Core Entrustable Professional Activities for Entering Residency

Core Entrustable Professional Activities for Entering Residency: Toolkits for the 13 Core EPAs - Abridged
The Full Toolkit is Available on AAMC’s Website:
aamc.org/initiatives/coreepas/publicationsandpresentations.

Senior Editors
Vivian Obeso, MD, Florida International University
David Brown, MD, Florida International University
Carrie Phillipi, MD, PhD, Oregon Health & Science University

Editors
Meenakshy Aiyer, MD, University of Illinois
Beth Barron, MD, Columbia University
Jan Bull, MA, Association of American Medical Colleges
Teresa J. Carter, EdD, Virginia Commonwealth University
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Eduard E. Vasilevskis, MD, MPH, Vanderbilt University
Sandra Yingling, PhD, University of Illinois at Chicago

AAMC Staff
Alison Whelan, MD
Chief Medical Education Officer
Chris Hanley, MBA
Project Manager
Lynn Shaull, MA
Senior Research Specialist

For inquiries and correspondence, contact Dr. Vivian Obeso at vobeso@fiu.edu, Carrie Phillipi at phillica@ohsu.edu, or Dr. Alison Whelan at awhelan@aamc.org.

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**User Guide**

This toolkit is for medical schools interested in implementing the Core Entrustable Professional Activities (EPAs) for Entering Residency. Written by the AAMC Core EPA Pilot Group, the toolkit expands on the EPA framework outlined in the *EPA Developer's Guide* (AAMC 2014). The Pilot Group identified progressive sequences of student behavior that medical educators may encounter as students engage in the medical school curriculum and became proficient in integrating their clinical skills. These sequences of behavior are articulated for each of the 13 EPAs in one-page schematics to provide a framework for understanding EPAs; additional resources follow.

This toolkit includes:
- One-page schematic of each EPA
- Core EPA Pilot supervision and coactivity scales

**One-Page Schematics**

In 2014, the AAMC launched a pilot project with 10 institutions to address the feasibility of implementing 13 EPAs for entering residency in undergraduate medical education. To standardize our approach as a pilot and promote a shared mental model, the Core EPA Pilot Group developed one-page schematics for each of the 13 EPAs.

These schematics were developed to translate the rich and detailed content within *The Core Entrustable Professional Activities for Entering Residency Curriculum Developers’ Guide* published in 2014 by the AAMC into a one-page, easy-to-use format (AAMC 2014). These one-page schematics of developmental progression to entrustment provide user-friendly descriptions of each EPA. We sought fidelity to the original ideas and concepts created by the expert drafting panel that developed the *Core EPA Guide*.

We envision the one-page schematics as a resource for:

- Development of curriculum and assessment tools
- Faculty development
- Student understanding
- Entrustment committees, portfolio advisors, and others tracking longitudinal student progress

**Understanding the One-Page Schematic**

Performance of an EPA requires integration of multiple competencies (Englander and Carraccio 2014). Each EPA schematic begins with its list of key functions and related competencies. The functions are followed by observable behaviors of increasing ability describing a medical student’s development toward readiness for indirect supervision. The column following the functions lists those behaviors requiring immediate correction or remediation. The last column lists expected behaviors of an entrustable learner.

The members of the Curriculum and Assessment Team of the Core EPA Pilot Group led this initiative. Thirteen EPA groups, each comprising representatives from four to five institutions, were tasked with creating each EPA schematic. Development of the schematics involved an explicit, standardized process to reduce variation and ensure consistency with functions,
competencies, and the behaviors explicit in the Core EPA Guide. Behaviors listed were carefully gathered from the Core EPA Guide and reorganized by function and competency and listed in a developmental progression. The Curriculum and Assessment Team promoted content validity by carrying out iterative reviews by telephone conference call with the members of the Core EPA Pilot Group assigned to each EPA.

**EPA Curriculum and Assessment**

Multiple methods of teaching and assessing EPAs throughout the curriculum will be required to make a summative entrustment decision about residency readiness. The schematics can help to systematically identify and map curricular elements required to prepare students to perform EPAs. Specific prerequisite curricula may be needed to develop knowledge, skills, and attitudes before the learner engages in practice of the EPA.

To implement EPAs, medical schools should identify where in the curriculum EPAs will be taught, practiced, and assessed. Among other modalities, simulation, reflection, and standardized and structured experiences will all provide data about student competence. However, central to the concept of entrustment is the global performance of EPAs in authentic clinical settings, where the EPA is taught and assessed holistically, not as the sum of its parts.

