metacarpal, radius and ulna, radial head, supracondylar, humerus, and clavicle fractures. Also know same for AC, elbow, shoulder, finger, carpal dislocations and pulled elbow.
Know findings and treatment for common MSK injuries, e.g rotator cuff injury
Know the signs and treatment for infections of UL e.g paronychia, pulp space, flexor sheath, septic arthritis, ...
Know the signs of compartment syndrome and when to suspect
<b>Competencies</b>
Able to do full examination including joints, neurovascular, & tendon functions
Able to diagnose and act promptly on any life or limb-threatening injuries
Able to demonstrate a safe technique for immobilization, plaster application, relocation of dislocated shoulder or elbow, Colle's fracture or any other fractures reductions.
<b>Performance</b>
Show ability to safely prescribe analgesia early in the assessment process
Show ability to organize follow up or specialty referral when required

<b>AAP54 Lower limbs (LL) injuries</b>
<b>Knowledge</b>
Know the clinical signs, x-ray findings, & treatment modalities for phalanges, metatarsal, ankle, calcaneal, tibia, fibula, tibial plateau, neck of femur, femur shaft fractures. Also know same for patella and hip dislocations.
Know findings and treatment for common MSK injuries, e.g Achilles tendon, extensor mechanism rupture, ankle or knee ligamental injuries and meniscal injuries to knee.
Know the signs of compartment syndrome and when to suspect
<b>Competencies</b>
Able to do full examination including joints, neurovascular, & tendon functions
Able to diagnose and act promptly on any life or limb-threatening injuries
Able to demonstrate a safe technique for immobilization, plaster application, relocation of dislocated ankle or hip.
<b>Performance</b>
Show ability to safely prescribe analgesia early in the assessment process
Show ability to organize follow up or specialty referral when required
<b>AAP55 Upper or lower limbs weakness not due to CVA</b>
<b>Knowledge</b>
Know causes of limbs weakness, presentation, Ix, and managements: MS, botulism, tetanus, and Guillain-Barre, and myasthenia gravis
<b>Competencies</b>
Able to diagnose or give DDX, start necessary Ix, interpret results
<b>Performance</b>
Show early referral to the appropriate specialty team
<b>AAP56 joints pain, swelling, and arthritis</b>
<b>Knowledge</b>

Know the causes, pathophysiology, presentation and diagnosis of the most common causes of poly and monoarthritic, especially septic arthritis
Know the necessary blood tests, joint aspiration, and imaging needed for DX
Know how to do joint aspirate, especially the knee
<b>Competencies</b>
Able to start prompt Ix and antibiotic therapy for suspected septic arthritis cases
Able to understand the complications comes disease modulation therapies
<b>Performance</b>
Show early referral from MRI & orthopedic cases with suspected septic arthritis

<b>AAP57 Swelling of upper or lower limbs not due trauma</b>
<b>Knowledge</b>
Know the causes, presentations, assessments, and managements of acute and chronic upper and lower limbs swelling and pain, unilateral or bilaterally: DVT, pitting/ non-pitting oedema, iliofemoral/ subclavian DVT, thrombophlebitis, metastasis, SSD, acute/ non-acute ischemia, cellulitis, varicose eczema, bursitis, tendonitis, carpal tunnel syndrome, plantar fasciitis, and ruptured biceps tendon.
Know the Well's score system for DVT and how to utilize it.
Know when and how to safely prescribed Antibiotics, diuretics or anti-coagulants
<b>Competencies</b>
Able to do timely limb assessment including perivasculature looking for any oedema or signs of infection, thrombosis, compartment syndrome, or ischemia
Able to request necessary Ix, (blood, doppler, or x-ray) and interpret the results
<b>Performance</b>
Show early specialty team referral for compartment syndrome or ischemic limb
<b>AAP58 Laceration management</b>
<b>Knowledge</b>
Know how to describe, classify, examine wound with relating anatomical structures which can be affected, especially face, hand, and wrist ones



Know the presentation and management for special kind of wounds: bites, punctures, de-gloving, amputation, semi-amputation, & those with retained FB
Know how to repair using different closure techniques, especially for those on face, nailbed, scalp, ears, eyelid margin, lips, and tendon and when not to close
Know how to safely calculate and inject local anesthetic medications
Know how to assess tetanus vaccination status and when give immunoglobulin
<b>Competencies</b>
Able to show a safe way of assessing wound and underlying structure
Able to demonstrate a correct way of exploring wound and removing any FB
Able to demonstrate proper wound irrigation and sterilization technique
Able to use aseptic technique to close wound using sutures, steri-strips, or glue
<b>Performance</b>
Show understanding of when to leave wound for healing with secondary intention and when to prescribe prophylactic antibiotics

<b>AAP59 Burns</b>
<b>Knowledge</b>
Know types of burns and. Their pathophysiology
Know how to assess burn's percentage, depth, and degree and calculate fluid requirement based on that
Know the signs of inhalational burns and indications for ETT
Know the indications for specialty center referral, including burns over face, hand, genital area, joints, large or deep burns, infection, or NAI concerns
Know the indications for & how to do escharotomy of limb or chest as needed
<b>Competencies</b>
Able to correctly assess the burn, assess need for intubation, and safely prescribe fluids and analgesia when required
Able to manage minor burns properly and know about types of dressing
<b>Performance</b>
Show early consideration of analgesia and consult RCU for inhalational burns

<b>AAP60 Hypo and hyperglycemia</b>
<b>Knowledge</b>
Know the etiology of, how to investigate, how to diagnose, and treat DKA, hyperglycemia, hypoglycemia, and hyperosmolar non-ketotic coma
<b>Competencies</b>
Able to correct hypoglycemia with the correct dose of dextrose or glucagon
Able to start correct protocol of IV fluid, fixed dose insulin and KCL for DKA
Able to identify those who need ICU admission
<b>Performance</b>
Show a good communication with specialty team and ICU

<b>AAP61 Febrile patient</b>
<b>Knowledge</b>
Know the causes of fever (inflammation, infection, Ca, toxicology, heat stroke)
Know the local sepsis management and empirical Abx guidelines and importance of early fluids, antibiotics, vasoactive drugs
Know the management of febrile people with neutropenia or recent travel
Know the viral and bacterial infections signs and blood findings, indication and how to do LP when indicated
<b>Competencies</b>
Able to do a timely assessment with correct diagnosis of sepsis, initiate investigations, start IV fluids, antibiotics. and refer for admission
Able to interpret the results of initial investigations: CBC, biochemistry, culture, urine microscopy, chest x-ray, and CSF analysis
Able to take full history focusing of risk factor for infection, e.g recent travel, sexual history, IVDU, contact with animals or unwell people, immunosuppressants, implants, and medical history which may affect immunity
Able to early prescribe antibiotics when indicated guided by local protocol
<b>Performance</b>

Show adherence to Abx prescriptions guidelines with early cultures
Show senior and specialty teams involvement when dealing with sepsis or
Show understanding of importance of prompt treatment of infection in HIV or immunosuppressed individuals
Show awareness of need to notify some communicable diseases when required

<b>AAP62 Emergency rashes</b>
<b>Knowledge</b>
Know the causes, required investigations, and medical treatments of following skin conditions: 1) Impetigo, 2) Cellulitis, 3) Erysipelas, 4) Purpura, 5) Malignancies, 6) Drug eruptions, 7) Toxic epidermal necrolysis, 8) Stevens-Johnson syndrome 9) Necrotizing fasciitis, 10) Drugs, anaphylaxis, 11) Meningococemia, 12) Transfusion reactions, 13) Pruritus, 14) Skin and mouth ulceration, 15) Anaphylaxis
<b>Competencies</b>
Able to take full history (including drugs and social history), do a full examination (including mouth, nails, and scalp) to help in the diagnosis
Able to recognize life-threatening skin conditions, including malignancies, and comment correct management plan.
Able to initial any necessary investigations and interpret the results
Able to recognize those who need hospital admission or urgent consultation
<b>Performance</b>
Show ability of giving advice about transmissibility of disease

<b>AAP63 Spontaneous bleeding and bruises</b>
<b>Knowledge</b>
Know the causes, initial investigations, and treatment of cases with spontaneous bleeding or abnormal bruises: 1) Anti-coagulants, 2) DIC, 3) Myelosuppression, 4) ITP, 5) Hemophilia
<b>Competencies</b>

Able to early recognize these patients, initiate necessary investigation and do early referral to the hematology or oncology teams
Able to start any lifesaving treatments
<b>Performance</b>
Show early involvement of specialty team

<b>AAP64 Emergencies in cancer patient</b>
<b>Knowledge</b>
Know the causes, signs & symptoms, investigations findings, and management of the following tumor-related complications: 1) Hypercalcemia, 2) SIADH, 3) Adrenocortical insufficiency, 4) Spinal cord compression, 5) Airway obstruction, 6) Pericardial/ pleural effusions, 7) SVC compression, 8) Raised ICP, 9) Neutropenic sepsis, 10) Anemia, 11) Thrombocytopenia
<b>Competencies</b>
Able to investigate for, recognize, and treat accordingly
Able to do early consultation and referral to specialty team
Able prescribe analgesia and keep patient comfortable
<b>Performance</b>
Show sympathetic approach to patient and his family

<b>AAP65 Geriatric patients</b>
<b>Knowledge</b>
Know the difference in the presentation between delirium and dementia
Know the most common causes of syncope and falls in elderly
Know the impact of polypharmacy and new prescription on elderly
Know the most common medical conditions elderly may present with and fact that they are vulnerable that may get abused
<b>Competencies</b>

Able to do comprehensive assessment trying to rule out any acute or lifethreatening condition
Able to assess the basic baseline condition and level on independence
<b>Performance</b>
Show a compassionate and sympathetic care with respect to their choice of Rx

<b>AAP66 Patient with chronic medical condition</b>
<b>Knowledge</b>
Know the impact of chronic disease on the acute presentation & any medicine prescription
Know the effect of chronic disease on patient behavior and wellbeing
Know when to start symptomatic and palliative treatment
<b>Competencies</b>
Able to take a full history and do thorough, but focused, examination looking at systems involved with chronic medical condition
Able to establish the baseline level of the patient and effect of acute condition on the course of his chronic conditions
<b>Performance</b>
Show a sympathetic and compassionate care for those with chronic disease
Show understanding of the need to involve patient with the management plan

<b>AAP67 Pain Management</b>
<b>Knowledge</b>
Know how to assess the severity of pain and prescribe analgesia according to pain severest score and analgesia ladder.
Know the local analgesia available, their indications , Cis, dose, SEs, safe dose
Know the available local anesthetic agents and how to do regional block to minimize pain
Know how to treat complications from opioids and local anesthetics toxicities
<b>Competencies</b>

Able to safely prescribe appropriate analgesia & titrate according to pain level
Able to do the following nerve blocks: digital, ulnar, median, radial, femoral, auricular, supra-trochlear, supra-orbital, ankle.
<b>Performance</b>
Show patient involvement with decision about type of analgesia/ block

<b>AAP68 Falls</b>
<b>Knowledge</b>
Know the difference between syncope and fall
Know the causes of fall, eg pharmacology, and act on them
Know the life-threatening causes of fall and treatment modalities
<b>Competencies</b>
Able to demonstrate a systematic approach to identify and treat the lifethreatening causes of fall, any associated injuries and reorganize who is safe for discharge
Able to send any necessary investigations to confirm the cause of fall, and investigate other injuries
Able to start any necessary treatment, eg, fluid for hypotension, analgesia,..
<b>Performance</b>
Show empathy with understanding of psychological impact of this on patient
Show consideration of patient opinion about the cause of fall
Show good communication regarding preventive measure to patient and family

