

NATIONAL INSTITUTE FOR HEALTH SPECIALITIES

NIHS Entrustable Professional Activities (EPAs) for Specialty Education in Emergency Medicine

Draft version 1

2024/03/11

List of EPAs:

EPA 1: Manage a low acuity, low complexity "stable" patient	3
EPA 2: Manage a low acuity, high complexity "stable" patient	6
EPA 3: Manage a potentially high acuity complaint in a "stable" patient	9
EPA 4: Manage a high acuity patient with a well-defined presentation, illness, or injury	11
EPA 5: Manage a high acuity, high complexity patient (i.e., undifferentiat unstable patient)	
EPA 6: Manage multiple patients in the ED concomitantly	18
EPA 7: Lead an ED team	21
EPA 8: Transition care to other healthcare providers	24
EPA 9: Manage interactions with consultants	26
EPA 10: Manage complex and difficult situations	28
EPA 11: Utilize recommended patient safety and quality improvement processes	30
EPA 12: Performing advanced procedures	32
EPA 13: Performing and interpreting point-of-care ultrasound to guide patient management	34

EPA 1: Manage a low acuity, low complexity "stable" patient.

<u>Key Features:</u> This activity includes evaluating and managing patients who have common emergency department (ED) complaints often of low acuity, along with developing an appropriate disposition. This includes considering and inquiring about historical/exam factors that increase the likelihood of sinister pathology, recognizing when the patient does not fit into the usual algorithms, broadening, or adjusting the workup and treatment plan when appropriate, and sufficiently documenting medical decision making (MDM).

- This also includes communicating with patients in a clear, effective, compassionate, and respectful manner.
- Example observable practice activities (OPA's) include evaluating and managing the following types of patients: low back pain, ankle pain, sore throat, cough, rash.
- Most Relevant Domains of Competence, including milestone sub competencies that map to this EPA: PC 2,3,4,5,6,7; ICS 1,2; P1,2; SBP 2,3.
- This EPA may be observed in the clinical setting or in simulation.

Assessment plan:

Direct and indirect observation, clinical evaluations, standardized patients by supervising physician or entrusted resident with multisource feedback.

Assessment form collects information on:

- Setting: emergency department; simulation; other [write in]
- Patient age: infant; child; youth; adult; senior
- Case mix: cough or wheeze; musculoskeletal injury or pain; eye complaint; ENT complaint; headache; other [write in]

Basis for formal entrustment decisions:

Collect 20 observations of achievement. (

- At least 2 observations of each example clinical presentation listed above
- At least 5 pediatric presentations

When is unsupervised practice expected to be achieved: early in PGY-2.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
Data gathering/Decision making	

Perform a reliable and thorough yet focused H&P, addressing chief	PC2.L1, PC2.L2,
complaint and urgent patient issues, including asking questions and	ICS1.L1b, 2a,
performing exam elements to investigate the likelihood of	PC4.L2a/b
potentially sinister pathologies	
Ascertain all relevant historical & exam details needed to develop an	PC2.L1,2,4,
appropriate management plan, including information present in the	PC8.L1b,2b
EHR essential to patient care (i.e. vital signs, triage/RN notes, PMH,	
meds, allergies, prior clinic/ED visits)	
Develop a broad differential diagnosis including potential serious	PC4.L1,2a/b,3a,4
etiologies and then narrow and rank appropriately based on	
information gathered	
Recognize when a patient presentation does not fall into the usual	PC4.L5
algorithm and requires an alternate workup or treatment plan	
Develop, present and commit to an initial diagnostic / management	PC3.L1, 2a/b, 3a,
plan, including recalling and/or accessing medical information,	4a, PBLI.L3c
including clinical decision rules and other EBM strategies to	
determine need for testing (i.e., Ottawa ankle rule)	
Develop, present and commit to an entire longitudinal ED plan	N/A, PC7.L3c
(including IF-THEN statements), including anticipating and preparing	
for disposition	
Demonstrate accurate and timely order entry	PC8.L1, SBP3.L1a
Reassess patient at appropriate intervals including response to	PC4.L3, PC6.L2,
treatment, allowing this to guide further ED management, including	3b/c, 4
broadening or modifying differential diagnosis when new	
information arises, or data arises that doesn't support the initial	
working diagnosis	PC3.L3b
Interpret results of tests correctly	
Select appropriate medications to treat patient's condition,	PC5.L1a/b, 2a, 3a, PBLI.L3c,
incorporating items such as patient allergies, current medications and local antibiotic resistance into decision, and incorporating EBM	SBP3.L1b
Select appropriate non-pharmacological treatments and decide on	PC4.L4, PC7.L2,
appropriate management and follow up plan incorporating EBM	PC4.L4, PC7.L2, PBLI.L3c
Demonstrates reasonably cost-effective utilization of resources	PC3.L4a/b,
including diagnostics and therapeutics, considers pre-test	SBP2.L3a
probability and the likelihood of test results altering management	
Develop specific discharge plans with appropriate outpatient follow	PC7.L1/2, PC8.L1
up and return to ED precautions to optimize the patient's overall	, <i>L</i> , I CO.LT
healthcare, and implement these plans in a timely fashion	

Ensure all test results and vital signs are reviewed prior to discharge	PC1.L1, PC3.L3b,
and recognize abnormal values & results	PC6.L1,
Communication/Professionalism/SBP	
Convey a genuine interest in the patient through use of verbal and	P1.L1,2,
non-verbal communication strategies and active listening skills,	ICS1.L1a,1b,2a
ascertains the true primary reason for the patient's ED visit, and	
addresses patient and family concerns	
Recognize the importance of and addresses patient opinions,	P1.L1a/b
feelings and beliefs	
Give patient honest answers to questions, and is able to say "I don't	ICS113a P111
know" when appropriate	1031.230, 1 1.21
Demonstrate clear, effective, compassionate, and respectful	ICS1.L1, 3a,
communication with the patient using non-medical jargon. This also	SBP2.L2b,
includes providing patient with realistic expectations about	SBP3.L2a/b,
anticipated plan of care, keeping patient updated on	P1.L1,2
progress/delays during ED stay, and providing clear written and	
verbal discharge instructions	
Ensure patient understands communication in ED, especially	PC7.L4b
discharge instructions by using talkback or other accepted	
techniques	
Communicate thoughts and plans concisely and accurately to the	ICS2.L1,2
supervising physician	
Communicate with nursing and ancillary personnel including social	ICS2.L1,2,3a/c,
work and financial aid as needed to optimize patient care	SBP2.L1,2a,
	PC7.L3b
Complete documentation in order to 1) communicate thought	SBP3.L1a,2a
processes and medical decision making to future healthcare	
providers in an accurate and complete yet concise manner, 2)	
describe what serious diagnoses were considered but not	
investigated for medicolegal purposes and 3) enable the chart to be	
billed at the correct level of service.	
Ensure own documentation is accurate and free from errors	SBP3.L3
Apply service excellence models to enhance patient satisfaction	SBP2.L2b
where applicable	

EPA 2: Manage a low acuity, high complexity "stable" patient.

