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Assessment of Internationally Trained Physicians During the Supervisory Period:

A Toolkit for Institutions and Supervisors

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Introduction

The Advisory Commission on Additional Licensing Models was established in December 2023 to guide and advise state medical boards, state legislators, policymakers, and others, to inform their development and/or implementation of laws specific to the licensing of physicians who have already trained and practiced medicine outside the United States. Such physicians are referred to as internationally trained physicians (ITPs). The Commission released two sets of recommendations. The first set focuses on eligibility requirements to ensure physicians entering these pathways are ultimately ready to safely practice medicine in the United States. The second set makes recommendations for assessment and supervision that should be included during the period of provisional licensure. This toolkit is a companion to the second set of recommendations. It is not meant to be comprehensive, nor does it represent an endorsement of pathways legislation or use of any specific assessment tool. Rather, its purpose is to provide information and resources for states and territories implementing a new licensure pathway to advance the safe delivery of quality health care by the ITPs who pursue this pathway.

The recommendations are summarized in Table 1 below. We encourage any institution that provides this pathway to seek help and guidance with institutional or local medical education leaders, such as residency program directors or designated institutional officials (DIOs). Wherever possible, institutions should use evidence-based assessment processes and tools.

Table 1: Summary of Recommendations

Supervision	Assessment
Start of the Supervisory Period	
The level of supervision for an ITP during the supervisory period should be tailored to the competence level of the individual ITP. At the beginning of the supervisory period this level should be informed by the results of an initial needs assessment and close supervision of all ITPs.	Development of a learning plan for the supervisory period. ITPs should undergo a needs assessment at the beginning of the supervisory period to identify strengths and weaknesses.
During the Supervisory Period	
Supervisors of ITPs during the supervisory period should be physicians (MD, DO, or equivalent) with a full and unrestricted license to practice medicine in good standing with specialty board certification in the same specialty as the ITP's. The rights of ITPs as employees should be taken into consideration, ensuring fair and equitable treatment during their supervisory period.	Competencies to be assessed during the supervisory period. ITPs should be assessed during the supervisory period on all six general competencies endorsed by the Coalition on Physician Accountability and as defined in the Accreditation Council on Graduate Medical Education (ACGME) competencies: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Professionalism, and Systems-based Practice. Additionally, a specialty-specific exam, such as an in-training exam, should be used to inform an ITP's learning plan, early in the supervisory period if possible.
	Assessment methods during the supervisory period. At a minimum, a standardized knowledge assessment, direct observation of the ITP's clinical skills, multi-source feedback, and medical record audits should be employed in assessment. Feedback should occur periodically at regular intervals throughout the supervisory period. During the supervisory period each ITP should demonstrate engagement in a sufficient volume and breadth of cases.
Conclusion of the Supervisory Period	
	Ending the supervisory period. By the end of the supervisory period, an ITP should demonstrate the ability to engage in unsupervised practice in all six of the general competency domains for the intended scope of clinical practice and qualify for the appropriate license within the state.

This guide provides essential information to support the implementation of these recommendations. It begins with assessment principles, provides information on types of assessments, and proceeds with detailed descriptions of various instruments that can be used.

A Note about Working with and Assessing Internationally Trained Physicians (ITPs)

Almost all states require ITPs to have completed postgraduate training (i.e., residency) and/or some years of practice before they are eligible to enter additional licensure pathways. ITP "learners" will likely be different than a U.S. medical school graduate entering a traditional residency program. As adult learners with some experience, they are more likely to value learning that is: a) self-directed; b) experiential and utilizes their background knowledge; c) relevant to current roles in the supervision program; and d) problem-centered to help them provide the best care in a new context. ITPs will also be highly motivated to learn as entering and completing this additional pathway requires substantial effort. Henceforth, when we use the term learner, this will also encompass ITP learners.

The ultimate goal and responsibility of the institution is to entrust that the ITP, by the end of the specified supervision period, using all the core competencies described below, can provide unsupervised care that is safe, effective, and patient centered. The concept of entrustment is a useful framework to guide assessment judgments throughout the supervision program. We recommend using assessment tools that utilize levels of entrustment when assessing ITPs. Examples of entrustment-based assessments are provided throughout. The following table describes levels of entrustment based on the amount of supervision the ITP requires. The supervisor serves as the core faculty member for the ITP with regards to assessment, feedback, and coaching. This toolkit will use the terms supervisor and faculty interchangeably throughout.

Table 2: Levels of ITP Entrustment and Supervision

ITP can be present but only as observer	**ITP can practice skill with direct supervision** (Supervisor in room)	**ITP can practice skill with indirect supervision** (Supervision available within minutes)	**ITP can practice skill with limited supervision** (Supervisor provides supervision if requested and monitoring in hindsight)	**Unsupervised practice allowed for the ITP with a provisional license** (Goal for the ITP until they hold a full, unrestricted license to practice medicine) (Supervisor provides monitoring in hindsight for continuous professional development and supervision in accordance with state requirements for provisional licensure)
(i.e., ITP cannot perform this skill. ITP can be present, but only as an observer.)	(i.e., I need to watch the ITP perform the skill in real time)	(i.e., I don't need to watch the ITP in the room, but I am going to reassess the patient/confirm findings with the patient)	(i.e., I do not need to reassess the patient/ confirmatory findings, but I am available in the vicinity if needed and will provide regular monitoring)	(i.e., ITP can routinely provide safe, effective, patient-centered care, and supervision is no longer needed)

Finally, if you work within a teaching hospital that has an accredited residency program, or there is an institution within your region that has a residency program, we recommend consulting its leadership on design and implementation of a supervision and assessment program that best fits your needs. Later in the toolkit, we provide resources and names of other organizations that may be helpful.

Competency and Assessment Fundamentals

This section provides definitions and principles of the general competency framework and assessment supporting the successful implementation of the Advisory Commission on Additional Licensing Models recommendations for assessment before and during supervised practice.

Assessment of clinical competence requires definition of competencies to be assessed and the use of tools to inform training, feedback, and high-stakes decisions, such as decisions about licensure. In the section below we describe the six core competencies, combining the knowledge, skills, and attitudes necessary to provide safe, high quality patient care in a changing health care system. In the United States, these competencies form the core educational outcomes framework for both residency training and a physician's ongoing professional development through maintenance of certification throughout their career. Following this, we will describe principles of assessment focused on assessment of clinical performance.

Six General Competencies

The six general competencies endorsed by the Coalition for Physician Accountability and used by Graduate Medical Education (GME) training programs in the United States describe the domains of physician competence required to enter practice without supervision and to engage in life-long learning throughout their career. In order to ensure that ITPs possess knowledge and skills that are comparable to physicians trained in the United States and can deliver safe and effective care for patients, regardless of their pathway to licensure, ITPs should be assessed during the supervisory period on the same general competencies: Patient Care and Procedural Skills, Medical Knowledge, Practice-based Learning and Improvement, Interpersonal and Communication Skills, Professionalism, and Systems-based Practice. The six general competencies are described briefly below.

Patient Care and Procedural Skills encompasses compassionate, appropriate, and effective treatment delivery combined with health promotion activities. It includes assessment of clinical reasoning, diagnostic skills, treatment implementation, procedural competence, and patient safety awareness.