<b>AAP69 Interpretation of blood gas result</b>
<b>Knowledge</b>
Know how to analyze VBG /ABG recognizing acidosis and alkalosis and establishing the metabolic / respiratory derangement
Know the DDx for each disturbance
Know how calculate Anion (AG) and osmolar gaps and causes of abnoemality
<b>Competencies</b>

Able to take blood gas sample and establish an arterial line
<b>Performance</b>
Show understanding of each abnormality and way to correct

<b>AAP70 Basics to perform a research</b>
<b>Knowledge</b>
Know how to search the common databases (Embase, Medline, CINAHL, PubMed, Cochrane library)
Know the meaning of sensitivity, specificity, type I and II errors, positive predictive value (PPV), negative predictive value (NPV), likelihood ratio, confidence interval (CI), number need to treat (NNT), relative risk (RR), sample size and power calculation
Know how to critically appraise paper looking at power and methodology
Know the common types of papers designs like RCTs, cohort, observational, meta-analysis, diagnostic
Know how to write the three-parts question and pick up the right design
<b>Competencies</b>
Able to start or help with a research or quality improvement project to acquire necessary skills
<b>Performance</b>
Show involvement with literature appraisals and search

<b>AAP71 Injury from needlestick or exposure to body fluids</b>
<b>Knowledge</b>
Know how to assess risk of HIV, hepatitis B and C for donor and based on that assess the requirement for prophylactic treatment for HIV, Hep B, and tetanus
Know when to send for and types of blood tests need for donor and recipient
<b>Competencies</b>
Able to treat any injuries, do first aids, and do the risk assessment

<b>Performance</b>
Show sensitive and confidential approach

### 3.2.3 Anesthetic Competences

EM trainees should spend minimum of three months in anesthetics. During such time, the following skills need to be achieved

Adult Anesthetic (AA) training			
Code	Adult Anesthetic skill	Rotation	Assess. Tool(s)
AA1	Assessment prior to surgery	Anesthetic	MiniCex, CBD
AA2	Premedication's drugs and indications	Anesthetic	MiniCex, CBD
AA3	Induction of general anesthesia	Anesthetic	MiniCex, CBD
AA4	GA for urgent conditions	Anesthetic	MiniCex, CBD
AA5	Management of airway	Anesthetic	MiniCex, CBD
AA6	Care to patient during operation	Anesthetic	MiniCex, CBD
AA7	Recovery phase care	Anesthetic	MiniCex, CBD
AA8	Intra-operative cardiac arrest	Anesthetic	MiniCex, CBD
AA9	Procedural sedation	Anesthetic	MiniCex, CBD
AA10	Control of infection	Anesthetic	MiniCex, CBD
AA11	Transfer of unwell patient	Anesthetic	MiniCex, CBD
AA12	Critical incidents	Anesthetic	MiniCex, CBD
AA13	Describe parts & functions of anesthetic machine	Anesthetic	DOPS
AA14	FIFV /FIFO	Anesthetic	DOPS
AA15	Washing & scrubbing for theatre	Anesthetic	DOPS
AA16	Rapid sequence induction (RSI)	Anesthetic	DOPS
AA17	Post-operative need for O2	Anesthetic	DOPS
AA18	Post-operative vomiting	Anesthetic	DOPS
AA19	Post-operative pain control	Anesthetic	DOPS
AA20	Anaesthesia for acute abdomen	Anesthetic	DOPS
AA21	Deciding about sedatives & muscle relaxants	Anesthetic	DOPS
AA22	Assessing airway prior to general anesthesia	Anesthetic	DOPS



<b>AA1 Assessment prior to surgery</b>
<b>Knowledge</b>
Know how to take a full and detailed history focusing on pre-operative risk assessment and prior anesthesia, using patient, family, and medical records as a resource, and document all findings in patient notes. History should include Hx of the presenting complaint, past medical Hx, drugs and allergies, previous anesthesia and complication to patient or family, and systematic review
Know how to perform a relevant and focused examination for simple and complex cases, looking at possible risk factors for anesthesia. Examination to include CVS, respiratory, CNS, musculoskeletal, neck stability and movement, airway assessment, and dentition.
Know the pre-operative fasting and risk of aspiration rules and when to apply it
Know how to do ASA and NCEPOD assessments, airway assessment for risk of difficult intubation, indications and types of pre-operative's investigations, eg. ECG, echocardiography, pulmonary function test, and stress testing
Know the types of anesthesia required for general surgery, ENT, orthopedic, obstetric a gynecology, and urology surgeries.
Know the effect of anesthesia on and how to manage drug therapy for patients with DM, obesity, asthma, IHD, HTN, epilepsy, and rheumatoid arthritis
Know indications for RSI
Know about the complications of common anesthetic medications and how to decide about those who are high risk to develop them
<b>Competencies</b>
Able to perform and link together history and examination to assess the fitness for anesthesia.

Able to specify the risk factors and possible anesthetic problems, plan for anesthesia and post-anesthetic care, and communicate these clearly to patient
Able to consent patient for anesthesia and competency assessment
Able to conduct anesthesia, do RSI, and provide post anesthetic care
<b>Performance</b>
Show ability to give an honest and balanced view to patient about anesthesia and risks, and give time for patient to reflect and make choice
Show ability to ask for supervision and support with difficult or possible difficult cases

<b>AA2 Premedication's drugs and indications</b>
<b>Knowledge</b>
Know the indications for premedication drugs
Know which anxiolytic and sedative to use
Know the basic pharmacology of the selected medication
Know the different ways to reduce possibilities of gastric reflux and aspiration. How to use antacids, H2 blockers and PPI to reduce that
Know the indication for thromboprophylaxis and what to use
Know the indications for prophylactic antibiotics
<b>Competencies</b>
Show ability to pick up the right anxiolytic, antireflux or antacid, sedative agents and use it only when indicated after explaining to patient the possible side effects

## AA3 Induction of general anesthesia

### Knowledge

Knows about

1. Anesthetic drugs: Induction agents, muscle relaxants, analgesics, and inhalation agents. Need to know mechanism of action, dose, side effects, interactions, and how to label them correctly to avoid any errors.
2. Equipment:
  - a. Monitors: minimal monitoring requirements and when to expand.
  - b. Anesthetic machine: function and operation of each part, preanesthetic check, ventilator setting, and operating the vaporizer
3. Induction: know about
  - a. Pre-oxygenation: correct technique
  - b. Intravenous and inhalational induction agents: know the pharmacology of different agents, advantages and disadvantage of each way, how to recognize and deal with anaphylaxis. Also recognize complications may happen when inducing those with ICH, full stomach, septic shock, compromised upper airway, cardiac disease, respiratory disease, musculoskeletal problem obesity and those at high risk of regurgitation / aspiration.
4. Airway management: know how to
  - a. Keep the airway open using mask, NPA, OPA, LMA
  - b. Tracheal intubation: know the indications for, types of tubes, how to pick up the right size and length, different types of laryngoscope blades and sizes, how to confirm the correct placement of tube, and how to deal with difficult intubation and use failed intubation drills

### Competencies

- 1) Show how to check patient identity in the anesthetic room, pre-operative equipment check, induction medications concentration and labeling check
- 2) Establishing IV access using aseptic technique
- 3) Application of the right monitoring and correct setting of alarm
- 4) Correct application of pre-oxygenation with explanation to patient
- 5) Correct choice, preparation, and use of IV induction agents
- 6) Correct choice, preparation, and use of inhalational induction agents
- 7) Correct management of airway and
- 8) Correct positioning of head, use of OPA, NPA, BVM, LMA
- 9) Use of laryngoscope and insertion of ETT, RSI
- 10) Use of bougies, securing tube, suction, and transfer intubated patient.

#### AA4 Introduction to anesthesia for emergency surgery

##### Knowledge

Know how to

1. Address patient anxiety and fear and reassure them
2. Address patient pain and treat it
3. Address the effect of patient co-morbidities on emergency anesthesia
4. Address the effect of acute illness on the patient pathophysiology, hydration status, blood pressure, fasting requirement, and the need to optimize this preoperatively
5. Address acutely unwell, septic, or high risk of reflux patients and how to optimize them before induction

##### Competencies

- Demonstrate pre-operative assessment for acutely unwell patients
- Demonstrate pre-operative assessment for ASA I and II needing urgent surgery
- Demonstrate safe RSI for those needing emergency surgery

## AA5 Airway Management

### Knowledge

- Know how to assess airway to predict difficult intubation
- Know the benefit of and how to do pre-oxygenation
- Know the different technique used to open and maintain airway using positioning, OPA, NPA, face and laryngeal masks
- Know how to do inhalational induction, pros and cons of that
- With regard to endotracheal intubation, must know
  - Indications for and indications for RSI
  - How to pick up the right size and type of tube
    - How to pick up the right laryngoscope and different blades benefits
  - How to confirm ETT position
  - How to manage difficult intubation / ventilation patient
  - Indication for fibro-optic intubation or glidoscope
  - The indications for cricothyrotomy & jet ventilation
  - How to expect and manage those with high risk of aspiration
  - How to maintain ventilation using hand ventilation or ventilator
- With regard to extubation, must know
  - How and when to do it
  - How to deal with laryngospasm
    - How to manage those with apnea/ cyanosis/ muscle relaxant effect
  - How to manage stridor
  - How to manage airway and patient in recovery position
- With regard to O2 therapy, must know
  - Indications
  - How to do it and types of devices used

### Competencies

- Demonstrate a safe pre-intubation airway assessment
- Demonstrate a proper positioning , opening and maintain airway using head tilt, chin lift, jaw thrust, ventilation using correct size mask, and preoxygenation
- Demonstrate correct placement of laryngeal mask and iGel
- How to induce anesthesia using inhalational or IV agents and maintain airway in spontaneously breathing patient
- Demonstrate safe oropharyngeal, laryngeal and tracheal suctioning
- Demonstrate a safe extubating and airway reflexes assessment
- Demonstrate surgical airway in failed to intubate failed to ventilate patients

#### AA6 Care for patient during operation

#### Competencies

Show how to lead and do a safe transfer of patient on operating table

Demonstrate ability to maintain anesthesia for sedated, spontaneously breathing (with face mask), and ventilated patient intra-operatively.

Keep records of anesthetic records and documentation

Show clear communication with theatre team

Show ability to act in appropriately and in timely manner to intraoperative bleeding or hypotension.

