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ABEM KSAs & Standards:

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# Preamble

This document is meant to document the Knowledge, Skills and Abilities (KSAs) deemed necessary by the American Board of Emergency Medicine (ABEM) to safely and independently practice emergency medicine. It is also meant to coordinate with the Model of the Clinical Practice of Emergency Medicine (EM Model), which details much of the knowledge base that emergency physicians seeking certification from the American Board of Emergency Medicine must possess. To some degree, the KSAs may be thought of the “verbs” of emergency medicine, while the EM Model may be thought of as its nouns.

The KSAs serve as descriptors of specific behaviors the Board wishes to reinforce in its diplomates. On their surface, they may seem disconnected from the Board’s assessment program. The “Anatomy of a KSA” section of this document is designed to show how an individual KSA is constructed. It contains a detailed description of the hierarchical developmental levels of the KSA as well as the individual KSA descriptor statements, which exemplify the hierarchy.

The Board has also produced its definition of the minimally competent candidate (MCC) for emergency medicine (below). This document is intended to bridge the gap between the tabular presentation of the KSAs and a more narrative description of the Board’s minimal expectations for certification. Specifically, the MCC document is used by panels conducting passing score studies on behalf of the Board (also known as Standard Setting). The MCC definition below is used by panels of clinical active emergency physicians who evaluate all of ABEM’s assessments to determine whether the knowledge assessed rises to the level of the Board’s expectations.

# Minimally Competent Candidate Definition

The Minimally Competent Candidate (MCC) for continued ABEM certification exhibits a wide variety of knowledge, skills, and abilities that fall in three broad categories: 1) patient management, 2) global skills or abilities, and 3) professionalism, administrative, leadership and management skills, and educational duties.

Patient Management

The MCC can manage patients in a highly skilled and professional manner from prehospital guidance to the appropriate disposition. The MCC can provide customized medical direction to prehospital providers with different levels of expertise. Following a primary assessment, they can prioritize the necessary initial and ongoing critical care to optimize resuscitation, provide stabilization, and determine level of care.

Following a primary assessment, the MCC can identify and prioritize essential history and physical exam features to guide patient management. An understanding of the risks and limitations of diagnostic testing and their effect on patient management is appreciated. MCCs use data to risk stratify patients, prioritize testing, and determine appropriate management. If insufficient evidence or expertise is available, the MCC seeks consultation from an appropriate specialist and integrates the consultant’s recommendations into a patient’s treatment plan.

When deciding how to act, the MCC considers multiple risk factors and patient characteristics when planning, performing, and monitoring patients undergoing emergency procedures. The MCC implements strategies that maximize success and minimize complications associated with therapeutic interventions. The MCC considers multiple aspects of pharmacotherapy when administering medications and monitoring patients in the ED. If observation is necessary, the MCC reassesses patient progress during the observation period and modifies treatment plans when appropriate. Reassessment of patients is done according to acuity and presentation and patient care is modified as needed.

When considering the disposition of a patient, the MCC provides targeted education to patients and families for prevention of illness and injury. When ED care is completed, whether the patient is discharged, admitted, or transferred, the MCC assures safe transition of patients to an appropriate level of care and communicates the post-ED management plan. The MCC creates the appropriate documentation in the medical record that supports the care rendered to the patient.

Global Skills/Abilities

The MCC is expected to communicate with empathy and respect in all interactions and to ensure understanding with consideration of the audience. In addition, the MCC incorporates evidence-based knowledge into patient decision making and considers specific patient characteristics which may alter treatment decisions. They must recognize and comply with appropriate hospital guidelines and policies including confidentiality, EMTALA, and HIPAA.

Professionalism, administrative, leadership and management skills and educational duties:

The MCC is expected to incorporate the needs of patients, families, staff, and consultants in all professional interactions and behavior and demonstrate professionalism at all times.

The MCC engages in departmental activities designed to improve safety, quality, and efficiency. In addition, the MCC should work to optimize ED flow to maximize patient access. This includes engaging in performance improvement activities that improve ED function and patient care and the periodic review of personal financial and practice metrics to modify practice. In the event of a disaster, the MCC can apply protocols to manage multi-casualty and other disaster situations.

In a team environment, the MCC ensures communication, respect, and patient-centered care when leading members of the ED team. The MCC has the capacity to lead a team of multidisciplinary personnel to manage ED multiple patients.

**Bullet list of KSAs for the Minimally Competent Candidate**

Patient Management General Flow

PH0 – Prehospital Care. Provide customized medical direction to prehospital providers with different levels of expertise.

ES0 – Emergency Stabilization. Prioritize initial and ongoing critical care to optimize resuscitation, stabilization and level of care.

HP0 – History & Physical Exam. Identify and prioritize essential history and physical exam features to guide patient management.

DS0 – Diagnostic Studies. Understand risks and limitations of diagnostic testing and their effect on patient management

DX0 – Diagnosis. Use data to risk stratify patients, prioritize testing, and determine appropriate management

CO0 – Consultation. Appropriately utilize a consultant’s recommendations in a patient’s treatment plan.

PR0 – Procedures. Consider multiple risk factors and patient characteristics when planning, performing, and monitoring patients undergoing emergency procedures.

TI0 – Therapeutic Interventions. Implements strategies that maximize success and minimize complications associated with therapeutic interventions.