Medical Knowledge demonstrates understanding of biomedical, clinical, epidemiological, and social-behavioral sciences with practical application to patient care. Knowledge application should integrate basic science foundations with clinical decision-making.

Practice-based Learning and Improvement involves investigating patient care practices, appraising scientific evidence, and continuously improving clinical care through self-evaluation and lifelong learning. This competency provides the framework for continuous development across all other competency areas.

Interpersonal and Communication Skills encompasses effective information exchange and collaboration with patients, families, and health care professionals. It includes assessment of patient communication, interprofessional collaboration, cultural competence, difficult conversation management, and health literacy considerations.

Professionalism requires commitment to professional responsibilities and ethical principles including integrity, accountability, altruism, and sensitivity to diverse populations. Professionalism underlies all medical practice and must be demonstrated consistently across all competency areas.

Systems-based Practice demonstrates awareness and responsiveness to health care system contexts with the ability to effectively utilize system resources to deliver optimal patient care. This competency provides context for effective health care delivery in complex medical environments. GME training programs in the United States have now moved demonstration of competence in quality improvement and patient safety to the description of systems-based practice competency.

The ACGME's Milestones provide narrative descriptors of significant points in the development of competence in each of the six general competencies. Milestones have been developed for each specialty and sub-specialty. In the ITP supervisory period the Milestones are a useful resource for both supervisors and ITPs. Supervisors may use the Milestones to guide assessment, provide more specific expectations and feedback to ITPs, and identify under-performers and support improvement. Milestones may also be useful in making a final, summative decision on an ITP's readiness for

unsupervised practice. ITPs may use the Milestones to understand expectations for practice in the U.S. clinical context, drive self-assessment and self-directed learning, and guide personal learning plans.

Useful resources include The Milestones Guidebook and The Milestones Guidebook for Residents and Fellows. Specialty-specific milestones can be found on the ACGME website by clicking on "specialties," clicking on the specific specialty, and then on "milestones" on that specialty's page.

Resources

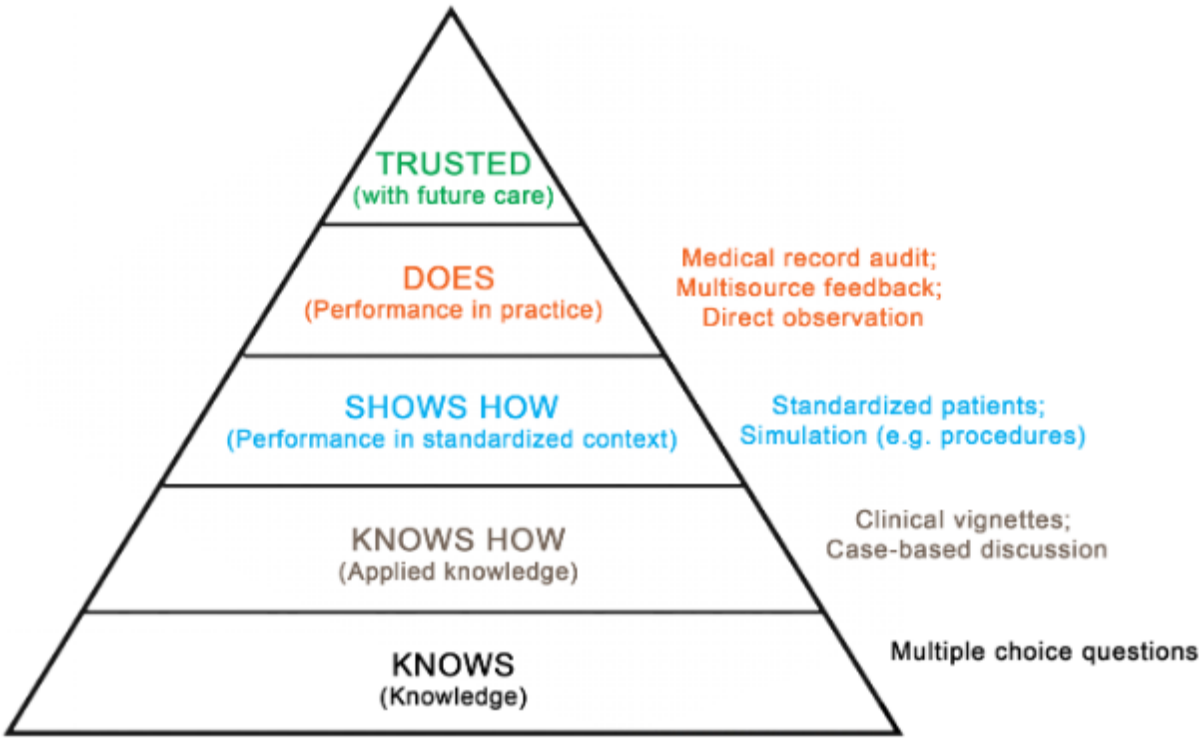
Consensus Statement on a Framework for Professional Competence by the Coalition for Physician Accountability

Edgar L, Hogan SO, Yamazaki K, Nasca TJ, Holmboe ES. Systems-based practice 20 years on: Navigating the system for better care. Academic Medicine. 2024;99(4):351-356. https://doi.org/10.1097/ACM.0000000000005640

Assessment Practice Guiding Principles

Given the depth and breadth of the competencies, a multi-faceted assessment approach is required. A single tool is insufficient for assessment and documentation of all six general competencies. Miller's Pyramid (Figure 1) depicts progression of the development of competence and strategies for assessment. Professional knowledge, referred to as domain specific knowledge, provides the basis for the development of competence in professions. Miller hypothesized competence development as a progression of having factual knowledge, of being able to apply that knowledge, and demonstrating that knowledge through demonstration of skills through performance. More recently, Ollie ten Cate and colleagues extended the pyramid to explicitly highlight that the ultimate goal of assessment is to help ensure the physician can be trusted to provide unsupervised care after completion of a program.

Figure 1



Extended Version of Miller's Pyramid

Adapted from: ten Cate O, Carraccio C, Damodaran A, Gofton W, Hamstra SJ, Hart DE, Richardson D, Ross S, Schultz K, Warm EJ, Whelan AJ, Schumacher DJ. (2021). Entrustment decision making: Extending Miller's Pyramid. Academic Medicine. 2021;96(2):199-204. https://doi.org/10.1097/ACM.0000000000003800.

Miller GE. The assessment of clinical skills/competence/performance. Academic Medicine. 1990;65:S63-7. https://doi.org/10.1097/00001888-199009000-00045.

Knowledge and application of knowledge is usually tested using multiple-choice questions (MCQs). Assessment of communication skills could be taught and assessed with simulation, such as with standardized patients (SPs) if you have access to SPs, but ultimately these critical skills must be assessed in real clinical settings. Strategies for assessing skills required in practice require performance-based exams including simulations (e.g., encounters with SPs), and work-based assessment instruments used to observe in the workplace (e.g., direct observation of clinical skills, direct observation of procedural skills [DOPS]). These are described in greater detail in the Workplace-based Assessment section below. The goal at the completion of the supervisory and assessment period is for the supervisor to trust the ITP to provide high quality, safe, patient-centered care in unsupervised practice.