<u>Key Features:</u> This activity includes evaluating and managing low acuity yet highly complex patients, including those with multiple or vague complaints, those whose medical complaints could be confounded by psychiatric issues, social issues or other motivators, those with limited historical information, or those with a complicated PMH, and identifying those with the potential to have more serious pathology or do not fit into the usual algorithms. This also includes communicating in a way these patients or their caregivers can understand and to optimize their care during and after the ED encounter especially when uncertain of the diagnosis, ensuring patient safety, and sufficiently documenting the MDM.

- Example observable practice activities (OPA's) include evaluating and managing the following types of patients with:
 - multiple complaints, having the ability to ascertain and focus the workup around the most concerning complaint even if that was not the patient's primary complaint, and not fully evaluating the entire multitude of complaints
 - vague complaints such as "feeling unwell" which varies based on patient age and comorbidities
 - unusual or uncommon complaints such as intermittent episodes of flushing
 - being unable to provide much history, such as those with prior aphasia or abnormal baseline mental status,
 - having limited resources and health literacy and has difficulty with outpatient follow up
 - having a seemingly simple complaint but also has significant confounding variables such as a very complicated past medical history (PMH) & medication list or who is at extremes of age
 - having a new serious but subacute diagnosis, such as cancer
- This EPA may be observed in the clinical setting or in simulation.
- Most relevant domains of competence, including milestone sub competencies, that map to this EPA: PC 2,3,4,5,6,7; ICS 1,2; PBLI; P1,2; SBP 1,2,3; MK (in general, not mapped to milestone levels)

Assessment plan:

Direct observation, clinical evaluations, multisource feedback, simulation standardized patients by supervising physician or entrusted resident supported by indirect observation (case discussion) and review of the medical record.

Assessment form collects information on:

- Setting: emergency department; simulation; other [write in]
- Patient age: infant; child; youth; adult; senior

- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic
- Case mix: fever; vomiting; rash; syncope; weakness; acute gynecological; other [write in]

Basis for formal entrustment decisions:

Collect 30 observations of achievement:

- At least 2 observations of each clinical presentation
- 10 pediatric presentations
- 3 different observers

When is unsupervised practice expected to be achieved: middle of PGY-2.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
Perform all the KSAs from EPA 1 in this context and do the following:	
Data gathering/Decision making	
Ascertain data from other sources aside from the patient when needed and determine the accuracy of the data gathered from the patient versus those various sources (i.e., family members, bystanders, EMS crew, nursing home, state/regional prescription monitoring program, prior clinic/ED visits, etc.)	PC2.L4, PC4.L4, ICS1.L1b
Prioritize multiple complaints and recognize what needs workup in	PC2.L2,3a,3b,
the ED versus what can be worked up as an outpatient in the clinic	PC3.L4b,
	SBP2.L3a
Recognize limits of own knowledge or abilities and involve consultants when needed	SBP2.L2a,3b
"Recognize limits of knowledge in uncommon and complicated clinical situations; develops and implements plans for the best possible patient care when such uncertainty exists"	P2.L3a
Uses just-in-time resources/references when needed to guide patient care plans	SBP1.L3c
Consider potential side effects or drug interactions in medication selection	PC5.L2b,3b
Consider financial considerations, local resistance patters, patient age, weight, and other modifying factors into medication selection	PC5.L4

Identify, navigate and communicate with the patient about social,	PC7.L3b,
psychiatric and financial confounders, involving social work, care	SBP2.L2a,3b,
coordinators, financial aid, etc. when appropriate	ICS1.L3b
"Makes correct decisions regarding admit versus discharge"	PC7.L3c
"Develop alternate treatment plans when patients have beliefs that	P1.L3b
preclude commonly accepted care"	
"Creates discharge plans to include future diagnostic and	PC7.L4a
therapeutic interventions"	
Communication/Professionalism/SBP	
Reviews and discusses the plan of care with nursing staff when it	ICS2.L3a/c
deviates from usual practice or is not communicated well through	
orders alone	
Ensure safety of all patients by following patient safety	SBP1.L1a,2,3a/b
recommendations (i.e. putting bedrails up when leaving room, check	
2 for safety, etc.)	
Ensure safety of high-risk patients by following institutional	SBP1.L1,2,3a
protocols (i.e. getting a 1:1 for suicidal patients, etc.)	
Modify plans based on intrinsic patient factors when appropriate (i.e.	PC7.L3a,
ability to follow up, patient reliability, etc.)	ICS1.L3a/b
Recommend strategies in which patients' access to care can be	SBP2.L4b
improved (i.e. realizing they don't follow up b/c they don't have	
transportation, helping them get clinic appointments in a timelier	
manner, etc.)	
Recognize when a patient or family is vulnerable (i.e. limited	PC7.L3a/b,
resources, limited health literacy, special needs), anticipates	SBP2.L2a,3b,
challenges, and develops plans for these patients in a manner that	
addresses their individual needs	
Communicate plans, including discharge plans, to the vulnerable	ICS1.L3a/b,
patient to optimize understanding and follow through	PC7.L3a,4b
Consistently prioritize the patient's best interests in all relationships	P1.L4a
and situations even when faced with barriers	
Utilize shared decision making when appropriate	NA
Deliver bad news to patients and families in an empathetic fashion,	ICS1.L1a,3a,4a
using generally accepted language and techniques	

EPA 3: Manage a potentially high acuity complaint in a "stable" patient

<u>Key Features:</u> This activity includes evaluating and managing patients who have common ED complaints that could be indicative of higher acuity conditions, along with developing an appropriate disposition. This includes considering and inquiring about historical/exam factors that increase the likelihood of sinister pathology, recognizing when the patient does not fit into the usual algorithms, broadening or adjusting the workup and treatment plan when appropriate, and sufficiently documenting medical decision making (MDM).