Demonstrate ability to intra-operatively manage those with chronic medical problems (HTN, DM, IHD, asthma, COPD)

AA7 Recovery phase care	
Knowledge	
1)	Know recovery room monitoring requirements
2)	Know types and frequency of observations as per surgery type
3)	Know the correct positioning
4)	Know how to safely extubate and how to deal with laryngospasm
5)	know causes of and how to treat respiratory failure post extubation (muscle relaxant, laryngospasm, apnea) and stridor.
6)	Know indications and different ways of post-operative oxygen therapy
7)	Know indications and types of post-operative fluid therapy
8)	Know how to assess and treat post-operative pain using appropriate choice
9)	Know the causes & pharmacological choices of post-op nausea or vomiting
10)	Know causes & management of post-op confusion, hypo/hypertension
11)	Know post-op care for those with cardiac, respiratory, metabolic, musculoskeletal, obesity, reflux diseases.
12)	Know the criteria for safe discharge from observation room
Competencies	
<ul style="list-style-type: none"> <li>• Demonstrate a safe extubation (return of AW reflexes, adequate ventilation, low risk of aspiration, full reversal of muscle relaxant)</li> <li>• Show safe transfer to and from table</li> <li>• Demonstrate safe positioning of patient</li> <li>• show safe prescription of post-op fluids, analgesia, anti-emetics.</li> <li>• Show safe management of post-op confusion</li> <li>• Show a safe discharge from recovery room</li> </ul>	

AA8 Management of Respiratory and cardiac arrest in theatre
Knowledge

- Know the different causes of respiratory arrest, cardiac arrest
- Know how to recognize different peri-arrest or arrest rhythms on ECG
- Know the pharmacology, doses, & uses of arrest/peri-arrest drugs (Adrenaline, Atropine, Amiodarone, Lidocaine, Magnesium SO<sub>4</sub>, Naloxone)
- Know the need for O<sub>2</sub> supplement & why to avoid hyperventilation
- Know indications, CIS, & disadvantage of NPA, OPA, LMA, Proseal, iGel, ETT
- Know how to ventilate patient using BVM, Anesthetic circuit, & ventilator
- Know how to safely defibrillate those with shockable rhythm
- Know the importance of minimizing interruption for chest compression
- Know the reversible causes of cardiac arrest (7Hs and 5Ts)
- Know how to manage cardiac arrest in special circumstances (Hypothermia, drowning, anaphylaxis asthma, trauma, pregnancy, electrocution)
- Know how to identify ROSC and post-ROSC care
- Know when to stop resuscitation, taking family / patient's wishes in account

### Competencies

- Demonstrate correct BLS, ALS, PALS approach in the diagnosis & the management of cardiac arrest
- Demonstrate correct head tilt- chin lift, jaw thrust, OPA, & NPA insertion
- Demonstrate correct placement of LMA, iGel, ETT
- Demonstrate correct ventilation of patient using self-inflating bag via mask or mechanical ventilator
- Demonstrate correct CPR technique
- Demonstrate a correct application of defibrillation pads and safe and correct delivery of shock
- Demonstrate a correct positioning of patient with low GCS or post ROSC, and safe transfer to a higher level of care
- Correct documentation of all resuscitation events during resuscitation

### AA9 Procedural Sedation

#### Knowledge



- Know the meaning of conscious sedation and difference from deep one
- Know when to use conscious sedation
- Know the pharmacology of commonly used medications
- Know the minimal monitoring requirements
- Know how to use a single or combined medications
- Know the application of this in children

### Competencies

- Demonstrates the skill of the correct selection of the right patient for procedural sedation
- Demonstrates the skills of getting a verbal/ written consent from patient
- Demonstrates the skills of administering sedation and monitoring patient through out
- Demonstrates the skills of recognition and appropriately manage the complications that may happen during sedation

## AA10 Control of infection

### Knowledge

Know universal precautions to control infection

- Decontaminate hands before touching patient
- The use of gloves
- The use of sterilized equipment
- The disposal of used clinical consumables
- Common types of infections ITU patients may acquire and treatment for them, especially C-Diff and MRSA
- Limit antibiotic, especially prophylactic one, usage based on local guidelines

### Competencies

- Demonstrate early recognition of immunocompromised patients and apply an infection mitigation measures to protect them
- Safe Abx prescription guided by local guidelines and organisms' resistance
- Demonstrate aseptic technique when doing procedure
- Demonstrate proper PPE precautions, scrubbing
- Demonstrate correct disposal of single-use items

## AA11 Transfer of unwell patient

### Knowledge

- Know that patient clinical condition has to be optimized and relatively stable before commencing transfer
- Know the possible risks, necessary arrangements and equipment for intra and extra-hospital transfer
- Know the measures need to minimize these hazards
- Know how to operate the portable ventilator
- Know the preparation for transfer, checking list, transfer bag
- Know how to manage agitated ventilated patient during transfer
- Know the importance of communicating with patient / his relatives & receiving destination
- Know the importance of keeping records of vitals and interventions during transfer

### Competencies

- Demonstrate a safe and organized intra- hospital transfer of a stable patient
- Demonstrates correct setting up and connection of portable ventilator prior to transfer
- Demonstrate how to secure ET tube, calculate required O2, check drugs pumps, and enough power charge in equipment for transfer
- Demonstrate correct preparation and usage of monitoring and medications (muscle relaxants, analgesics, sedation, ..etc) for transfer
- Demonstrate ability to monitor and records vital signs throughout transfer

### AA12 Critical Incidents

#### Knowledge

- Know the critical incidents which can happen during anesthesia:
  1. Cardiac and/or respiratory arrest
  2. Hypoxia
  3. Increased in Peak AW pressure
  4. Abnormal end tidal CO<sub>2</sub>
  5. Abnormal blood pressure
  6. Arrhythmia
  7. Seizure
  8. Can't intubate or ventilate
  9. Laryngospasm
  10. Bronchospasm
  11. Pneumothorax
  12. Anaphylaxis
  13. Toxicity from LA
  14. Conning due to high ICP
  15. Tube displacement
  16. Malignant hyperpyrexia
- Know the human factors which can improve performance and make possibilities of critical incidents less (communication, leadership, decision making, and situational awareness)
- Know how to be prepared for these incidents, report them, use them as learning opportunity in a non-blame culture

### Competencies

- Show a good non-technical and human-factors skills (situational awareness, effective communication, leadership, and decision making)
- Show ability of early recognition and act on these incidents
- Shows ability to deal with above situations

### 3.2.4 Intensive Care Medicine training

Trainee should spend at least 3-6 months in RCU. The following competences need to be covered during this placement.

Adult Intensive Care (AIC) training		
Code	Adult ICU competencies	Assessment method
AIC1	Demonstrates aseptic peripheral venous cannulation	DOPS
AIC2	Demonstrates arterial cannulation (aseptic technique & local anesthesia)	DOPS
AIC3	Obtains ABG sample safely, & interprets results correctly	DOPS
AIC4	Placement of central venous catheter	DOPS
AIC5	Connects to mechanical ventilator & selects initial settings	DOPS
AIC6	Use of anesthetic medications	Mini-CEX, DOPS, CBD

AIC7	Basics of monitoring the respiratory function	CBD
AIC8	Assessment & management of patient fighting ventilator	MinCEX, CBD
AIC9	Appropriate use of vasoactive drugs and electrolytes	MinCEX, CBD
AIC10	IV fluids for acutely unwell patient	MinCEX, CBD
AIC11	Steps to deal with accidentally displaced ET tube	MinCEX, CBD
AIC12	Initial assessment of the acutely unwell	MinCEX, CBD

AIC1 Demonstrates peripheral venous cannulation (aseptic technique)
<b>Knowledge</b>
Know the surface anatomy, anatomical landmarks, and venous anatomy
Know how to use aseptic technique by: <ul style="list-style-type: none"> <li>• Using appropriate skin cleaning agent and cleaning method</li> <li>• Using non-touch and sterile technique when inserting cannula</li> <li>• Use sterile equipment and sterile field when doing this</li> </ul>
<b>Competencies</b>
Show the ability to do a safe peripheral cannulation using a proper and aseptic technique.
<b>Performance</b>
Obtains patient or family verbal consent before procedure Effective communication while doing it Proper disposal of sharps

AIC2 Demonstrates arterial cannulation (aseptic technique with local anesthesia)
<b>Knowledge</b>
Know the surface anatomy and anatomy of the radial, femoral and brachial arteries Know how to do Allen's test and its relevance Know what are the indications and CIs for arterial line Know the need to use LA infiltration prior to that Knows how to use arterial line set like seldinger cannula and how to zero the monitor after connecting to transducer
<b>Competencies</b>

Do the ac using seldinger technique or classic arrow AC
The trainee demonstrates the ability to attach transducer and zero it
<b>Performance</b>
Obtains patient or family verbal consent before procedure Effective communication while doing procedure with proper disposal of sharps

AIC3 Obtains an arterial blood gas sample safely, & interprets result correctly
<b>Knowledge</b>
Know the surface anatomy for radial and femoral arteries Proper skin cleaning before procedure Take the sample using heparinized syringe
Know the normal values of pH, PaO <sub>2</sub> , PaCO <sub>2</sub> , bicarbonate, base excess, & lactate
Know the recognition of and causes of • Hypoxia • Hypercapnia, Metabolic & lactic acidosis • high anion gap
<b>Competencies</b>
Show good skills in obtaining the arterial sample using aseptic technique
Proper compression after sample and good interpretation of results
<b>Performance</b>
Obtains patient or family verbal consent before procedure Effective communication while doing procedure with proper disposal of sharps

AIC4 Placement of central venous catheter
<b>Knowledge</b>
Know the anatomy of neck, subclavian, and groin region
Know the ultrasound anatomy of the anterior triangle of the neck and the groin
Know the indication of CVC, possible complications, relative & absolute CIs
Know the required equipment and types of lines (Seldinger technique, multilumen catheters, ultrasound systems, transducer systems)
Know how to check the line position and possible complications on chest x-ray
<b>Competencies</b>

Able to set up the ultrasound with appropriate depth, gain and sterile sheath
Able to perform aseptic procedure of line placement in the Internal Jugular, Subclavian, and Femoral approaches
Able to interpret the post-procedure CXR, confirming correct position and excluding major complications
<b>Performance</b>
Obtains consent where possible
Appropriate use of local anesthetic and sedation
Appropriate documentation of procedure in notes
Obtains senior help when required

AIC5 Connects to mechanical ventilator and selects initial settings
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows the indications for mechanical ventilation</li> <li>• Knows modes of ventilation (volume vs pressure controlled)</li> <li>• Know the use of SIMV, pressure support, PEEP, inverse ratio ventilation</li> <li>• Know the indications and CIs for permissive hypercapnia</li> </ul>
<b>Competencies</b>
Sets up and performs circuit check and safety check of the relevant ventilator
Sets appropriate settings: Peak inspiratory pressure or tidal volume, ratio, PEEP
<b>Performance</b>
Ensures patient safety throughout Sets appropriate alarms
Uses appropriate monitoring including pulse oximetry and capnography

AIC6 Use of anesthetic medications
<b>Knowledge</b>

Know the pharmacology of the main drugs used for general anesthesia (sedation, muscle relaxants, sedatives) including doses, advantages and disadvantages
Know medications used to maintain general anesthesia and facilitate ventilation
<b>Competencies</b>
Able to maintain GA and use scoring system to check the sedation level
Able to safely prescribe and administer these medications
<b>Performance</b>
Shows ability to communicate the sedation and medication pathway to team
Demonstrate ability to consult with a senior, seek appropriate team support

AIC7 basics of monitoring the respiratory function
<b>Knowledge</b>
Know how to evaluate the respiratory function of a ventilated or ill patient based on <ul style="list-style-type: none"> <li>• Clinic examination of respiratory system</li> <li>• Checking the parameters from ventilatory (tidal volume, airway pressure, minute ventilation, RR)</li> </ul>
<b>Competencies</b>
Able to do full respiratory system examination Able to interpret the results from C-XRYA, CT, USS Able to interpret the shape of capnography and pressure volume loop
<b>Performance</b>
Calm and systematic approach when assessing the patient

AIC8 Assessment and management of patient fighting the ventilator
<b>Knowledge</b>