When deciding on what assessments to use, we recommend criteria for assessment instruments to include reliability, validity, feasibility, and acceptability. The assessment methods described in this toolkit have all been studied for evidence of reliability and validity. In considering reliability and validity in tool selection for the ITP supervisory period, we recommend selecting a tool that has been previously studied and used in a training setting and involved training supervisors in the use of the tool. Feasibility and acceptability of each assessment are especially important to consider in the

context of its application in your setting (e.g., resources available; stakeholder acceptance; effort required to complete the assessment; ease of completing and submitting the assessment tool; etc.).

These guiding principles provide the basis for best practice in the assessment of competence of learners and are explained briefly below.

- Reliability means that an assessment produces consistent results.
- Validity refers to the extent that an assessment measures what it intended to measure.
- Feasibility means that the instrument used can be realistically carried out given the available resources and context. In the ITP supervisory period, feasibility considerations for a workplace-based assessment tool would include:
    - Can supervisors be physically present and have the time to directly observe the ITP?
    - Will there be more than one supervisor who can assess the ITP during the supervisory period?
    - Will there be enough time for a tool to be used and for feedback to be provided?
- Acceptability means that the stakeholder groups, in this case including institutions hosting ITPs during the supervisory period, state boards, regulators, and ITPs, agree with the purpose and content of the assessment and the related interpretations of the scores. In the ITP supervisory period, acceptability considerations for a workplace-based assessment tool would include:
    - Will the supervisors agree to use the tool in the clinical setting for the duration of the supervisory period?
    - Will the supervisors agree to engage in training in the use of the tool?
    - Will the clinical administrator agree to a clinic workflow that will provide time and space for supervisors and ITPs to engage in a workplace-based assessment?

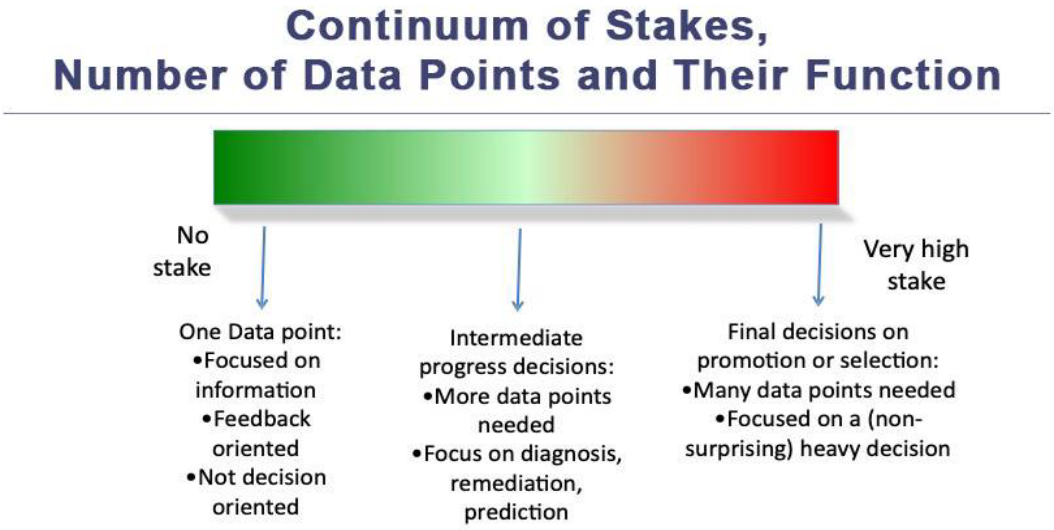
Formative Assessments and Summative Decisions

Assessments in medical education are intended to provide information about learner performance and to make decisions about progression.

Formative assessment, also referred to as assessment for learning, is essential for learner development, focuses on improvement, and should be collaborative with both learner and teacher involved in the process. As per the Commission's recommendations, ITPs should undergo an initial assessment at the start of the supervisory period to identify strengths and weaknesses. The goal is for this to be a formative assessment to inform on-going learning and supervision. Formative assessments should also occur regularly throughout the supervisory period to provide the learner and supervisor with information on progress. Most assessment tools can be used both to provide the learner with feedback and to create valuable data points for the supervisor. These data points are essential in informing decisions related to degree of supervision required. Figure 2 describes the continuum of no stake to high stakes decisions. A single data point, such as one workplace-based assessment performed by one supervisor, would not be sufficient to make a summative, high stakes decision on the ITP's competence in a communication but could be valuable for providing feedback on communication skills. Similarly, a multiple-choice question exam which only provides data on medical knowledge, but not the

other general competencies, would not be sufficient to make a summative decision on an ITP's preparedness to provide high quality, safe, patient-centered care. A final summative high stakes decision for readiness for unsupervised practice at the end of the supervisory period requires multiple assessment data points which address all six of the general competencies.

Figure 2



Personal communication from Cees van der Vleuten

Competency-Based Medical Education Assessment Tools

Competency-based medical education (CBME) offers a particularly valuable approach for designing effective assessment programs for ITP training. CBME represents a fundamental shift from a time-based approach to outcomes-based training, emphasizing individual progression based on competency achievement rather than duration of training. The framework emphasizes learner-centered approaches, outcomes focus, continuous assessment, authentic evaluation in clinical settings, and developmental progression. Competency-based assessment evaluates a physician's actual skills, knowledge, and abilities in delivering safe and effective patient care, regardless of how they acquired those competencies. This approach is particularly relevant for ITPs as it allows for a fair and comprehensive evaluation that considers the nuances of their training and experience in all six core competencies.

As mentioned earlier, assessment of an ITP's competence to enter U.S. practice without GME training will require the use of a number of assessment tools during the supervisory period. Competency-based assessments that can be used to assess the core competencies are listed in Table 3 and described in the sections below.

Table 3: Core Competencies and Examples of Competency-Based Assessments that Could be Used during the Supervisory Period

Competency	Assessment Options
Medical Knowledge	Specialty-specific examinations or self-assessment knowledge modules Simulation Faculty (i.e., supervisor) Global Performance Evaluations
Patient Care	Chart Stimulated Recall, Case Based Discussion, Assessment of Reasoning Tool Multi-source feedback Simulation Faculty Global Performance Evaluations
Professionalism	Multi-source feedback Faculty Global Performance Evaluations
Interpersonal and Communication Skills	Direct Observation of Clinical Skills (Mini-CEX) Multi-source feedback, including patient report Simulation Faculty Global Performance Evaluations
Practice-based Learning and Improvement	Individualized Learning Plan Structured audit of EBM (UCSF Fresno) Faculty Global Performance Evaluations Response to feedback in all WBAs
Systems-based Practice	Multi-source feedback Chart Stimulated Recall Faculty Global Performance Evaluations

Specialty-Specific Examinations

Specialty-specific examinations are important tools for measuring medical knowledge in the ITP's chosen specialty. While licensing exams measure medical knowledge across multiple specialties, the specialty-specific exams focus on core knowledge necessary to practice in a single specialty. These exams can be important formative assessment tools for ITPs, particularly for the initial assessment of medical knowledge during the supervisory period. Such exams typically employ MCQ formats aligned with specialty-specific curricula and board examination blueprints, providing percentile rankings that gauge examinee performance relative to national cohorts. Additional specialty-specific assessments may include practical examinations (such as anesthesiology procedural assessments), simulation-based

evaluations, and specialty board-required clinical skills assessments. Some of the exams described below are tailored toward specific educational levels, such as medical student third-year clerkships that may not be commensurate with the knowledge and experience of ITPs. All are fee-based, and the majority have enrollment requirements that currently preclude their use with ITPs. However, some sponsoring entities have expressed an interest in exploring the use of related products in this population in the future.