- This also includes communicating with patients in a clear, effective, compassionate, and respectful manner.
- Example observable practice activities (OPA's) include evaluating and managing the following types of patients: chest pain, shortness of breath, abdominal pain, headache.
- Most relevant domains of competence, including milestone sub competencies that map to this EPA: PC 1,2,3,4,5,6,7; ICS 1,2; P1,2; SBP 2,3.
- This EPA may be observed in the clinical setting or in simulation.

Assessment plan:

Direct and indirect observation, direct observation, clinical evaluations, simulation standardized patients by supervising emergency physician or entrusted resident incorporating multisource feedback from members of the health care team.

Assessment form collects information on:

- Setting: emergency department; simulation; other [write in]
- Patient age: infant; child; youth; adult; senior
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic
- Case mix: fever; vomiting; rash; syncope; weakness; acute gynecological; other [write in]

Basis for formal entrustment decisions:

Collect 40 observations of achievement:

- At least 2 observations of each clinical presentation,
- 10 pediatric presentations,
- 3 different observers

When is unsupervised practice expected to be achieved: middle of PGY.

Relevant	Milestones:
<u>itererance</u>	11111000011001

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
Perform all the KSAs from EPA #1 in this context and do the following:	

Data gathering/Decision making	
Prioritizes urgent diagnostics on these patients with potentially	PC3.L2a,3a
concerning etiologies (i.e. EKG for CP, CXR or US for suspected PTX,	
etc.)	
Prioritizes urgent therapeutics on these patients (i.e. nebs for asthma	PC1.L2a,3a
with moderate respiratory distress)	
Communication/Professionalism/SBP	
Communicates pertinent information to the patient's nurse and other	ICS2.L1,2,3a,3c,
relevant team members, such as when certain diagnostics/	SBP2.L1,2a
therapeutics need to be prioritized	
Demonstrates the ability to use resources in the system effectively to	SBP2.L2a,3b
provide optimal and expedient health care (i.e. calls for a portable CXR	
if needed instead of sending pt. to radiology, etc.)	

EPA 4: Manage a high acuity patient with a well-defined presentation, illness, or injury

Key Features: This activity includes evaluating and managing patients who are known to be high acuity prior to or on arrival to the Emergency Department with a well-defined medical, traumatic, or psychiatric presentation (i.e. cardiac arrest, trauma, STEMI, stroke, acute psychosis). Although these patients can be very complex, initial management is often protocol driven (ACLS, ATLS, hospital STEMI or stroke pathway, etc.). Initial steps in patient care must be initiated expeditiously in parallel with prioritizing essential diagnostics and therapeutics, rapidly interpreting and incorporating results, and reassessing the patient in order to broaden or modify the differential diagnosis or plan of care as the clinical situation evolves and involve appropriate consultants and hospital resources. The resident must maintain leadership of the resuscitation team, communicating with and directing team members (including consultants) effectively and delegating responsibility appropriately. They must display situation monitoring/ situational awareness and address changes in team function or patient status expeditiously, providing redirection when needed. The resident must also demonstrate effective, compassionate, timely and respectful communication with the patient/family. Although performing individual procedures is not formally a part of this EPA, as team leader, the resident must be able to perform all key procedures competently themselves if necessary.

- Example observable practice activities (OPA's) include evaluating and managing the following types of patients:
 - a patient who meets system trauma criteria,
 - a medical resuscitation of known etiology (e.g. v-fib arrest),
 - an acute behavioral emergency/combative patient,
 - a "code stroke" patient,
 - a STEMI patient,
 - a patient in active labor/with precipitous delivery.
- This EPA may be observed in the clinical setting or in simulation.
- Most Relevant Domains of Competence, including Milestone Sub competencies that map to this EPA: PC1, 2, 3, 4, 5, 6, 7; ICS 1,2; SBP 1,2.

Assessment plan:

Direct observation by supervising emergency physician, team leader, or entrusted resident with multisource feedback.

Assessment form collects information on:

- Setting: emergency department; simulation; other [write in]
- Patient age: infant; child; youth; adult; senior

- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic
- Case mix: patient who meets system trauma criteria, a medical resuscitation of known etiology (e.g. v-fib arrest), An acute behavioral emergency/combative patient, A "code stroke" patient, A STEMI patient, A patient in active labor/with precipitous delivery; other [write in]

Basis for formal entrustment decisions:

Collect 25 observations of achievement.

- At least 1 observations of each clinical presentation,
- 5 pediatric presentations,
- 3 different observers

When is unsupervised practice expected to be achieved: late PGY2/early PGY3.

Interpret results of a diagnostic study, such as ECG's, US, labs and radiographic imaging.	PC3.L3b
"Develop a list of ranked differential diagnoses including those with the greatest potential for morbidity or mortality"	PC4.3a
Modify/revise the differential diagnosis and treatment plan as new	PC4.3c
information becomes available or in response to changes in a	PC6.3b/4a
patient's course over time	
Uses just-in-time resources/references when needed to guide	SBP1.L3c
patient care plans	
Requests the most appropriate admitting team and correct level of	PC7.L3c/d
inpatient care	
"Know indications, contraindications, anatomic landmarks,	PC9.2a/b/c
equipment, anesthetic and procedural technique, and potential	
complications for common ED procedures"	
"Perform post-procedural assessment and identifies any potential	PC9.L2b
complications"	
"Determine a backup strategy if initial attempts to perform a	PC9.L3a
procedure are unsuccessful"	
Communication/Professionalism/SBP	
"Effectively communicate with the patient or family, using	ICS1.L3a
communication methods that minimize the potential for stress,	
conflict, and misunderstanding"	
Manage the expectations of the patient/family, including providing	ICS1.L2b,3a
updates, likely next steps and potential prognosis	
Use flexible communication strategies to deliver updates and lead	ICS1.L4
difficult conversations, including delivering bad news, death	
notification, unexpected outcomes, end of life care, and code status	
discussions	
"Interpret advanced directives and DNR forms"	PC1.L3d
Communicate pertinent information, including condition updates	ICS2.L2
and test results, to (supervising) emergency physicians and other	
healthcare colleagues	
Create a "shared mental model" among team members during the	ICS2.L3a/c
resuscitation	
Ensures clear communication (such as closed loop communication)	ICS2.L3a/c,
between team members during resuscitation	SBP1.L4c