<ul style="list-style-type: none"> <li>• Knows the indication for ventilation</li> <li>• Knows the common modes of ventilation</li> <li>• Knows the common causes of poor compliance with ventilation               <ol style="list-style-type: none"> <li>1. Airway obstruction or other mechanical problems</li> <li>2. Altered clinical condition</li> <li>3. Altered sedation requirements</li> <li>4. Selection of inappropriate mode of ventilatory support</li> </ol> </li> <li>• Knows the role of NM blocking agents, sedatives, and narcotics in facilitating ventilation</li> <li>• Knows that hypoxia could be a cause for this and treat this with               <ul style="list-style-type: none"> <li>Increasing amount of O<sub>2</sub> supplement</li> <li>Shift to manual ventilation</li> </ul> </li> </ul>
<b>Competencies</b>
<p>Able to early recognize the condition and treat it by dialing up O<sub>2</sub> on machine</p> <p>Able to recognize when does manual ventilation can be used</p> <p>Able to request any necessary Ix, e.g C-xray, ABG,....etc</p>
<b>Performance</b>
<p>Shows ability to communicate effectively and work with team</p> <p>Shows ability to ask for help and support from seniors when needed</p>

<b>AIC9: Appropriate use of vasoactive drugs and electrolytes</b>
<b>Knowledge</b>
<p>Knows the common causes of electrolytes imbalance</p> <ul style="list-style-type: none"> <li>• deranged and renal function</li> <li>• respiratory or renal failure</li> <li>• metabolic problems □ iatrogenic causes</li> </ul> <p>Knows the indications, contraindications, monitoring requirements, and SE of K<sup>+</sup> containing solutions</p>
<p>Knows the pharmacology, indications, contra indications, side effects, monitoring requirements, and IV access requirements of vasopressors</p>

<b>Competencies</b>
Able to safely prescribe electrolytes and vasopressors
Able to monitor response and interpret the investigations results
<b>Performance</b>
Shows a calm and professional attitude
Shows ability to ask for help and support from seniors when needed

AIC10: IV fluids for acutely unwell patient
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows how to assess the hydration status of the patient (clinical assessment, CV line pressure, USS, arterial line pressure) the need to reassess after fluid administration and monitoring requirement.</li> <li>• Knows the types (crystalloid and colloids), advantage, and disadvantages of each type of fluids</li> </ul>
<b>Competencies</b>
<p>Able to assess the fluid status in patient and reassess after treatment.</p> <p>Able to prescribe correct type and volume</p> <p>Able to assess response to treatment</p>
<b>Performance</b>
Good communication of fluid plan and monitoring to team
Appropriate involvement of the seniors and specialty team when required

AIC11: Steps to deal with accidentally displaced ET tube
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows the importance of early recognition</li> <li>• Knows the actions needed for unstable airway (AW maneuvers, OPA, NPA, high flow O2, bag-valve mask ventilation, and re-intubation)</li> <li>• Knows the required medications (sedatives, analgesics, NM blocking agent)</li> <li>• Knows the monitoring requirement (pulse oximetry, ETCO2, etc,..)</li> </ul>
<b>Competencies</b>

Able to perform an effective and timely AW assessment
Able to use AW maneuvers, oxygenation, and ventilation
<b>Performance</b>
Demonstrate a prompt AW assessment in unwell patient
Demonstrates good communication with team
Demonstrate early involvement of seniors and specialty team when required

### 3.2.5 Adult Practical Procedures (APP):

- Trainee should finish the 46 practical procedure competencies over the 4 years of training.
- Some of these competencies are specialty specific. Mandatory (M) assessment of these competencies should be undertaken during the specified rotation.
- DOPS should be the ideal way for assessment, but other assessment format may be occasionally used, e.g Simulation, course,...

No.	Practical procedure	IM	EM	Anesth	ICM
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APP1	Demonstrates arterial cannulation (aseptic technique & local anesthesia)				M
APP2	Demonstrates peripheral venous cannulation (aseptic technique)				M
APP3	Placement of central venous catheter				M
APP4	Obtains an arterial blood gas sample safely, & interprets result correctly				M
APP5	Lumbar puncture				
APP6	Pleural tap and aspiration				
APP7	Chest tube - Seldinger				
APP8	Chest drain - Open				
APP9	Ascitic fluid tapping				
APP10	Abdominal paracentesis				
APP11	Airway protection		M		
APP12	BLC and ACL/ ALS			M	
APP13	DC cardioversion				
APP14	Knee joint aspiration				
APP15	External pacing				
APP16	Reduction of fracture or dislocation		M		
APP17	Examination of large joint				
APP18	Wound assessment and closure		M		
APP19	Primary survey in trauma		M		
APP20	Initial assessment of the acutely unwell				M
APP21	Secondary survey and assessment		M		
APP22	Connects to mechanical ventilator and selects initial settings				M
APP23	Use of anesthetic medications				M
APP24	Assessment and management of patient fighting the ventilator				M
APP25	Monitoring respiratory function				M

APP26	IV fluids for acutely unwell patient				M
APP27	Steps to deal with accidentally displaced ET tube				M
APP28	Preoperative assessment			M	
APP29	Management of spontaneously breathing patient			M	
APP30	Administer anaesthesia for laparotomy			M	
APP31	Demonstrate RSI			M	
APP32	Recover patient from anaesthesia			M	
APP33	Demonstrate function of anaesthetic machine			M	
APP34	Transfer of patient to operating table			M	
APP35	Demonstrate CPR resuscitation on a manikin			M	
APP36	Technique of scrubbing up & donning gown & gloves			M	
APP37	Basic competences for pain management			M	
APP38	Patient identification			M	
APP39	Post-op N&V			M	
APP40	Airway Assessment			M	
APP41	Choice of muscle relaxants and induction agents			M	
APP42	Post op analgesia			M	
APP43	Post op oxygen therapy			M	
APP44	Emergency surgery			M	
APP45	The routine for dealing with failed intubation			M	
APP46	Appropriate use of vasoactive drugs and electrolytes				M

### 3.3 Paediatric Emergency Medicine Curriculum □ This is a symptom-based curriculum.

- Some of skills from adult curriculum will be same for children
- EM has to be able to
  - Take proper Hx (including prenatal, birth, development, immunisation, family, and social).
  - Do a careful examination including milestone and development. ○ Have PALS/ APLS.
  - Manage airway, insert IV access, and interprets basic investigations (C-xray, CBC, ECG,...).
  - Prescribe safely.
  - Recognize the signs of NAI and those who need special care.
  - Decide when it is safe to discharge child home from ED.

#### 3.3.1 Pediatric Major Presentation (PMP)

Code	Pediatric Major Presentation (PMP)	Assessment method
PMP1	Cardio-respiratory arrest in children	MInicEX / APLS
PMP2	Airway obstruction, apnoea, and stridor	MInicEX / APLS
PMP3	Anaphylaxis	MiniCEX, CBD
PMP4	Loss of consciousness in a child	MiniCEX, CBD
PMP5	The shocked child	MiniCEX, CBD
PMP6	Major trauma in children	MiniCEX/ ATLS

#### PMP1 Cardio-respiratory arrest in children

Knowledge

- Knows the causes of cardio-respiratory arrest in children
- Knows that respiratory failure and shock are the most common causes
  - Knows the management of arrest in special circumstance, namely: hypothermia, drowning, electrocution
- Knows the APLS/ PLAS guideline
- Knows the common medications used during resuscitation, including their SE, indication, CIs, and dose calculation.
- Knows when not to resuscitate or to stop resuscitation.
- Knows the local guidelines of management of sudden death in infant
- Knows how to resuscitate a neonate or has completed a NLS

#### Competencies

- Able to manage unstable airway, oxygenate and ventilate a child □  
Able to establish an ET tube in a child □ Able to lead a resuscitation team.
- Able to establish peripheral venous line and intra-osseous access.

### PMP2 Airway obstruction, apnea, and stridor

#### Knowledge

- Knows the main causes of AW obstruction in children (infection, allergy, and mechanical obstruction), and knows how to manage including epiglottitis and post-tonsillectomy bleeding
- Knows when to and when not to do surgical airway
- Knows how to assess the airway in children
- Knows how to treat a choking child according to PALS algorithm □  
Knows when to call for senior

#### Competencies

- Able to recognize airway obstruction based on Hx and examination □  
Able to BLS and APLS maneuvers for a choking child.
- Able to perform/ or simulate a surgical airway in children

### PMP3 Anaphylaxis

#### Knowledge

Knows how to diagnose and manage a case of anaphylaxis in a child
<b>Competencies</b>
Able to follow the APLS/ PLAS algorithm to treat anaphylaxis and recognize those who need PICU input.

<b>PMP4 Loss of consciousness in a child</b>
<b>Knowledge</b>
<p>Knows the main life-threatening causes of LOC in children including</p> <ul style="list-style-type: none"> <li>• Seizure: knows different causes including status epilepticus, febrile convulsion, septic shock</li> <li>• Hypoglycemia: knows cause, presentation, possible complications, and management in different age group</li> <li>• DKA: knows hospital/ national guidelines for management, including IV fluids and insulin.</li> <li>• Other cause: including inborn errors of metabolism, CNS infection,etc</li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to recognize and treat seizures and status as per APLS protocol</li> <li>• Able to recognize and treat hypoglycemia as per APLS protocol</li> <li>• Able to recognize and treat a child with high ICP and cerebral oedema</li> <li>• Able to recognize and treat DKA and with appropriate fluid and insulin Rx</li> </ul>

<b>PMP5 The shocked child</b>
<b>Knowledge</b>
<p>Knows how to recognize the child in shock and give a differential diagnosis</p> <p>Knows the physiology, causes, and management of septic shock</p>
<b>Competencies</b>
Able to treat a child in septic shock as per national / international guidelines



## PMP6 Major trauma in children

### Knowledge

Knows ATLS/APLS principles in dealing with a child in trauma including

- Head injury: Knows signs of TBI, when to do CT, admit or consult for neurosurgeon
- Chest injury: Knows the signs and recognition of chest wall injuries, including pulmonary contusion and flail chest
- Abdominal injury: Knows the common injuries, signs, and how to investigate for.
- Spinal injury: Knows the risk for spinal injuries, how to recognize and assess, and how to investigate for SCIWORA and neurogenic shock
- Burns: Knows how to calculate %, depth, and fluid replacement, with knowledge when to refer to burns units and suspect NAI
- Pelvic fractures: Knows types and how to manage
- Physical Abuse: Knows signs and common injuries associate with and how to manage

### Competencies

- Able to recognize children who need ET intubation
- Able to correctly calculate GCS / AVPU for a child in trauma
- Able to recognize those who need imaging as per national guidelines
- Able to manage a child fighting immobilization
- Able to examine and clear spines in trauma
- Able to manage common wounds in children
- Able to interpret spinal x-rays in children
- Able to apply pelvic binder during major injuries
- Able to decompress and treat pneumothorax/ hemothorax
- Able to recognize the common injuries., fractures, burns patterns associated with NAI
- Able to decide about the need for urgent operation in those who are unstable and failed to respond to fluid therapy
- Able to lead pediatric trauma call