In-training examinations are administered annually by specialty boards or specialty societies to assess residents' progressive knowledge acquisition and readiness for board certification. In-training exams are typically administered only at specific times of year, and their use is currently restricted to residents enrolled in GME programs. Please see Table 4 for examples of specialty-specific in-training exams.

Table 4: In-Training Examinations by Specialty

Specialty	In-Training Examination	Administered By
Emergency Medicine	American Board of Emergency Medicine In-Training Exam	American Board of Emergency Medicine (ABEM)
Family Medicine	In-Training Exam (ITE)	American Board of Family Medicine (ABFM)
General Surgery	American Board of Surgery In-Training Examination (ABSITE)	American Board of Surgery (ABS)
Internal Medicine	Internal Medicine In-Training Examination (IM-ITE)	American College of Physicians & Academic Alliance for Internal Medicine (AAIM)
Pediatrics	General Pediatrics In-Training Examination	American Board of Pediatrics (ABP)
Psychiatry	Psychiatry Resident In-Training Examination (PRITE)	American College of Psychiatrists (ACPsych)

In-training exams are typically administered only at specific times of year, and their use is currently restricted to residents enrolled in GME programs. If you have a local residency program in the appropriate specialty, check with the program leadership on whether you can enroll the ITP for the in-training examination.

The National Board of Medical Examiners (NBME) subject exams (“shelf exams”) are available for 29 different subjects. These 110-question exams are calibrated for medical students in their clinical years. The NBME also offers advanced clinical science subject exams designed for fourth-year students in Internal Medicine and Emergency Medicine. Both types of NBME exams are available to students enrolled in LCME-accredited medical schools. The NBME also has a Customized Assessment Services (CAS) program that allows medical schools and training institutions to build tailored assessments. At

this time, access to CAS is restricted to authorized faculty and administrators within subscribing institutions.

The Special Purpose Examination (SPEX) is administered by the Federation of State Medical Boards (FSMB). It is a general knowledge exam used by state medical boards to evaluate whether a physician is competent to practice medicine independently in cases such as reentry into practice after a period of inactivity, and license reinstatement after disciplinary action or license lapse. Although it is most common for a state medical board to initiate this process, there are options for fully licensed physicians to self-sponsor if they have already completed a licensing exam series such as United States Medical Licensing Examination (USMLE).

The Post-Licensure Assessment System (PLAS) is a program sponsored jointly by the FSMB and NBME that comprises a menu of customizable tools and assessments designed to evaluate the competence of licensed physicians. It must be sponsored by a state medical board and is not currently open to institutional or individual physician registration. Check with your state medical board to see if any of the PLAS programs and/or assessments are available to you.

Physician reentry programs commonly include assessment of medical knowledge in their programs. These programs may include assessment tools that would be useful in assessing specialty-specific knowledge. The FSMB maintains a Directory of Physician Assessment and Remedial Education Programs.

Numerous commercial platforms also provide assessment opportunities tailored to different specialties and experience levels. As with other assessments, they may help physicians identify strengths and areas for improvement in clinical knowledge and decision-making in their specialty area.

Workplace-Based Assessment

Workplace-based assessment supports supervisory practice by embedding assessment into clinical practice. It ensures that healthcare professionals meet competency standards through structured, real-world assessments, making learning and evaluation more authentic and integrated. The assessment is administered in actual practice; therefore, the results are based on learner performance. The instruments can support the provision of feedback to learners based on observation of interactions with patients and the care team (e.g., direct observation) or by other methods that draw on actual case materials. Workplace-based assessments can be used for both formative and summative assessment purposes. The provision of feedback is a core component of each tool. WBAs can be used to support a summative decision, however, no single WBA can be used for this purpose. When multiple types of WBAs are used and taken in aggregate, with multiple raters making observations, these instruments may contribute to summative decisions about whether the supervisory period is meeting the goal of ensuring readiness to enter unsupervised practice with an unrestricted license.

Resources

Holmboe ES, Iobst WF. Assessment Guidebook. Available at Toolbox of Assessment.

Hall W, Violato C, Lewkonia R, Lockyer J, Fidler H, Toews J, et al. Assessment of physician performance in Alberta: the Physician Achievement Review. CMAJ. 1999;161(2):52-7. https://pmc.ncbi.nlm.nih.gov/articles/PMC1232653/

Skills for Workplace-Based Assessment: Direct Observation, Feedback, and Coaching

Direct Observation

Direct observation of clinical practice is a core component of most workplace-based assessment (WBA) tools. By integrating assessment with clinical practice, WBAs can be used to demonstrate that ITPs meet competency standards through real-time evaluation. Supervisors can observe clinical skills, procedural skills, patient encounters, and team-based activities using structured tools to facilitate the provision of immediate feedback and competency tracking over time.

Assessment tools that rely on direct observation include the mini-Clinical Evaluation Exercise (mini-CEX) and Direct Observation of Procedural Skills (DOPS). For reliability, both of these tools require observation of multiple brief encounters across a variety of clinical contexts by several different supervisors. The use of any one instrument on one occasion is not sufficient to determine whether standards of competence have been met.

Table 5: Steps for Direct Observation in Clinical Encounters

Prior to entering the room
Review the WBA tool Set expectations for direct observation (I will observe [all or part] of the encounter, take notes, and provide feedback after we leave the room) Identify the ITP's learning goals Make a plan for the focus of the observation with the learner based on their learning goals
Upon entering the room
Explain the presence of the assessor to the patient Position yourself and the learner so that you can observe
During the observation of the clinical encounter in the room
Take specific notes on behaviors observed Avoid interjecting and minimize interruptions
After the observation, outside the room
Complete the WBA tool including narrative comments Provide the learner with actionable feedback

Supervisor and assessor training in direct observation is important to ensure quality assurance and effective supervision. Training should address observation techniques (see Table 5), rating consistency, and skill in providing feedback. Common implementation challenges include time constraints (addressed through routine integration and snapshot approaches), supervisor resistance (resolved through comprehensive development and value demonstration), reliability of observation ratings (managed through the use of multiple observers and standardization), and feedback quality concerns (improved through structured training and documentation requirements). Please see the Implementation section below for faculty development resources.

Resources

Hauer KE, Holmboe ES, Kogan JR. Twelve tips for implementing tools for direct observation of medical trainees' clinical skills during patient encounters. Medical Teacher. 2011;33(1): 27-33. https://doi.org/10.3109/0142159X.2010.507710.

Kogan JR, Holmboe ES, Hauer KE. Tools for direct observation and assessment of clinical skills of medical trainees: a systematic review. JAMA. 2009;302:1316-1326. https://doi.org/10.1001/jama.2009.1365

Kogan JR, Hatala R, Hauer KE, Holmboe E. Guidelines: The do's, don'ts and don't knows of direct observation of clinical skills in medical education. Perspectives in Medical Education. 2017;6(5):286-305. https://doi.org/10.1007/s40037-017-0376-7

ACGME. Faculty development toolkit: Improving assessment using direct observation. Available at ACGME Faculty Development Toolkit: Improving Assessment Using Direct Observation.