Ensures respect among team members during resuscitation including receiving input/suggestions/questions from other team members in a collaborative fashion	ICS2.L3a/c
Display situation monitoring/situational awareness and address changes in team function or patient status expeditiously, providing redirection when needed	SBP1.L4c
Ensures communication is clear between teams (i.e. emphasizes most relevant aspects early in discussion (i.e. reason for admission/consultation) during handoff/transition of care or during consultation, yet provides all important details) in an efficient manner	ICS2.L3b
"Call effectively on and coordinate additional resources (such as consultants, chaplains, etc.) in the system to optimize the patient's care"	PC1.L4b, SBP1.L3c, SBP2.L4c
Appropriately use system resources to improve patient care, including consulting teams at appropriate times with appropriate levels of urgency (i.e. trauma *1 vs *2)	PC1.L4b, SBP1.L3c, SBP2.L4c
If discrepancy between consulting team and resident's plan, the resident discusses and discovers the reason for the discrepancy	ICS2.L4b
"Identify and correct situations when the breakdown in teamwork or communication may contribute to medical error or diminished patient care quality"	SBP1.L4c

Emergency Medicine adult EPA 5: Manage a high acuity, high complexity patient (i.e., undifferentiated unstable patient).

<u>Key Features:</u> This activity includes instituting initial resuscitation steps, data gathering, and prioritizing initial diagnostics for a patient with pathology that is initially unknown, unclear or confusing. Formulating a broad initial differential diagnosis to guide the overall patient care plan even though uncertainty remains is essential, followed by modifying this differential and treatment plan based on additional information gathered, results of diagnostics, and patient response to treatment. Overall patient/family and team communication, team leadership and situational awareness is essential (as above); prioritizing desired actions for nursing and consultants and maintaining control in complicated resuscitations is also imperative. Developing alternate treatment plans when patients have beliefs that preclude commonly accepted care is also required, as is involving appropriate consultants and hospital resources.

- Example observable practice activities (OPAs) include evaluating and managing the following types of patients:
 - unstable trauma patient with multiple medical comorbidities
 - unstable trauma patient with multiple injuries leading to competing priorities
 - unstable patient with altered mental status (e.g. "found down")
 - unstable patient with an unknown etiology (e.g. CC = "dizzy" and patient is hypotensive & bradycardic)
 - unstable patient with an unclear code status
- This EPA may be observed in the clinical setting or in simulation.
- Most relevant domains of competence, including milestone sub competencies that map to this EPA: PC 1,2,3,4,5,6,7; CS 1,2; SBP 1,2.
- * Although performing individual procedures is not formally a part of this EPA, as team leader, the resident must be able to perform all key procedures competently themselves if necessary.

Assessment plan:

Direct observation by supervising emergency physician or entrusted resident, with multisource feedback.

Assessment form collects information on:

- Setting: emergency department; simulation
- Patient age: infant; child; youth; adult; senior
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic

Basis for formal entrustment decisions:

Collect 40 observations of achievement.

- At least 10 pediatrics,
- At least 3 different observers

When is unsupervised practice expected to be achieved: end of PGY3.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must: Perform all of the KSAs from EPA #3 in this context and do the fol	mapping
Data gathering/Decision making	iowing.
	PC1.L4a
"Recognizes in a timely fashion when further clinical intervention is futile"	PCT.L4d
"Interprets validity of DNR" or other healthcare directive forms	PC1.L3d
"Effectively analyzes and manages ethical issues in complicated and challenging clinical situations"	P1.L4
Utilizes additional sources to gather essential information (e.g. calls care facility, calls patient's medical decision maker, sends police to patient's house to gather essential information)	PC2.L3,4
"Prioritize critical initial resuscitation/stabilization actions," even	PC1.L3b, PC3.L3a;
in the face of uncertainty	P2.L3a
Order correct medications and doses for less common emergent situations, or when modifying factors exist such as patient weight, age, etc., and considers possible or anticipated adverse side effects	PC5.L4
Develop an appropriately broad differential diagnosis including those with potential serious etiologies	PC4.L3a
"Synthesize all of the available data and narrow/prioritize the list of weighted differential diagnoses to determine appropriate management"	PC3.L3b,4
"Reviews risks, benefits, contraindications and alternatives to a diagnostic study or procedure"	PC3.L3c
"Recognize limits of knowledge in uncommon and complicated clinical situations; develops and implements plans for the best possible patient care"	P2.L3a
Anticipates evolution of patient condition and plans 2-3 steps ahead, including having back-up plans if initial intervention not successful (i.e. if NRB does not help hypoxia/increased WOB,	NA, PC9.L3a

P2.L3a
PC3.L4a/c
PC7.L4
PC9.L1a/b,2a/b/c,4a
PC9.L3a,4b
ICS2.L2,3c
PC1.L4b,5a
ICS2.L4b
PC1.L4b,
SBP2.L2a,3b,4c
SPB1.L4, SBP.L4c,
ICS2.L4a/b
SBP1.L4b

EPA 6: Manage multiple patients in the ED concomitantly

<u>Key Features:</u> The resident is able to care for multiple patients (i.e. 4-5) simultaneously, demonstrating an appropriate balance of thoroughness and efficiency for individual patients, efficient task switching, timely and accurate order entry, timely patient reassessments and subsequent decision making, and timely disposition planning and dispositions. Is able to prioritize tasks appropriately for optimal patient flow as well as identify "sick" patients and initiate care for them expediently. This EPA revolves around flow and prioritization and does not encompass the decision making or management with respect to each individual patient.