**Workplace-Based Assessments: Supervision and Coactivity Scales**

On a day-to-day basis, clinical supervisors make and communicate judgments about how much help (coactivity) or supervision a student or resident needs. “Will I let the student go in the room without me? How much will I let the student do versus observe? Because I wasn’t present to observe, how much do I need to double-check?” Scales for clinical supervisors to determine how much help or supervision a student needs for a specific activity have been proposed (Chen et al 2015; Rekman et al 2016). There is limited validity evidence for these scales, and no published data comparing them. Given our initial experience, the Core EPA Pilot Group has agreed on a trial using modified versions of these scales (Appendix 1).
EPA 1: Gather a History and Perform a Physical Examination

**Key Functions with Related Competencies**

- Obtain a complete and accurate history in an organized fashion
  - PC2
- Demonstrate patient-centered interview skills
  - ICS1 ICS7 P1 P3 P5
- Demonstrate clinical reasoning in gathering focused information relevant to a patient’s care
  - KP1
- Perform a clinically relevant, appropriately thorough physical exam pertinent to the setting and purpose of the patient visit
  - PC2

**Behaviors Requiring Corrective Response**

- Does not collect accurate historical data
- Relies exclusively on secondary sources or documentation of others
- Is disrespectful in interactions with patients
- Disregards patient privacy and autonomy
- Fails to recognize patient's central problem
- Does not consider patient’s privacy and comfort during exams
- Incorrectly performs basic physical exam maneuvers
- Incorrectly performs head-to-toe examination
- Misses key findings

**Developing Behaviors**

- Gathers excessive or incomplete data
- Does not deviate from a template
- Relies exclusively on secondary sources or documentation of others
- Is disrespectful in interactions with patients
- Disregards patient privacy and autonomy
- Fails to recognize patient’s central problem
- Does not prioritize or filter information
- Questions reflect a narrow differential diagnosis
- Performs basic exam maneuvers correctly
- Relies on head-to-toe examination
- Misses key findings

**Expected Behaviors for an Entrustable Learner**

- Obtains a complete and accurate history in an organized fashion
- Seeks secondary sources of information when appropriate (e.g., family, primary care physician, living facility, pharmacy)
- Adapts to different care settings and encounters
- Demonstrates effective communication skills, including silence, open-ended questions, body language, listening, and avoids jargon
- Anticipates and interprets patient’s emotions
- Incorporates responses appropriate to age, gender, culture, race, religion, disabilities and/or sexual orientation
-Anticipates and interprets patient’s emotions
- Incorporates responses appropriate to age, gender, culture, race, religion, disabilities and/or sexual orientation

- Communicates unidirectionally
- Does not respond to patient verbal and nonverbal cues
- May generalize based on age, gender, culture, race, religion, disabilities, and/or sexual orientation
- Does not consistently consider patient privacy and autonomy
- Questions are not guided by the evidence and data collected
- Questions are not prioritized or filter information
- Questions reflect a narrow differential diagnosis
- Is able to filter signs and symptoms into pertinent positives and negatives
- Performs an accurate exam in a logical and fluid sequence
- Performs the exam to explore and prioritize the working differential diagnosis
- Can identify and describe normal and abnormal findings

**Underlying entrustability for all EPAs are trustworthy habits, including truthfulness, conscientiousness, and discernment.**

This schematic depicts development of proficiency in the Core EPAs. It is not intended for use as an assessment instrument. Entrustment decisions should be made after EPAs have been observed in multiple settings with varying context, acuity, and complexity and with varying patient characteristics.


Adapted from the Association of American Medical Colleges (AAMC). Core entrustable professional activities for entering residency. 2014.
EPA 2: Prioritize a Differential Diagnosis Following a Clinical Encounter

**Key Functions with Related Competencies**

| Synthesize essential information from previous records, history, physical exam, and initial diagnostic evaluations to propose a scientifically supported differential diagnosis |
| PC2 KP3 KP4 KP2 |
| Prioritize and continue to integrate information as it emerges to update differential diagnosis, while managing ambiguity |
| PC4 KP3 KP4 PPD8 PBL1 |
| Engage and communicate with team members for endorsement and verification of the working diagnosis that will inform management plans |
| KP3 KP4 ICS2 |

**Behaviors Requiring Corrective Response**

- Cannot gather or synthesize data to inform an acceptable diagnosis
- Lacks basic medical knowledge to reason effectively
- Disregards emerging diagnostic information
- Becomes defensive and/or belligerent when questioned on differential diagnosis
- Ignores team’s recommendations
- Develops and acts on a management plan before receiving team’s endorsement
- Cannot explain or document clinical reasoning

**→ Developing Behaviors →** (Learner may be at different levels within a row.)

- Approaches assessment from a rigid template
- Struggles to filter, prioritize, and make connections between sources of information
- Proposes a differential diagnosis that is too narrow, too broad, or contains inaccuracies
- Demonstrates difficulty retrieving knowledge for effective reasoning
- Does not integrate emerging information to update the differential diagnosis
- Displays discomfort with ambiguity
- Ignores team’s recommendations
- Develops and acts on a management plan before receiving team’s endorsement
- Cannot explain or document clinical reasoning

- Gathers pertinent data based on initial diagnostic hypotheses
- Proposes a reasonable differential diagnosis but may neglect important diagnostic information
- Is beginning to organize knowledge by illness scripts (patterns) to generate and support a diagnosis
- Considers emerging information but does not completely integrate to update the differential diagnosis
- Acknowledges ambiguity and is open to questions and challenges
- Recommends a broad range of untailored diagnostic evaluations
- Depends on team for all management plans
- Does not completely explain and document reasoning

- Recommends diagnostic evaluations tailored to the evolving differential diagnosis after having consulted with team
- Explains and documents clinical reasoning
- Seeks and integrates emerging information to update the differential diagnosis
- Encourages questions and challenges from patients and team
- Proposes diagnostic and management plans reflecting team’s input
- Seeks assistance from team members
- Provides complete and succinct documentation explaining clinical reasoning

**Expected Behaviors for an Entrustable Learner**

- Gathers pertinent information from many sources in a hypothesis-driven fashion
- Filters, prioritizes, and makes connections between sources of information
- Proposes a relevant differential diagnosis that is neither too broad nor too narrow
- Organizes knowledge into illness scripts (patterns) that generate and support a diagnosis

Underlying entrustability for all EPAs are trustworthy habits, including truthfulness, conscientiousness, and discernment.