Feedback

Feedback is an essential component of every WBA tool, serving as a catalyst for learning. As part of an effective program of assessment which promotes self-directed lifelong learning, assessors need to be skilled in sharing feedback and learners need to develop the skills for seeking, receiving, and integrating feedback. The old feedback sandwich model, which suggested providing both constructive feedback layered between reinforcing feedback with a one-way delivery of information by the assessor, has been replaced with more effective evidence-informed models such as the Prepare to ADAPT model. (Website: Prepare to ADAPT | UW Graduate Medical Education). This model emphasizes engaging the learner in the feedback as a conversation between the assessor and learner in preparation for the WBA as well as in feedback after it. The six steps of the Prepare to ADAPT model are summarized below:

Prepare – prepare deliberately

1. Perform – both assessor and trainee are engaged in the actual assessment

After the assessment is finished:

2. **A**sk – the trainee may seek the feedback, and the assessor asks for a self-assessment
3. **D**iscuss – the assessor engages the trainee in a conversation
4. **A**sk – the trainee asks for any clarifications, and the assessor checks for clarity
5. **P**lan **T**ogether – the trainee and assessor develop a plan collaboratively

In the “Prepare” phase, prior to the observation, the supervisor orients the learner to the expectations of the WBA, the competencies being addressed, and solicits and reflects on the learner’s goals to help focus the observation. The supervisor should ask about the learner’s goals, what their current challenges are, or what part of the encounter the learner is most concerned about. The ITP’s responsibility in this phase is to identify and communicate their goals. In the “Perform” step the supervisor directly observes the ITP and takes notes on specific behaviors. These should be related to the goals identified in the “Prepare” phase. After the observation is complete, the assessor should start by eliciting a self-assessment as part of the “Ask” phase. Next, assessor and learner both discuss observations and impressions, including the assessor helping the learner calibrate their self-assessment. The session concludes with the assessor and learner collaborating on a plan for improvement together.

The “Prepare to ADAPT” model may also be used in providing feedback on clinical performance that has already occurred during the supervisory period (e.g., at the end of each week or month of supervision). The Prepare phase of the conversation would still focus on soliciting the learner’s goals and discussing them in the context the goals of the supervisory period. The supervisor could then skip the “Perform” phase and move to the phases described by the ADAPT acronym. Again, self-assessment would be an essential part of the discussion.

The ITP's orientation to assessment should include training about feedback so that they can fully engage in the feedback conversation. ITPs should be encouraged to prepare to self-assess, ask clarifying questions, and collaborate on a learning plan. This collaborative model is especially important in sharing feedback with ITPs who are further along in their clinical career than U.S. medical students and residents and is expected to bring rich and varied experiences to the clinical encounter. For constructive (corrective) feedback, engaging the ITP in a discussion of how this was done in their previous clinical context and rationale for any changes in the United States will be important in their integration of feedback. It could also lead to the assessor learning new strategies that could be useful in the United States. Discussion of confirming (reinforcing) feedback is also valuable to find common ground in practices shared across the globe and to build the ITP's confidence and self-efficacy.

Coaching

Coaching in medical education represents a distinct teaching method that differs from traditional mentoring or advising relationships through its focus on learner-driven goal setting, systematic performance improvement, and structured accountability processes. It shifts the focus away from telling learners what to do. Instead, the coach facilitates learning through experience by strengthening skills in reflection, self-assessment, and deliberate practice. Coaching emphasizes the development of self-directed learning capabilities by helping learners identify strengths and gaps, establish specific improvement objectives, and implement evidence-based strategies for professional growth. The coaching relationship operates through structured conversations that facilitate reflection, problem-solving, and action planning while maintaining the learner as the primary agent of their own development.

Effective coaching requires specific competencies including skilled questioning techniques, reflective listening, goal-setting frameworks, feedback integration methods, and knowledge of adult learning principles (see above). Asking open-ended questions to promote self-reflection is a key communication skill in the coaching relationship. In the coaching relationship the supervisor observes a concrete experience, helps the learner reflect on their performance, engages in the co-design of a plan for improvement, and, ideally, follows up on the plan of improvement to observe the clinical performance again. The workplace-based assessment tools described are informed by these principles and provide a useful structure for engaging in the coaching relationship with ITPs in the supervisory period.

Resources

Fainstad T, McClintock AA, Van Der Ridder MJ, et al. Feedback can be less stressful: Medical trainee perceptions of using the Prepare to ADAPT (Ask-Discuss-Ask-Plan Together) Framework. Cureus. 2018;10(12):e3718. https://doi.org/10.7759/cureus.3718

Stone D, Heen S. *Thanks for the Feedback*. Portfolio Penguin, 2015.

Amson H, Lockyer JM, Zetklulic M, Konings KD, Sargent J. Identifying coaching skills to improve feedback use in postgraduate medical education. Medical Education. 2019;53(5):477-493. https://doi.org/10.1111/medu.13818

Sargeant JM, Holmboe ES. Feedback and coaching. In: Practical Guide to the Assessment of Clinical Competence. Third Edition. Elsevier: 281-298.

Epstein RM. Mindful practice. JAMA. 1999;282(9):833-9. https://doi.org/10.1001/jama.282.9.833

Epstein RM, Hundert EM. Defining and assessing professional competence. JAMA. 2002;287(2):226-35. https://doi.org/10.1001/jama.287.2.226

Ericsson KA. Deliberate practice and the acquisition and maintenance of expert performance in medicine and related domains. Academic Medicine. 2004;79(10 Suppl):S70-81. https://doi.org/10.1097/00001888-200410001-00022

Workplace-Based Assessment Tools

The next section of the toolkit provides brief descriptions of a selection of WBA tools. They are listed in Table 6 and are described in detail below. A number of the tools provide entrustment scales (see Table 2) which ask the supervisor to make a decision on how much supervision is necessary based on their observation. Entrustment scales which describe supervision needs are especially valuable in the ITP supervisory period given that the purpose of the assessments is to make a final decision on readiness for unsupervised practice. Each tool includes a narrative section for the supervisor to comment on specific behaviors observed. These comments are essential in providing granular feedback that may drive ongoing improvement and evidence for decisions made on the entrustment scale. Both quantitative and qualitative (narrative) data should be used in providing feedback to the ITP and in deliberations of competence groups on progression and readiness for unsupervised practice.

Table 6: Sample Workplace-based Assessment Tools

Direct Observation of Clinical Skill	Adapted Mini-CEX (Appendix 1)
Direct Observation of Procedures	Adapted Direct Observation of Procedural Skills (Appendix 2) Ottawa Surgical Competency Operating Room Evaluation (O-SCORE) Zwisch Scale
Multi-Source Feedback	Doherty's MSF for Pediatric Fellows Lamantia's MSF for Emergency Medicine Residents
Assessment of Clinical Reasoning	Adapted Chart Stimulated Recall (Appendix 3) College of Physicians and Surgeons of Alberta CSR Package College of Physicians and Surgeons of Alberta Chart Audit and CSR Intercollegiate Surgical Curriculum Programme Case-Based Discussion Form Society to Improve Diagnosis of Medicine Assessment of Reasoning Tool

Direct Observation of Clinical Skills

Direct observation of clinical skills includes instruments that assess clinical competencies such as history-taking, physical examination, doctor-patient communication, and professionalism. One example is the mini-Clinical Evaluation Exercise described below.