PT0 – Pharmacotherapy. Consider multiple aspects of pharmacotherapy when administering medications and monitoring patients in the ED

OB0 – Observation. Reassess patient progress during observation and modify treatment plans when appropriate.

RA0 – Reassessment. Reassess patients according to acuity and presentation and modify patient care as needed.

PE0 – Prevention & Education. Provide targeted education to patients and families for prevention of illness and injury.

TC0 – Transitions of Care. Assure safe transition of patients from the ED to an appropriate level of care and post-ED management plan.

DO0 – Documentation. Use appropriate documentation in the medical record that supports the care rendered to the patient.

Global Skills/Abilities

CS0 – Communication Skills. Communicate with empathy and respect in all interactions and ensure understanding.

KT0 – Knowledge Translation. Incorporate evidence-based knowledge into patient decision making.

MF0 – Modifying Factors. Incorporate specific patient characteristics into treatment decisions.

LI0 – Legal Issues. Comply with appropriate hospital guidelines and policies including confidentiality, EMTALA, and HIPAA.

Professionalism, administrative, leadership and management skills and educational duties

PF0 – Professional Issues. Incorporate the needs of patients, families, staff, and consultants in all professional interactions and behavior.

OP0 – Operations. Engage in department activities designed to improve safety, quality, and efficiency.

SM0 – Systems-Based Management. Optimize ED flow to maximize patient access.

TM0 – Team Management. Ensures communication, respect, and patient-centered care when leading members of the ED team.

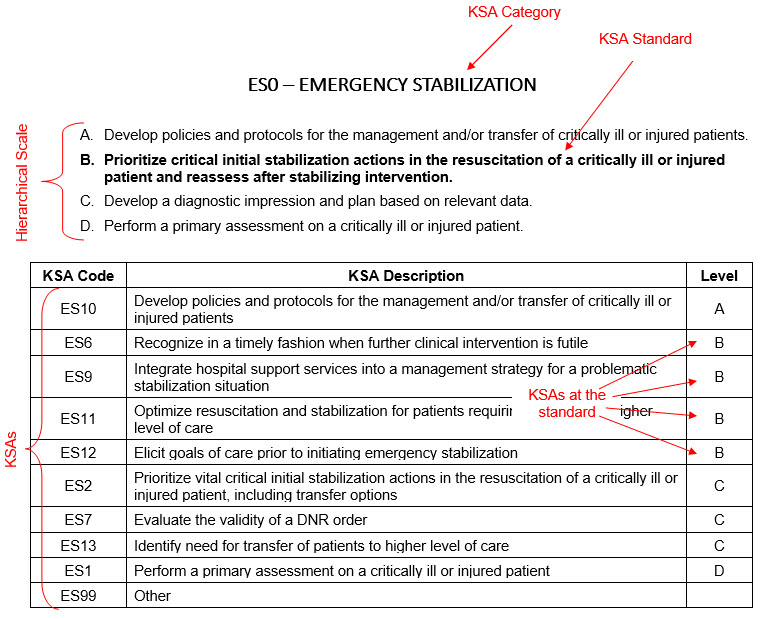
PI0 – Performance Improvement. Engage in performance improvement activities that improve ED function and patient care.

FI0 – Financial Issues. Use periodic personal financial and practice metrics to modify practice.

DM0 – Disaster Management. Apply protocols to manage multi-casualty and other disaster situations.

MP0 – Multiple Patient Care. Lead a team of multidisciplinary personnel to manage ED patients.

# Anatomy of a KSA



# CS0 - COMMUNICATION & INTERPERSONAL SKILLS

1. Identify and implement means by which to improve communication in ED‐based and institutional healthcare teams.
2. **Use communication methods that mitigate stress, conflict, and miscommunication.**
3. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, families, and all other stakeholders.
4. Elicit patients’ reasons for seeking healthcare and expectations from the visit, and listen effectively to patients, families, and all members of the healthcare team.

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| **KSA Code** | **KSA Description** | **Level** |
| CS1 | Identify and implement means by which to improve communication in ED‐based and institutional healthcare teams | A |
| CS2 | Establish rapport with and demonstrate empathy toward patients and their families | B |
| CS5 | Communicate information to patients and families using verbal, nonverbal, written, and technological skills, and confirm understanding | B |
| CS7 | Consider the expectations of those who provide or receive care in the ED and use communication methods that minimize the potential for stress, conflict, and miscommunication | B |
| CS9 | Incorporate feedback provided from others to improve communication skills | B |
| CS17 | Use flexible communication strategies to negotiate effectively with staff, consultants, patients, families, and others to provide optimal patient care, recognizing and resolving interpersonal conflicts | B |
| CS18 | Demonstrate interpersonal and communication skills including adjustment of interactions to account for factors such as culture, gender, age, language, disability, that result in the effective exchange of information and collaboration with patients, families, and all other stakeholders. | B |
| CS4 | Demonstrate active listening skills in communicating with patients, families, and all members of the healthcare team | C |
| CS10 | Communicate pertinent information to healthcare colleagues in effective and safe transitions of care | C |
| CS14 | Communicate risks, benefits, and alternatives to diagnostic and therapeutic procedures/interventions to patients and/or appropriate surrogates, and obtain consent when indicated | C |
| CS15 | Solicit patient participation in medical decision‐making by discussing, risks, benefits, and alternatives to care provided | C |
| CS3 | Elicit patients’ reasons for seeking health care and their expectations from the ED visit | D |
| CS6 | Elicit information from patients, families, and other healthcare members using verbal, nonverbal, written, and technological skills | D |
| CS99 | Other |  |

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# CO0 - CONSULTATION

1. Create hospital wide policies on the appropriate response times for consultants to initiate and complete the consultation
2. **Evaluate the appropriateness and timeliness of the consultants’ recommendations and advocate for modifications as clinically indicated.**
3. Formulate a plan for consultation and communicate effectively to establish a plan and timeline for consultation.
4. Identify appropriate cases where expert consultation is indicated.