- Most relevant domains of competence, including milestone sub competencies that map to this EPA: PC 1,2,6,8; SBP 2; ICS 2.
- This EPA may be observed in the clinical setting or in simulation.

Assessment plan:

Direct observation, clinical evaluations, by supervising physician with multisource feedback.

Assessment form collects information on:

- Hospital or ED: [name of hospital department]; simulation
- Section: resuscitation; acute care; ambulatory, other [write in]
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic

Basis for formal entrustment decisions:

Collect 25 observations of achievement.

- 3 different observations

When is unsupervised practice expected to be achieved: middle of PGY2.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
Individual patient flow	
Evaluates patients in a timely manner after being roomed	PC8.L1
Places initial orders in a timely fashion after seeing the patient	PC8.L1,
	SBP3.L1a
"Ensures that necessary diagnostic and therapeutic interventions are	PC6.L2,3c
performed during a patient's ED stay" in a timely fashion	

Notices when delays in patient care are occurring, investigates the	PC8.L3,
problem, and works on solutions (i.e. notices the patient hasn't had	SBP.L2a,3b
his XR for an hour, and talks with patient's nurse about it)	
Communicates with nurses and ancillary staff in a concise and	ICS2.L1,2,3a,3c,
accurate fashion at appropriate intervals throughout the patients ED	PC7.L3b &
course (i.e. early when additional services such as social work are	SBP2.L1,3b
needed, when delays in care are encountered, when patient status	
changes)	
"Monitors a patient's clinical status at timely intervals during a	PC6.L3b/c
patient's ED stay" and evaluates effectiveness of therapies and	
treatments provided	
Is able to anticipate disposition early in most patient's courses and is	PC7.L3c, PC8.L3
able to start working towards that early in patient's ED course	
Recognizes when patients will need re-evaluation including over	PC6.L1,3a
longer intervals such as observation in the ED	
Discharges patient in a timely fashion when discharge is appropriate	PC8.L2,3
& workup is complete	
Enters admission order in a timely fashion when admission is	PC8.L2,3
appropriate, and level of care is known	
Manages and prioritizes (or delays) interruptions in a professional	ICS2.L3a,
manner and is able to task switch when needed	PC8.L2,3
Recognizing and prioritizing the "sick" patient	1
Recognizes the "sick" patient who requires timely or urgent	PC1.L1, 2a,
intervention including abnormal vital signs, and does not let triage	PC4.L3b
cuing or diagnostic momentum impair their ability to identify these	
patients as "sick"	
Prioritizes caring for the "sick patient" and higher acuity patients over	PC1.L3a,
other patients/tasks	PC8.L1,2
Communicates pertinent information about the severity/acuity of the	PC2.L3b,
"sick" patient to the patient's nurse and other relevant members of	PC3.L3a,
the healthcare team, and clearly communicates what	ICS2.L1,2,3a,3c,
diagnostics/therapeutics to prioritize	SBP2.L1,2a
Demonstrates the ability to use resources in the system effectively to	SBP2.L2a,3b,
provide optimal and expedient health care (i.e. calls for a portable	PC3.L2
CXR instead of sending pt. to radiology, etc.)	
Informs patient and family of the urgency of the situation in a	ICS1.L3a
compassionate way	
Responds to urgent RN concerns in a timely fashion	ICS2.L3a

Departmental/systems management	
Can task switch between "sick" patients and lower acuity patients (i.e.	PC8.L1,2,3
does not "camp out" in a critically ill patient's room)	
Appropriately utilizes ancillary services to assist in patient care	SBP2.L2a
"Involves appropriate resources (e.g. PCP, consultants, social work,	PC7.L3b
PT/OT, financial aid, care coordinators) in a timely manner" when	
required	
Troubleshoots and develops workarounds for unanticipated	SBP2.L3b,
difficulties in implementing plans (i.e. lab delays, getting	SBP2.L4a
equipment/supplies sent from other hospital locations, etc.)	
Requests appropriate level of care for admitted patients	PC7.L3d

Emergency Medicine adult EPA 7: Lead an ED team

<u>Key Features:</u> This activity includes managing an entire ED team (can be an entire physical ED or a significant zone/pod/portion of the ED), managing flow and operations, including in surge situations. Demonstrating situational awareness and investigating changes in their environment, modifying or choosing patient care plans based on overall ED volume and flow when appropriate, tailoring one's personal workflow to needs of the overall ED and accounting for the needs of the team in decision making, providing pre-hospital medical direction, and potentially implementing solutions to bottlenecks or high-volume situations is required. Maintaining an appropriate balance of thoroughness and efficiency during high volume situations is also imperative. In addition to the skill of leading tasks or work, the leader's communication style should be respectful and professional, they should be a positive role-model, create an open and engaging work environment, and represent departmental goals and values.

- Most relevant domains of competence, including milestone sub competencies that map to this EPA: PC8; ICS2; SBP2.
- This EPA may be observed in the clinical setting or in simulation.
- This EPA does not include coordinating and running a large-scale mass casualty incident.

Assessment plan:

Direct observation and clinical evaluations by supervising physician with multisource feedback from other health care professionals (e.g., charge nurse)

Assessment form collects information on:

- Hospital or ED: [name of hospital department]; simulation
- Section: resuscitation; acute care; ambulatory, other
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic

Basis for formal entrustment decisions:

Collect 25 observations of achievement.