Green M, Tewksbury L, Wagner D, Obeso V, Brown D, Phillipi C, eds.; for Core EPAs for Entering Residency Pilot Program

Adapted from the Association of American Medical Colleges (AAMC). Core entrustable professional activities for entering residency. 2014.
### EPA 3: Recommend and Interpret Common Diagnostic and Screening Tests

#### An EPA: A unit of observable, measurable professional practice requiring integration of competencies

**EPA 3**

**Diagnostic and screening tests**

This schematic depicts development of proficiency in the Core EPAs. It is not intended for use as an assessment instrument. Entrustment decisions should be made after EPAs have been observed in multiple settings with varying context, acuity, and complexity and with varying patient characteristics.

#### Key Functions with Related Competencies

| Recommend first-line cost-effective screening and diagnostic tests for routine health maintenance and common disorders PC5 PC9 SBP3 PBLI9 KP1 KP4 |
| Provide rationale for decision to order tests, taking into account pre- and posttest probability and patient preference PC5 PC7 KP1 KP4 SBP3 PBLI9 |
| Interpret results of basic studies and understand the implication and urgency of the results PC4 PC5 PC7 KP1 |

#### Behaviors Requiring Corrective Response

- Unable to recommend a standard set of screening or diagnostic tests
- Demonstrates frustration at cost-containment efforts
- Cannot provide a rationale for ordering tests
- Can only interpret results based on normal values from the lab
- Does not discern urgent from nonurgent results

#### Developing Behaviors

(Learner may be at different levels within a row.)

- Recommends tests for common conditions
- Does not consider harm, costs, guidelines, or patient resources
- Does not consider patient-specific screening unless instructed
- Cannot interpret results based on normal values from the lab
- Does not discern urgent from nonurgent results

#### Expected Behaviors for an Entrustable Learner

- Recommends key, reliable, cost-effective screening and diagnostic tests
- Applies patient-specific guidelines
- Provides individual rationale based on patient’s preferences, demographics, and risk factors
- Incorporates sensitivity, specificity, and prevalence in recommending and interpreting tests
- Explains how results will influence diagnosis and evaluation
- Distinguishes common, insignificant abnormalities from clinically important findings
- Discerns urgent from nonurgent results and responds correctly
- Seeks help for interpretation of tests beyond scope of knowledge

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EPA 4: Enter and Discuss Orders and Prescriptions

<table>
<thead>
<tr>
<th>Key Functions with Related Competencies</th>
<th>Behaviors Requiring Corrective Response</th>
<th>Developing Behaviors (Learner may be at different levels within a row.)</th>
<th>Expected Behaviors for an Entrustable Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compose orders efficiently and effectively verbally, on paper, and electronically (or does so for the wrong patient or using an incorrect order set)</td>
<td>Unable to compose or enter electronic orders or write prescriptions</td>
<td>Does not recognize when to tailor or deviate from the standard order set</td>
<td>Routinely recognizes when to tailor or deviate from the standard order set</td>
</tr>
<tr>
<td></td>
<td>Does not follow established protocols for placing orders</td>
<td>Orders tests excessively (uses shotgun approach)</td>
<td>Able to complete complex orders requiring changes in dose or frequency over time (e.g., a taper)</td>
</tr>
<tr>
<td>Demonstrate an understanding of the patient’s condition that underpins the provided orders</td>
<td>Lacks basic knowledge needed to guide orders</td>
<td>May be overconfident, does not seek review of orders</td>
<td>Undertakes a reasoned approach to placing orders (e.g., waits for contingent results before ordering more tests)</td>
</tr>
<tr>
<td></td>
<td>Demonstrates defensiveness when questioned</td>
<td></td>
<td>Recognizes limitations and seeks help</td>
</tr>
<tr>
<td>Recognize and avoid errors by attending to patient-specific factors, using resources, and appropriately responding to safety alerts</td>
<td>Discounts information obtained from resources designed to avoid drug–drug interactions</td>
<td>Has difficulty filtering and synthesizing information to prioritize diagnostics and therapies</td>
<td>Recognizes patterns, takes into account the patient’s condition when ordering diagnostics and/or therapeutics</td>
</tr>
<tr>
<td></td>
<td>Fails to adjust doses when advised to do so by others</td>
<td>Unable to articulate the rationale behind orders</td>
<td>Explains how test results influence clinical decision making</td>
</tr>
<tr>
<td></td>
<td>Ignores alerts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discuss planned orders and prescriptions with team, patients, and families</td>
<td>Places orders without communicating with others; uses unidirectional style (“Here is what we are doing…”)</td>
<td>Places orders without communicating with others; uses unidirectional style (“Here is what we are doing…”)</td>
<td>Enters orders that reflect bidirectional communication with patients, families, and team</td>
</tr>
<tr>
<td>ICS1 SBP3</td>
<td>Does not consider cost of orders or patient’s preferences</td>
<td></td>
<td>Considers the costs of orders and the patient’s ability and willingness to proceed with the plan</td>
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<td></td>
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</tr>
</tbody>
</table>
### EPA 5: Document a Clinical Encounter in the Patient Record