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| **KSA Code** | **KSA Description** | **Level** |
| CO5 | Create hospital wide policies on the appropriate response times for consultants to initiate and complete the consultation | A |
| CO2 | Evaluate the appropriateness of consultant recommendations and incorporate them into the treatment plan | B |
| CO6 | Discern the appropriate time frame (emergent, urgent, or nonurgent) for the consultant to evaluate and establish a plan for the patient and communicate this expectation to the consultant. | B |
| CO7 | Advocate for the patient to ensure timely evaluation and treatment from consultants | B |
| CO8 | Evaluate and coordinate recommendations of multiple consultants to optimize patient care and disposition | B |
| CO3 | Arrange necessary consultation with physicians and other professionals, and formulate and communicate a plan and timeline for consultation | C |
| CO1 | Arrange necessary consultation with physicians and other professionals. | D |
| CO99 | Other |  |

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# DX0 – DIAGNOSIS

1. Identify obscure, occult, or rare patient conditions.
2. **Based on all of the available data, narrow and prioritize the list of weighted differential diagnoses to determine appropriate management.**
3. Synthesize the chief complaint, history, physical examination, and available medical information to develop a list of weighted differential diagnoses including those with the greatest potential for morbidity or mortality.
4. Construct a list of potential diagnoses based on the chief complaint.

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| **KSA Code** | **KSA Description** | **Level** |
| DX7 | Identify obscure, occult, or rare patient conditions | A |
| DX4 | Revise a differential diagnosis in response to changes in a patient’s condition over time | B |
| DX5 | Based on all of the available data, narrow and prioritize the list of weighted differential diagnoses to determine appropriate management | B |
| DX1 | Synthesize chief complaint, history, physical examination, and available medical information to develop a differential diagnosis | C |
| DX2 | Construct a list of potential diagnoses, based on the greatest likelihood of occurrence | C |
| DX3 | Based on a chief complaint, construct a list of the diagnoses with the greatest potential for morbidity or mortality | C |
| DX8 | Construct a list of potential diagnoses based on the chief complaint | D |
| DX99 | Other |  |

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# DS0 – DIAGNOSTIC STUDIES

1. Develop clinical practice guidelines based on existing literature and appropriate resource utilization, and evidence-based regional and local practices.
2. **Obtain, interpret, and apply diagnostic testing to guide patient care plan based on the pre‐test probability of disease, cost effectiveness, and the likelihood of test results altering management.**
3. Interpret results of a diagnostic study based on pre-test probability, recognizing limitations and risks, seeking interpretive assistance when appropriate.
4. Order and prioritize appropriate diagnostic studies using decision rules as appropriate. Perform appropriate bedside diagnostic studies and procedures.
5. Determine necessity and urgency of diagnostic studies.

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| **KSA Code** | **KSA Description** | **Level** |
| DS10 | Develop clinical practice guidelines based on existing literature and appropriate resource utilization, and evidence-based regional and local practices | A |
| DS3 | Use diagnostic testing based on the pre‐test probability of disease and the likelihood of test results altering management | B |
| DS8 | Consider cost-effectiveness in determining diagnostic studies to order | B |
| DS4 | Review risks, benefits, contraindications, and alternatives to a diagnostic study or procedure | C |
| DS7 | Interpret results of a diagnostic study, including recognition of limitations, seeking interpretive assistance when appropriate | C |
| DS1 | Prioritize essential testing | D |
| DS9 | Interpret results of a diagnostic study in the context of previous results | C |
| DS5 | Order appropriate diagnostic studies using decision rules as appropriate | D |
| DS6 | Perform appropriate bedside diagnostic studies and procedures | D |
| DS2 | Determine necessity and urgency of diagnostic studies | E |
| DS99 | Other |  |

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# DM0 – DISASTER MANAGEMENT

1. Develop and evaluate an ED plan for various disasters and crisis management.
2. **Manage the ED in response to a disaster.**
3. Participate in ED response to a disaster.

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| **KSA Code** | **KSA Description** | **Level** |
| DM6 | Develop and evaluate an emergency response plan for the ED in the setting of disasters and extraordinary events | A |
| DM8 | Develop and evaluate a continuity plan to manage a critical reduction in staffing of an ED due to an emergency situation | A |
| DM3 | Using established protocols, manage an ED multi‐casualty incident, surge, and/or hospital evacuation | B |
| DM5 | Prepare and decontaminate victims of HAZMAT incidents | B |
| DM12 | Recognize need to activate appropriate resources to respond to a disaster or resource-intensive event. | B |
| DM1 | Identify Hospital Emergency Incident Command System (HEICS) roles and responsibilities | C |
| DM11 | Participate in a mass casualty drill or event in an ED involving multiple patients, prioritizing care, containing potential exposures, and appropriately assigning resources | C |
| DM99 | Other |  |

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# DO0 – DOCUMENTATION

1. Lead department-wide documentation quality improvement initiatives and teach principles to optimize written communication, medicolegal protection, and billing.
2. **Document clearly, concisely, and in a timely manner the medical decision‐making, ED course, and the development of the clinical impression, management plan, level of care, and reassessment.**
3. Demonstrate clear, concise, and timely documentation of history, physical exam, clinical impression, disposition, and ED course.
4. Document the history, physical exam, clinical impression, and disposition appropriately.