When is unsupervised practice expected to be achieved: end of PGY3.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
Perform all of the KSAs from EPA #5 in this context and do the following:	
Is able to manage a significant part of the ED (~12+ beds) or the entire	PC8.L4
ED, employing task switching in an efficient and timely manner	

Is aware of overall changes in and flow of the ED (i.e. long triage wait	PC8.L4,5
times, other areas of the ED getting overwhelmed, etc.)	
Has situational awareness to notice and investigate changes in their	PC8.L4
environment (i.e. hears patients fighting in the hallway or a loud crash	
– goes to see what is going on)	
Can tailor aspects of patient workflow to the needs of the entire	PC8.L5
department, such as expediting workups when appropriate in cases of	
high ED volumes and long triage wait times	
Can adjust individual patient management and resource utilization	PC8.L4
based on overall departmental flow when appropriate (i.e. will have ED	
provider spend 1 hour doing a complex facial lac when triage is empty	
and the ED is slow, but with 30 people in triage, consults plastics to do	
the facial lac)	
Contributes to overall ED flow by reallocating resources as necessary	SBP2.L4a
(i.e. moves a lower acuity patient out of a monitored bed or to the hall	
for discharge to make room for a higher acuity patient arriving by	
ambulance)	
Can prioritize testing on multiple patients (i.e. who goes to CT scan	PC8.L5,
first) in high volume situations or with multiple patients of high acuity	SBP2.L3b,4a
Can develop or utilize solutions to bottlenecks in flow or during high	PC8.L4
volume situations	
Can expedite simple patients to maximize flow of the ED	PC8.L4,
	SBP2.L4a
Effectively communicates with charge nurse and hospital	PC8.L4,
administrators to optimize flow of the ED when busy	ICS2.L4a/c
Recognizes when other providers are reaching their capacity, and	ICS2.L4a
intervenes to balance the workload when appropriate (if applicable),	
accounts for the team in decision making	
Can teach medical students and residents while managing multiple	PC8.L4
patients	
Provides pre-hospital medical direction	ICS2.L4c
Effectively communicates with out of hospital personnel such as	PC8.L4,
EMS/fire/police when a disaster situation arises to understand	ICS2.L4c
potential incoming patient burden	
In surge situations, can quickly get a handle on all new patients arriving	PC8.L4,5
via combination of own evaluation and task delegation to other	
providers	

When pre-notified about surge situations or mass casualty incidents,	PC8.L4,5,
develops an appropriate plan on how to deal with and triage large	SBP2.L2a,3b,4c
numbers of patients, and activates additional resources as needed	

EPA 8: Transition care to other healthcare providers.

<u>Key Features:</u> This activity includes communicating clearly, concisely and respectfully to the admitting teams at transitions of care and oncoming ED providers. Using a commonly accepted structure for handoffs, and balancing being concise yet comprehensive is also included. This does not include hospital to rehabilitation or nursing home facility transfers of care.

- Most Relevant Domains of Competence, including Milestone Sub competencies that map to this EPA: ICS 2; SBP1; PC7.

Assessment plan:

Direct and indirect observation, clinical evaluations, chart audit by supervising physician, including review of handover note and multisource feedback from other physician(s) involved.

Assessment form collects information on:

- Patient age: infant; child; youth; adult; senior.
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic
- Handover: EP to EP; EP to OP within hospital; EP to OP at another hospital; EP to LTC; EP to PCP; EP to follow-up with OP; other [write in]

Basis for formal entrustment decisions:

Collect 10 observations of achievement.

- At least 5 EP to EP handovers,
- At least 2 different observers

When is unsupervised practice expected to be achieved End of PGY2.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
ED to inpatient handoffs	
Resident accurately and concisely articulates the reasons for	ICS2.L2,3a/c,
admission early in the discussion	SBP1, L3b
For complicated patients, resident presents in a concise manner,	ICS2.L1,2,3a,3b,3
discussing the most urgent or significant problems first, yet ensures	С
all important information is communicated	
Resident communicates in a collegial and respectful manner	ICS2.L1,3a,3c
Advocates for patients and effectively negotiates for admission or	ICS2.L4b
inpatient level of care when necessary	

Clearly states ongoing concerns about the patient, parts of workup	PC7.L4a,
that are not yet completed, or differential diagnoses that are still	ICS2.L2,3a,3b,3c,
being considered but not fully investigated	SBP1.L4c
Appropriately applies a standardized "transitions of care" template	ICS2.L1,2,3a,3b,3
or methodology (if exists in institution), OR presents in an organized	c, SBP1.L3b
logical fashion	
ED to ED provider sign-out	
Manages transitions in care to oncoming ED providers, in a fashion	ICS2.L1,2,3b
that emphasizes important aspects while providing all essential	
information in a concise and accurate fashion	
During ED-ED sign-out, presents working dx, plan of care, unresulted	ICS2.L1,2,3b,
tests, anticipated disposition, and IF-THEN scenarios for incomplete	SBP1, L3b
testing, or does this according to accepted institutional hand-off	
guidelines/protocol (if available)	

EPA 9: Manage interactions with consultants

<u>Key Features:</u> This activity includes communicating with consultants respectfully, clearly and concisely, ensuring that the reason for consult is clear, the requisite information is provided and shared expectations regarding the content, process and timeline of the consult is agreed upon. Consultants must be involved at the appropriate time in the patient's care and the resident must be able to advocate for patients when dealing with difficult consultants. The resident is also able to analyze and incorporate recommendations from the consultant to ensure the patient is receiving optimal care.

- Most relevant domains of competence, including milestone sub competencies that map to this EPA: ICS2, SBP1/2, P2.

Assessment plan:

Direct and indirect observation, clinical evaluations, by supervising physician and multisource feedback from other physician(s) involved.

Assessment form collects information on:

- Patient age: infant; child; youth; adult; senior
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic

Basis for formal entrustment decisions:

Collect 10 observations of achievement.

- At least 2 different observers

When is unsupervised practice expected to be achieved: end of PGY2.

Required knowledge, skills, and attitudes (KSAs).	Milestone
, , , , , , , , , , , , , , , , , , ,	
To fulfill this EPA, the trainee must:	mapping
Resident accurately and concisely articulates the reasons for	ICS2.L2,3a,3c,
consultation early in the discussion	SBP1, L3b
For complicated patients, resident presents in a concise manner,	ICS2.L1,2,3a,3b,3c
discussing the most urgent or significant problems first, yet ensures	
all important information is communicated	
Resident communicates in a collegial and respectful manner	ICS2.L1,3a,3c
Avoids prematurely/inappropriately calling consults and has	ICS2.L1,2,3a,
necessary consultant specific information ready (i.e. visual acuity	SBP2.L3b
before calling ophthalmology)	
Recognizes when assistance with patient care is needed and	SBP2.L3c, P2.L3a,
involves consultants as appropriate	SBP1.L3c

Advocates for patients and effectively negotiates for consult, as well	ICS2.L4b
as setting expectations for consulting team	
Is proactive about ascertaining timeline from consulting team and	ICS2.L3a
obtaining recommendations in a timely fashion (when possible)	
Analyzes and appropriately integrates information and	SBP1.L4c,
recommendations from consultant into optimal plan of care for	SBP2.L4c
patient	
Uses flexible communication strategies to deal with difficult	ICS2.L4b,
consultants	SBP1.L4c

EPA 10: Manage complex and difficult situations

<u>Key Features:</u> This activity includes identifying, analyzing and managing difficult situations such as conflict, ethical dilemmas, and medical error disclosure including appropriately communicating with the involved parties.

