INDIANA UNIVERSITY
SCHOOL OF MEDICINE

IUSM PAE PRAC REPORT

Planning, Assessment and Evaluation of Medical Student Education

OCTOBER 31, 2018

IUSM SCHOOL OF MEDICINE
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Table of Contents

Introduction

The Indiana University School of Medicine (IUSM) is the largest medical school in the United States and is accredited by the Liaison Committee on Medical Education (LMCE). It trains students on nine different campuses with the mission of advancing health in the state of Indiana and beyond by promoting innovation and excellence in education, research, and patient care. The vision of the school is to lead the transformation of healthcare through quality, innovation, and education; and make Indiana one of the nation's healthiest states. IUSM is guided by principles that promote an engaging learning environment, a commitment to diversity, and student safety.

Structure

The Planning, Assessment, and Evaluation team (PAE) is housed under Medical Student Education (MSE) and consists of a Senior Director of Assessment and Evaluation, Assessment Program Manager, Evaluation Program Manager, three Assessment and Evaluation Specialists, and two project managers. At this time, the Senior Director's position, which would be responsible to write this report is vacant. The Assessment Program Manager is located at the Fort Wayne campus while the rest of the team is housed at IUPUI.

The Assessment team, a subset of our larger PAE team, is heavily involved with developing and implementing Objective Structured Clinical Examinations (OSCEs). These are a major assessment activity within the school and will be addressed later in this report. The Assessment team also works with faculty on various projects (e.g., developing grading rubrics), trains standardized patients (SPs) for OSCEs, and serve or are involved with curricular committees within IUSM including the Foundational Component Committee (FCC), Curriculum Council Component (CCC), and Curriculum Council Steering Committee (CCSC).

Curriculum

The curriculum of the MD program is presented in a developing three-phase format that was introduced during the 2016-2017 academic year. Phase 1 and Phase 2 complete the first three years of the curriculum. Phase 3 is the fourth year of medical school. Phase 1 of the curriculum focuses on developing foundational science knowledge and integration with clinical skills. In this phase, students will gain competency in medical knowledge that helps build a foundation for clinical competency. Phase 2 students participate in monthly clerkship rotations and enrolled in the Health Systems Science course. This is an online course where students can work with their assigned groups even when participating in clerkships at various sites across the state. Phase 3 allows for students to focus on career exploration with advanced clinical opportunities and responsibilities with patient care in preparation for residency. The new curriculum also inspired updated Institutional Learning Outcomes (ILOs) which are listed in appendix A. The PAE team does not track our curriculum to the IUPUI PULs. This is because our program is professional and not part of the undergraduate community.

For this report, to make it clear for the reader, each year will be presented as a "program." Each years' students are expected to meet certain standards before progressing to the next year. Fourth year medical students spend much of their time taking specialized electives and preparing for residency. It is a mostly individualized experience and because of this, our office does not perform or analyze any standardized assessment activities at this stage.

Indirect Evidence

There are multiple national surveys administered to our students by the Association of American Medical Colleges (AAMC) which the school uses to help inform its educational

practices. These include the Year 2 Questionnaire (Y2Q), Graduate Questionnaire (GQ), Post-Graduate year 1 (PGY1), and the Post-Graduate Year 3 (PGY3). Benchmarks for these questionnaires are formed from data collected from medical schools across the country and they allow for IUSM to judge our performance against other medical schools.

Direct Evidence

Using the results from the United States Medical Licensing Examination (USMLE) Step examinations, we are able to evaluate how our students compare to other medical students across the country. The USMLE step examination is a three-part test that is sponsored by the Federation of State and Medical Examiners (FSMB) and the National Board of Medical Examiners (NBME). Students complete these exams at different points in their curriculum.

What is an OSCE?

An OSCE is an objective structured clinical encounter (OSCE). These encounters are simulated clinical experiences where an actor, known as a standardized patient (SP), plays the role of a patient. The student should treat this encounter as a typical patient encounter based on the scenario being depicted. Expectations for student performance is based upon the institutional learning outcomes and course learning outcomes if applicable. The use of these OSCEs are important because it provides an opportunity for all students to be assessed in the same standardized manner. This type of assessment is considered a “window on competence” that allows us to measure students’ competence and clinical skills in a manner that cannot be captured via written or workplace-based assessments.