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| **KSA Code** | **KSA Description** | **Level** |
| DO12 | Lead department-wide documentation quality improvement initiatives and teach principles to optimize written communication, medicolegal protection, and billing | A |
| DO8 | Document clearly and concisely the medical decision‐making and ED course, including interpretation of pertinent diagnostic studies, and supports the development of the clinical impression and management plan | B |
| DO9 | Document clearly and concisely to support the level of care provided, including patient reassessment | B |
| DO10 | Document clearly and concisely the time of consultation and recommendations | B |
| DO11 | Use necessary components of an electronic medical record to document clinical care, ensure compliance, and to facilitate billing | B |
| DO1 | Demonstrate clear, concise, and timely documentation of history, physical exam, clinical impression, disposition, and ED course | C |
| DO2 | Document history, physical exam, clinical impression, and disposition in the medical record | D |
| DO7 | Use an electronic medical record (EMR) system to enter and access information | D |
| DO99 | Other |  |

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# ES0 – EMERGENCY STABILIZATION

1. Develop policies and protocols for the management and/or transfer of critically ill or injured patients.
2. **Prioritize critical initial stabilization actions in the resuscitation of a critically ill or injured patient and reassess after stabilizing intervention.**
3. Perform a primary assessment on a critically ill or injured patient.

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| **KSA Code** | **KSA Description** | **Level** |
| ES10 | Develop policies and protocols for the management and/or transfer of critically ill or injured patients | A |
| ES6 | Recognize in a timely fashion when further clinical intervention is futile | B |
| ES14 | Mobilize resources and services into a management strategy for complex resuscitation/stabilization | B |
| ES15 | Elicit the patient’s goals of care prior to initiating emergency stabilization, including evaluating the validity of advanced directives | B |
| ES16 | Recognize when additional resources are needed for definitive care of an unstable patient, including transfer options | B |
| ES17 | Prioritize critical initial stabilization actions in any resuscitation | B |
| ES18 | Assess effectiveness of emergency stabilization measures | B |
| ES1 | Perform a primary assessment on a critically ill or injured patient | C |
| ES19 | Identify acuity of emergency conditions | C |
| ES20 | Recognize a critically ill or injured patient | C |
| ES99 | Other |  |

**HP0 – HISTORY & PHYSICAL EXAM**

1. Identify uncommon patient conditions based primarily on history and physical exam findings**.**
2. **Identify relevant historical and physical findings to guide diagnosis and management of a patient’s presenting complaint in the context of their baseline condition.**
3. Synthesize and prioritize essential data necessary for the correct management of patients.
4. Perform a focused history and physical exam.

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| **KSA Code** | **KSA Description** | **Level** |
| HP9 | Identify uncommon patient conditions based primarily on history and physical exam findings | A |
| HP2 | Prioritize essential components of a history and physical examination given limited (e.g., altered mental status) or dynamic (e.g., acute coronary syndrome) situations | B |
| HP6 | Identify relevant historical and physical findings to guide diagnosis and management of a patient’s presenting complaint in the context of their baseline condition | B |
| HP8 | Gather and incorporate relevant information from the electronic health record (EHR), outside health systems, and additional resources (such as family, care facility, EMS, prescription monitoring program, etc), when appropriate | B |
|  |  |  |
| HP4 | Obtain and synthesize essential history and physical exam data necessary for the correct management of patients | C |
| HP7 | Abstract and compare current findings in the context of a patient’s past medical history and prior physical findings, when available | C |
| HP1 | Perform a focused history and physical exam | D |
| HP99 | Other |  |

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# KT0 – KNOWLEDGE TRANSLATION

1. Perform original research to answer a clinical question.
2. **Identify personal knowledge gaps, utilize resources to close gaps, and apply evidence to decision‐making.**
3. Access resources to answer a clinical question.

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| **KSA Code** | **KSA Description** | **Level** |
| KT1 | Perform original research to answer a clinical question | A |
| KT2 | Apply the evidence to decision‐making for individual patients | B |
| KT8 | Identify personal knowledge gaps and utilize resources (ie. consultants, medical reference / just-in-time resources, literature searches, etc) to close gaps | B |
| KT9 | Appraise the validity of literature and potential application to one’s own practice in the local context | B |
| KT10 | Obtain knowledge and skills to implement changes in practice | B |
| KT11 | Access resources to answer a clinical question, such as using online resources and clinical decision support | C |
| KT12 | Recognize new and emerging advances in medical practice | C |
| KT99 | Other |  |

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# LI0 – LEGAL ISSUES

1. Develop and implement department or hospital policies to ensure compliance with legal and ethical standards for treating and advocating for patients, and reporting situations that may jeopardize public health
2. **Adhere to legal and ethical standards to assess, treat, advocate for, and respect the autonomy of patients presenting to the ED.**
3. Recognize situations involving patients vulnerable to abuse or neglect and those that may jeopardize public health.