- Example observable practice activities (OPAs) include the following types of situations:
 - ethical dilemmas
 - a conflicting advanced directive with current stated family wishes
 - a child of a Jehovah witness in hemorrhagic shock with parents refusing transfusion
 - placing a child on a health and welfare hold due to concerns for abuse
 - managing an impaired colleague
 - conflict
 - a high-risk patient preferring an alternate course of care than recommended such as wanting to leave AMA
 - a demanding or difficult patient (such as demanding opiates for chronic pain)
 - disagreements between healthcare providers or team members
- This EPA may be observed in the clinical setting or in simulation.
- Most Relevant Domains of Competence, including Milestone Sub competencies that map to this EPA: ICS1,2; P1,2; SBP1,2.

Assessment plan:

Direct or indirect observation, clinical evaluations, by supervising physician, with multisource feedback from other health care professionals (e.g., nurse, patient relation officer etc.).

Assessment form collects information on:

- Setting: emergency department; simulation
- Situation: patient interaction; family interaction; physician interaction; other health care professional interaction
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic

Basis for formal entrustment decisions:

Collect 10 observations of achievement.

- At least 2 different observers,
- At least 3 clinical (not simulated) observations

When is unsupervised practice expected to be achieved: end of PGY3.

<u>Relevant</u>	Milestones:	

Required knowledge, skills, and attitudes (KSAs). Milestone mapping

To fulfill this EPA, the trainee must:	
Ascertains all necessary information including viewpoints and	ICS1.L1a/b,3a,4
concerns of patient and/or family in ethically challenging	
situations	
Involves consultants such as chaplain, social work, legal, ethics	SBP1.L3c,
consult or other appropriate persons in difficult ethical situations	SBP2.L2a,3b,4c,
	ICS2.L4c
Develops a well thought out and defensible plan for ethical	P1.L4b
dilemmas in complicated and challenging clinical situations	
"Recognizes how own personal beliefs and values impact medical	P1.L3a
care, and manages these appropriately"	
"Develops acceptable alternate care plans when	P1.L3b
patients' personal decisions/beliefs preclude the use of	
commonly accepted practices, including high risk AMA patients"	
"Prioritizes the patient's best interests" in all situations, even in	P1.L4a
challenging situations	
In situations where the patient is unable to speak for themselves,	ICS1.L4
ascertains what the family thinks the patient would want and why	
"Manages medical errors according to principles of responsibility	P2.L4b, ICS1.L4
and accountability in accordance with institutional policy"	
Manages conflict with patients with clear and effective	ICS1.L4
communication, such as those demanding opiates, stating other	ICS1.L2a,2b,3a,4,
seemingly unreasonable requests, or are "difficult" for other	P1.L1,2,3a,3b
reasons	
Educate and counsel patient appropriately in the instance of	ICS1.L2a,2b,3a,4,
leaving AMA, completes necessary paperwork/documentation	P1.L1,2,3a,3b,4a,
and assess patient's capacity to refuse recommended medical	PC7.L3a
care	
In AMA patients, understand underlying reason about why	P1.L1,2,3a,3b,4a
patient wants to leave and attempts to find a collaborative	ICS1.L1a,1b,2a,3a,4a
mutually acceptable solution with patient	
Manages conflict between healthcare personnel or team	ICS2.L4b
members, such as nurse-physician conflict	
"Can form a plan to address impairment in one's self or a	P2.L4a
colleague, in a professional and confidential manner"	

EPA 11: Utilize recommended patient safety and quality improvement processes

<u>Key Features:</u> This activity includes utilizing existing hospital processes and technologies to maximize current and future patient safety and quality. This does not include developing and implementing one's own quality improvement project.

- Example Observable Practice Activities (OPAs):
 - review and analysis of a clinical case(s) or event(s), including associated data and outcomes to evaluate the quality of health care delivery,
 - analysis of any gap in desired outcomes,
 - description of a plan (including necessary resources and processes) to improve delivery of care,
 - description of an evaluation process to determine the potential effectiveness of the proposed plan.
- Most relevant domains of competence, including milestone sub competencies that map to this EPA: SBP1,3, PBLI

Assessment plan:

Direct observation, supervising physician or entrusted resident and supported by indirect observation (case discussion) and review of the medical record with multisource feedback. The documentation of the observation of this EPA must include narrative comments.

Basis for formal entrustment decisions:

Collect 10 observations of achievement.

When is unsupervised practice expected to be achieved: end of PGY4.

Required knowledge, skills, and attitudes (KSAs).	Milestone
To fulfill this EPA, the trainee must:	mapping
"Employs processes (i.e. checklists, order sets) that optimize patient	SBP1.L3b, PBLI.L4a
safety" and quality	
"Employs personnel that optimize patient safety and quality (i.e. ED	SBP1.L3b
pharmacists)	
Utilizes technology such as order sets and "decision support	SBP1.L3b,
systems within the EHR" (i.e. allergy alerts for medication ordering,	SBP3.L4,
embedded CDRs) to optimize patient safety and quality	PBLI.L4a/c
Utilizes hospital event reporting system and other related	SBP1.L3b, PBLI.L4a
processes/technologies in order to optimize future patient safety	
and quality	

"Participates in institutional process improvement plans to	SBP1.L4a,
optimize ED practice and patient safety"	PBLI.L4a/c
Identifies and communicates elements of patient care processes in which changes could result in improved patient quality or safety, such as latent system errors	SBP1.L4c
Analyzes their own cases to improve their own and others performance	SBP1.L4b

EPA 12: Performing advanced procedures

<u>Key Features</u>: The focus of this EPA is the performance of sentinel advanced procedures, including knowledge and application of indications, contraindications, complications, alternatives, and aftercare.

