

## UCR School of Medicine Educational Program Objectives

---

Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in each of the following objectives. Thirteen of the competency objectives are derived from the Association of American Medical Colleges' entrustable professional activities ([aamc.org/initiatives/coreepas/publicationsandpresentations](http://aamc.org/initiatives/coreepas/publicationsandpresentations)). A novel fourteenth competency objective addresses the UCR School of Medicine's distinctive mission.

### **Competency Objective 1:** **Gather a history and perform a physical examination**

**Background:** Physicians must be able to obtain an accurate and skillful history and physical examination of patients of all ages and backgrounds. For gathering a history and performing a physical examination, excellent interpersonal and communication skills are necessary but not sufficient. Physicians also require a solid medical knowledge base and technical skills so that they can adapt the interview and examination to the individual patient. They also need to show compassion, sensitivity, and respect for patients from all constituent societal groups.

#### **Competency objective:**

Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

#### **Competency Objective 1**

#### **Gather a history and perform a physical examination:**

**Obtain a complete and accurate history in an organized fashion that includes seeking secondary sources of information, demonstrates patient-centered interview skills adapted to the individual patient's needs, demonstrates clinical reasoning and gathering focused information relevant to a patient's care, and performs a clinically relevant and appropriately thorough physical examination pertinent to the setting and purpose of the patient visit.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 1:

Patient care (PC): Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform, and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

Knowledge for practice (KP): Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

Interpersonal and communication skills (ICS): Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

Professionalism (P): Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests.
- KP1: Demonstrate an investigatory and analytic approach to clinical situations.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- ICS7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions.
- P1: Demonstrate compassion, integrity, and respect for others.
- P3: Demonstrate respect for patient privacy and autonomy.
- P5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 1.1: Obtain a complete and accurate history in an organized fashion.
  - Seeks secondary sources of information when appropriate (e.g. family, living facility).
  - Adapts to different care settings/encounters.
- EPA 1.2: Demonstrate patient-centered interview skills.
  - Adapts communication skills to the individual patient's needs and characteristics.
  - Responds effectively to patient's verbal and nonverbal cues and emotions.
- EPA 1.3: Demonstrate clinical reasoning in gathering focused information relevant to a patient's care.
  - Demonstrates astute clinical reasoning through targeted hypothesis-driven questioning.
  - Incorporates secondary data into medical reasoning.
- EPA 1.4: Perform a clinically relevant, appropriately thorough physical exam pertinent to the setting and purpose of the patient visit.
  - Performs an accurate exam in a logical and fluid sequence.
  - Uses the exam to explore and prioritize the working differential diagnosis.
  - Identifies and describes normal and abnormal findings.

## **Competency Objective 2:** **Prioritize a differential diagnosis following a clinical encounter**

**Background:** The ability to prioritize a differential diagnosis requires physicians to synthesize information from a variety of sources. Physicians need to have a detailed understanding of the basic and clinical sciences essential to clinical problem-solving, evidence-based medical care and therapeutic decision-making. They must also be able to gather and synthesize information from medical records, the physician's own history and physical examination, and the results of diagnostic evaluations. They need critical reasoning and communication skills to compile this information into an accurate differential diagnosis, then communicate it effectively to the health care team.

### **Competency objective:**

Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

#### **Competency Objective 2**

#### **Prioritize a differential diagnosis following a clinical encounter:**

**Synthesize essential information from previous records, history and physical, and diagnostic evaluations to propose a scientifically supported differential diagnosis that prioritizes and integrates emerging information, then engage and communicate with team members to endorse and verify the working diagnosis that will inform management plans.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 2:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform, and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Knowledge for practice (KP):** Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with

patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

Personal and professional development (PPD): Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests.
- PC4: Interpret laboratory data, imaging studies, and other tests required for the area of practice.
- KP2: Apply established and emerging bio-physical scientific principles fundamental to health care for patients and populations.
- KP3: Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care.
- KP4: Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.
- PBL11: Identify strengths, deficiencies, and limits in one's knowledge and expertise.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- PPD8: Recognize that ambiguity is part of clinical health care and respond by utilizing appropriate resources in dealing with uncertainty.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 2.1: Synthesize essential information from previous records, history, physical exam, and initial diagnostic evaluations to propose a scientifically supported differential diagnosis.
  - Gathers pertinent information from many sources in a hypothesis-driven fashion.
  - Describes how factors such as ethnicity may affect the differential diagnosis (e.g., how cutaneous signs of health conditions may manifest differently on various skin tones).
  - Filters, prioritizes, and connects information sources.
  - Proposes a relevant differential diagnosis that is neither too broad nor too narrow.
  - Organizes knowledge to generate and support a diagnosis.
- EPA 2.2: Prioritize and continue to integrate information as it emerges to update differential diagnosis, while managing ambiguity.
  - Seeks and integrates emerging information to update the differential diagnosis.
  - Encourages questions and challenges from patients and team.
- EPA 2.3: Engage and communicate with team members for endorsement and verification of the working diagnosis that will inform management plans.
  - Proposes diagnostic and management plans reflecting team's input.
  - Seeks assistance from team members.
  - Provides complete and succinct documentation explaining clinical reasoning.