3.3.2 Pediatric Acute Presentation (PAP)		
Code	Pediatric Acute Presentations (PAP)	Assessment tools
PAP1	Abdominal pain	CBD, Min-Cex, ESE
PAP2	Gastro-intestinal bleeding	CBD, Min-Cex, ESE
PAP3	Child with dehydration secondary to diarrhoea or vomiting	CBD, Min-Cex, ESE
PAP4	Difficult of breathing in children	CBD, Min-Cex, ESE
PAP5	Headache in children	CBD, Min-Cex, ESE
PAP6	Brief Resolved Unexplained Events (BRUE), also known as Acute life-threatening event (ALTE)	CBD, Min-Cex, ESE
PAP7	Concerning presentation in children	CBD, Min-Cex, ESE
PAP8	Floppy and unwell child	CBD, Min-Cex, ESE
PAP9	Neonatal emergency presentations	CBD, Min-Cex, ESE
PAP10	Concerning rashes in children	CBD, Min-Cex, ESE
PAP11	Poisoning in children (accidental & non-accidental)	CBD, Min-Cex, ESE
PAP12	Haematological disorders	CBD, Min-Cex, ESE
PAP13	Sore throat in children	CBD, Min-Cex, ESE
PAP14	ENT emergencies	CBD, Min-Cex, ESE
PAP15	Orbital cellulitis	CBD, Min-Cex, ESE
PAP16	A child with injured limb	CBD, Min-Cex, ESE
PAP17	Limping child	CBD, Min-Cex, ESE
PAP18	Child in pain or needs painful procedure	CBD, Min-Cex, ESE
PAP19	Fever in children	CBD, Min-Cex, ESE

## Paediatric Acute Presentations

<b>PAP1: Abdominal pain</b>
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows and recognizes the main causes of abdominal pain different age groups, including testicular torsion.</li> <li>• Knows that testicular and inguinal examination are parts of abdominal examination</li> <li>• Knows the differential diagnosis, investigations, managements, and when to admit under surgery</li> <li>• Knows the main management of recurrent or chronic abdominal pain</li> <li>• Knows how to investigate and treat for constipation in children</li> </ul>
<b>Competencies</b>
Able to examine and treat different causes of abdominal pain in children

<b>PAP2: GI bleeding</b>
<b>Knowledge</b>
Knows the differential diagnosis of upper and lower GI bleeding, including intussusception
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to recognize, commence early treatment to stabilize patient</li> <li>• Able to establish an IV or IO access</li> <li>• Able to recognize those who need urgent endoscopy, admission, or surgical intervention</li> </ul>

<b>PAP3: Child with dehydration secondary to diarrhea or vomiting</b>
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows the differential diagnosis (including pyloric stenosis), presentation, and pathophysiology of dehydration.</li> <li>• Knows the presentation, investigation and treatment of severe electrolytes disturbance</li> </ul>
<b>Competencies</b>

- Able to recognize the life-threatening complications of dehydration
- Able to calculate and safely prescribe bolus and maintenance types of fluid as per PALS

#### PAP4: Difficult of breathing in children

##### Knowledge

- Knows how to recognize the unwell child with respiratory failure or distress and when to intubate
- Knows the pathophysiology, management, pharmacology for medications used for, and when to admit and when to intubate for the following conditions
  - Asthma
  - Bronchiolitis
  - Pneumonia
  - Pertussis
  - Cardiac causes: including CCF and dysrhythmias

##### Competencies

- Able to recognize and treat life-threatening asthma, and recognize those who may need intubation and ventilation
- Able to provide oxygen therapy and bag-valve-mask ventilation when required

#### PAP5: Headache in children

##### Knowledge

- Knows the differential diagnosis of headache in children
- Knows how to investigate and treat viral and bacterial meningitis /encephalitis

##### Competencies

Able to recognize and treat life-threatening causes, including

- CNS infection
- Raised ICP
- CNS bleeding

<b>PAP6: Brief Resolved Unexplained Events (BRUE), also known as Acute life-threatening event (ALTE)</b>
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows the presentation of an event which <ul style="list-style-type: none"> <li>○ Frightening to parents</li> <li>○ Infant may look seriously ill, exhibits apnea, color change, change in muscle tone, choking or gagging</li> </ul> </li> <li>• Knows the most common differential diagnosis: <ul style="list-style-type: none"> <li>○ Central apnea</li> <li>○ Obstructive apnea</li> <li>○ GO Reflux</li> <li>○ Arrhythmias and myocarditis</li> <li>○ Breath holding</li> <li>○ Near SIDs</li> <li>○ Toxins</li> </ul> </li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to take full history, do full examination, and initiate appropriate investigation</li> <li>• Able to recognize the need for admission</li> </ul>

<b>PAP7: Concerning presentation in children</b>
<b>Knowledge</b>
<p>Knows how to recognize and manage some concerning presentations, namely.</p> <ul style="list-style-type: none"> <li>□ Physical abuse <ul style="list-style-type: none"> <li>• Sexual abuse</li> <li>• Apneic episodes due to NAI</li> <li>• Unexplained injury in young children</li> </ul> </li> </ul>
<b>Competencies</b>

- Able to recognize concerning pattern of injury which might suggest NAI
- Able to recognize those infants which may present with excessive crying due to fractures or neglect.
- Able to take history and examination, documents findings clearly
- Aware about local guidelines to deal with cases of child abuse

#### PAP8: Floppy and unwell child

##### Knowledge

Knows the differential diagnosis of a child presented with floppiness

##### Competencies

Able to recognize, investigate, and treat life-threatening conditions

#### PAP9: Neonatal emergency presentations

##### Knowledge

Knows how to assess, give differential Dx, and manage different neonatal emergencies presented to ED. This may include leading neonatal resuscitation as per APLS/NLS protocols. Emergencies trainee should be aware of are

- Resuscitation of the newborn after delivery
- Sepsis in neonate: sepsis may present as hypothermia, apnea. Knows when to do full sepsis screen and need for treatment based on suspected pathogen.
- Cyanotic and non-cyanotic congenital HD. Knows how to treat collapse neonate with duct-dependent circulation.
- Jaundice. Knows how to investigate, indication for phototherapy or exchange transfusion.

##### Competencies

- Able to assist the delivery and resuscitate the newborn
- Able to lead resuscitation for the common emergencies
- Able to commence appropriate investigations and treatment
- Able to recognize those who need admission, phototherapy, exchange, sepsis treatment, prostaglandin infusion.
- Able to ask for specialty opinion and senior help when required

### PAP10: Concerning rashes in children

#### Knowledge

Knows how to recognize and treat

- Eczema, seborrheic dermatitis, and eczema herpeticum
- Bites and scabies, measles, and chicken pox
- Non blanching rash for different etiologies

#### Competencies

- Able to treat eczema and recognize complicated one
- Able to manage infected or non-infected bites

### PAP11: Poisoning in children (accidental and non-accidental)

#### Knowledge

- Knows the main toxidromes and types of poisoning in different age groups
- Knows when to do decontamination, given activated charcoal □ Knows the main antidotes for common poisonings
- Knows the pharmacology and treatment of common poisonings
- Knows the need for psychiatry input for those present with intentional OD

#### Competencies

- Able to take relevant history, establish the toxin dose, timing, form, intention and symptoms.
- Able to look for toxidromes signs during examination, establish stability, need for activated charcoal or antidote
- Able to exclude self-harm in children and adolescents and refer to psychiatry accordingly

### PAP12: Hematological disorders

#### Knowledge

<p>Knows the common presentation, complications, and management of common hematological emergencies, including</p> <ul style="list-style-type: none"> <li>• Sickle cell crisis: establish the causes, treat pain, establish hydration and treat precipitant</li> <li>• Anemia: including acute and chronic ones, and when to refer for admission or do transfusion</li> <li>• Purpura and bruises: focus on history and examination on features which may suggest meningococemia and leukemia</li> <li>• Leukemia and lymphoma: know common presentation in children</li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to safely prescribe fluid and analgesia for sickle cell crisis</li> <li>• Able to investigate for and treat life-threatening causes of purpura</li> <li>• Able to recognize and treat HSP and differentiate it from ITP or leukemia □ Able to recognize NAI as a cause of bruises</li> </ul>

<b>PAP13: Sore throat in children</b>
<b>Knowledge</b>
<p>Knows the presentation and management of the life-threatening presentations:</p> <ul style="list-style-type: none"> <li>• Stridor or obstruction</li> <li>• Possible epiglottitis</li> <li>• Quinsy</li> <li>• Foreign bodies</li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to take relevant history and do ENT examination</li> <li>• Able to give a differential diagnosis</li> <li>• Recognize those who need admission</li> </ul>

<b>PAP14: ENT emergencies</b>
<b>Knowledge</b>



<p>Knows how to recognize, investigate, and treat the following emergencies</p> <ul style="list-style-type: none"> <li>• Traumatic ear conditions: (NAI is always a possibility)</li> <li>• Earache or ear discharge: Otitis media/ externa/ mastoiditis/ FB/ and glue ear</li> <li>• Epistaxis, nose injury, septal hematoma, and FB</li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to remove foreign bodies from the ear canal</li> <li>• Able to recognize an auricular hematoma which requires I&amp;D</li> <li>• Able to do otoscopy</li> <li>• Able to correctly identify and treat otitis externa and media</li> </ul>

<b>PAP15: Orbital cellulitis</b>
<b>Knowledge</b>
Knows the presentation, assessment and management of Orbital cellulitis
<b>Competencies</b>
Able to do eye examination and test for visual acuity

<b>PAP16: A child with injured limb</b>
<b>Knowledge</b>
<p>□ Knows the possible type of injuries for each age group □</p> <p>Knows the Salter-Harris classification of growth plate injury □</p> <p>Knows how to recognize and treat:</p> <ul style="list-style-type: none"> <li>○ Distal radius fracture</li> <li>○ Scaphoid fracture</li> <li>○ Dislocated shoulder</li> <li>○ Supracondylar fracture</li> <li>○ Pulled elbow</li> <li>○ Toddler's fracture</li> <li>○ Femur fracture</li> <li>○ Compartment syndrome <ul style="list-style-type: none"> <li>○ Patellar dislocation</li> </ul> </li> </ul>
<b>Competencies</b>

- Able to use a way to examine the child limb or joint and localize pain
- Able to examine for neurovascular status of limb
- Able to reduce shoulder and patellar dislocation and pulled elbow
- Able to recognize those fracture which need orthopedic input or follow up

#### PAP17: Limping child

##### Knowledge

- Knows the common causes of limping child or painful limb/ joint including transient synovitis, rheumatological, infectious, malignant and accidental and non-accidental injuries.
- Knows how to investigate and manage those with possible septic arthritis or transient synovitis

##### Competencies

- Able to do full lower limbs and back examination including gait, posture and hip joints of all age groups
- Able to order correct blood tests and imaging
- Able to recognize those who need admission or specialty input

#### PAP18: Child in pain or needs painful procedure

##### Knowledge

- Know how to assess pain in children and get pain score
- Knows the pharmacological and non-pharmacological options to relieve the pain. Good knowledge about pharmacology of each item
- Knows the principles of safe ketamine sedation for procedure in children

##### Competencies

- Able to safely prescribe analgesics, including IV morphine/ fentanyl.
- Able to safely do local and regional blocks
- Able to safely prescribe Entonox