The cases for OSCEs are written by clinical faculty and then submitted to PAE. The Assessment team of PAE works with IU Health’s Simulation Center to implement the exams.

The Simulation Center provides a patient care environment in which we can objectively measure a learner's performance and competency in a standardized, simulated manner. The Assessment team works with the SP educator at the Simulation Center to train SPs prior to exams. These trainings typically last 1-4 hours, depending on the exam, during which time we review and answer questions about the cases the SPs will be portraying as well as the standardized checklists they will fill out for every student encounter. These checklists include items related to students' communication and interpersonal skills, their ability to gather data, and physical exam skills. After the training, the cases are piloted to ensure appropriateness of content to the level of learner. Pilot students are often recruited from the year ahead of the class for which the cases are intended. After the exams are piloted, debriefing sessions are conducted separatetly with the students and the SPs. We are able to collect qualitative feedback from these sessions to help us determine if any changes need to be made to the case.

Grading of the OSCEs is a two-part process. The first part is completed by the SP after the encounter in the form of the SP checklist mentioned above. The checklist contains 12-20 items on which the SP records whether or not each item was successfully accomplished. The second part the grading procedure is the faculty grading rubric. After each OSCE encounter students are expected to complete documentation on the encounter. Faculty members are assigned student notes randomly from different campuses to help reduce bias.

Learning Objectives from the OSCE

The learning objectives of each exam are tied back to course and/or clerkship objectives, depending on the exam. How we measure performance on the OSCEs is based on the standards set forth by the USMLE in their Step 2 Clinical Skills exam. These exams have two overarching

components that we measure: Communication and Interpersonal Skills (CIS), and Integrated Clinical Encounter (ICE). These components are divided into several sub-categories. CIS includes the following five categories: Fostering Relationships, Gathering Information, Providing Information, Making Decisions, and Supporting Emotions. ICE includes the following 3 categories: Data Gathering-Physical Exam, Data Gathering- History Taking, and Documentation.

First-Year Students

The major piece of direct evidence to assess where our first-year students are in terms of their foundational clinical skills comes from the two semester-end summative OSCE they complete. The first OSCE takes place at the end of the Fall semester and consists of a history-taking encounter. The second OSCE takes place at the end of the Spring semester and consists of a full history-taking and physical examination for the 2017-2018 year, we found that overall students performed well in terms of their Communication and Interpersonal Skills, the average was over 97%. Students scored best with items that dealt with fostering relationships and gathering information from their patients. On the Spring Summative OSCE, students tended to score lower on some of the physical exams items, such as performing a test of coordination (73%), mouth and throat exam (77%), knee joint examination (86%) and elevating the exam table to the appropriate position (79%). This is somewhat expected due to the lack of experience these students have with performing these procedures. Areas where students scored low last year, deep tendon reflexes, and performing the neurological exam, increased by at least 10% this year.

For the "Data-Gathering History Taking" items, in which we measure a student's ability to gather critical information during the history-taking portion of the encounter, the overall average was 89%, on the Spring Summative OSCE, up from last year's 71%. For the Data-

Gathering Physical Exam items, in which we measure a student's ability to correctly identify and perform the requisite physical exam maneuvers, students scored an 91% on the Spring Summative OSCE. Last year's class scored an average of 90% on this component. On the post-encounter documentation portion, students scored 90% on the Spring Summative OSCE. The other major components for this OSCE include overall documentation (91%), professionalism (99.8%), and the overall composite OSCE score (93%). Overall, we were pleased with these numbers. They were in-line with what was expected or improved beyond our expectations such as the physical exam items noted. The physical exam items were particularly pleasing because this was the first-time students were asked to perform these items during an OSCE.