- Examples of procedures:
 - complex wound repair
 - central venous access with ultrasound guidance
 - lumbar puncture
 - reduction of an extremity fracture
 - reduction of large joint dislocation
 - regional anesthesia (e.g., large peripheral nerve block, not a digital nerve)
 - thoracostomy tube insertion
- This EPA may be observed in the clinical setting or in simulation.

Assessment plan:

Direct observation by supervising emergency physician, supervising physician from another service, emergency medicine entrusted resident, or entrusted resident from another discipline.

Assessment form collects information on:

- Setting: emergency department; simulation; other [write in]
- Patient age: infant; child; youth; adult; senior
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic
- Procedure: complex wound repair; central venous access with ultrasound guidance; reduction of an extremity fracture; lumbar puncture; reduction of large joint dislocation; regional anesthesia (e.g., large peripheral nerve block, not a digital nerve); thoracostomy tube insertion

Basis for formal entrustment decisions:

Collect 25 observations of achievement

- At least 2 observations of each procedure in the clinical (not simulated) environment,
- At least 2 different observers for each procedure

When is unsupervised practice expected to be achieved: end of PGY 4.

Relevant milestones

1. ME 3.2 Describe the indications, contraindications, risks, alternatives, complications, and post-procedure management for a given procedure or therapy

- 2. ME 3.1 Integrate planned procedures or therapies into global assessment and management plans
- 3. ME 3.1 Determine and provide the most appropriate analgesic therapy and/or sedation plan for the specific procedure using multimodal analgesia concepts and alternative pain/sedation strategies
- 4. ME 3.2 Use shared decision making with the patient to obtain and document informed consent, explaining the risks and benefits of, and the rationale for, a proposed procedure or therapy
- 5. ME 3.4 Document procedures accurately
- 6. ME 3.4 Establish and implement a plan for post-procedure care including patient specific post-procedure instructions
- 7. ME 5.1 Recognize near-misses in real time and respond to correct them, preventing them from impacting the patient
- 8. ME 5.2 Apply appropriate measures for protection of health care professionals during the entire patient encounter including but not limited to the use of PPE to avoid exposure or contamination
- 9. COM 3.1 Communicate information that is concise, relevant, useful, and respectful to a patient, and the patient's family, adapting explanations to the patient's needs and level of understanding
- 10. S 1.2 Identify opportunities for learning and improvement by regularly reflecting on and assessing their performance using various internal and external data source

EPA 13: Performing and interpreting point-of-care ultrasound to guide patient management

<u>Key Features:</u> This EPA includes selection, performance and interpretation of point-of-care ultrasound (POCUS) to guide the assessment and ongoing management of emergency patients, including but not limited to patients experiencing abdominal pain, cardiac arrest, shock, shortness of breath, trauma, and first trimester vaginal bleeding. POCUS is performed to determine the presence or absence of the following clinical states and conditions: pericardial effusion and cardiac tamponade, global estimation of left ventricular ejection fraction, pneumothorax, hemothorax, pleural effusion, abdominal aortic aneurysm, abdominal or pelvic free fluid, and first trimester intrauterine gestation. Image acquisition is required for each observation of achievement.

- This EPA may be observed in the clinical setting or in simulation.

Assessment plan:

Direct observation by supervising physician or entrusted resident with competence in POCUS, with review of imaging

Assessment form collects information on:

- Setting: emergency department; simulation; other [write in]
- Patient age: infant; child; youth; adult; senior
- Complexity: simple; complex patient characteristic; complex clinical characteristic; complex environmental characteristic
- Case mix: pericardial effusion and cardiac tamponade; global estimation of left ventricular fraction; pneumothorax; hemothorax; pleural effusion; abdominal aortic aneurysm; abdominal or pelvic free fluid, first trimester intrauterine gestation.

Basis for formal entrustment decisions:

- End of PGY 2:
 - o Collect 25 scans of each application mentioned above under direct observation,
 - passing POCUS end of rotation examination
 - o this shall be completed in the ED US rotation
- PGY 3-4 5 of each application listed above, direct or indirect observation by supervising physician or entrusted resident with competence in POCUS, with review of imaging.

When is unsupervised practice expected to be achieved end of PGY4.

Relevant milestones:

1. ME 1.3 Apply knowledge of the clinical and biomedical sciences, including but not limited to physics, to facilitate image acquisition and interpretation

- 2. ME 2.1 Consider clinical urgency, feasibility, availability of resources, limitations and strengths in using point-of-care ultrasound versus alternative diagnostic strategies
- 3. ME 2.2 Integrate all sources of information to develop a diagnosis informed by pointof-care ultrasound that is safe, patient-centered, and considers the risks and benefits of all diagnostic approaches
- 4. ME 3.4 Demonstrate technical competence in image acquisition
- 5. COM 3.1 Convey information related to the patient's health status, care, and needs in a timely, honest, and transparent manner to patient and their family
- 6. COM 5.1 Maintain clear, concise, accurate, and appropriate records related to pointof-care ultrasound
- 7. COM 5.1 Store and archive images appropriately
- 8. COL 1.3 Communicate effectively with physicians and other health care professionals
- 9. COL 1.2 Consult with other health care professionals, recognizing the limits of their expertise and the limits of point-of-care ultrasound

Legend:

Linked milestones are indicated using the following format – Sub competency (PC1). Proficiency Level (Lx).a/b/c/d. The lowercase letters represent the individual milestones listed within each proficiency level column on the ACGME/ABEM Milestones document, with the first milestone listed in each column being denoted as "a", the second one as "b", etc. For example, the 3rd milestone under Patient Care 1, Proficiency level 3 would be PC1.L3c.

Any italicized KSABs are less common occurrences, which individual programs one might elect to assess outside of this EPA framework.

The KSABs in quotes are taken directly from the Emergency Medicine milestones. 2 NA = Not applicable, this is entered when an item does not link directly to a milestone item.

Core competency/sub competency abbreviations are as follows: PC = patient care, MK = medical knowledge, ICS = interpersonal communication skills, P = professionalism, PBLI = problem-based learning and improvement, SBP = system based practice.