PAP19: Fever in children
Knowledge
<p>Knows the possible causes, including</p> <ul style="list-style-type: none"> <li>• UTI: Knows the etiology, how to confirm diagnosis, different ways of urine collection, how to investigate in different age group, and how to treat, and follow up each age group and gender needs.</li> <li>• Meningitis/encephalitis:</li> <li>• Kawasaki disease knows diagnostic criteria, how investigate and treat</li> <li>• No focus: Knows the indication for further investigation and admission for different age group</li> </ul> <p>Knows when it is safe to discharge a febrile child home.</p>
Competencies
<ul style="list-style-type: none"> <li>• Able to take a full history and do examination for a child with fever</li> <li>• Able to safely prescribe antipyretics and antimicrobials</li> <li>• Able to do LP and blood culture aseptic way</li> <li>• Able to recognize those who need admission</li> </ul>

3.3.3 Pediatric Practical Procedures (PPP)		
Code	Pediatric Practical Procedures (PPP)	Ass. method
PPP1	AW manoeuvring, clearing AW, airway adjuncts, ventilation	DOPS/ Course/Sim
PPP2	Endotracheal intubation	DOPS/ Course/Sim
PPP3	Treating choking in children	DOPS/ Course/Sim
PPP4	Tracheostomy tube suctioning and replacement	DOPS/ Course/Sim
PPP5	IV cannulation	DOBs
PPP6	IO access	DOPS/ Course/Sim
PPP7	Defibrillation	DOPS/ Course/Sim
PPP8	Cardioversion	DOPS/ Course/Sim
PPP9	External cardiac pacing	DOPS/ Course/Sim

PPP10	Decompression needle thoracocentesis	DOPS/ Course/Sim
PPP11	Chest tube insertion	DOPS/ Course/Sim
PPP12	Cricothyrotomy and jet ventilation	DOPS/ Course/Sim
PPP13	NG tube insertion	DOPS
PPP14	Paediatric primary survey in trauma	DOPS/ Course/Sim
PPP15	Ketamine sedation in children	DOPS/ Course/Sim
PPP16	Local anaesthesia	DOPS
PPP17	Wound cleaning, irrigation	DOPS
PPP18	Wound closure using glue or suturing	DOPS
PPP19	I&D of an abscess	DOPS
PPP20	I&D of paronychia	DOPS
PPP21	Trephining of subungual hematoma	DOPS
PPP22	Application of back slab	DOPS
PPP23	Application of arm sling	DOPS
PPP24	Application of Thomas splint or skin traction	DOPS/ Course/Sim
PPP25	Application of pelvic stabilization in trauma	DOPS/ Course/Sim
PPP26	Log rolling in spinal trauma	DOPS/ Course/Sim
PPP27	Removal of foreign body from nose	DOPS
PPP28	Removal of foreign body from ear	DOPS
PPP29	Removal of foreign body from soft tissue	DOPS
PPP30	Pulled elbow reduction	DOPS
PPP31	Shoulder dislocation reduction	DOPS
PPP32	Phalangeal dislocation reduction	DOPS
PPP33	Patellar dislocation reduction	DOPS

### 3.4 US in EM

Training for US in EM is composed of

- Theory part: can be achieved through the online modules.
- Practical part: this is through building the portfolio of supervised and unsupervised POC US scans

Focused assessment using sonography in trauma (FAST)
Knowledge
<ul style="list-style-type: none"> <li>• Get patient's verbal consent</li> <li>• Knows the 4 areas to scan, type of prob, orientation, how to do image acquisition</li> <li>• Knows the indication of FAST scan in trauma</li> <li>• Use POC US findings with clinical assessment to decide about management plan</li> <li>• Able to get good views of pericardium, Morison's pouch, spleno-renal recess and pelvis</li> </ul>
Competencies
<ul style="list-style-type: none"> <li>• Able to obtain adequate images of the 4 areas</li> <li>• Incorporate findings with clinical findings to decide about management</li> </ul>
Performance
<ul style="list-style-type: none"> <li>• Respecting patient privacy and dignity</li> <li>• Understand that FAST scan is to rule-in rather than ruling-out</li> </ul>

Vascular access using US
Knowledge
<ul style="list-style-type: none"> <li>• Knows vascular anatomy of IJV, femoral and basilic vein</li> <li>• Knows the indications for US assisted vascular access</li> </ul>
Competencies
<ul style="list-style-type: none"> <li>• Able to obtain adequate images of IJV, femoral vein and basilic veins</li> <li>• Use a sterile technique and US sheath to keep filed sterile □ Able to confirm position sing US</li> </ul>
Performance
<ul style="list-style-type: none"> <li>• Respect patient wishes and dignity</li> <li>• Asks for help when required</li> </ul>

Abdominal Aorta (AA) assessment
Knowledge

<ul style="list-style-type: none"> <li>• Knows the bifurcations of the AA (e.g. SMA and coeliac axis)</li> <li>• Knows the different types of aneurysms</li> <li>• Knows how to differentiate AA from IVC</li> <li>• Knows that bleeding cannot be seen</li> <li>• Knows the normal diameter of aorta</li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to get patient's verbal consent</li> <li>• Able to visualize full aorta with bifurcations</li> <li>• Able to measure the aortic diameter</li> <li>• Able to incorporate clinical data with POCUS findings</li> </ul>
<b>Performance</b>
<ul style="list-style-type: none"> <li>• Respecting patient privacy and dignity</li> <li>• Understand that AA scan is to rule-in rather than ruling-out</li> </ul>

<b>Echo in Life Support (ELS)</b>
<b>Knowledge</b>
<ul style="list-style-type: none"> <li>• Knows the benefit of echo in peri-arrest and arrested patients</li> <li>• Knows the limited benefits in non-shockable rhythms</li> <li>• Knows the reversible causes of PEA able to detect on Echo (cardiac tamponade, hypovolemia, and pulmonary embolism)</li> </ul>
<b>Competencies</b>
<ul style="list-style-type: none"> <li>• Able to correctly do sub-xiphoid, long axis, short axis, &amp; 4-chamber views</li> <li>• Able to visualize IVC and assess filling, collapsibility, and diameter</li> <li>• Able to detect LV and RV wall motion</li> <li>• Able to visualize pericardium looking for any effusion or tamponade</li> </ul>
<b>Performance</b>
<ul style="list-style-type: none"> <li>• Respecting patient privacy and dignity</li> <li>• Understand that AA scan is to rule-in rather than ruling-out</li> </ul>

## 4. Learning and teaching

### 4.1 The training programme

The standard setting and quality assurance of postgraduate training is the statutory responsibility of the higher Ministry of Education for the Iraqi board for Medical Specializations Authority .

The Emergency Medicine training will occur over a number of sites and specialties to ensure that the entire curriculum is covered. Each site must provide the necessary clinical exposure but also evidence that the required supervision and assessments can be achieved.

The local training program reports the to the Iraqi Board for medical Specializations trainees progress and achievements. These reports will depend on the trainee over all progress and singe off for the competences as set out within this curriculum.

### 4.2 Teaching and learning methods used in the training programme:

There are a variety of teaching methods that can be employed to deliver teaching of the contents of the curriculum. These include:

- a. Learning with colleagues: This includes group or one to one discussion, examination preparation, small group teaching, and watching other doctors' practices.
- b. Workplace based teaching: This includes the supervised practice from seniors, discussing the management of cases, checking the documentation and referral process. These assessments will cover variety of presentations in different parts of ED, hospital, and for different age groups.
- c. Simulation: This is useful tool for:
  - I. Infrequent, but still serious presentations e.g., anaphylaxis
  - II. Non-technical skills
  - III. Reflection on own behavior.
- d. Postgraduate teaching: This may involve I. A curriculum-based teaching.
  - II. Case presentations
  - III. Morbidity and mortality meetings

- IV. Journal clubs
- V. Research /audit projects
- VI. Lectures for small group
- VII. Simulation of clinical skills.
- VIII. Life support courses

e) Self-directed learning: This may include reading web-based materials, logbook of practical procedures, reading journals, or doing an audit

#### 4.3 Research

The Iraqi board mandates a submission of a research paper during the 2nd stage (3<sup>rd</sup> and 4<sup>th</sup> year) of training, this will be assigned, supervised, and followed up by one of academic supervisors. The trainee will learn how to do critical analysis of scientific literature, information management, study design, basic statistical analysis, fraud, ethics and plagiarism, presentation skills, scientific writing and publishing skills.



## 5. The assessment system

### 5.1 Aims

The main aims of the assessment system are to

- Provide a clear evidence that EM trainee has covered the full curriculum during his training programme.
- Confirm that trainee is gaining competences and knowledge during their training.
- Evaluate trainee's performance, progress, and provide a structured feedback to enhance the development and identifies areas of improvements.
- Provide clear guidelines about what is expected from trainees and motivate them to cover all of these parts.
- Provide an annual and end of training report to the programme director and educational supervisor regarding trainee's progress, struggling, and readiness for independent practice for final sign off.

### 5.2 Assessment methods

The following methods are used:

- 1) ABHS, EM Primary Examination
  - Written exam -100 question MCQs exam
- 2) End of training assessment exam (OSCE stations, slides exam (visual assay questions), oral exam (viva exam))
- 3) ABHS, EM Final Examination:
  - Written exam (MCQs 150 questions in 4.5 hours)
  - Objective Structured Clinical Examination
  - Visual assay questions (slides exam)
  - Structured oral exam (long and short cases)

### 5.3 Assessment tools

The ABHS, EM utilises standard and specialty specific WPBA tools, which are made up of:

- Mini-Clinical Evaluation Exercise (Mini-CEX)
- Direct Observation of Procedural Skills (DOPS)
- Multi-Source Feedback (MSF)
- Case-Based Discussions (CBD)
- ESE end of shift evaluation
- Teaching Observation (TO)

#### Multi-source feedback (MSF)

- Done by colleagues to assess trainee's performance by providing a feedback.
- Ideal way to assess trainee's communication, leadership, and team working skills
- The result of the feedback should be handed over to the supervisor of the trainee

#### Mini-Clinical Evaluation Exercise (Mini-CEX)

- This tool is ideally used to assess clinical care skills involving patient and trainee e.g., history taking, examination and clinical decision.
- The trainee receives immediate feedback to aid learning.

#### Direct Observation of Procedural Skills (DOPS)

- This tool is used to evaluate the skills of trainee in doing a practical procedure against a checklist
- The trainee receives immediate feedback to aid learning and improve performance.

#### Case-based Discussion (CBD)

- This tool is ideally used to assess the clinical decision making and management skills of trainee.
- It is also used to assess trainee's documentation, presentation and knowledge application.

### End of Shift Evaluation (ESE)

- This tool is used to assess clinical performance and technical skills of trainees at end of shift in relation to the cases managed by them.
- The trainee receives feedback to aid learning.
- It may also be used to assess the non-technical skills e.g., communication, leadership, option generation and situational awareness

### Teaching Observation (TO)

- This tool is used to assess any trainee-led teaching activity observed by an assessor.
- The trainee receives a feedback to aid development and improve performance.

### 5.4 The expected coverage of curriculum by trainee

- For a satisfactory achievement, every candidate should
  - Have completed at least 25% of the total curriculum work-based assessments at end of each training year, totally 100% coverage by year 4 of training.
  - Ensure that the yearly 25% covered part of curriculum is equally distributed between different generic skills, acute presentations, major presentation, and practical procedures.
  - trainee should ensure the full coverage of the speciality-specific skills and presentation during this speciality rotation e.g., paediatric, RCU, anaesthetics,..etc
  - should be signed off for all the practical procedures
  - used the right assessment form for each speciality
  - POC US. A logbook with cases done and 10 assessments for each competency (totally 40) plus theory part certificate is required by the end of year 4 to achieve level 1 POC US
- The trainee should adhere to the type of assessment scheduled for each competency. Any deviation from this or exception should be discussed with and approved by educational supervisor.

