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.

<u>Global Skills/Abilities</u>

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.

<u>Professionalism, administrative, leadership and management skills and educational duties:</u>

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

<u>Patient Management General Flow</u>

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

KSA Category

KSA Standard

ES0 – EMERGENCY STABILIZATION

Hierarchical Scale

A. Develop policies and protocols for the management and/or transfer of critically ill or injured patients.
B. **Prioritize critical initial stabilization actions in the resuscitation of a critically ill or injured patient and reassess after stabilizing intervention.**
C. Develop a diagnostic impression and plan based on relevant data.
D. Perform a primary assessment on a critically ill or injured patient.

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
ES9	Integrate hospital support services into a management strategy for a problematic stabilization situation	B
ES11	Optimize resuscitation and stabilization for patients requiring level of care	B
ES12	Elicit goals of care prior to initiating emergency stabilization	B
ES2	Prioritize vital critical initial stabilization actions in the resuscitation of a critically ill or injured patient, including transfer options	C
ES7	Evaluate the validity of a DNR order	C
ES13	Identify need for transfer of patients to higher level of care	C
ES1	Perform a primary assessment on a critically ill or injured patient	D
ES99	Other	

KSAs

KSAs at the standard or higher

CS0 - COMMUNICATION & INTERPERSONAL SKILLS

A. Identify and implement means by which to improve communication in ED-based and institutional healthcare teams.

B. **Use communication methods that mitigate stress, conflict, and miscommunication.**

C. Demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, families, and all other stakeholders.

D. Elicit patients' reasons for seeking healthcare and expectations from the visit, and listen effectively to patients, families, and all members of the healthcare team.

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	

CO0 - CONSULTATION

A. Create hospital wide policies on the appropriate response times for consultants to initiate and complete the consultation

B. Evaluate the appropriateness and timeliness of the consultants' recommendations and advocate for modifications as clinically indicated.

C. Formulate a plan for consultation and communicate effectively to establish a plan and timeline for consultation.

D. Identify appropriate cases where expert consultation is indicated.

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	

DX0 – DIAGNOSIS

A. Identify obscure, occult, or rare patient conditions.

B. **Based on all of the available data, narrow and prioritize the list of weighted differential diagnoses to determine appropriate management.**

C. 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.

D. Construct a list of potential diagnoses based on the chief complaint.

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	

DS0 – DIAGNOSTIC STUDIES

A. Develop clinical practice guidelines based on existing literature and appropriate resource utilization, and evidence-based regional and local practices.

B. 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.

C. Interpret results of a diagnostic study based on pre-test probability, recognizing limitations and risks, seeking interpretive assistance when appropriate.

D. Order and prioritize appropriate diagnostic studies using decision rules as appropriate. Perform appropriate bedside diagnostic studies and procedures.

E. Determine necessity and urgency of diagnostic studies.

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	

DM0 – DISASTER MANAGEMENT

A. Develop and evaluate an ED plan for various disasters and crisis management.

B. Manage the ED in response to a disaster.

C. Participate in ED response to a disaster.

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	

DO0 – DOCUMENTATION

A. Lead department-wide documentation quality improvement initiatives and teach principles to optimize written communication, medicolegal protection, and billing.

B. **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.**

C. Demonstrate clear, concise, and timely documentation of history, physical exam, clinical impression, disposition, and ED course.

D. Document the history, physical exam, clinical impression, and disposition appropriately.

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	

ES0 – EMERGENCY STABILIZATION

A. Develop policies and protocols for the management and/or transfer of critically ill or injured patients.

B. Prioritize critical initial stabilization actions in the resuscitation of a critically ill or injured patient and reassess after stabilizing intervention.

C. Perform a primary assessment on a critically ill or injured patient.

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

A. Identify uncommon patient conditions based primarily on history and physical exam findings**.**

B. Identify relevant historical and physical findings to guide diagnosis and management of a patient's presenting complaint in the context of their baseline condition.