Once all student scores were calculated for each exam, scores were released to faculty and students. Faculty also received a breakdown of the descriptive statistics for their students' scores and the statewide scores. This information was also reported to the course management team and appropriate curricular committees where decisions of changes to the curriculum need to be made.

Second-Year Students

Second year students took two OSCEs during the year. The first a formative, low stakes OSCE and one end-of-year summative OSCE. The overall score for the Communication and Interpersonal Skills items was 84%. Last year's scores averaged 97%. Students averaged a 59% on the Data-Gathering Physical Exam items, and a 54% on the Data Gathering History Taking items. Last years class averaged 89% and 85%. Students averaged an 81% on the documentation component, which is up compared to the 76% averaged by last year's class.

Once all student scores were calculated for each exam, scores were released to faculty and students. Faculty also received a breakdown of the descriptive statistics for their students'

scores and the statewide scores. As the numbers show, the second-year program went through many growing pains as being the first year in the new phase curriculum. Many adjustments have been made going forward, as well as adjustments being made to the first-year curriculum to help ensure a smooth learning experience.

Third-Year Students

The third year of medical education, now transitioning to being known as phase 2, consists of students participating in 10 clinical clerkship rotations, each one a different specialty. Students are expected to hone the basic skills they have been working on during the first two years of their education as well as develop their foundational clinical skills. Phase 2 students have one summative OSCE at the end of the year, which serves as a graduation requirement. The End-of-Phase 2 (EOP2) OSCE includes 10 encounters. The cases are written by clinicians and modeled after situations they are expected to have experienced during their clerkships. The USMLE categories we measure performance on are similar to those that they are assessed on during the first two years, but the expectations are higher due to their clinical experiences.

Overall, students performed well on Communication and Interpersonal Skills, specifically Fostering Relationships (97%) and Gathering Information (98%). Last year students averaged a 96% on these items. Students also scored well in Supporting Emotions (95%), an improvement from 89% last year. Students scored lower in Data-Gathering History Taking (76%) and Data-Gathering Physical Exam (68%). One of the possible reasons behind this is that students often mimic what they see their attending physicians and preceptors do but fail to realize they do not have the appropriate level of clinical skills and experience to take these “shortcuts”. Another reason for potential issues with documentation is that students are not used to seeing documentation performed in the manner we are requesting during the exam. Attending

physicians document for legal and insurance purposes, whereas we request students document much more thoroughly to demonstrate their clinical reasoning and justification for diagnoses and treatment planning. These were also areas of concern when writing last year's report.

Overall, we had 330 students test and only 8 performed below faculty expectations on their EOP2 OSCE. These 8 students have since re-tested and the scoring of their re-test is in process during the writing of this report.

A new aspect that was introduced to the EOP2 OSCE was the Script Concordance Test (SCT). This exam is a highly reliable testing methodology that compares students answers to what is known as a Panel of Experts (POE). The POE completes the exam individually, and answers that are selected most receive full credit. Other answers that are selected are awarded on a modal system (number of expects that selected this option divided by the number of pediatricians that selected the top selection). Our SCT exam contained 18 items while the answer script was completed by a POE comprised of 19 pediatricians. After analyzing the results from our SCT, we excluded six items that performed poorly. The overall average was 71% with a scoring range of 35%-96%. By implementing this test we were able to reduce the number of post-encounter notes that needed to be graded by faculty by 330. Each student will create one of these notes after each of the ten OSCE rotations. This becomes a resource consuming activity to assign graders and collect grades. We hope to implement more of the SCT in the future and use faculty time for remediation procedures instead of grading. This practice would be more beneficial to the students.

This year we have began to run analyses comparing OSCE results to preceptor evaluation rating of students (Listed as "Total Average 1 to 1" in the charts below), and the NBME shelf-

exam scores. Students complete these exams after completing a clerkship rotation. Clerkships have been de-identified for this report.