### **Competency Objective 3:** **Recommend and interpret common diagnostic and screening tests**

**Background:** Graduating medical students need to be able to recommend and interpret common tests for diagnosing and screening patients for a variety of medical conditions. These processes require knowledge of the basic and clinical sciences, an ability to synthesize information from a variety of sources, a broad understanding of the health care system, and a commitment to lifelong learning.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

#### **Competency Objective 3**

#### **Recommend and interpret common diagnostic and screening tests:**

**Use patient-specific guidelines to recommend reliable and cost-effective first-line screening and diagnostic tests for health maintenance and common disorders, providing an individual rationale that includes pre-and post-test probability as well as information about the patient (patient's preferences, demographics and risk factors), discern urgent from non-urgent findings in order to interpret results of basic studies and understand their implications and urgency, and seek help when needed.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 3:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Knowledge for practice (KP):** Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Systems-based practice (SBP):** Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with patients both as individuals and as members of communities and take this into account when

performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

Personal and professional development (PPD): Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC4: Interpret laboratory data, imaging studies, and other tests required for the area of practice.
- PC5: Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
- PC7: Counsel and educate patients and their families to empower them to participate in their care and enable shared decision making.
- PC9: Provide health care services to patients, families, and communities aimed at preventing health problems or maintaining health.
- KP1: Demonstrate an investigatory and analytic approach to clinical situations.
- KP4: Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.
- PBLI9: Obtain and utilize information about individual patients, populations of patients, or communities from which patients are drawn to improve care.
- SBP3: Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care.
- PPD2: Demonstrate healthy coping mechanisms to respond to stress.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 3.1: Recommend first-line cost-effective screening and diagnostic tests for routine health maintenance and common disorders.
  - Recommends key, reliable, cost-effective screening and diagnostic tests.
  - Applies patient-specific guidelines.
- EPA 3.2: Provide rationale for decision to order tests, taking into account pre- and post-test probability and patient preference.
  - Provides individual rationale based on patient's preferences, demographics, and risk factors.
  - Incorporates sensitivity, specificity, and prevalence in interpreting tests.
  - Explains how results influence diagnosis and evaluation.
- EPA 3.3: Interpret results of basic studies and understand the implication and urgency of the results.
  - 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.

## **Competency Objective 4: Enter and discuss orders and prescriptions**

**Background:** Entering orders and prescriptions is a key responsibility for physicians. In order to write appropriate and accurate orders and prescriptions, medical students need to understand the patient's condition so that they can adapt standard order sets and protocols as needed to avoid medical errors. Systems-based practice requires an in-depth understanding of safe prescribing and ordering habits including safety alerts and other electronic resources. Physicians need to communicate effectively with their colleagues, develop consistent safety habits, and maintain self-awareness of their own limitations so they can seek help when needed.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

### **Competency Objective 4**

#### **Enter and discuss orders and prescriptions:**

**Compose organized, efficient and accurate orders that demonstrate an understanding of the patient's condition and an ability to tailor standard order sets correctly when needed, while recognizing and avoiding errors by attending to patient-specific factors, making effective use of electronic and other resources to ensure safe prescribing and ordering habits, responding appropriately to safety alerts, recognizing own limitations, and seeking help when needed.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 4:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Systems-based practice (SBP):** Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with

patients both as individuals and as members of communities and take this into account when performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

Personal and professional development (PPD): Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC5: Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
- PC6: Develop and carry out patient management plans.
- PBL1: Identify strengths, deficiencies, and limits in one's knowledge and expertise.
- PBL7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- SBP3: Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care.
- PPD2: Demonstrate healthy coping mechanisms to respond to stress.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 4.1: Compose orders efficiently and effectively verbally, on paper, and electronically.
  - Routinely recognizes when to tailor or deviate from the standard order set.
  - Can complete complex orders requiring changes in dose or frequency (e.g., a taper).
  - Uses a reasoned approach, waiting for contingent results before ordering more tests.
  - Recognizes limitations and seeks help.
- EPA 4.2: Demonstrate an understanding of the patient's condition that underpins the provided orders.
  - Recognizes patterns, takes into account the patient's condition when ordering diagnostics and/or therapeutics.
  - Explains how test results influence clinical decision-making.
- EPA 4.3: Recognize and avoid errors by attending to patient-specific factors, using resources, and appropriately responding to safety alerts.
  - Routinely practices safe habits when writing or entering prescriptions or orders.
  - Responds to EHR's safety alerts and shows understanding of rationale for them.
  - Uses electronic resources to fill knowledge gaps and inform safe order writing.
- EPA 4.4: Discuss planned orders and prescriptions with team, patients, and families.
  - Enters orders that reflect bidirectional communication with patients, families, and team.
  - Considers the costs of orders and the patient's ability and willingness to proceed with the plan.