It should be noted that there are a number of life-saving skills, which may be used rarely, and which are not covered in this curriculum, such as resuscitative

thoracotomy and peri-mortem Caesarian section. An Emergency Physician, who has completed their training and is working in an ED without the in-patient services to provide these skills, are strongly recommended to consider attending simulation courses and to liaise with their local specialist so as to agree how patients who may require such interventions will be cared for.

## 6. Supervision and Feedback

### 6.1 Supervision

- Each trainee should be provided with some supervision.
- The level of supervision is dependent on the level of trainee and complexity of case.
- This supervision should be patient-safety based.
- More autonomy and less supervision will be when trainee more advanced in their training.
- The trainee's knowledge, behavior, attitude, and professionalism need to be part of monitoring.
- The Iraqi board EM council recommends that named educational supervisors and named clinical supervisors should be assigned for each trainee.
- Department should provide a private area where feedback, appraisals and mentoring can happen
- The head of the scientific council, Programme directors or equivalent are each responsible for ensuring that training and supervision are carried out according to Iraqi board council standards.
- Trainees will at all times have a named educational supervisor /clinical supervisor responsible for overseeing their education.

### 6.2 Educational Supervisor:

- A trainer who is selected to be responsible for overall supervision and management of a trainee's learning and educational progress during a placement or series of placements.
- Every trainee must have a named educational supervisor.
- The educational supervisor

- helps the trainee to plan their training and achieve agreed learning outcomes.
- oversees a specified trainee's clinical work throughout a placement
- provides constructive feedback during that placement.
- provides a supervision of the trainee's progress throughout the training and write a report to the program director to agree on moving to the next stage of training.

### 6.3 Programme Director:

The training programme director (TPD) organises rotations, placement, and exam preparation.

### 6.4 Examiner training

The eligibility to be an examiner is described in the regulation of Iraqi Board for medical Specialization's website. Examiners must be actively involved in training EM trainees. All examiners are trained for the specific examinations they are involved in. Peer review of examiner performance and feedback is in place. All examiners must have undertaken and maintain current training in equality and diversity prior to examining.

### 6.5 Curriculum review and updating

The Curriculum Committee of the Iraqi board EM council will oversee the updating of the curriculum. This committee reports to the educational committee of the Iraqi board for medical specifications .

The evaluation of the curriculum will seek to ascertain learner response to the curriculum and update in knowledge and skills. Evaluation methods will include focused discussions with educational supervisors, trainees, programme directors and Postgraduate.

## 5.6 Equality and Diversity

- Equality is about treating people fairly by ensuring everybody has an equal opportunity and is not discriminated against because of their characteristics. □

Diversity is about taking account of the differences between individuals and placing a positive value on those differences to create a stronger workforce.

- An open and inclusive workplace has many benefits such as increase in morale, better staff retention and improved reputation of the training institutions.

Promoting equality and valuing diversity must be central to the curriculum. It is essential that we promote equality and embrace diversity by applying the followings:

- Eliminating discrimination, harassment, and victimisation
- Advancing equality of opportunity
- Fostering good relations between people

Trainees should not be discriminated against regardless of their religion, origin, disability, and gender. Equal opportunities during selection, training and assessment of doctors must always be offered. We must ensure an inclusive and welcoming learning environment for trainees where all are respected.

Compliance with anti-discriminatory practice will be assured through:

- Monitoring of all recruitment processes
- Ensuring trainees have an appropriate and confidential pathway of reporting inappropriate behaviour of a discriminatory nature. Similarly, trainers should be able to raise any concern and be supported when doing that.
- Ensuring all assessments do not unfairly disadvantage trainees because of gender, ethnicity, religion, or disability (other than that which would make it impossible to practice safely as an EP).
- Monitoring of examinations.

## References

- 1) Emergency medicine curriculum and assessment system. Royal College of Emergency Medicine – UK and Ireland-2015.
- 2) Omani EM curriculum
- 3) Arabic Board EM Curriculum

## Writing Committee

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## List of abbreviations

EM	Emergency Medicine
EP	Emergency Physician
ED	Emergency Department
MOH	Ministry of health

ICU	Intensive care unit
WBA	Work-based assessments
MOH	Ministry of Health
CCU	coronary care unit
ICU	intensive care unit
WBA	work based assessments
GS	Generic Skills
CIs	contraindications
SE	Side effects
ICP	Intracranial pressure
CNS	Central nervous system
IV	Intravenous
Abx	antibiotic
CCU	coronary care unit
ICU	intensive care unit
RCU	Respiratory Care Unit
TO	Teaching Observation
CBD	Case based Discussion
Mini-CEX	Mini- clinical evaluation exercise
DOPS	Direct observation of procedure skills
ESE	End of shift assessment
ITP	Idiopathic thrombocytopenic purpura
ENT	Ear – nose- throat
FB	Foreign body
NAI	Non-accidental injury
ID	Incision and Drainage
OD	Over dose
Dx	Diagnosis
ICP	Intra-cranial pressure



CNS	Central nervous system
IV	Intravenous
IO	Intra osseous
Rx	Treatment
NLS	Neonatal life support
Ix	Investigation
PEEP	Positive end-expiratory pressure
LA	Local aesthetic
GCS	Glasgow comma scale
ROSC	Retune of spontaneous circulation
LMA	Laryngeal mask
ETT	Endotracheal tube
PE	Pulmonary embolism
ACS	Acute coronary syndrome
CTPA	CT pulmonary angiography
C-diff	Clostridium difficile
MRSA	Methicillin-resistant Staph. aureus

## **CASE BASED DISCUSSION (CBD) EM**

**Trainees Full Name**

**CLINICAL SETTING (PLEASE CIRCLE)**      ED      CLINIC      WARD      ICU

**CLINICAL PROBLEM CATEGORY**      Airway / Breathing      CVS / Circulation      Gastro      Neuro

**NEW OR FU: (PLEASE CIRCLE)**      NEW      FU      **Complexity of case**      LOW      HIGH      MED

**ASSESSORS POSITION (PLEASE CIRCLE)**      CONSULTANT      SPECIALIST      RESIDENT

<b>Please grade the following areas using scale heading as appropriate:</b>	<b>Below Expectations</b> for level of Trainee	<b>Borderline</b> for level of Trainee	<b>Meets Expectations</b> for level of Trainee	<b>Above Expectations</b> for level of Trainee	<b>Totally Exceeds Expectations</b> for level of Trainee	<b>U/C*</b>
Clinical record keeping						
Clinical assessment (includes diagnostic skills)						
Medical treatment						
Investigations and treatment						
Follow up and management plan						
Clinical reasoning						
Overall Clinical Care						
<b>* U / C – PLEASE MARK THIS IF YOU HAVE NOT OBSERVED THE BEHAVIOUR AND THEREFORE FEEL UNABLE TO COMMENT</b>						

**Key learning points**

**Agreed Action**

Trainee's satisfaction with CBD (from 1-10)

Assessor's satisfaction with CBD (from 1-10)

*Approximately how long did it take to complete this assessment? .....minutes*

ASSESSOR SIGNATURE.....Full name.....Stamp/  
 Number.....  
 Date

### **MINI-CLINICAL EVALUATION EXERCISE (CEX) EM**

**Trainees Full Name**

**CLINICAL SETTING (PLEASE CIRCLE)**      ED                  CLINIC                  WARD                  ICU

**CLINICAL PROBLEM CATEGORY**      Airway / Breathing                  CVS / Circulation      Gastro      Neuro

**NEW OR FU:**      NEW                  FU                  **FOCUS OF CLINICAL ENCOUNTER**      History      Diagnosis  
 Management      Explanation

**Complexity of case (PLEASE CIRCLE)**      LOW                  HIGH                  MED

ASSESSORS POSITION (PLEASE CIRCLE) CONSULTANT SPECIALIST RESIDENT.

Please grade the following areas using scale heading as appropriate:	Below Expectations for level of Trainee	Borderline for level of Trainee	Meets Expectations for level of Trainee	Above Expectations for level of Trainee	Totally Exceeds Expectations for level of Trainee	U/C*
History Taking						
Physical Examination Skills						
Communication Skills						
Clinical Judgement						
Professionalism						
Organisation / Efficiency						
Overall Clinical Care						
* U / C – PLEASE MARK THIS IF YOU HAVE NOT OBSERVED THE BEHAVIOUR AND THEREFORE FEEL UNABLE TO COMMENT						

*Agreed Action:*

*Suggestions for development?*

Approximately how long did it take to complete this assessment?.....minutes

Trainee's satisfaction with Mini-CEX ( from 1-10)

Assessor's satisfaction with Mini-CEX (from 1-10)

ASSESSOR SIGNATURE.....

ASSESSOR full name .....

Stamp/ .....

Date

**DIRECT OBSERVATION OF PROCEDURAL SKILLS (DOPS) EM**

**Trainees Name**

**CLINICAL SETTING (PLEASE CIRCLE)**

ED CLINIC WARD ACUTE ADMISSION

**CLINICAL** Airway / Breathing CVS / Circulation Gastro Neuro Pain Psych/Behav Trauma

**Procedure name ;**

**NEW OR FU:** NEW F/U

**FOCUS OF CLINICAL ENCOUNTER** History Diagnosis Management Explanation

**Complexity of case (PLEASE CIRCLE)** LOW HIGH MED

**ASSESSORS POSITION (PLEASE CIRCLE)** CONSULTANT SPECIALIST RESIDENT

**Number of times procedure performed** 0 1-4 5-9 >9 **by**

**Trainee (PLEASE CIRCLE)**

<b>Please grade the following areas using scale heading as appropriate:</b>	<b>Below Expectations</b> for level of Trainee	<b>Borderline</b> for level of Trainee	<b>Meets Expectations</b> for level of Trainee	<b>Above Expectations</b> for level of Trainee	<b>Totally Exceeds Expectations</b> for level of Trainee	<b>U/C*</b>
Demonstrates understanding of indications, relevant anatomy, technique of procedure.						
Obtains informed consent.						
Demonstrates appropriate preparation pre-procedure.						
Appropriate Analgesia or safe sedation						
Technical ability						
Aseptic technique						
Seeks helps where appropriate						
Post procedure management						
Communication skills						
Consideration of patient professionalism						
Overall ability to perform procedure						
<b>* U / C – PLEASE MARK THIS IF YOU HAVE NOT OBSERVED THE BEHAVIOUR AND THEREFORE FEEL UNABLE TO COMMENT</b>						

**PLEASE USE THIS SPACE TO RECORD AREAS OF STRENGTH OR ANY SUGGESTIONS FOR DEVELOPMENT**

**HAVE YOU HAD TRAINING IN THE USE OF THIS ASSESSMENT TOOL?**      Face-To-Face      Have Read Guidelines      Web / CD Rom

**ASSESSOR SIGNATURE**

**Full Name**

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**DATE**                      **TIME TAKEN FOR OBS (IN MINS).....**      **TIME TAKEN FOR FEEDBACK (IN MINS).....**

**ASSESSORS STAMP**

## End of Shift Evaluation form

**Trainee Name:**

**Year of Training:**

**Trainees Current Post:**

**Name of assessor:**

**Date:**

**Please comment on specific observed behaviors as much as possible**

Skills	Needs Improvement	Meets Expectations	Exceeds Expectations	
<b>1. Patient Care</b> Unable to recognize and provide emergency stabilization and difficulty managing multiple patients. Incomplete, inaccurate histories, physical examinations, review of data, or case presentations. Poor procedure skills. Fails to analyze clinical data and consider patient preferences when making therapy and disposition decisions. Inappropriate consultations				Prioritizes emergency stabilization while successfully managing multiple patients. Histories, physical exams, review of data, procedure skills, and case presentations are concise and sufficient. Always makes diagnostic, therapeutic, consultation, and disposition decisions based on available evidence, sound judgment, and patient preferences.
<b>2. Medical Knowledge</b> Unable to recall basic information required for immediate care of critical patients. Medical information resources are used insufficiently or inappropriately to help in patient care or diagnostic challenges.				Demonstrates specialized, immediate recall of medical information for the care of critical patients. Uses medical information resources effectively and appropriately for diagnostic challenges and the immediate care of the patient.
<b>3. Practice Based Learning</b> Avoids opportunities to learn from difficult case experiences. Indifferent to efforts by faculty to teach methods for finding the best available current evidence in the medical literature. Avoids teaching students, colleagues, and other health care professionals.				Always striving to understand how to provide optimal patient care by reflecting on case experience and using best evidence in the medical literature. Facilitates learning of students, colleagues, and other health care professionals in current EM principles and practice.