Clerkship 1

		Composite OSCE	Total Average (1to1)	NBME Clerkship Exam
Composite OSCE	Pearson Correlation	1	0.127	0.086
	Sig. (2-tailed)		0.073	0.134
	N	319	201	306
Total Average (1to1)	Pearson Correlation	0.127	1	.253**
	Sig. (2-tailed)	0.073		0.000
	N	201	208	201
NBME Clerkship Exam	Pearson Correlation	0.086	.253**	1
	Sig. (2-tailed)	0.134	0.000	
	N	306	201	317

**. Correlation is significant at the 0.01 level (2-tailed).

The OSCE for clerkship 1 does not correlate significantly with preceptor evaluation ratings or the NBME clerkship shelf-exam.

Clerkship 2

		Correlations		
		Composite OSCE	NBME Clerkship Exam	Total Average
omposite OSCE	Pearson Correlation	1	-0.080475987	0.109139742
	Sig. (2-tailed)		0.175475354	0.1370408
	N	319	285	187
BME Clerkship Exam	Pearson Correlation	-0.080	1.000	0.074
	Sig. (2-tailed)	0.175		0.337
	N	285	296	169
otal Average	Pearson Correlation	0.109	0.074	1.000
	Sig. (2-tailed)	0.137	0.337	

The OSCE for Clerkship 2 does not correlate significantly with preceptor evaluation ratings or the NBME clerkship shelf-exam.

Clerkship 3

Correlations

		Composite OSCE	Total Average (1to1)	NBME Shelf Exam Adjusted
Composite OSCE	Pearson Correlation	1	0.094	0.061
	Sig. (2-tailed)		0.218	0.283
	N	319	173	309
Total Average (1to1)	Pearson Correlation	0.094	1	0.067
	Sig. (2-tailed)	0.218		0.386
	N	173	175	171
NBME Shelf Exam Adjusted	Pearson Correlation	0.061	0.067	1
	Sig. (2-tailed)	0.283	0.386	
	N	309	171	319

The OSCE for Clerkship 3 does not correlate significantly with preceptor evaluation ratings or the NBME clerkship shelf-exam.

Clerkship 4

Correlations

		Composite OSCE	NBME Total	Total Average (1to1)
Composite OSCE	Pearson Correlation	1	.441**	.289**
	Sig. (2-tailed)		0.000	0.000
	N	319	319	210
NBME Total	Pearson Correlation	.441**	1	.252**
	Sig. (2-tailed)	0.000		0.000
	N	319	319	210
Total Average (1to1)	Pearson Correlation	.289**	.252**	1
	Sig. (2-tailed)	0.000	0.000	
	N	210	210	210

**. Correlation is significant at the 0.01 level (2-tailed).

The OSCE for Clerkship 4 correlates significantly with both the NBME shelf-exam and the evaluation ratings.

Clerkship 5

Correlations

		Composite OSCE	Total Average	NBME Clerkship Test
Composite OSCE	Pearson Correlation	1	0.054	0.072
	Sig. (2-tailed)		0.454	0.206
	N	319	194	308
Total Average	Pearson Correlation	0.054	1	.167*
	Sig. (2-tailed)	0.454		0.018
	N	194	201	198
NBME Clerkship Test	Pearson Correlation	0.072	.167*	1
	Sig. (2-tailed)	0.206	0.018	
	N	308	198	319

* Correlation is significant at the 0.05 level (2-tailed).

The OSCE for Clerkship 5 does not correlate significantly with preceptor evaluation ratings or the NBME clerkship shelf-exam.

Clerkship 6

Correlations

		Total Average	NBME Exam	Composite OSCE
Total Average	Pearson Correlation	1	.190**	-0.019
	Sig. (2-tailed)		0.005	0.778
	N	222	219	211
NBME Exam	Pearson Correlation	.190**	1	.118*
	Sig. (2-tailed)	0.005		0.040
	N	219	317	306
Composite OSCE	Pearson Correlation	-0.019	.118*	1
	Sig. (2-tailed)	0.778	0.040	
	N	211	306	319

** Correlation is significant at the 0.01 level (2-tailed).

The Clerkship 6 OSCE has a significant correlation with the NBME shelf-exam, but not with the preceptor evaluation ratings.