## **Competency Objective 5:** **Document a clinical encounter in the patient record**

**Background:** Medical school graduates need skills in spoken and written communication in order to document proficiently in patients' medical records. Effective charting also requires additional skills in patient care, professionalism and systems-based practice are equally important for charting. For instance, clinical reasoning allows physicians to synthesize and prioritize a large volume of information into a comprehensible narrative that other health professionals can rely on when caring for the patient. Physicians must also understand the systems-based guidelines they are required to follow in clinical documentation.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

### **Competency Objective 5**

#### **Document a clinical encounter in the patient record:**

**Prioritize and synthesize information to complete an accurate, timely and cogent narrative (including a problem list, differential diagnosis, plan and other key elements based on the context and purpose of the note) that relies on clinical reasoning, reflects patients' preferences and identifies key problems, while following documentation requirements that meet regulations and professional expectations.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 5:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

**Systems-based practice (SBP):** Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with patients both as individuals and as members of communities and take this into account when performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC4: Interpret laboratory data, imaging studies, and other tests required for the area of practice.
- PC6: Develop and carry out patient management plans.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- ICS5: Maintain comprehensive, timely, and legible medical records.
- P4: Demonstrate accountability to patients, society, and the profession.
- SBP1: Work effectively in various health care delivery settings and systems relevant to one's clinical specialty.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 5.1: 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).
  - Provides a verifiable cogent narrative without unnecessary details or redundancies.
  - Adjusts and adapts documentation based on audience, context, or purpose (e.g., admission, progress, pre- and post-operative care, procedure notes, informed consent, discharge summary).
- EPA 5.2: Follow documentation requirements to meet regulations and professional expectations.
  - Provides accurate, legible, timely documentation that includes institutionally required elements.
  - Documents in the patient's record role in team-care activities.
  - Documents use of primary and secondary sources necessary to fill in gaps.
- EPA 5.3: Document a problem list, differential diagnosis, and plan supported through clinical reasoning that reflects patient's preferences.
  - Documents a problem list, differential diagnosis, and plan, reflecting a combination of his or her own thought processes and input from other providers.
  - Interprets laboratory values accurately.
  - Identifies key problems, documenting engagement of those who can help resolve them.
  - Communicates bidirectionally to develop and record management plans aligned with patient's preferences.

**Competency Objective 6:**  
**Provide an oral presentation of a clinical encounter**

**Background:** Strong interpersonal and communication skills allow physicians to give a variety of clinical presentations required throughout their careers. Providing an excellent oral presentation of a clinical encounter requires bidirectional communication, i.e., the physician giving the presentation must listen as well as speak, adapting the communication to the audience. A high level of professionalism requires compassion, respect for patients' privacy and autonomy, and integrity in addressing one's own shortcomings.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

**Competency Objective 6**

**Provide an oral presentation of a clinical encounter:**

**Present personally gathered and verified information in the form of an accurate, concise and well-organized oral presentation that adjusts to the needs of the receiver, synthesizes and prioritizes key information, integrates pertinent positives and negatives to support a hypothesis, acknowledges gaps in knowledge and seeks information to clarify or refine the presentation, and demonstrates respect for the patient's privacy and autonomy.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 6:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

Personal and professional development (PPD): Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests.
- PC6: Develop and carry out patient management plans.
- PBL1: Identify strengths, deficiencies, and limits in one's knowledge and expertise.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- P1: Demonstrate compassion, integrity, and respect for others.
- P3: Demonstrate respect for patient privacy and autonomy.
- PPD4: Practice flexibility and maturity in adjusting to change with the capacity to alter one's behavior.
- PPD7: Demonstrate self-confidence that puts patients, families, and members of the health care team at ease.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 6.1: Present personally gathered and verified information, acknowledging areas of uncertainty.
  - Presents personally verified and accurate information, even when sensitive.
  - Acknowledges gaps in knowledge, reflects on areas of uncertainty, seeks information to clarify or refine presentation.
- EPA 6.2: Present an accurate, concise, well-organized 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.
- EPA 6.3: Adjust the oral presentation to meet the needs of the receiver.
  - Tailors length and complexity of presentation to situation and receiver of information.
  - Conveys appropriate self-assurance to put patient and family at ease.
- EPA 6.4: Demonstrate respect for patient's privacy and autonomy.
  - Respects patients' privacy and confidentiality by demonstrating situational awareness when discussing patients.
  - Engages in shared decision-making by actively soliciting patient's preferences.

## **Competency Objective 7:**

### **Form clinical questions and retrieve evidence to advance patient care**

**Background:** To provide excellent patient care, physicians must be able to develop clinical questions then retrieve evidence to answer them. Fluency in emerging information technologies is essential. Physicians also need reliable skills in practice-based learning and improvement so they can identify strengths and limits in their own knowledge base, then remedy gaps. They also need interpersonal and communication skills to convey medical knowledge skillfully to colleagues, patients and families.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