<p>4. Professionalism</p> <p>Interactions with patients, families, staff, nurses, or colleagues tend to be disrespectful, inadequate, or excessive. Written communications are inappropriate, incomplete, or excessive. Confrontational or dismissive approach to receiving feedback. Case turnover is inadequate or not concise. Late for shifts, dressed inappropriately, or otherwise unprepared for work</p>				<p>Always demonstrates respect, compassion, integrity, and honesty to patients, families, staff, nurses, and colleagues. Written communications are appropriate, timely, concise, and adequate. Effectively receives and uses feedback provided by faculty and others. Case turnover is appropriate, concise, and adequate. Arrives on time, appropriately dressed, and prepared for work.</p>
<p>5. Communications</p> <p>Difficulty establishing therapeutic relationships with patients/families. Comments tend to be callous or demonstrate a disregard for the inherent diversity of patients, families, and staff. Difficulty establishing patient motivations for seeking health care. Difficulty resolving conflicts.</p>				<p>Consistently develops respectful, effective, and efficient therapeutic relationships with patients/families. Communicates respect for diversity in patients and members of the health care team. Elicits and understands patient motivations for seeking health care. Resolves conflicts effectively.</p>
<p>6. Systems Skills</p> <p>Difficulty acquiring information from out of hospital care providers. Difficulty recognizing or providing resources to overcome system barriers to patient care (e.g.: language interpreters). Inattentive to legal principles of emergency care to limit risk to patients. Inadequate or excessive ordering, or inefficient access to results of diagnostic studies. Treatment plans do not consider patient/family's ability to comply. Difficulty participating in/directing the health care team while managing multiple patients.</p>				<p>Appropriately seeks information from EMS and other out of hospital care providers. Acquires appropriate resources to overcome system barriers to patient care (e.g.: language). Applies legal principles of emergency. Diagnostic studies are essential and adequate, and results are obtained efficiently. Demonstrates skill in providing appropriate consultation or involving private physicians. Engages patients and families to assure compliance with an acceptable treatment plan.</p>
Primary suggestions to improve performance:				
Acknowledgement of specific good performance				



Faculty Signature:			
Fellow Signature:			



## MULTI-SOURCE FEEDBACK (MSF) EM

Thank you very much for completing this form, which will help me to improve my strengths and weaknesses. This form is **completely anonymous**.

I would be grateful if you could return this form as soon as possible to:  
Name.....

Date:.....

Grade of Colleague Completing this Appraisal:

Good Clinical Care		Rating (UNKNOWN / 1 - 5)
1	Medical knowledge and clinical skills	
2	Problem-solving skills	
3	Note-keeping – clarity; legibility and completeness	
4	Emergency Care skills	
Relationships with Patients		Rating (UNKNOWN / 1 - 5)
1	Empathy and sensitivity	
2	Communicates well with all patient groups	
3	Treats patients and relatives with respect	
4	Appreciates the psycho-social aspects of patient care	
5	Offers explanations	
Relationships with Colleagues		Rating (UNKNOWN / 1 - 5)
1	Is a team-player	
2	Asks for others' point of view and advice	
3	Encourages discussion Empathy and sensitivity	
4	Is clear and precise with instructions	
5	Treats colleagues with respect	
6	Communicates well (incl. non-verbal communication)	
7	Is reliable	
8	Can lead a team well	
9	Takes responsibility	
10	"I like working with this doctor"	
Teaching and Training		Rating (UNKNOWN / 1 - 5)
1	Teaching is structured	
2	Is enthusiastic about teaching	
3	This doctor's teaching sessions are beneficial	
4	Teaching is presented well	

5	<i>Uses varied teaching skills</i>	
<b>Global ratings and concerns</b>		<b>Rating (UNKNOWN / 1 - 5)</b>
1	<i>Overall how do you rate this Dr compared to other Drs</i>	
2	<i>How would you rate this trainees performance at <b>this stage</b> of training</i>	
3	<i>Do you have any concerns over this Drs probity or health?</i>	

<b>UNKNOWN</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<i>Not Observed</i>	<i>Performance <b>Does Not Meet</b> Expectations</i>	<i>Performance <b>Partially Meets</b> Expectations</i>	<i>Performance <b>Meets</b> Expectations</i>	<i>Performance <b>Exceeds</b> Expectations</i>	<i>Performance <b>Consistently Exceeds</b> Expectations</i>

### Teaching Observation

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Consultant ☐ SAS ☐ SpR ☐ StR ☐

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Less than 5 ☐      5-15 ☐      16-30 ☐      More than 30 ☐

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## INTRODUCTION

e.g.

- Introduction of self
- Gained attention of group
- Stated the objectives

- Introduction of self
- Gained attention of group
- Stated the objectives

## **Initial Review Meeting form**

**Trainee Name:**

**Year of Training:**

**Date of initial meeting:**

**Trainees Current Post:**

**Name of Mentor:**

**Any outstanding comments about the Trainee from the previous Assessment**

--

**Any Concerns about the Trainee from the previous assessment**

--

**Goal setting for next 3 months**

--

**Recommendations by the Mentor/Supervisor**

--

**Date of next meeting:**

**Signature of Trainee:**

**Signature of the Mentor/Supervisor:**

**Date:**

**Location:**

### Triggered Assessment -Echo in life support

<b>Within each of the following three sections, the learner must:</b>	<b>Medical assessor's comments recorded during the assessment</b>	<b>Competent/ not</b>
<b><u>1.Prepare for the scan</u></b> Greet and identify the patient properly		
<input type="checkbox"/> Indication for the procedure within competency of trainee		
<input type="checkbox"/> Get patient in proper position		
<input type="checkbox"/> Attitude and professional manner		
<b><u>2.Scan</u></b> <input type="checkbox"/> Acceptable setup of the equipment		
<ul style="list-style-type: none"><li>• Patient details and body marks insertion</li><li>• Correct probe selection, technique and handling</li></ul>		
<input type="checkbox"/> Correct image acquisition Demonstrates subxiphoid view plus one other cardiac view (long axis/ parasternal) Identifies pericardial space and any fluid Ventricular wall motion, globally and focal. RV and LV sizes and any RV dilatation Identifies IVC in LS (diameter + collapsibility)		
<input type="checkbox"/> ASpeed of scan		
<b><u>3.Post scan</u></b> <input type="checkbox"/> Informs the patient appropriately		
<input type="checkbox"/> Makes a record of the findings		



**Date:**

**Location:**

<input type="checkbox"/> Interprets and reports findings appropriately		

### **Triggered Assessment -AAA scan**

<b>Within each of the following three sections, the learner must:</b>	<b>Medical assessor's comments</b>	<b>Competent/ not</b>
<b><u>1.Prepare for the scan</u></b> Greet and identify the patient properly		
<input type="checkbox"/> Indication for the procedure within competency of trainee		
<input type="checkbox"/> Get patient in proper position		
<input type="checkbox"/> Attitude and professional manner		
<b><u>2.Scan</u></b> <input type="checkbox"/> Acceptable setup of the equipment		
<ul style="list-style-type: none"><li>• Patient details and body marks insertion</li><li>• Correct probe selection, technique and handling</li></ul>		
<input type="checkbox"/> Correct image acquisition Identifies IVC and Aorta in LS and TS Identifies SMA Measures AP diameter of aorta accurately		
<input type="checkbox"/> Speed of scan		

**Date:**

**Location:**

<b><u>3.Post scan</u></b>		
<input type="checkbox"/> Informs the patient appropriately		
<input type="checkbox"/> Makes a record of the findings		
<input type="checkbox"/> Interprets and reports findings appropriately		
<input type="checkbox"/> Knows if a repeat scan would be useful		

### **Triggered Assessment -FAST scan**

<b>Within each of the following three sections, the learner must:</b>	<b>Assessor's comments</b>	<b>Competent/ not</b>
<b><u>1.Prepare for the scan</u></b> Greet and identify the patient properly		
<input type="checkbox"/> Indication for the procedure within competency of trainee		
<input type="checkbox"/> Get patient in proper position		
<input type="checkbox"/> Attitude and professional manner		
<b><u>2.Scan</u></b> <input type="checkbox"/> Acceptable setup of the equipment		

**Date:**

**Location:**

<ul style="list-style-type: none"><li>• Patient details and body marks insertion</li><li>• Correct probe selection, technique and handling</li></ul>		
<input type="checkbox"/> Correct image acquisition Demonstrates Morison's pouch Demonstrates the spleno-renal interface Demonstrates potential fluid in the pelvis Demonstrates pericardial views Demonstrates the pleural space and can identify fluid		
<input type="checkbox"/> Speed of scan		
<b><u>3.Post scan</u></b>		
<input type="checkbox"/> Informs the patient appropriately		
<input type="checkbox"/> Makes a record of the findings		
<input type="checkbox"/> Interprets and reports findings appropriately		
<input type="checkbox"/> Knows if a repeat scan would be useful		

### Triggered Assessment -Vascular access US guided

<b>Within each of the following three sections, the learner must:</b>	<b>Medical assessor's comments recorded during the assessment</b>	<b>Competent?</b>
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**Date:**

**Location:**

<b><u>1.Prepare for the scan</u></b> Greet and identify the patient properly		
<input type="checkbox"/> Indication for the procedure within competency of trainee		
<input type="checkbox"/> Get patient in proper position		
<input type="checkbox"/> Attitude and professional manner		
<b><u>2.Scan</u></b> <input type="checkbox"/> Acceptable setup of the equipment		
<ul style="list-style-type: none"><li>• Patient details and body marks insertion</li><li>• Correct probe selection, technique and handling</li></ul>		
<ul style="list-style-type: none"><li>○ Correct obtain of dequate images of IJV, femoral vein and basilic veins</li><li>○ Use a sterile technique and US sheath to keep filed sterile</li><li>○ Able to confirm position sing US</li></ul>		
<input type="checkbox"/> Speed of scan		
<b><u>3.Post scan</u></b> <input type="checkbox"/> Informs the patient appropriately		
<input type="checkbox"/> Makes a record of the findings		
<input type="checkbox"/> Interprets and reports findings appropriately		
<input type="checkbox"/> Knows if a repeat scan would be useful		