Using this data the PAE team will examine each OSCE at the item level and try to improve these correlations. We are happy to see that these results are close to where we want them. Some of the challenges we face are that many of the OSCE cases cannot be clearly compared to a single clerkship because they contain aspects that relate to multiple clerkships. We will exam the OSCE scores to the Step 2 CS scores once they become available.

Also part of the phase 2 curriculum is the Health System Science course. This course is part of an American Medical Association grant to promote and advance inter-professional

medical education. This was the third year this course has been implemented, the second of which 3rd year medical students enrolled in it. Medical students were put into groups and consulted with pharmacy students from a nearby university. The goal was to help determine how well students work with students from different medical fields. During the first year of evaluating student groups, PAE team used a 9-item peer assessment tool to measure how well students worked together. What we learned from this first year was that the groups were too big, often 10-12 students, so meaningful interaction between each member was not feasible. We saw a lot of grade inflation which caused us to believe that students were giving almost everyone a high grade with the expectations they will receive a high grade in return. Overall, we found this assessment to have little utility. The redeeming factor was the qualitative feedback we received, which we used to implement change in the current iteration of the course.

Last year medical students were grouped into large groups, but these groups were then divided into subgroups of 3-4 students. A pharmacy student was assigned to a large group, but rotated participation in the subgroups as course progressed. This data was more meaningful because students had more meaningful interactions in the smaller subgroups. Early analysis showed some meaningful differences in group behavior when examining the involvement of the pharmacy student. This analysis was discontinued when the decision to repackage the course going forward.

National Examinations

In medical education, students are subjected to several national licensure examinations. These exams are used to assess a physician's knowledge and the fundamental patient-centered skills that are important to medical practice and constitute the basis of safe and effective patient care. These exams are essential to the appropriate credentialing for medical practice in the

United States. We also use student exam scores to gauge how our students and our curriculum are performing as compared to other students and schools across the country. The USMLE Step 1 exam is the first our students take. This exam is taken during their second of medical school. Traditionally IUSM has fared well and this year our pass rate was 97%, the same as last year. These scores were both higher than the national average of 95% and 96% in the respective years.

The USMLE Step 2 Clinical Knowledge exam is completed in a student's third year of medical school. Last year IUSM had a pass rate of 98% (95% the previous year), while the national average was 97% (96% the previous year). The scores in both years are close to the national average.

The USMLE Step 2 Clinical Skills exam is taken typically after the completion of the third year of medical school. The exam has three different components. The Integrated Clinical Exam (ICE), Communication and Interpersonal Skills (CIS), and Spoken English Proficiency (SEP). 98% of our students passed the ICE compared to the national average of 96%. For the CIS component, 94% of our students passed compared to the national average of 98%. The SEP had a 100% pass rate for both IUSM students and the national average.

National Surveys

National surveys serve as a great source of indirect evidence of how our curriculum is performing and provides a means to compare our progress to other medical schools across the country. It should be noted, however, that these results should be interpreted with caution, for most medical schools are not our size, nor do they have multiple campuses to coordinate. These factors provide additional challenges that most of our peer institutions do not have to address.

The Graduate Questionnaire (GQ) is administered during a student's fourth year, which is their final year of undergraduate medical education. This survey examines students' satisfaction with their experiences in clerkships, clinical skills, teaching, and feedback. This year we had a 77% completion rate. This is an improvement from the year before, 64%, and the year prior to that 57%. The GQ questionnaire showed that 84% of IUSM students were satisfied with their medical education. That is compared to the national average of 89%, and 82% of IUSM students from the previous year. This year's report places IUSM between the 10th and 25th percentile of medical schools.