#### **Competency Objective 7**

##### **Form clinical questions and retrieve evidence to advance patient care:**

**Develop a well-formed, focused and pertinent clinical question (“Ask”) that demonstrates skillful use of information technology (“Acquire”); use levels of evidence to thoroughly appraise appropriate sources, content and applicability of the evidence (“Appraise”); apply nuanced findings to individuals and/or patient panels, reflect on process and outcomes; and communicate the findings to the patient and team in a cohesive and organized manner with appropriate checks for audience understanding (“Advise”).**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 7:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Knowledge for practice (KP):** Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC7: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging and other tests.
- KP3: Apply established and emerging principles of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care.
- KP4: Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.
- PBL11: Identify strengths, deficiencies, and limits in one's knowledge and expertise.
- PBL13: Identify and perform learning activities that address one's gaps in knowledge, skills, and/or attitudes.
- PBL16: Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems.
- PBL17: Use information technology to optimize learning.
- PBL18: Participate in the education of patients, families, students, trainees, peers and other health professionals.
- PBL19: Obtain and utilize information about individual patients, populations of patients, or communities from which patients are drawn to improve care.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 7.1: Combine curiosity, objectivity, and scientific reasoning to develop a well-formed, focused, pertinent clinical question (ASK).
  - Identifies limitations and gaps in personal knowledge.
  - Develops knowledge guided by well-formed clinical questions.
- EPA 7.2: Demonstrate awareness and skill in using information technology to access accurate and reliable medical information (ACQUIRE).
  - Identifies and uses available databases, search engines, and refined search strategies to acquire relevant information.
- EPA 7.3: Demonstrate skill in appraising sources, content, and applicability of evidence (APPRAISE).
  - Uses levels of evidence to appraise literature and determines applicability of evidence.
  - Seeks guidance in understanding subtleties of evidence.
  - Documents a problem list, differential diagnosis, and plan, reflecting a combination of his or her own thought processes and input from other providers.
  - Interprets laboratory values accurately.
  - Identifies key problems, documenting engagement of those who can help resolve them.
  - Communicates bidirectionally to develop and record management plans aligned with patient's preferences.
- EPA 7.4: Apply findings to individuals and/or patient panels; communicate findings to the patient and team, reflecting on process and outcomes (ADVISE).
  - Applies nuanced findings by communicating the level and consistency of evidence with appropriate citation.
  - Reflects on ambiguity, outcomes, and the process by which questions were identified and answered and findings were applied.

**Competency Objective 8:**  
**Give or receive a patient handover to transition care responsibility**

**Background:** From the first month of residency training, medical school graduates need to be able to participate competently in patient care transitions by giving and receiving patient handovers. As both transmitters and receivers of handovers, physicians need excellent spoken and written communication skills to transition care safely. Necessary skills in practice-based learning and improvement include incorporating feedback into daily practice and maintaining proficiency with new electronic handover tools.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

**Competency Objective 8**

**Give or receive a patient handover to transition care responsibility:**

**Document, update and use an effective handover tool then apply the tool to deliver a structured verbal handover that uses communication strategies to minimize threats to care transitions (transmitter), provides succinct verbal communication that conveys illness severity, situational awareness, action planning and contingency planning (transmitter); and give or elicit feedback about the handover so as to ensure closed-loop communication (transmitter and receiver).**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 8:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient

populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC8: Provide appropriate referral of patients including ensuring continuity of care throughout transitions between providers or settings, and following up on patient progress and outcomes.
- PBLI5: Incorporate feedback into daily practice.
- PBLI7: Use information technology to optimize learning.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- ICS3: Work effectively with others as a member or leader of a health care team or other professional group.
- P3: Demonstrate respect for patient privacy and autonomy.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 8.1: Document and update an electronic handover tool and apply this to deliver a structured verbal handover (transmitter).
  - Consistently updates electronic handover tool with clear, relevant, and succinct documentation.
  - Adapts and applies all elements of a standardized template.
  - Presents a verbal handover that is prioritized, relevant, and succinct.
- EPA 8.2: Conduct handover using communication strategies known to minimize threats to transition of care (transmitter).
  - Avoids interruptions and distractions.
  - Manages time effectively.
  - Demonstrates situational awareness.
- EPA 8.3: Provide succinct verbal communication conveying illness severity, situational awareness, action planning, and contingency planning (transmitter).
  - Highlights illness severity accurately.
  - Provides complete action plans and appropriate contingency plans.
- EPA 8.4: Give or elicit feedback about handover communication and ensure closed-loop communication (transmitter and receiver).
  - Provides and solicits feedback regularly, listens actively, and engages in reflection.
  - Identifies areas of improvement.
  - Asks mutually clarifying questions, provides succinct summaries, and uses repeat-back techniques.
- EPA 8.5: Demonstrate respect for patient's privacy and confidentiality (transmitter and receiver).
  - Consistently considers patient privacy and confidentiality.
  - Highlights and respects patient's preferences.



**Competency Objective 9:**  
**Collaborate as a member of an inter-professional team**

**Background:** Never has it been more important for physicians to know how to collaborate effectively as members of interprofessional teams. Hospitals and health systems have always required doctors to work with other health professionals, and the COVID-19 pandemic has heightened awareness that all health care disciplines must collaborate to safeguard the well-being of patients and colleagues.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

**Competency Objective 9**

**Collaborate as a member of an inter-professional team:**

**Articulate other team members' roles and contributions, seek help from other team members to optimize health care delivery, include team members while listening attentively and adjusting communication content and style to align with team member needs; communicate bidirectionally to establish and maintain a climate of mutual respect and integrity; balance personal and professional responsibilities in order to optimize patient care through prioritizing patient's and team's needs over personal needs; support and help team members in need; and act in a consultative role to other health professionals.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 9:

Interpersonal and communication skills (ICS): Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

Professionalism (P): Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

Systems-based practice (SBP): Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with patients both as individuals and as members of communities and take this into account when performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

Interprofessional collaboration (IPC): Graduates demonstrate the ability to work effectively and respectfully with other health professionals. They understand their own roles and the roles of their colleagues so that they can collaborate in addressing their patients' health care needs. Graduates have participated in various team roles in order to learn how interprofessional teams can best work together.