<table>
<thead>
<tr>
<th>Key Functions with Related Competencies</th>
<th>Behaviors Requiring Corrective Response</th>
<th>Developing Behaviors</th>
<th>Expected Behaviors for an Entrustable Learner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prioritize and synthesize information into a cogent narrative for a variety of clinical encounters (e.g., admission, progress, pre- and post-op, and procedure notes; informed consent; discharge summary)</td>
<td>Provides incoherent documentation</td>
<td>Misses key information</td>
<td>Provides a verifiable cogent narrative without unnecessary details or redundancies</td>
</tr>
<tr>
<td>Copies and pastes information without verification or attribution</td>
<td>Produces documentation that has errors or does not fulfill institutional requirements (e.g., date, time, signature, avoidance of prohibited abbreviations)</td>
<td>Recognizes and corrects errors related to required elements of documentation</td>
<td>Adjusts and adapts documentation based on audience, context, or purpose (e.g., admission, progress, pre- and post-op, and procedure notes; informed consent; discharge summary)</td>
</tr>
<tr>
<td>Does not provide documentation when required</td>
<td>Has difficulty meeting turnaround expectations, resulting in team members’ lack of access to documentation</td>
<td>Meets needed turnaround time for standard documentation</td>
<td>Documents the pursuit of primary or secondary sources important to the encounter</td>
</tr>
<tr>
<td>Provides illegible documentation</td>
<td>Includes inappropriate judgmental language</td>
<td>May not document the pursuit of primary or secondary sources important to the encounter</td>
<td>Documents use of primary and secondary sources necessary to fill in gaps</td>
</tr>
<tr>
<td>Documents potentially damaging information without attribution</td>
<td>Interprets laboratory values accurately</td>
<td>Identifies key problems, documenting engagement of those who can help resolve them</td>
<td>Solicits patient’s preferences and records them in a note</td>
</tr>
</tbody>
</table>

#### An EPA: A unit of observable, measurable professional practice requiring integration of competencies

#### EPA 5

**Document a clinical encounter**

Underlying entrustability for all EPAs are trustworthy habits, including truthfulness, conscientiousness, and discernment.

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EPA 6: Provide an Oral Presentation of a Clinical Encounter

Key Functions with Related Competencies

Present personally gathered and verified information, acknowledging areas of uncertainty
PC2 PBL1 PPD4 P1

Provide an accurate, concise, well-organized oral presentation
ICS2 PC6

Adjust the oral presentation to meet the needs of the receiver
ICS1 ICS2 PBL1 PPD7

Demonstrate respect for patient’s privacy and autonomy
P3 P1 PPD4

Behaviors Requiring Corrective Response

- Fabricates information when unable to respond to questions
- Reacts defensively when queried
- Presents information in a disorganized and incoherent fashion

- Presents personally gathered and verified information, acknowledging areas of uncertainty
- Acknowledges gaps in knowledge, adjusts to feedback, and then obtains additional information
- Delivers a presentation that is organized around the chief concern
- Supports management plans with limited information
- Delivers a presentation organized into a concise and well-organized presentation
- Integrates pertinent positives and negatives to support hypothesis

- Delivers a presentation that is not concise or that wanders
- Presents a story that is imprecise because of omitted or extraneous information
- Supports management plans with limited information
- Filters, synthesizes, and prioritizes information into a concise and well-organized presentation
- Integrates pertinent positives and negatives to support hypothesis
- Provides sound arguments to support the plan

- Gathers evidence incompletely or exhaustively
- Fails to verify information
- Does not obtain sensitive information
- Acknowledges gaps in knowledge, reflects on areas of uncertainty, and seeks additional information to clarify or refine presentation
- Delivers a presentation that is not concise or that wanders
- Presents a story that is imprecise because of omitted or extraneous information
- Supports management plans with limited information
- Filters, synthesizes, and prioritizes information into a concise and well-organized presentation
- Integrates pertinent positives and negatives to support hypothesis
- Provides sound arguments to support the plan

- Lacks situational awareness when presenting sensitive patient information
- Does not engage patients and families in discussions of care
- Incorporates patient’s preferences and privacy needs
- Respects patients’ privacy and confidentiality by demonstrating situational awareness when discussing patients
- Engages in shared decision making by actively soliciting patient’s preferences

Expected Behaviors for an Entrustable Learner

- Presents personally verified and accurate information, even when sensitive
- Acknowledges gaps in knowledge, reflects on areas of uncertainty, and seeks additional information to clarify or refine presentation
- Filters, synthesizes, and prioritizes information into a concise and well-organized presentation
- Integrates pertinent positives and negatives to support hypothesis
- Provides sound arguments to support the plan

Underlying entrustability for all EPAs are trustworthy habits, including truthfulness, conscientiousness, and discernment.