The Post Graduate Survey is administered in both the first and third years of residency. It surveys both the students (who are now residents) and their resident directors. It provides an instrument of student reflection of how their education is currently serving them. In the latest survey data we found a 3% increase of PGY1 residency directors ranking IUSM students in the top third (53%) while we found a 6% drop in this category from PGY3 residency directors (59%). 97% of PGY1 residents reported that they had an excellent ability of performing a physical or mental examination while the survey showed the 84% of PGY1 residents felt this confident last year. 99% of PGY3 residents reported having an excellent ability of performing a physical or mental exam compared to 90% of last years PGY3 residents. When considering the ability to apply basic science knowledge to clinical situations 97% of PGY1 residents reported having excellent skills. Last years PGY1 residents recorded that 86% had this ability. PGY3 residents reported that 87% had an excellent ability to do so, a drop from 97% from the previous class. The information and data collected from these surveys are reported to the appropriate committees who will decide to take action if deemed necessary.

Committee Involvement

The Foundational Component Committee (FCC) is an integral component of IUSM. Chaired by Drs. Margaret Bauer and Maureen Harrington, the FCC is charged with ensuring institutional learning objectives (ILOs) are being met by students within the first phase of the curriculum and that students are prepared to enter Phase 2 of the curriculum. Within this early phase of medical school students learn about the basic sciences and the foundations of clinical practice. This is achieved through both didactic and non-didactic sessions inside and outside of the classroom.

The FCC engages in continuous evaluation and quality improvement. Each Phase 1 course goes through an iterative review process. Within this process, learning outcomes are measured, instructional design is planned, and student ratings are considered. All courses are reviewed by the committee where feedback is gathered. Course leaders and management teams intentionally use the evaluative feedback to make course improvements. Analyses of comparable instruction across all campuses are performed as well. External measures of student performance are also reviewed by the FCC. For example, student performance on the USMLE Step 1 exam is reviewed, as is student feedback on the AAMC Year-Two Questionnaire. The FCC uses student ratings/comments on the course evaluation to recommend changes to a course. For example, student feedback was instrumental in facilitating the change to the attendance policy last year. Information about student mistreatment also lead to the additional of an improved student wellness program. Taken together, FCC evaluates student learning and development, and utilizes the information to make intentional and meaningful curricular improvements. The FCC will work to develop phase 1 learning outcomes to be implemented in the near future that will be

used in tandem with phase 2 learning outcomes and Entrustable Professional Activities (EPA) that have been set forth by the American Association of Medical Colleges (AAMC).

Current/Future Projects

We will continue to improve the Script Concordance test that was implemented on the EOP2 OSCE. By working with faculty to adjust and create new questions that will better reflect the expectations of the pediatrics case. We hope to introduce this concept throughout the Phase 1 curriculum so students are use to this type of examination. Only 28% of students preferred this type of test to the traditional post-encounter write-up note. We assume this poor response was because it was a new component to the OSCE.

One of our goals as a unit is to help the regional campuses feel more involved and included in the OSCE process. We have and will continue to reach out and encourage faculty from these campuses to help write cases, attend OSCE retreats, and ask questions about this process. Given the geographical separation between the campuses, it is imperative we work diligently to ensure full campus representation and input into the development and implementation of the OSCEs.

Appendix A: ILOs

Medical Knowledge

MK1 — Apply knowledge of normal human structure, function, and development, from the molecular through whole body levels, to distinguish health from disease and explain how physiologic mechanisms are integrated and regulated in the body.

MK2 — Explain the causes (behavioral, degenerative, developmental, environmental, genetic, immunologic, inflammatory, metabolic, microbiologic, neoplastic, toxic, and traumatic) of diseases, injuries, and functional deficits affecting organ systems.

MK3 — Describe the altered structure and function resulting from diseases, injuries, and functional deficits affecting organ systems, with an ability to interpret the clinical, histopathologic, laboratory, and radiographic manifestations commonly seen in practice.

MK4 — Provide justifications for interventions to diagnose, prevent, treat, and manage a specific patient's diseases, injuries, and functional deficits of organ systems. MK5 — Explain the role of the scientific method in establishing the cause of disease and use principles of evidence-based medicine, including biostatistics, to evaluate the efficacy of diagnostic and therapeutic options.