Personal and professional development (PPD): Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- ICS3: Work effectively with others as a member or leader of a health care team or other professional group.
- ICS4: Act in a consultative role to other health professionals.
- ICS7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions.
- P1: Demonstrate compassion, integrity, and respect for others.
- P2: Demonstrate responsiveness to patient needs that supersedes self-interest.
- P5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
- SBP2: Coordinate patient care within the health care system relevant to one's clinical specialty.
- IPC1: Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust.
- IPC2: Use the knowledge of one's own role and the roles of other health professionals to appropriately assess and address the health care needs of the patients and populations served.
- IPC3: Communicate with other health professionals in a responsive and responsible manner that supports the maintenance of health and the treatment of disease in individual patients and populations.
- PPD3: Manage conflict between personal and professional responsibilities.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 9.1: Identify team members' roles and responsibilities and seek help from other members of the team to optimize health care delivery.
  - 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.
- EPA 9.2: Include team members, listen attentively, and adjust communication content and style to align with team-member needs.
  - Communicates bidirectionally; keeps team members informed and up-to-date.
  - Tailors communication strategy to the situation.
  - Consistently shows respect for others by listening to and acknowledging divergent points of view.
- EPA 9.3: 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.
  - 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.
  - Actively promotes anti-racism by identifying and addressing conscious and unconscious biases in self and others.

## **Competency Objective 10: Recognize a patient requiring urgent or emergent care and initiate evaluation and management**

**Background:** Responding effectively to medical emergencies requires the ability to intervene decisively and appropriately. Physicians must be able to obtain a targeted history and physical examination, recognize illness severity and escalate care as appropriate, lead health care teams in providing critical interventions, and communicate with patients, families and other health professionals.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

### **Competency Objective 10 - Recognize a patient requiring urgent or emergent care and initiate evaluation and management:**

**Describe normal and abnormal vital signs and how they relate to the patient's decompensation, explain the severity of the patient's illness and indications for escalating care, initiate interventions and management, initiate and participate in a code response by applying skills in basic and advanced life support, and – upon recognition of a patient's deterioration, as junior team leader – communicate the situation, clarify patient's goals of care, and update family members, eliciting feedback from team and family to plan next steps.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 10:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Systems-based practice (SBP):** Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with patients both as individuals and as members of communities and take this into account when performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

**Interprofessional collaboration (IPC):** Graduates demonstrate the ability to work effectively and respectfully with other health professionals. They understand their own roles and the roles of their colleagues so that they can collaborate in addressing their patients' health care needs. Graduates have participated in various team roles in order to learn how interprofessional teams can best work together.

**Personal and professional development (PPD):** Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress

in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC1: Perform all medical, diagnostic, and surgical procedures considered essential for the area of practice.
- PC2: Gather essential and accurate information about patients and their conditions through history-taking, physical examination, and the use of laboratory data, imaging, and other tests.
- PC3: Organize and prioritize responsibilities to provide care that is safe, effective, and efficient.
- PC4: Interpret laboratory data, imaging studies, and other tests required for the area of practice.
- PC5: Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
- PC6: Develop and carry out patient management plans.
- PC10: Provide appropriate role modeling.
- PC11: Perform supervisory responsibilities commensurate with one's roles, abilities, and qualifications.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- ICS6: Demonstrate sensitivity, honesty, and compassion in difficult conversations, including those about death, end of life, adverse events, bad news, disclosure of errors, and other sensitive topics.
- SBP2: Coordinate patient care within the health care system relevant to one's clinical specialty.
- IPC4: Participate in different team roles to establish, develop, and continuously enhance interprofessional teams to provide patient- and population-centered care that is safe, timely, efficient, effective, and equitable.
- PPD1: Develop the ability to use self-awareness of knowledge, skills, and emotional limitations to engage in appropriate help-seeking behaviors.
- PPD5: Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients.
- PPD6: Provide leadership skills that enhance team functioning, the learning environment, and/or the health care delivery system.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 10.1: Recognize normal/abnormal vital signs in the context of a patient's decompensation.
  - Identifies variations of vital signs based on patient/disease-specific factors.
  - Gathers, filters and prioritizes data on patient's decompensation in emergent setting.
- EPA 10.2: Recognize severity of illness, escalate care and initiate management.
  - Responds to early clinical deterioration and seeks timely help.
  - Prioritizes patients who need immediate care and initiates critical interventions.
- EPA 10.3: Initiate and participate in a code response and apply basic and advanced life support.
  - Initiates and applies effective BLS and ACLS skills.
  - Monitors response to initial interventions and adjusts plan accordingly.
  - Adheres to institutional protocols for escalation of care.
  - Uses the health care team members efficiently.
- EPA 10.4: If patient deteriorates, communicate situation, clarify goals of care and update family.
  - Communicates bidirectionally with team members and family about goals and plan.
  - Effectively incorporates cultural strengths and culturally-based resources into conversations with patients and family members.
  - Elicits feedback from team and family regarding concerns then determines next steps.