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EPA 7: Form Clinical Questions and Retrieve Evidence to Advance Patient Care

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**Clinical questions to advance patient care**

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### Key Functions with Related Competencies

**Combine curiosity, objectivity, and scientific reasoning to develop a well-formed, focused, pertinent clinical question (ASK)**

**Demonstrate awareness and skill in using information technology to access accurate and reliable medical information (ACQUIRE)**

**Demonstrate skill in appraising sources, content, and applicability of evidence (APPRAISE)**

**Apply findings to individuals and/or patient panels; communicate findings to the patient and team, reflecting on process and outcomes (ADVISE)**

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### Behaviors Requiring Corrective Response

**→ Developing Behaviors → (Learner may be at different levels within a row.)**

**Expected Behaviors for an Entrustable Learner**

<table>
<thead>
<tr>
<th>KP3 PBLI6 PBLI1 PBLI3</th>
<th>With prompting, translates information needs into clinical questions</th>
<th>Seeks assistance to translate information needs into well-formed clinical questions</th>
<th>Identifies limitations and gaps in personal knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does not reconsider approach to a problem, ask for help, or seek new information</td>
<td></td>
<td>Develops knowledge guided by well-formed clinical questions</td>
</tr>
<tr>
<td></td>
<td>Declines to use new information technologies</td>
<td></td>
<td>Identifies and uses available databases, search engines, and refined search strategies to acquire relevant information</td>
</tr>
<tr>
<td></td>
<td>Refuses to consider gaps and limitations in the literature or apply published evidence to specific patient care</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accepts findings from clinical studies without critical appraisal</td>
<td>Judges evidence quality from clinical studies</td>
<td>Uses levels of evidence to appraise literature and determines applicability of evidence</td>
</tr>
<tr>
<td></td>
<td>With assistance, applies evidence to common medical conditions</td>
<td>Applies published evidence to common medical conditions</td>
<td>Seeks guidance in understanding subtleties of evidence</td>
</tr>
<tr>
<td></td>
<td>Does not discuss findings with team</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does not determine or discuss outcomes and/or process, even with prompting</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Communicates with rigid recitation of findings, using medical jargon or displaying personal biases</td>
<td>Applies findings based on audience needs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shows limited ability to connect outcomes to the process by which questions were identified and answered and findings were applied</td>
<td>Acknowledges ambiguity of findings and manages personal bias</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connects outcomes to process by which questions were identified and answered</td>
<td>Connects outcomes to process by which questions were identified and answered</td>
<td></td>
</tr>
</tbody>
</table>

**EPA 8: Give or Receive a Patient Handover to Transition Care Responsibility**

An EPA: A unit of observable, measurable professional practice requiring integration of competencies

### Key Functions with Related Competencies

<table>
<thead>
<tr>
<th>Function</th>
<th>Competencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document and update an electronic handover tool and apply this to deliver a structured verbal handover</td>
<td>PBL17 ICS2 ICS3 P3</td>
</tr>
<tr>
<td>Conduct handover using communication strategies known to minimize threats to transition of care</td>
<td>ICS2 ICS3</td>
</tr>
<tr>
<td>Provide succinct verbal communication conveying illness severity, situational awareness, action planning, and contingency planning</td>
<td>ICS2 PC8</td>
</tr>
<tr>
<td>Give or elicit feedback about handover communication and ensure closed-loop communication</td>
<td>PBL15 ICS2 ICS3</td>
</tr>
<tr>
<td>Demonstrate respect for patient’s privacy and confidentiality</td>
<td>P3</td>
</tr>
</tbody>
</table>

### Behaviors Requiring Corrective Response

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inconsistently uses standardized format or uses alternative tool</td>
<td>Uses electronic handover tool</td>
</tr>
<tr>
<td>Provides information that is incomplete and/or includes multiple errors in patient information</td>
<td>Consistently updates electronic handover tool with mostly relevant information, applying a standardized template</td>
</tr>
<tr>
<td>Is frequently distracted</td>
<td>Requires assistance to minimize interruptions and distractions</td>
</tr>
<tr>
<td>Carries out handover with inappropriate timing and context</td>
<td>Demonstrates minimal situational awareness</td>
</tr>
<tr>
<td>Communication lacks all key components of standardized handover</td>
<td>Inconsistently communicates key components of the standardized tool</td>
</tr>
<tr>
<td>Withholds or is defensive with feedback</td>
<td>Does not provide action plan and contingency plan</td>
</tr>
<tr>
<td>Displays lack of insight on the role of feedback</td>
<td>Identifies illness severity</td>
</tr>
<tr>
<td>Does not summarize (or repeat) key points for effective closed-loop communication</td>
<td>Provides incomplete action list and contingency planning</td>
</tr>
<tr>
<td>Is unaware of HIPAA policies</td>
<td>Creates a contingency plan that lacks clarity</td>
</tr>
<tr>
<td>Breaches patient confidentiality and privacy</td>
<td>Delivers incomplete feedback; accepts feedback when given</td>
</tr>
<tr>
<td>Is cognizant of and attempts to minimize breaches in privacy and confidentiality</td>
<td>Accepts feedback and adjusts summary statements are too elaborate</td>
</tr>
<tr>
<td>Consistently considers patient privacy and confidentiality</td>
<td>Inconsistently uses repeat-back technique</td>
</tr>
<tr>
<td>Highlights and respects patient’s preferences</td>
<td>Provides and solicits feedback regularly, listens actively, and engages in reflection</td>
</tr>
</tbody>
</table>