Tool: Adapted Mini-Clinical Evaluation Exercise

Purpose

Originally developed by the American Board of Internal Medicine, the instrument can be used in a variety of settings (outpatient, inpatient, emergency departments) and for initial visits as well as follow-up visits. Designed to support clinical faculty, this standardized format allows a faculty member to observe a learner during a clinical encounter. Several of these assessments are expected to allow for a range of patients and assessors. The tool assesses learners in a broader range of encounters than more traditional exercises and has been shown to produce consistent ratings of performance. The Adapted Mini-CEX tool (Appendix 1) positions the narrative assessment at the beginning. The rationale is to prompt documentation of specific observations that would then inform the assignment of

numeric scores on the numeric entrustment scale. This Adapted Mini-CEX tool is designed to assess clinical skills and make a judgement on the degree of supervision necessary based on the observation. In other words, supervisors are asked to consider "how much help did I need to provide?"

Competencies: Medical Knowledge, Patient Care, Professionalism, Communication, Practice-based Learning and Improvement

How it works

- The observation and assessment are generally expected to require up to 15 minutes of observation time and 5 minutes dedicated to feedback.
- The observation form is completed by the assessor with the narrative based on specific observations written first, followed by an assessment of the degree of supervision necessary for the learner based on this observation.
- The mini-CEX must be repeated on a number of occasions (at least 4-6; ideally 12 or more) with ideally at least 3-4 different assessors.

Responsibility

- ITP: The learner needs to ensure that the clinical skill will be observed by their supervisor.
- Supervisor/assessor: The supervisor or assessor must be available to observe the learner and have an understanding of the expected level of competency for the patient encounter observed. The supervisor must complete the assessment form and immediately provide the learner with feedback.

Resources

Norcini JJ, Blank LL, Duffy FD, Fortna GS. The mini-CEX: a method for assessing clinical skills. Annals of Internal Medicine. 2003;138(6):476-81. https://doi.org/10.7326/0003-4819-138-6-200303180-00012

Kogan JR, Dine CJ, Conforti LN, Holmboe ES. Can rater training improve the quality and accuracy of workplace-based assessment narrative comments and entrustment ratings? A randomized controlled trial. Academic Medicine. 2023;98(2):237-247. https://doi.org/10.1097/ACM.0000000000004819

Direct Observation of Procedural Skills

Direct Observation of Procedural Skills (DOPS) assesses technical and procedural competencies from basic to complex procedures (e.g., blood draw). Predetermined lists of procedures are shared with supervisors and learners and vary by specialty. Supervisors and assessors must be credentialed and competent in observed procedures, conducting direct observation during key procedure portions with structured checklists and immediate feedback. Progressive competency assessment with observations of increasingly complex procedures helps ensure ITPs are prepared for independent practice using mastery-based approaches for high-stakes procedures.

Tool: Direct Observation of Procedural Skills

Purpose

As the title implies, this instrument is used to assess performance in a clinical setting where the learner can be observed interacting with a patient while performing a procedure. Learners are provided with lists of procedures (e.g., endotracheal intubation, nasogastric tube insertion, central line placement) to perform. Learners should first be assessed by simulation for any invasive procedure (e.g. thoracentesis, central venous line, etc.). The ratings are accompanied by comments from the assessor and immediate

feedback is provided to the learner regarding what went well and where improvement is needed. The attached DOPS (Appendix 2) includes an entrustment scale and like the mini-CEX tool is designed to assess skills and make a judgement on the degree of supervision necessary based on the observation.

Competencies: Patient Care and Procedural Skills, Communication (if it includes observation of related skills such as informed consent)

How it works

- The observation and assessment are generally expected to require direct observation commensurate with length of the procedure and 5 minutes dedicated to feedback.
- The observation form is completed by the assessor with the narrative based on specific observations written first, followed by an assessment of the degree of supervision necessary for the learner based on this observation.
- The DOPS must be repeated on a number of occasions to cover the full range of procedures. Different assessors or supervisors can provide ratings and feedback to the ITP. However, the more invasive a procedure is, the more observations will be needed, and the supervisor should check with the appropriate specialty training program if available. At a minimum, supervisors should discuss with their institutional credentialing office.

Responsibility

- ITP: The ITP needs to be credentialed to perform the procedure with supervision in that health care institution. The ITP needs to prepare for the procedure by reading ahead. and engaging in any simulation which is available prior to performing the procedure in the clinical setting. The ITP needs to ensure that the procedure will be observed by a supervisor or an assessor who is credentialed to do the procedure independently.
- Supervisor/assessor: The supervisor or assessor must be credentialed to do the procedure and be available to observe the learner and to articulate the expected level of competency for the procedure observed. They must provide the learner with feedback on their performance.

Resources

Hamstra SJ. Workplace-based assessment of procedural skills. In: Practical Guide to the Assessment of Clinical Competence. Third Edition. Elsevier: 174-185.

Videos in Clinical Medicine | The New England Journal of Medicine

Tool: Ottawa Surgical Competency Operating Room Evaluation (O-SCORE)

Purpose

This instrument was designed to assess performance in a surgical setting where the learner can be observed while performing a surgical procedure. The measure is designed to be integrated with learners' procedure logs. The ratings are based on a supervision scale indicating readiness for independent practice. The scale ranges from "I had to do" – 1 to "I did not need to be there" – 5. There are 11 items in the evaluation. Eight items are scored based on the readiness scale (pre-procedure plan, case preparation, knowledge of specific procedural steps, technical performance, visuospatial skills, post-procedure plan, efficiency and flow, communication), one overall rating (Y, N) regarding the learner's readiness to perform independently, and feedback items ("Give at least one specific aspect of procedure done well;" "Give at least one specific suggestion for improvement").

Competencies: Patient Care and Procedural Skills, Communication

How it works

- The assessment procedure requires direct observation in the operating room.
- There is a scale defining a progression towards independent, unsupervised performance.
- The observation form is completed by supervisors and feedback is provided.

Responsibility

- ITP: The ITP needs to be credentialed to perform the procedure with supervision in that health care institution. The ITP needs to prepare for the procedure by reading ahead and engaging in any simulation which is available prior to performing the procedure in the clinical setting. The ITP needs to ensure that the procedure will be observed by a supervisor or an assessor who is credentialed to do the procedure independently.
- Supervisor/assessor: The supervisor or assessor must be credentialed to do the procedure and available to observe the learner and to articulate the expected level of competency for the procedure observed. They must provide the learner with feedback on their performance.

Resources

Gofton WT, Dudek NL, Wood TJ, Balaa F, Hamstra SJ. The Ottawa Surgical Competency Operating Room Evaluation (O-SCORE): A tool to assess surgical competence. Academic Medicine. 2012;87(10):1401-1407. https://doi.org/10.1097/ACM.0B013E3182677805

Tool: Progressive Autonomy (Zwisch Scale)

Purpose

This framework was developed to assist supervisors in supporting learner progression to autonomy in the surgical setting. The framework is used to create shared language for learners and their supervisors, with clearly stated expectations for progression to independent practice. The scale consists of four levels: show and tell, active help, passive help, and supervision only. The descriptors detail behaviors for the supervisor and the learner for each stage of supervision.