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| **KSA Code** | **KSA Description** | **Level** |
| LI7 | Develop processes and procedures to ensure that ED practices are in compliance with legal and ethical standards and that ensure that appropriate agencies are notified in situations that could pose a threat to individual or public health (e.g. violence and communicable disease) | A |
| LI8 | Adhere to processes and procedures to ensure that appropriate agencies are notified in situations that could pose a threat to individual or public health (e.g. violence and communicable disease) in accordance with local legal standards | B |
| LI9 | Maintain patient confidentiality in accordance with legal and ethical standards | B |
| LI10 | Adhere to legal and ethical standards to assess and treat patients presenting to the ED | B |
| LI11 | Advocate for patients vulnerable to violence or abuse in accordance with legal and ethical standards | B |
| LI12 | Balance patient autonomy with patient protection and advocacy when addressing consent and refusal of care in accordance with legal and ethical standards | B |
| LI13 | Identify patients vulnerable to abuse or and/or neglect | C |
| LI14 | Recognize situations that may jeopardize individual or public health including but not limited to those involving violence and communicable disease | C |
| LI99 | Other |  |

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# MP0 – TASK-SWITCHING/MULTIPLE PATIENT CARE

1. Coordinate and assist in central command during ED incidents of mass casualty or surge
2. **Manage available ED team members and resources in real time to efficiently care for patients in the ED.**
3. Utilize techniques that reduce the likelihood of error when task-switching or managing multiple patients.
4. Develop task switching skills that optimize the ability to perform triage, assessment, management, reassessment and disposition of multiple patients who are in different phases of their ED care.

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| **KSA Code** | **KSA Description** | **Level** |
| MP6 | Coordinate and assist in central command during ED incidents of mass casualty or surge | A |
| MP7 | Manage available ED team members and resources in real time to efficiently care for patients in the ED | B |
| MP8 | Utilize techniques that reduce the likelihood of error when task-switching or managing multiple patients. | C |
| MP9 | Develop task switching skills that optimize the ability to perform triage, assessment, management, and disposition of multiple patients who are in different phases of their ED care. | D |
| MP10 | Reprioritize management of multiple patients based on their current clinical status | D |
| MP99 | Other |  |

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# OB0 – OBSERVATION

1. Develop protocols for patients undergoing ED observation to ensure quality of care, and monitor clinical outcomes, admission rates, and other resource utilization.
2. **Reassess, manage, and prognosticate the course of patients in ED Observation status to determine appropriate disposition and comply with regulatory requirements.**
3. Identify patients appropriate for management in ED observation status.

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| **KSA Code** | **KSA Description** | **Level** |
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| OB7 | Develop protocols for patients managed in ED observation status to promote efficient, high quality, care. | A |
| OB2 | Monitor a patient’s clinical status at timely intervals during observation in the ED | B |
| OB4 | Consider additional diagnoses and therapies for a patient who is under ED observation and change treatment plan accordingly | B |
| OB8 | Comply with federal and other regulatory requirements, which must be met for a patient who is in ED observation status | B |
| OB9 | Reassess, manage, and prognosticate the course of patients in ED Observation status to determine appropriate disposition. | B |
| OB1 | Identify patients appropriate for management in ED observation status | C |
| OB99 | Other |  |

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# OP0 – OPERATIONS

1. Develop or participate in developing inter‐departmental and departmental solutions to process/operational problems.
2. **Identify departmental process/operational problems and troubleshoot them in dynamic circumstances to ensure a safe working environment.**
3. Employ processes and adhere to quality improvement initiatives that improve patient care, satisfaction and flow.

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| **KSA Code** | **KSA Description** | **Level** |
| OP1 | Develop inter‐departmental and departmental solutions to process/operational problems | A |
| OP3 | Perform departmental leadership responsibilities such as flow metrics, staffing, sentinel event identification, and ED design | A |
| OP4 | Participate in solving departmental process/operational problems | A |
| OP13 | Identify departmental process/operational problems and troubleshoot them as they arise to ensure a safe working environment | B |
| 0P14 | Escalate identified process/operational problems appropriately. | B |
| OP15 | Demonstrate adaptable and flexible problem-solving strategies | B |
| OP2 | Employ processes, personnel, and technologies that optimize safe, timely, efficient, effective, equitable, and patient‐centered care | C |
| OP9 | Use strategies to enhance patient satisfaction | C |
| OP16 | Comply with rules and regulations to ensure a safe working environment | C |
| OP99 | Other |  |

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# PI0 – PERFORMANCE IMPROVEMENT

1. Develop and evaluate measures of professional performance and process improvement and implement them to improve departmental practice.
2. **Participate in performance improvement to support ED operations.**
3. Participate in a performance improvement evaluation for self‐improvement.
4. Adhere to department standards.