### Expected Behaviors for an Entrustable Learner

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consistently updates electronic handover tool with clear, relevant, and succinct documentation</td>
<td>Avoids interruptions and distractions</td>
</tr>
<tr>
<td>Adapts and applies all elements of a standardized template</td>
<td>Manages time effectively</td>
</tr>
<tr>
<td>Presents a verbal handover that is prioritized, relevant, and succinct</td>
<td>Demonstrates situational awareness</td>
</tr>
<tr>
<td>Provides complete action plans and appropriate contingency plans</td>
<td>Highlights illness severity accurately</td>
</tr>
</tbody>
</table>

**Underlying entrustability for all EPAs are trustworthy habits, including truthfulness, conscientiousness, and discernment.**

* Functions are designated as “transmitter” or “transmitter and receiver.”
EPA 9: Collaborate as a Member of an Interprofessional Team

Key Functions with Related Competencies

- Identify team members’ roles and responsibilities and seek help from other members of the team to optimize health care delivery
  - IPC2 SBP2 ICS3
- Include team members, listen attentively, and adjust communication content and style to align with team-member needs
  - ICS2/IPC3 IPC1 ICS7 P1
- Establish and maintain a climate of mutual respect, dignity, integrity, and trust
- Prioritize team needs over personal needs to optimize delivery of care
  - Help team members in need
  - P1 ICS7 IPC1 SBP2

Behaviors Requiring Corrective Response

- Does not acknowledge other members of the interdisciplinary team as important
- Displays little initiative to interact with team members
- Dismisses input from professionals other than physicians
- Has disrespectful interactions or does not tell the truth
- Is unable to modify behavior
- Puts others in position of reminding, enforcing, and resolving interprofessional conflicts

→ Developing Behaviors →
(Learner may be at different levels within a row.)

- Identifies roles of other team members but does not know how or when to use them
- Acts independently of input from team members, patients, and families
- Communication is largely unidirectional, in response to prompts, or template driven
- Has limited participation in team discussion
- Is typically a more passive member of the team
- Prioritizes own goals over those of the team
- Intergrates into team function, prioritizing team goals
- Demonstrates respectful interactions and tells the truth
- Remains professional and anticipates and manages emotional triggers

Expected Behaviors for an Entrustable Learner

- Effectively partners as an integrated member of the team
- Articulates the unique contributions and roles of other health care professionals
- Actively engages with the patient and other team members to coordinate care and provide for seamless care transition
- Communicates bidirectionally; keeps team members informed and up to date
- Tailors communication strategy to the situation
- Supports other team members and communicates their value to the patient and family
- Anticipates, reads, and reacts to emotions to gain and maintain therapeutic alliances with others
- Prioritizes team’s needs over personal needs

An EPA: A unit of observable, measurable professional practice requiring integration of competencies

EPA 9: Collaborate as a member of an interprofessional team

Underlying entrustability for all EPAs are trustworthy habits, including truthfulness, conscientiousness, and discernment.

This schematic depicts development of proficiency in the Core EPAs. It is not intended for use as an assessment instrument. Entrustment decisions should be made after EPAs have been observed in multiple settings with varying context, acuity, and complexity and with varying patient characteristics.

Adapted from the Association of American Medical Colleges (AAMC). Core entrustable professional activities for entering residency. 2014.
### EPA 10: Recognize a Patient Requiring Urgent or Emergent Care and Initiate Evaluation and Management

#### Key Functions with Related Competencies

- **Recognize normal and abnormal vital signs as they relate to patient- and disease-specific factors as potential etiologies of a patient’s decompensation**
- **Recognize severity of a patient’s illness and indications for escalating care and initiate interventions and management**
- **Initiate and participate in a code response and apply basic and advanced life support**
- **Upon recognition of a patient’s deterioration, communicate situation, clarify patient’s goals of care, and update family members**
- **Communicates in a unidirectional manner with family and health care team**

#### Behaviors Requiring Corrective Response

- **Fails to recognize trends or variations of vital signs in a decompensating patient**
- **Does not recognize change in patient’s clinical status or seek help when a patient requires urgent or emergent care**
- **Responds to a decompensated patient in a manner that detracts from or harms team’s ability to intervene**
- **Requires prompting to perform basic procedural or life support skills correctly**
- **Communicates in a unidirectional manner with family and health care team**