C. Synthesize and prioritize essential data necessary for the correct management of patients.

D. Perform a focused history and physical exam.

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	

KT0 – KNOWLEDGE TRANSLATION

A. Perform original research to answer a clinical question.

B. Identify personal knowledge gaps, utilize resources to close gaps, and apply evidence to decision-making.

C. Access resources to answer a clinical question.

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	

LI0 – LEGAL ISSUES

A. 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

B. **Adhere to legal and ethical standards to assess, treat, advocate for, and respect the autonomy of patients presenting to the ED.**

C. Recognize situations involving patients vulnerable to abuse or neglect and those that may jeopardize public health.

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	

MP0 – TASK-SWITCHING/MULTIPLE PATIENT CARE

A. Coordinate and assist in central command during ED incidents of mass casualty or surge

B. Manage available ED team members and resources in real time to efficiently care for patients in the ED.

C. Utilize techniques that reduce the likelihood of error when task-switching or managing multiple patients.

D. 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.

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	

OB0 – OBSERVATION

A. Develop protocols for patients undergoing ED observation to ensure quality of care, and monitor clinical outcomes, admission rates, and other resource utilization.

B. **Reassess, manage, and prognosticate the course of patients in ED Observation status to determine appropriate disposition and comply with regulatory requirements.**

C. Identify patients appropriate for management in ED observation status.

KSA Code	KSA Description	Level
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	

OP0 – OPERATIONS

A. Develop or participate in developing inter-departmental and departmental solutions to process/operational problems.

B. Identify departmental process/operational problems and troubleshoot them in dynamic circumstances to ensure a safe working environment.

C. Employ processes and adhere to quality improvement initiatives that improve patient care, satisfaction and flow.

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	

PI0 – PERFORMANCE IMPROVEMENT

A. Develop and evaluate measures of professional performance and process improvement and implement them to improve departmental practice.

B. Participate in performance improvement to support ED operations.

C. Participate in a performance improvement evaluation for self-improvement.

D. Adhere to department standards.

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	

PT0 – PHARMACOTHERAPY

A. Create system based practices to ensure implementation of safe medication practices in the ED

B. **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.**

C. Select and prescribe appropriate pharmaceutical agents based on intended effect, patient allergies, and potential drug-food and drug-drug interactions.

D. Select and prescribe appropriate pharmaceutical agents based on intended effect and patient allergies.

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

A. Create standard operating procedure documents and prehospital medical protocols for EMS.

B. Provide medical direction that requires EM physician level of experience that allows deviation from standard protocols to different levels of prehospital providers.

C. Follow prehospital medical protocols for EMS.

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	

PE0 – PREVENTION & EDUCATION

A. Lead or participate in programs that educate patients and the community about injury and illness prevention.

B. **Educate patients and families regarding presentation-specific risk prevention, healthy lifestyle, and the importance of the continuum of care.**

C. Recognize risk factors and give appropriate education for a specific diagnosis.

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	

PR0 – PROCEDURES

A. Perform department-wide procedural quality assurance initiatives and develop education or interventions to optimize aggregate patient outcomes within the system.

B. 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.

C. 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.

D. 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.

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	

PF0 – PROFESSIONAL ISSUES

A. Develop and implement department or hospital policy for professional resolution.

B. 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.

C. Demonstrate professional behavior and adhere to ethical principles relevant to the practice of medicine.

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	

RA0 – REASSESSMENT

A. Reassess patients at timely intervals to assist in making a diagnosis and identify need for additional studies or treatments and/or making a disposition.

B. Identify appropriate intervals for reassessment of a patient based on their presentation and acuity.

C. Reassess patients after pharmacologic or therapeutic interventions.

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

SM0 – SYSTEMS-BASED MANAGEMENT

A. Develop and implement strategies to assess and improve healthcare delivery within the Emergency Department, hospital system, and community.

B. **Comply with federal, state, and departmental strategies to improve healthcare delivery and flow.**

C. Deliver safe, timely, effective, efficient, equitable, patient-centered care**.**

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

A. Develops policies and procedures that optimize transitions of care in the emergency department

B. 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

C. Determine an appropriate disposition

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

A. Lead inter- and intra-departmental patient care teams and develop strategies to overcome team limitations.

B. Direct ED care teams to optimize patient flow and ensure effective communication and mutual respect among team members.

C. Participate as a member of a patient care team.

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	

TI0 – THERAPEUTIC INTERVENTIONS

A. Develop protocols to avoid potential complications of interventions.

B. Develop a plan, including the use of adjuncts, to facilitate the safety and efficacy of therapeutic interventions.

C. Recognize when a therapeutic intervention is indicated as part of a patient management plan.

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	