## **Competency Objective 11:** **Obtain informed consent for tests and/or procedures**

**Background:** Obtaining informed consent for tests and procedures exemplifies a specific skill set that every physician needs to master. Medical graduates need both a strong medical knowledge base and good communication skills in order to understand and explain to the patient the evidence basis of a procedure including risks, benefits and alternatives. They must also adhere to ethical principles while showing respect and sensitivity to patients and families from diverse cultural and socioeconomic backgrounds.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

### **Competency Objective 11**

#### **Obtain informed consent for tests and/or procedures:**

**Describe the key elements of informed consent (indications, contraindications, risks, benefits, alternatives, and potential complications of the intervention), communicate bidirectionally and sensitively with the patient and family to ensure that they understand the intervention (while avoiding medical jargon), and display an appropriate balance of confidence and skill to put the patient and family at ease, while practicing shared decision-making, respecting patient autonomy, and seeking timely help when needed.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 11:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Knowledge for practice (KP):** Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

**Personal and professional development (PPD):** Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC5: Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment.
- PC6: Develop and carry out patient management plans.
- PC7: Counsel and educate patients and their families to empower them to participate in their care and enable shared decision making.
- KP3: Apply established and emerging consumables of clinical sciences to diagnostic and therapeutic decision-making, clinical problem-solving, and other aspects of evidence-based health care.
- KP4: Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.
- KP5: Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychological and cultural influences on health, disease, care-seeking, care compliance, and barriers to and attitudes toward care.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- ICS7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions.
- P5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
- P6: Demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and business practices, including compliance with relevant laws, policies, and regulations.
- PPD1: Develop the ability to use self-awareness of knowledge, skills, and emotional limitations to engage in appropriate help-seeking behaviors.
- PPD2: Demonstrate healthy coping mechanisms to respond to stress.
- PPD7: Demonstrate self-confidence that puts patients, families, and members of the health care team at ease.
- PPD8: Recognize that ambiguity is part of clinical health care and respond by utilizing appropriate resources in dealing with uncertainty.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 11.1: Describe the key elements of informed consent: indications, contraindications, risks, benefits, alternatives, and potential complications of the intervention.
  - 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.
- EPA 11.2: Communicate with the patient and family to ensure that they understand the intervention.
  - 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.
  - Consistently shows respect for others by listening to and acknowledging divergent points of view.
  - Enlists interpreters collaboratively.
- EPA 11.3: Display an appropriate balance of confidence and skill to put the patient and family at ease, seeking help when needed.
  - Demonstrates confidence commensurate with knowledge and skill so that patient and family are at ease.
  - Seeks timely help.

## **Competency Objective 12: Perform general procedures of a physician**

**Background:** Performing procedures exemplifies a competency category that requires physicians to master and integrate a complex array of knowledge, skills and attitudes. In order to perform procedures skillfully and safely, physicians need much more than technical skills. They also need to be able to obtain an accurate and skillful history and physical examination to determine which procedure if any is right for the patient, while demonstrating sufficient self-confidence to put patients and families at ease.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

### **Competency Objective 12 Perform general procedures of a physician:**

**Prepare appropriately to perform a procedure, demonstrate technical skills required for the procedure, accurately explain the key aspects of the procedure (anatomy, physiology, indications, contraindications, risks, benefits, alternatives, and potential complications of the procedure), take steps to mitigate complications, communicate skillfully with the patient and family and verify that they understand pre- and post-procedural activities, demonstrate confidence that puts patients and families at ease, and seek timely help as needed.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 12:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

**Personal and professional development (PPD):** Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC1: Provide patient-centered care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.
- PC7: Counsel and educate patients and their families to empower them to participate in their care and enable shared decision making.
- ICS6: Demonstrate sensitivity, honesty, and compassion in difficult conversations, including those about death, end of life, adverse events, bad news, disclosure of errors, and other sensitive topics.
- P5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
- P6: Demonstrate a commitment to ethical principles pertaining to provision or withholding of care, confidentiality, informed consent, and business practices, including compliance with relevant laws, policies, and regulations.
- PPD1: Demonstrate the qualities required to sustain lifelong personal and professional growth.
- PPD7: Demonstrate self-confidence that puts patients, families, and members of the health care team at ease.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 12.1: Demonstrate technical skills required for the procedure.
  - Demonstrates necessary preparation for performance of procedures.
  - Correctly performs procedure on multiple occasions over time.
  - Uses universal precautions and aseptic technique consistently.
- EPA 12.2: Understand and explain the anatomy, physiology, indications, contraindications, risks, benefits, alternatives, and potential complications of the procedure.
  - 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.
- EPA 12.3: Communicate with the patient and family to ensure they understand pre- and post-procedural activities.
  - Demonstrates patient-centered skills while performing procedures (avoids jargon, participates in shared decision making, considers patient's emotional response).
  - Consistently shows respect for others by listening to and acknowledging divergent points of view.
  - Says other people's names accurately, promptly correcting own and others' errors.
  - Proactively addresses cultural and socioeconomic issues with skill and sensitivity.
  - Effectively incorporates cultural strengths and culturally-based resources into conversations with patients and family members.
  - Having accounted for the patient's and family's wishes, obtains appropriate informed consent.
- EPA 12.4: Demonstrate confidence that puts patients and families at ease.
  - Demonstrates confidence commensurate with knowledge and skill so that patient and family are at ease.
  - Seeks timely help.