#### Developing Behaviors

- **Demonstrates limited ability to gather, filter, prioritize, and connect pieces of information to form a patient-specific differential diagnosis in an urgent or emergent setting**
- **Misses abnormalities in patient’s clinical status or does not anticipate next steps**
- **May be distracted by multiple problems or have difficulty prioritizing**
- **Accepts help**
- **Recognizes outliers or unexpected results or data and seeks out an explanation**

#### Expected Behaviors for an Entrustable Learner

- **Recognizes variations of patient’s vital signs based on patient- and disease-specific factors**
- **Gathers, filters, and prioritizes information related to a patient’s decompensation in an urgent or emergent setting**
- **Responds to early clinical deterioration and seeks timely help**
- **Prioritizes patients who need immediate care and initiates critical interventions**
- **Initiates and applies effective airway management, BLS, and advanced cardiovascular life support (ACLS) skills**
- **Monitors response to initial interventions and adjusts plan accordingly**
- **Adheres to institutional procedures and protocols for escalation of patient care**
- **Uses the health care team members according to their roles and responsibilities to increase task efficiency in an emergent patient condition**

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EPA 11: Obtain Informed Consent for Tests and/or Procedures

Key Functions with Related Competencies

- Describe the key elements of informed consent: indications, contraindications, risks, benefits, alternatives, and potential complications of the intervention
  - PC6 KP3 KP4 KP5 P6
- Communicate with the patient and family to ensure that they understand the intervention
  - PC7 ICS1 ICS7 PC5
- Display an appropriate balance of confidence and skill to put the patient and family at ease, seeking help when needed
  - PPD1 PPD7 PPD8

Behaviors Requiring Corrective Response

- Lacks basic knowledge of the intervention
- Provides inaccurate or misleading information
- Hands the patient a form and requests a signature
- Uses language that frightens patient and family
- Disregards emotional cues
- Regards interpreters as unhelpful or inefficient
- Displays overconfidence and takes actions that can have a negative effect on outcomes
- Displays a lack of confidence that increases patient stress or discomfort, or overconfidence that erodes trust
- Asks questions
- Accepts help

→ Developing Behaviors →

(Learner may be at different levels within a row.)

- Is compliant with informed consent due to limited understanding of importance of informed consent
- Allows personal biases with intervention to influence consent process
- Obtains informed consent only on the directive of others
- Uses medical jargon
- Uses unidirectional communication; does not elicit patient's preferences
- Has difficulty in attending to emotional cues
- Does not consider the use of an interpreter when needed
- Displays a lack of confidence that increases patient stress or discomfort, or overconfidence that erodes trust
- Asks questions
- Accepts help

Expected Behaviors for an Entrustable Learner

- Understands and explains the key elements of informed consent
- Provides complete and accurate information
- Recognizes when informed consent is needed and describes it as a matter of good practice rather than as an externally imposed sanction
- Avoids medical jargon
- Uses bidirectional communication to build rapport
- Practices shared decision making, eliciting patient and family preferences
- Responds to emotional cues in real time
- Enlists interpreters collaboratively
- Demonstrates confidence commensurate with knowledge and skill so that patient and family are at ease
- Seeks timely help

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From day 1, residents may be in a position to obtain informed consent for interactions, tests, or procedures they order and perform, including immunizations, medications, central lines, contrast and radiation exposures, and blood transfusions.

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EPA 12: Perform General Procedures of a Physician

Key Functions with Related Competencies

- Demonstrate technical skills required for the procedure
- Understand and explain the anatomy, physiology, indications, contraindications, risks, benefits, alternatives, and potential complications of the procedure
- Communicate with the patient and family to ensure they understand pre- and post-procedural activities
- Demonstrate confidence that puts patients and families at ease

Expected Behaviors for an Entrustable Learner

- Demonstrates necessary preparation for performance of procedures
- Correctly performs procedure on multiple occasions over time
- Uses universal precautions and aseptic technique consistently
- Demonstrates and applies working knowledge of essential anatomy, physiology, indications, contraindications, risks, benefits, and alternatives for each procedure
- Knows and takes steps to mitigate complications of procedures

Behaviors Requiring Corrective Response

- Lacks required technical skills
- Fails to follow sterile technique when indicated
- Displays lack of awareness of knowledge gaps
- Uses inaccurate language or presents information distorted by personal biases
- Disregards patient’s and family’s wishes
- Fails to obtain appropriate consent before performing a procedure
- Displays overconfidence and takes actions that could endanger patients or providers
- Displays a lack of confidence that increases patient’s stress or discomfort, or overconfidence that erodes patient’s trust if the learner struggles to perform the procedure
- Asks for help with complications
- Seeks timely help
- Has confidence commensurate with level of knowledge and skill that puts patients and families at ease

Developing Behaviors (Learner may be at different levels within a row.)