Competencies: Patient Care and Procedural Skills, Medical Knowledge, Professionalism, Communication

How it works

- The tool can be used to guide instruction and feedback.
- Applications (Zwisch Surgery and the System for Improving and Measuring Procedural Learning [SIMPL]) have been developed to facilitate the assessment process.
- The apps have supervisors indicate the degree of supervision that was required.

Responsibility

- The ITP initiates the session and rates themselves on the Zwisch scale.
- The supervisor is notified of the evaluation through the app and performs the same assessment. The SIMPL app allows the supervisor to record their verbal feedback.

Resources

George BC, Teitelbaum EN, Meyerson SL, Schuller MC, DaRosa DA, Petrusa ER, Petito LC, Fryer JP. Reliability, validity, and feasibility of the Zwisch scale for the assessment of intraoperative performance. Journal of Surgical Education. 2014;71(6):e90-6. https://doi.org/10.1016/j.jsurg.2014.06.018

George BC. The language of progressive autonomy: Using the Zwisch scale for more than just assessment | ACS. Resources in Surgical Education. 2017. https://www.facs.org/for-medical-professionals/news-publications/journals/rise/articles/zwisch/

Kozin ED, Bohne JD, George BC, Justicz N, Colaianni CA, Duarte M, Gray ST. Novel mobile app allows for fast and validated intraoperative assessment of otolaryngology residents. OTO Open. 2017;1(1):2473974X16685705. https://doi.org/10.1177/2473974X16685705

Multi-source Feedback

Multi-source feedback (MSF) provides assessments of workplace behaviors from multiple perspectives including peers, nurses, pharmacists, social workers, peers, and patients/families. It typically includes a self-assessment. Although primarily used for formative assessment to promote reflection and improvement, MSF can also be used to monitor progress and as part of a summative decision-making process. Assessment domains in MSF include professionalism, communication and interpersonal skills with patients and with team members, collaboration, and systems-based practice. Considerations for tailoring an MSF tool include the abilities of the observer to observe and assess, the specialty, and the importance of the behavior to the function of the team. We recommend that directors of ITP supervision programs reach out to GME programs for MSF tools as well as an on-line system useful for implementing an MSF assessment. Patient Experience Officers and Quality Improvement departments may also have tools which measure the physician-patient experience. Examples of MSF forms to view can be found in the Doherty MedEd Portal publication as well as the supplementary materials in Lamantia's article.

Tool: Multi-source Feedback

Purpose

Multi-source feedback (MSF) is also referred to as a 360° assessment. Various members of the health care team, as well as patients, provide ratings and comments on the ITP's performance. MSF provides a much more complete view of a learner's performance in that it can provide the view of the patient, the nurse, office staff, as well as peers, offering valuable insight into how their competence is perceived. This approach reinforces the value and importance of all members of the health care team.

Self-assessment is also an essential part of this assessment strategy and, when compared with the assessment of others, is useful for calibrating the ITP's sense of their own competence. MSF forms are designed to align with the abilities to observe and assess the learner's performance. A patient would be asked to comment on professionalism and physician-patient communication skills. A nurse could be asked to comment on those areas as well as communication with team members and systems-based practice.

How it works

- The supervisor, and if desired the ITP, nominates assessors that are approved by the supervisor, or the supervisor selects assessors including self, peers, nurses, advanced practice providers, and administrative staff.
- The approved assessors each complete the form which may be delivered electronically or on paper.
- The ratings are based on clinical care, clinical practice, teaching and training, relationship with patients, working with colleagues, and overall performance.

Competencies: Professionalism, Communication and Interpersonal skills (with patients and health care team members), Systems-based Practice, Patient Care

Responsibility

- ITP: May nominate assessors, completes self-assessment.
- Assessors: Complete assessment form.
- Supervisor: Identifies assessors (and may seek input from the ITP). Reviews and consolidates the feedback and ratings to provide feedback to the ITP.

Resources

Doherty EG. How to develop, implement, and assess multi-source feedback (MSF) for trainees. *MedEdPORTAL*. 2013. https://doi.org/10.15766/MEP_2374-8265.9476

LaMantia J, Yarris LM, Sunga K, Weizberg M, Hart D, Farina G, Rodriguez E, Lucas R, Mahmooth Z, Snock A, Lockyear J. Developing and implementing a multisource feedback tool to assess competencies of emergency medicine residents in the United States. AEM Education and Training. 2017;1(3):243-249. https://doi.org/10.1002/aet2.10043

Lewkonia R, Flook N, Donoff M, et al. Family physician practice visits arising from the Alberta Physician Achievement Review. BMC Medical Education. 2013;13:121. https://doi.org/10.1186/1472-6920-13-121

Warm EJ, Schauer D, Revis B, Boex JR. Multisource feedback in the ambulatory setting. Journal of Graduate Medical Education. 2010;2(2):269. https://doi.org/10.4300/JGME-D-09-00102.1

Wood L, Hassell A, Whitehouse A, Bullock A, Wall D. A literature review of multi-source feedback systems within and without health services, leading to 10 tips for their successful design. Medical Teacher. 2006;28(7):e185-e191. https://doi.org/10.1080/01421590600834286

Assessment of Clinical and Therapeutic Reasoning

Assessment of clinical reasoning represents one of the most challenging aspects of competency-based medical education, requiring evaluation of complex cognitive processes. Clinical reasoning

encompasses the integration of biomedical knowledge, pattern recognition, hypothesis generation, information gathering, and diagnostic decision-making that leads from patient presentation to accurate diagnosis. Traditional assessment methods like MCQ examinations evaluate some aspects of knowledge application but fail to capture the dynamic, contextual nature of clinical reasoning in authentic practice settings. Therapeutic reasoning extends beyond diagnosis to encompass treatment selection, monitoring strategies, and ongoing care adjustments based on patient response and changing clinical circumstances. This domain includes evidence-based medicine application, consideration of patient preferences and values, risk-benefit analysis, and adaptation of treatment plans based on individual patient characteristics and social determinants.

Assessment of clinical and therapeutic reasoning in the workplace includes case-based discussions exploring diagnostic thought processes and direct observation of patient encounters with structured feedback on reasoning demonstrations and as a part of medical record audits in chart stimulated recall. Case-based discussion (CbD) and chart stimulated recall (CSR) are both structured discussions between the supervisor and the learner. CbD is a structured discussion of a case managed by the learner. Questions focused on the learner's thought process in managing the patient are the basis of the discussion. In CSR, the supervisor and learner review patient records (charts) while the supervisor conducts a structured interview with the learner. These methods provide insights into the cognitive processes underlying clinical care that may not be apparent from chart documentation alone. Another tool that assesses clinical reasoning is the Assessment of Reasoning Tool (ART), which provides a set of questions to guide case discussion and feedback by using systematic approaches to clinical reasoning assessment. This instrument has behavioral anchors for data gathering (history-taking) that examines the hypothesis-making process, case summarizing, differential diagnosis ordered by priority, diagnostic testing, and the learner's awareness of their clinical management of the case.