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| **KSA Code** | **KSA Description** | **Level** |
| PI3 | Compare departmental clinical care delivery data to local or national standards of practice | A |
| PI7 | Participate in departmental initiatives to optimize practice based on case reviews | A |
| PI8 | Use analytical tools to assess healthcare quality and safety and reassess performance improvement programs for effectiveness | A |
| PI9 | Develop and evaluate measures of professional performance and process improvement and implement them to improve departmental practice | A |
| PI10 | Use core measures data to articulate a plan for departmental process improvement | A |
| PI13 | Measure physician performance using standard methods, including complaint responses | A |
| PI16 | Identify need for departmental improvements and develop evidence-based processes to improve ED patient care | A |
| PI17 | Integrate departmental quality and safety programs into the institutional based performance measures. | A |
| PI18 | Participate in a departmental process improvement plan to support ED operations | B |
| PI19 | Identify barriers to implementation of process improvement recommendations | B |
| PI1 | Participate in ongoing and focused professional practice evaluation and monitoring, such as lifelong learning, patient outcomes, and patient satisfaction | C |
| PI14 | Participate in evaluation processes and use tools that assess communication and interpersonal skills, such as patient satisfaction surveys, staff surveys, etc. | C |
| PI20 | Evaluate personal performance and compare to core measures data to evaluate clinical care delivery, modify practice as needed, and evaluate the effectiveness of that modification | C |
| PI21 | Identify strategies to overcome personal cognitive overload to minimize risk of error | C |
| PI6 | Disclose errors via institutionally supported mechanisms | D |
| PI12 | Adhere to standards for maintenance of a safe working environment | D |
| PI99 | Other |  |

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# PT0 – PHARMACOTHERAPY

1. Create system based practices to ensure implementation of safe medication practices in the ED
2. **Select the appropriate agent based on intended effect, possible adverse effects, patient preferences, financial considerations, institutional policies, and clinical guidelines, including patient’s age, weight, and other modifying factors.**
3. Select and prescribe appropriate pharmaceutical agents based on intended eﬀect, patient allergies, and potential drug‐food and drug‐drug interactions.
4. Select and prescribe appropriate pharmaceutical agents based on intended eﬀect and patient allergies.

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| **KSA Code** | **KSA Description** | **Level** |
| PT7 | Create system based practices to ensure implementation of safe medication practices in the ED | A |
| PT8 | Using evidence based medicine and a multidisciplinary approach, create clinical guidelines for recommended pharmacotherapy for common clinical presentations. | A |
| PT5 | Recognize, monitor, and treat adverse effects of pharmacotherapy | B |
| PT9 | Select, prescribe, and be aware of adverse effects of appropriate pharmaceutical agents based upon relevant considerations such as intended effect, financial considerations, possible adverse effects, patient preferences, institutional policies, and clinical guidelines. | B |
| PT2 | Identify relative and absolute contraindications to specific pharmacotherapy | C |
| PT3 | Identify the anticipated response of clinical conditions to specific therapies with consideration for alternative therapies if the desired response is not achieved | C |
| PT6 | Select and prescribe appropriate pharmaceutical agents based on intended eﬀect and patient allergies | C |
| PT10 | Conduct focused medication review and identify agents including nutraceuticals and complementary medicines that may be causing an adverse effect | C |
| PT11 | Use validated resources to verify dosing of pharmaceutical agents and identify potential adverse effects of rarely prescribed pharmacotherapy | C |
| PT99 | Other |  |

# PH0 – PREHOSPITAL CARE

1. Create standard operating procedure documents and prehospital medical protocols for EMS.
2. **Provide medical direction that requires EM physician level of experience that allows deviation from standard protocols to different levels of prehospital providers.**
3. Follow prehospital medical protocols for EMS.

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| **KSA Code** | **KSA Description** | **Level** |
| PH1 | Create standard operating procedure documents and prehospital medical protocols for EMS | A |
| PH5 | Remotely manage care on a continuous or intermittent basis for EMS patients who have prolonged transport times to the hospital | A |
| PH3 | Provide medical direction that requires EM physician at all levels of experience beyond standard prehospital medical protocols for prehospital providers, when appropriate | B |
| PH2 | Follow standard operating procedure documents and prehospital medical protocols for EMS | C |
| PH6 | Differentiate the capabilities and skills of the prehospital providers | C |
| PH99 | Other |  |

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# PE0 – PREVENTION & EDUCATION

1. Lead or participate in programs that educate patients and the community about injury and illness prevention.
2. **Educate patients and families regarding presentation-specific risk prevention, healthy lifestyle, and the importance of the continuum of care.**
3. Recognize risk factors and give appropriate education for a specific diagnosis.

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| **KSA Code** | **KSA Description** | **Level** |
| PE5 | Lead or participate in programs that educate patients and the community about injury and illness prevention | A |
| PE2 | Identify preventive measures to avoid/delay illness or prevent trauma | B |
| PE3 | Educate patients regarding preventive measures to improve lifestyle, avoid/delay illness, or prevent trauma, and to optimize patient outcomes | B |
| PE6 | Educate patients on the natural course of their disease and impact of possible treatment in relation to prognosis | B |
| PE1 | Recognize risk factors for a specific medical or surgical diagnosis and provide appropriate education | C |
| PE99 | Other |  |

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# PR0 – PROCEDURES

1. Perform department-wide procedural quality assurance initiatives and develop education or interventions to optimize aggregate patient outcomes within the system.
2. **Perform the indicated procedure on all appropriate patients (including those who are uncooperative, at the extremes of age, hemodynamically unstable and those who have multiple comorbidities, poorly defined anatomy, high risk for pain or procedural complications, sedation requirement), and take steps to avoid potential complications, and recognize the outcome and/or complications resulting from the procedure.**
3. Perform the indicated procedure on a patient who has a moderate risk for complications, moderate need for pain control or anxiolysis, or moderate urgency, and recognize the outcome and/or complications resulting from the procedure.
4. Perform the indicated procedure safely and eﬀectively in ideal circumstances, including a cooperative patient with no comorbidities, normal anatomy, hemodynamically stable, low risk for pain or procedural complications, no sedation required, and low urgency, and recognize the outcome and/or complications resulting from the procedure.