- Approaches procedures as mechanical tasks to be performed and often initiated at the request of others
- Struggles to adapt approach when indicated
- Describes most of these key issues in performing procedures: indications, contraindications, risks, benefits, and alternatives
- Demonstrates knowledge of common procedural complications but struggles to mitigate them
- Conversations are respectful and generally free of jargon and elicited patient’s and family’s wishes
- When focused on the task during the procedure, may struggle to read emotional response from the patient
- Seeks timely help
- Has confidence commensurate with level of knowledge and skill that puts patients and families at ease

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EPA 13: Identify System Failures and Contribute to a Culture of Safety and Improvement

**Key Functions with Related Competencies**

- KP1 ICS2 P4 PPD5
  - Participate in system improvement activities in the context of rotations or learning experiences (e.g., rapid-cycle change using plan–do–study–act cycles, root cause analyses, morbidity and mortality conference, failure modes and effects analyses, improvement projects)

- PBL4 PBL10
  - Engage in daily safety habits (e.g., accurate and complete documentation, including allergies and adverse reactions, medicine reconciliation, patient education, universal precautions, hand washing, isolation protocols, falls and other risk assessments, standard prophylaxis, time-outs)

- SBP4
  - Admit one’s own errors, reflect on one’s contribution, and develop an individual improvement plan

**Behaviors Requiring Corrective Response**

- Reports errors in a disrespectful or misleading manner
- Displays frustration at system improvement efforts
- Places self or others at risk of injury or adverse event
- Avoids discussing or reporting errors; attempts to cover up errors
- Demonstrates defensiveness or places blame

**→ Developing Behaviors →**

- Superficial understanding prevents recognition of real or potential errors
- Identifies and reports actual and potential errors
- Demonstrates structured approach to describing key elements of patient safety concerns
- Speaks up to identify actual and potential errors, even against hierarchy
- Requires prompts for common safety behaviors
- Demonstrates common safety behaviors
- Engages in daily safety habits with only rare lapses

**Expected Behaviors for an Entrustable Learner**

- Identifies and reports patient safety concerns in a timely manner using existing system reporting structures (e.g., event reporting systems, chain of command policies)
- Actively engages in efforts to identify systems issues and their solutions

**An EPA: A unit of observable, measurable professional practice requiring integration of competencies**

**System failures and culture of safety**

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Appendix 1: Core EPA Pilot Supervision and Coactivity Scales

Scales for clinical supervisors to determine how much help (coactivity) or supervision they judge a student needs for a specific activity have been proposed—the Chen entrustment scale and the Ottawa scale (Chen et al 2015; Rekman et al 2016). There is limited validity evidence for these scales and no published data comparing them. We include these published tools here for your reference. The Core EPA Pilot Group has agreed on a trial using modified versions of these scales (described below). A description of how the pilot is working with these scales is available on the Core EPA website.

<table>
<thead>
<tr>
<th>Modified Chen entrustment scale: If you were to supervise this student again in a similar situation, which of the following statements aligns with how you would assign the task?</th>
<th>Corresponding excerpt from original Chen entrustment scale (Chen et al 2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1b. “Watch me do this.”</td>
<td>1b. Not allowed to practice EPA; allowed to observe</td>
</tr>
<tr>
<td>2a. “Let's do this together.”</td>
<td>2a. Allowed to practice EPA only under proactive, full supervision as coactivity with supervisor</td>
</tr>
<tr>
<td>2b. “I'll watch you.”</td>
<td>2b. Allowed to practice EPA only under proactive, full supervision with supervisor in room ready to step in as needed</td>
</tr>
<tr>
<td>3a. “You go ahead, and I'll double-check all of your findings.”</td>
<td>3a. Allowed to practice EPA only under reactive/on-demand supervision with supervisor immediately available, all findings double-checked</td>
</tr>
<tr>
<td>3b. “You go ahead, and I'll double-check key findings.”</td>
<td>3b. Allowed to practice EPA only under reactive/on demand supervision with supervisor immediately available, key findings double-checked</td>
</tr>
</tbody>
</table>
**Modified Ottawa scale**: In supervising this student, how much did you participate in the task?

<table>
<thead>
<tr>
<th>Modified Ottawa scale</th>
<th>Original Ottawa scale (Rekman et al 2016)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. “I did it.” Student required complete guidance or was unprepared; I had to do most of the work myself.</td>
<td>1. “I had to do.” (i.e., requires complete hands-on guidance, did not do, or was not given the opportunity to do)</td>
</tr>
<tr>
<td>2. “I talked them through it.” Student was able to perform some tasks but required repeated directions.</td>
<td>2. “I had to talk them through.” (i.e., able to perform tasks but requires constant direction)</td>
</tr>
<tr>
<td>3. “I directed them from time to time.” Student demonstrated some independence and only required intermittent prompting.</td>
<td>3. “I had to prompt them from time to time.” (i.e., demonstrates some independence, but requires intermittent direction)</td>
</tr>
<tr>
<td>4. “I was available just in case.” Student functioned fairly independently and only needed assistance with nuances or complex situations.</td>
<td>4. “I needed to be there in the room just in case.” (i.e., independence but unaware of risks and still requires supervision for safe practice)</td>
</tr>
<tr>
<td>5. (No level 5: Students are ineligible for complete independence in our systems.)</td>
<td>5. “I did not need to be there.” (i.e., complete independence, understands risks and performs safely, practice ready)</td>
</tr>
</tbody>
</table>