## **Competency Objective 13: Identify system failures and contribute to a culture of safety and improvement**

**Background:** Graduating medical students must possess the knowledge, skills and attitudes needed to serve as advocates for individual patients and for health systems. A systems-based approach to patient safety and high-quality care requires lifelong habits of self-reflection and ongoing practice improvement which are best developed when physicians-in-training actively engage in practice-based research.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

### **Competency Objective 13 - Identify system failures and contribute to a culture of safety and improvement:**

**Use a system reporting structure to expediently identify and report both actual and “near miss” errors in care, actively participate in system improvement activities, engage in daily safety habits (e.g., accurate and complete documentation including allergies/adverse reactions, medication reconciliation, patient education, universal precautions, handwashing, isolation protocols, assessment for falls and other risks, standard prophylaxis, and time-outs), admit one’s own errors while reflecting on one’s contribution and setting one’s own goals for learning by developing an individual improvement plan, perform administrative responsibilities commensurate with one’s role and qualifications, and complete a practice improvement project that contributes to the creation, dissemination, application, and translation of new health care knowledge and practices.**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 13:

**Knowledge for practice (KP):** Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient

populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

**Systems-based practice (SBP):** Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with patients both as individuals and as members of communities and take this into account when performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

**Personal and professional development (PPD):** Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- KP1: Demonstrate an investigatory and analytic approach to clinical situations.
- KP6: Contribute to the creation, dissemination, application, and translation of new health care knowledge and practices.
- PBLI2: Set learning and improvement goals.
- PBLI4: Systematically analyze practice using quality improvement methods, and implement changes with the goal of practice improvement.
- PBLI10: Continually identify, analyze, and implement new knowledge, guidelines, standards, technologies, products, or services that have been demonstrated to improve outcomes.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- P4: Demonstrate accountability to patients, society, and the profession.
- P5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.
- SBP4: Advocate for quality patient care and optimal patient care systems.
- SBP5: Participate in identifying system errors and implementing potential systems solutions.
- SBP6: Perform administrative and practice management responsibilities commensurate with one's role, abilities, and qualifications.
- PPD5: Demonstrate trustworthiness that makes colleagues feel secure when one is responsible for the care of patients.

### **Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 13.1: Identify and report actual and potential ("near miss") errors in care using system reporting structure (e.g., event reporting systems, chain of command policies).
  - Identifies and reports patient safety concerns in a timely manner using existing system reporting structures (e.g., event reporting systems, chain of command policies).
  - Speaks up to identify actual and potential errors, even against hierarchy.
- EPA 13.2: Participate in system improvement activities in the context of rotations or learning experiences.
  - Actively engages in efforts to identify systems issues and their solutions.
- EPA 13.3: Engage in daily safety habits.
  - Engages in accurate/complete documentation, medicine reconciliation, patient education, universal precautions, isolation protocols, risk assessments, time-outs, with only rare lapses.
- EPA 13.5: Admit one's own errors, reflect on one's contribution, and develop an individual improvement plan.
  - Identifies and reflects on the element of personal responsibility for errors.
  - Recognizes causes of lapses, such as fatigue, and modifies behavior or seeks help.

## **Competency Objective 14: Conduct empathic and effective conversations with patients, families and colleagues of diverse backgrounds to promote health equity, social justice and anti-racism**

**Background:** The Association of American Medical Colleges has called upon academic health centers to take an active role in promoting health equity and justice as part of the medical education mission. All graduating medical students need to be competent in communicating with and advocating for patients, families and colleagues of diverse backgrounds. Physicians must be able to identify how conscious and unconscious biases can affect patient care, to explain how all aspects of diversity (including race, ethnicity, language facility, age, gender identity, sexual orientation, differential abilities and disabilities, and faith practice) intersect with health outcomes, to commit to anti-racism, and to challenge themselves to learn from others while developing skills as effective cross-cultural communicators and advocates for high-quality patient care for every community.

**Competency objective:** Medical students eligible for graduation from the University of California, Riverside School of Medicine will have demonstrated to the faculty their competence in:

**Competency Objective 14 – Conduct empathic and effective conversations with patients, families and colleagues of diverse backgrounds to promote health equity, social justice and anti-racism.**

**Communicate bidirectionally with members of all constituent societal groups so as to prioritize fair opportunities for every patient and family member to attain their full health potential (health equity), serve and advocate for patients from all backgrounds by recognizing their common humanity as well as the unique intersectional differences that reflect the various societal groups to which they belong (social justice), and actively identify instances of racial factors affecting treatment of patients within the greater health care system that must be actively addressed for equitable health care outcomes (anti-racism).**

**Domains of competence:** The following Physician Competency Reference Set (PCRS) categories summarize the essential competencies required for Competency Objective 14:

**Patient care (PC):** Graduates obtain appropriate histories; perform skillful, comprehensive and accurate patient examinations; and develop appropriate differential diagnoses and management plans. Graduates will recognize and understand the principles for managing life-threatening situations. They will select, perform and accurately interpret the results of laboratory tests and clinical procedures in order to provide patient-centered care that results in high-quality outcomes.