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| **KSA Code** | **KSA Description** | **Level** |
| PR14 | Perform department-wide procedural quality assurance initiatives and develop education or interventions to optimize aggregate patient outcomes within the system. | A |
| PR1 | Perform the indicated procedure in any circumstance, take steps to avoid potential complications, and recognize the outcome and/or complications resulting from the procedure | B |
| PR2 | Perform the indicated procedure on an uncooperative patient, patient at the extremes of age (pediatric, geriatric), multiple co‐morbidities, poorly defined anatomy, hemodynamically unstable, high risk for pain or procedural complications, sedation required, or emergent indication to perform procedure, and recognize the outcome and/or complications resulting from the procedure | B |
| PR3 | Perform the indicated procedure on a patient who has identifiable landmarks, moderate risk for complications, moderate pain control or anxiolysis required, or moderate urgency, and recognize the outcome and/or complications resulting from the procedure | C |
| PR13 | Determine a backup strategy if initial attempts to perform a procedure are unsuccessful | C |
| PR4 | Identify the pertinent anatomy and physiology for a specific procedure | D |
| PR5 | Perform the appropriate procedures on the appropriate patient following institutional policies and guidelines, such as universal protocol | D |
| PR7 | Recognize the indications, contraindications, alternatives, and potential complications for a procedure | D |
| PR8 | Coordinate the personnel, equipment, and/or medications necessary to perform a procedure | D |
| PR9 | Obtain informed consent from the patient or surrogate when appropriate | D |
| PR10 | Perform the indicated procedure competently on a stable, low-urgency patient | D |
| PR11 | Identify and address any complications resulting from a procedure | D |
| PR99 | Other |  |

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# PF0 – PROFESSIONAL ISSUES

1. Develop and implement department or hospital policy for professional resolution.
2. **Treat patients, families, staff, and consultants with respect, honesty, and dignity, demonstrate sensitivity to patients’ needs and acknowledge and discuss medical errors with patients and colleagues.**
3. Demonstrate professional behavior and adhere to ethical principles relevant to the practice of medicine.

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| **KSA Code** | **KSA Description** | **Level** |
| PF21 | Design and implement a plan to manage fatigue, implicit bias, impairment, and wellness issues for the ED staff | A |
| PF31 | Implement department or hospital policy for resolution of hostile work environment | A |
| PF11 | Acknowledge and discuss medical errors with patients and colleagues according to principles of responsibility and accountability | B |
| PF20 | Assist others in the ED in managing fatigue, impairment, and wellness issues | B |
| PF25 | Assist others in the ED in managing work dysphoria (burn‐out) issues | B |
| PF32 | Apply mitigating strategies to one’s own personal beliefs or implicit biases to provide patient-centered care | B |
| PF33 | Recognize a hostile work environment | B |
| PF6 | Recognize and report impairment in a colleague in a professional and confidential manner | C |
| PF9 | Treat patient, family, staff, and consultants with respect, honesty, and dignity | C |
| PF12 | Recognize a medical error that constitutes a sentinel event and ensure notification of the hospital quality improvement team | C |
| PF17 | Recognize and disclose conflicts of interest | C |
| PF23 | Ensure wellness and work/life balance in EM practice | C |
| PF29 | Adhere to ethical principles relevant to the practice of medicine | C |
| PF30 | Recognize how personal beliefs, implicit bias, and values impact medical care | C |
| PF34 | Demonstrate professional appearance, communication, and demeanor when interacting with patients, consultants, and peers, including electronic interactions and social media. | C |
| PF35 | Recognize populations at risk for healthcare disparities | C |
| PF99 | Other |  |

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# RA0 – REASSESSMENT

1. **Reassess patients at timely intervals to assist in making a diagnosis and identify need for additional studies or treatments and/or making a disposition.**
2. Identify appropriate intervals for reassessment of a patient based on their presentation and acuity.
3. Reassess patients after pharmacologic or therapeutic interventions.

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| **KSA Code** | **KSA Description** | **Level** |
| RA1 | Reassess patients at timely intervals to assist in making a diagnosis and identify need for additional studies or treatments, and/or making a disposition | A |
| RA2 | Identify appropriate intervals for reassessment of patients based on their presentation and acuity | B |
| RA3 | Identify patients requiring reassessment in the ED based on their presentation and acuity | B |
| RA5 | Communicate to other members of the healthcare team the reassessment strategy. | B |
| RA4 | Reassess patients after pharmacologic or therapeutic interventions | C |

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# SM0 – SYSTEMS-BASED MANAGEMENT

1. Develop and implement strategies to assess and improve healthcare delivery within the Emergency Department, hospital system, and community.
2. **Comply with federal, state, and departmental strategies to improve healthcare delivery and flow.**
3. Deliver safe, timely, effective, efficient, equitable, patient‐centered care**.**