MK6 — Describe the epidemiology of common diseases affecting populations, including methods for prevention and early detection of disease and systematic, population-based approaches for reducing the incidence and prevalence of disease. MK7 — Explain the impact of the variables of psychosocial, socioeconomic, environmental, lifestyle, and lifecycle stage on a patient's health, disease,
care-seeking and care-compliance, barriers to care, and attitudes towards care.

Patient Care

PC1 — Demonstrate progressively more accurate, complete, and relevant clinical history-taking and physical examination skills in a variety of settings.

PC2 — Justify a prioritized differential diagnosis in a variety of different clinical situations based on data discovered and interpreted from the patient encounter, medical record, and diagnostic testing.

PC3 — Integrate data from a clinical encounter to develop a patient-centered plan of care based on up to date scientific information.

PC4 — Incorporate health promotion and patient education on the basis of the patient's or population's needs.

PC5 — Perform and document common clinical procedures using appropriate techniques within the limits of the level of training.

PC6 — Demonstrate an appropriate transition of care between providers or settings that minimizes the risk to patient safety.

Systems Based Practice

SBP1 — Demonstrate effective team work through collaboration with diverse patients, their supporters, multi-disciplinary healthcare professionals and other staff in the delivery of respectful and patient-centered healthcare.

SBP2 — Evaluate the impact of a patient's social context in health and disease and how factors, such as culture, socio-economic status, environment, religion, spirituality, sexuality, education, and health literacy impact patient-physician interactions, health care decision-making, and health outcomes.

SBP3 — Explain fundamental features of health care policy (including funding, legal and regulatory issues) both locally and nationally, the importance of physician advocacy in shaping healthcare policy, and the potential impact of policy changes on patients, underserved populations, and health care providers.

SBP4 — Contribute to a culture of healthcare and patient safety through compliance with national and institutional guidelines and protocols in addition to reporting real and potential errors or threats and participating in quality improvement activities. SBP5 — Apply the principals of high value health care to prioritize resource utilization, on behalf of individual and underserved populations, while preserving the delivery of high quality health care to ensure improved outcomes and just distribution of finite resources

Interpersonal Skills & Communication

ISC1 — Establish and maintain respectful relationships with members of the health care team (peers, faculty and inter-professional colleagues) to facilitate the provision of effective care to patients.

ISC2 — Engage in respectful dialogue with patients, demonstrating active listening and the use of verbal and non-verbal skills to establish rapport and an effective physician patient relationship.

ISC3 — Modify communication styles in accordance with the clinical context and purpose of the conversation, demonstrating sensitivity to differences, values, and needs of others, with attention to one's personal communication style.

ISC4 — Incorporate elements of shared decision making into communication with patients to facilitate their active participation in their health care.

ISC5 — Share information accurately in academic and clinical settings both in oral presentations and written documentation including in the medical record.

Professionalism

P1 — Be responsive to the whole patient in a manner that supersedes self-interest by respecting the needs, dignity, privacy and autonomy of the patient, and by employing strategies to reduce the effect of their own needs, beliefs, values, interests, vulnerabilities, conflicts and biases on patient care.

P2 — Demonstrate compassion, honesty, integrity, respect, responsibility, and

self-discipline in relationships with all individuals, regardless of gender, age, culture, race, ethnicity, religion, sexual orientation, disability, socioeconomic status, native language, or role.

P3 — Adhere to ethical and legal principles governing medical practice, including maintaining patient confidentiality, gaining informed consent, the provision or withholding of care, identifying and managing conflicts of interest, complying with human subjects' research protections, identifying, analyzing and addressing unethical and unprofessional behaviors, and maintaining appropriate boundaries in relationships with patients.

Practice-Based Learning and Improvement

PBLI1 — Engage in self-directed learning by identifying gaps and limitations in current knowledge and performance; setting individual learning and improvement goals; identifying multiple information resources to achieve those goals; critically appraising the quality and credibility of information resources used; and synthesizing relevant information to advance medical knowledge and patient care.

PBLI2 — Seek and accept feedback from colleagues, faculty, supervisors, advisors, and other health care professionals and incorporate this information into daily practice.