**Knowledge for practice (KP):** Graduates apply problem solving and critical thinking skills to problems in basic science and clinical medicine. They demonstrate knowledge about (1) established and evolving core of basic sciences, (2) application of sciences to patient care, and (3) investigatory and analytical thinking approaches.

**Practice-based learning and improvement (PBLI):** Graduates are prepared to practice medicine today and in the future within the context of society and its expectations. They use

evidence-based approaches, demonstrating proficiency with information retrieval and critical appraisal of the medical literature to interpret and evaluate scientific and patient care information. They are dedicated to continuous learning within the science of healthcare delivery. They understand the limits of their own personal knowledge, remediate inadequacies to remain current, and integrate increased self-knowledge into their daily activities.

**Interpersonal and communication skills (ICS):** Graduates demonstrate interpersonal and communication skills that result in the effective information exchange and collaboration with patients, their families, and health professionals. They use effective communication skills with patients, families, and the community to educate and promote health and wellness.

**Professionalism (P):** Graduates are committed to carrying out professional responsibilities, demonstrating compassion, adhering to ethical principles, and are sensitive to diverse patient populations. Graduates respect patients, families, and professional colleagues and are advocates for improving access to care for everyone.

**Interprofessional collaboration (IPC):** Graduates demonstrate the ability to work effectively and respectfully with other health professionals. They understand their own roles and the roles of their colleagues so that they can collaborate in addressing their patients' health care needs. Graduates have participated in various team roles in order to learn how interprofessional teams can best work together.

**Systems-based practice (SBP):** Graduates demonstrate awareness of and responsiveness to the context and system of health and healthcare. They recognize health disparities and are able to effectively call on system resources to provide optimal care. Graduates are able to work with patients both as individuals and as members of communities and take this into account when performing risk assessments, assessing symptoms, diagnosing illnesses, making treatment plans and considering the patient care and systems-level implications of their work.

**Personal and professional development (PPD):** Graduates show self-awareness of their own knowledge, skills and attitudes, recognizing when they need to seek help. They cope with stress in healthy ways and they balance their personal and professional lives. Their behavior exhibits flexibility, maturity, trustworthiness and self-confidence. Graduates are prepared to excel in leadership roles in service to patients and communities.

### **Associated Physician Competency Reference Set (PCRS) competencies:**

- PC7: Counsel and educate patients and their families to empower them to participate in their care and enable shared decision making.
- KP4: Apply principles of epidemiological sciences to the identification of health problems, risk factors, treatment strategies, resources, and disease prevention/health promotion efforts for patients and populations.
- KP5: Apply principles of social-behavioral sciences to provision of patient care, including assessment of the impact of psychosocial and cultural influences on health, disease, care-seeking, care compliance, and barriers to and attitudes toward care.
- PBLI9: Obtain and utilize information about individual patients, populations of patients, or communities from which patients are drawn to improve care.
- ICS1: Communicate effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.
- ICS2: Communicate effectively with colleagues within one's profession or specialty, other health professionals, and health related agencies.
- ICS7: Demonstrate insight and understanding about emotions and human responses to emotions that allow one to develop and manage interpersonal interactions.
- P1: Demonstrate compassion, integrity, and respect for others.
- P2: Demonstrate responsiveness to patient needs that supersedes self-interest.
- P5: Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

- SBP4: Advocate for quality patient care and optimal patient care systems
- IPC1: Work with other health professionals to establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity, and trust.
- PPD1: Demonstrate the qualities required to sustain lifelong personal and professional growth.

**Associated Entrustable Professional Activity (EPA) functions for curricular mapping:**

- EPA 14.1: Communicate bidirectionally with members of all constituent societal groups so as to prioritize fair opportunities for every patient and family member to attain their full health potential (health equity).
  - Explains key principles of health equity and develops a detailed personal learning plan.
  - Consistently shows respect for others by listening to and acknowledging divergent points of view.
  - Says other people's names accurately, promptly correcting own and others' errors.
  - Skillfully shares appropriate information about own professional or personal background.
- EPA 14.2: Serve and advocate for patients from all backgrounds by recognizing their common humanity as well as the unique intersectional differences that reflect the various societal groups to which they belong (social justice).
  - Proactively addresses cultural and socioeconomic issues with skill and sensitivity.
  - Effectively incorporates cultural strengths and culturally-based resources into conversations with patients and family members.
  - Independently identifies health disparities among disenfranchised societal groups, analyzes root causes and develops comprehensive plans to rectify the disparities.
- EPA 14.3: Identify when and how racial factors affecting health care systems and patient management plans must be actively addressed for equitable health care outcomes (anti-racism).
  - Defines concepts of systemic racism and anti-racism in education and health care.
  - Actively promotes anti-racism by identifying and addressing conscious and unconscious biases in self and others.
  - Speaks up when appropriate to advocate for both patients and colleagues in order to counteract systemic racism and support equitable outcomes for all.