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| **KSA Code** | **KSA Description** | **Level** |
| SM1 | Develop and implement strategies to assess and improve departmental healthcare delivery and flow | A |
| SM3 | Recommend strategies by which patients’ access to care can be improved | A |
| SM6 | Coordinate ED care among hospitals to prevent overcrowding | A |
| SM7 | Lead or participate in programs that educate patients and the community about injury and illness prevention | A |
| SM10 | Advocate for EM and patients in the hospital and the community | A |
| SM11 | Address the differing customer needs of patients, hospital, medical staff, EMS, and the community | A |
| SM13 | Develop solutions to EMR/CPOE challenges, such as alert fatigue and inefficient work-flow | A |
| SM14 | Identify need for departmental improvements and develop evidence‐based processes to improve ED patient care | A |
| SM5 | Use mechanisms to institute ED and/or hospital diversion to ensure safe patient care | B |
| SM9 | Adhere to public health reporting requirements | B |
| SM15 | Comply with departmental quality and process improvement initiatives to improve healthcare delivery and flow | B |
| SM2 | Assist patients in navigating the healthcare system | C |
| SM4 | Ensure optimal patient support, both immediately and in follow‐up, by interacting with community support resources | C |
| SM8 | Mobilize institutional resources to assist patients with challenging ethical situations | C |
| SM16 | Optimize practices for patients with modifying factors that define vulnerable populations, such as culture, disability, and socioeconomic status | C |
| SM17 | Use communication systems such as electronic departmental tracking systems and handheld devices | C |
| SM99 | Other |  |

# TC0 – TRANSITIONS OF CARE

1. Develops policies and procedures that optimize transitions of care in the emergency department
2. **Establish and implement a disposition plan for patients being admitted, discharged, observed, or transferred using appropriate handoffs, consultation, patient education, treatment plan, medications, and follow-up**
3. Determine an appropriate disposition

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| **KSA Code** | **KSA Description** | **Level** |
| TC11 | Determine, summarize and communicate the diagnosis or diagnostic uncertainty, anticipated course, prognosis, disposition plan, medications, future diagnostic / therapeutic interventions, signs and symptoms for which to seek further care and follow‐up to patient or surrogate | B |
| TC18 | Correctly determine the appropriate disposition | C |
| TC12 | Assign admitted patients to an appropriate level of care | B |
| TC13 | Ensure patient has resources and tools to comply with discharge plan, which may include modifying the plan or involving additional resources (ie. PCP, social work, financial aid) to optimize compliance | B |
| TC14 | Identify patients who will requireansfer to a facility that provides a higher level of care and coordinate this transition of care by ensuring communication with the receiving provider, completion of transfer documentation, education of the patient or surrogate the reasons for transfer, consent for transfer, and arrangement of appropriate transportation. | B |
| TC15 | Ensure transitions of care are accurately and efficiently communicated between providers using best-practices | B |
| TC16 | Use appropriate tools for transitions of care, discharge instructions, prescriptions, follow-up instructions, and any pending diagnostic studies to promote effective care and decrease error | B |
| TC17 | Explain clearly and ensure patient understanding of diagnosis, discharge instructions, and the importance of follow‐up and compliance with treatments. | B |
| TC9 | Develops interdepartmental and intradepartmental policies and processes that optimize transitions of care both within the emergency department and between the emergency department and other services or facilities | A |
| TC10 | Develops policies and processes to optimize discharge instructions and patient education at the time of discharge, and to facilitate patient follow up within the system | A |
| TC99 | Other |  |

# TM0 – TEAM MANAGEMENT

1. Lead inter‐ and intra‐departmental patient care teams and develop strategies to overcome team limitations.
2. **Direct ED care teams to optimize patient flow and ensure effective communication and mutual respect among team members.**
3. Participate as a member of a patient care team.

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| **KSA Code** | **KSA Description** | **Level** |
| TM8 | Participate in and lead interdepartmental groups in the patient care setting and in collaborative meetings outside of the patient care setting | A |
| TM1 | Organize patient care teams | B |
| TM2 | Evaluate and provide feedback on team performance | B |
| TM3 | Recognize team limitations and develop strategies to overcome them | B |
| TM4 | Recommend changes in team behavior for optimal performance | B |
| TM6 | Ensure clear communication and respect among team members | B |
| TM10 | Appropriately supervise care provided by advanced practice practitioners | B |
| TM11 | Balance care teams to optimize patient flow | B |
| TM9 | Participate as a member of a patient care team | C |
| TM99 | Other |  |

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# TI0 – THERAPEUTIC INTERVENTIONS

1. Develop protocols to avoid potential complications of interventions.
2. **Develop a plan, including the use of adjuncts, to facilitate the safety and efficacy of therapeutic interventions.**
3. Recognize when a therapeutic intervention is indicated as part of a patient management plan.

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| **KSA Code** | **KSA Description** | **Level** |
| TI6 | Develop protocols to avoid potential complications of interventions | A |
| TI8 | Assess indications, risks, benefits, and alternatives for the therapeutic intervention. | B |
| TI9 | Obtain informed consent from the patient or appropriate surrogate when indicated | B |
| TI10 | Determine when an emergent condition requires a therapeutic intervention without the feasibility of obtaining informed consent | B |
| TI11 | Develop a plan, including the use of adjuncts, to facilitate the safety and efficacy of therapeutic interventions | B |
| TI1 | Recognize when a therapeutic intervention is indicated as part of a patient management plan | C |
| TI99 | Other |  |