Therapeutic reasoning extends beyond diagnosis to encompass treatment selection, monitoring strategies, and ongoing care adjustments based on patient response and changing clinical circumstances. This domain includes evidence-based medicine application, consideration of patient preferences and values, risk-benefit analysis, and adaptation of treatment plans based on individual patient characteristics and social determinants. Therapeutic reasoning assessment challenges traditional evaluation approaches because optimal treatment decisions often involve uncertainty, multiple acceptable options, and individualized considerations that resist standardized scoring. Effective approaches include chart-stimulated recall and case-based discussions examining treatment rationale, OSCEs with therapeutic scenarios, and multi-source feedback from interprofessional team members who observe therapeutic decision-making processes.

Tool: Case-based Discussion

Purpose

As the name implies, case-based discussion is a tool that supervisors can use to facilitate a conversation with learners about cases they have managed.

Competencies: Medical Knowledge, Patient Care, Practice-based Learning and Improvement

How it works

- The ITP or supervisor selects 2-3 cases for the discussion.
- The supervisor selects one of the cases for structured discussion.

- The questions are focused on discussing the learner's reasoning process in managing the case.
- Predetermined questions should be used to guide the discussion between the learner and supervisor.

Responsibility

- ITP: selects 2-3 cases for discussion and shares with the supervisor.
- Supervisor: selects one case for discussion. The case selection can align with needs that the ITP and supervisor have identified and focus on diagnostic reasoning and case management.
- Allow 20-30 minutes for the discussion.
- The supervisor and learner use the session to assess the learner's competence in clinical reasoning and diagnosis. Results can be used to set new goals in the individual learning plan.

Resources

Norcini J, Burch V. Workplace-based assessment as an educational tool: AMEE Guide No. 31. Medical Teacher. 2007;29(9):855-71. https://doi.org/10.1080/01421590701775453

Daniel M, Rencic J, Durning SJ, Holmboe E, Santen SA, Lang V, et al. Clinical reasoning assessment methods: A scoping review and practical guidance. Academic Medicine. 2019 Jun;94(6):902-912. https://doi.org/10.1097/ACM.0000000000002618

Intercollegiate Surgical Curriculum Program. Case-based Discussion. Available at: https://www.iscp.ac.uk/iscp/surgical-curriculum-from-august-2021/assessment-and-feedback/#heading_8.

Brown N, Holsgrove G, Teeluckdharry S. Case-based discussion. Advances in Psychiatric Treatment. 2011;17(2):85-90. https://doi.org/10.1192/apt.bp.107.003939

Tool: Chart Stimulated Recall (CSR)

Purpose

Chart stimulated recall (CSR) represents a sophisticated workplace-based assessment method that uses patient medical records as prompts to explore a learner's clinical reasoning, decision-making processes, and professional judgment through structured oral examination. The assessment involves the learner's reviewing actual patient cases they managed and articulating their diagnostic reasoning, therapeutic decisions, risk-benefit analyses, and consideration of alternative approaches during structured interviews with faculty assessors. An example of a CSR tool developed by the College of Physicians and Surgeons of Alberta is linked here.

Competencies: Patient Care, Written Communication, Practice-based Learning and Improvement, Systems-based Practice

How it works

- The learner's patient records can be selected by the learner or the supervisor for the purpose of the retrospective chart review.
- The supervisor can prepare by reviewing the records in advance with the CSR tool to select and focus questions.
- Allow 20-25 minutes to conduct the CSR assessment in a one-on-one session with the supervisor and learner together.

- During the CSR assessment, the supervisor uses a structured set of questions to explore the learner's clinical reasoning. The supervisor can also assess the learner's documentation in the medical record. Questions focus on the "why" and "what if," for example:
    - Tell me about this visit.
    - What was at the top of your differential when you first heard the complaint? Why? What if the symptoms were…?
    - Why were the symptoms you elicited important in narrowing the differential?
    - Why do you focus the physical exam on these findings?
    - Why did you select the investigations you ordered?
    - Why did you select this hydration regimen? What if the patient was in heart failure?
    - What do you plan to read about this patient tonight?
- The supervisor provides feedback at the end of the session (5 minutes).

Responsibility

- Supervisor or ITP: selects patient record
- Supervisor: reviews chart in advance to determine which aspects of the clinical encounter and decisions made as documented in the chart will be used to explore the ITP's clinical reasoning process. The supervisor selects questions to focus the discussion to the appropriate level for the learner. Supervisor provides feedback.

Resources

Schipper S, Shelley C, Ma R. Structured teaching and assessment: A new chart-stimulated recall worksheet for family medicine residents. Canadian Family Physician. 2010;56:959-60. https://www.cfp.ca/content/56/9/958.short

Reddy ST, Endo J, Gupta S, Tekian A, Park YS. A case for caution: Chart-stimulated recall. Journal of Graduate Medical Education. 2015;7(4):531-5. https://dx.doi.org/10.4300/JGME-D-15-00011.1

Philibert I. Using chart review and chart-stimulated recall for resident assessment. Journal of Graduate Medical Education. 2018;10(1):95-6. https://dx.doi.org/10.4300/JGME-D-17-01010.1

Tool: Assessment of Reasoning Tool (ART)

Purpose

This tool is meant to guide discussion and feedback to learners as they develop their mental models for case management and diagnosis. The instrument was developed to assess clinical reasoning skills including:

- data gathering skills (hypothesis-driven history-taking and physical examination)
- formulation of the clinical problem, prioritized differential diagnosis
- identification and selection of the appropriate illness script(s). An illness script is simply an organized mental summary of a physician's knowledge about a condition.
- treatment of the highest priority diagnosis
- recognition of possible biases or diagnostic errors

Competencies: Medical Knowledge, Patient Care, Practice-Based Learning and Improvement

How it works

- Supervisor/assessor training in the terminology used in the tool is available and is essential to ensure accurate rating and provision of feedback. Training is available at: https://www.mededportal.org/doi/full/10.15766/mep_2374-8265.10938.
- Definitions of the domains and the behavioral anchors are shared with learners to develop a shared language for learners and assessors/supervisors.
- The assessor uses the ART to structure feedback around an oral presentation of a patient.

Responsibility

- Supervisor or assessors: Review training materials. Develop a common understanding of the domains and behavioral anchors.
- Supervisor or/assessors: Provide actionable feedback based on ART form to learners.
- ITP: integrate results of ART feedback into their learning plan in collaboration with their supervisor.

Resources

Cohen A, Sur M, Weisse M, Moffett K, Lancaster J, Saggio R, et al. Teaching diagnostic reasoning to faculty using an assessment for learning tool: Training the trainer. MedEdPORTAL. 2020;16:10938. https://doi.org/10.15766/mep_2374-8265.10938

Gavinski K, Covin YN, Longo PJ. Learning how to build illness scripts. Academic Medicine. 2019;94(2):293. doi: 10.1097/ACM.0000000000000249

Thammasitboon S, Rencic JJ, Trowbridge RL, Olson APJ, Sur M, Dhaliwal G. The Assessment of Reasoning Tool (ART): structuring the conversation between teachers and learners. Diagnosis (Berl). 2018;5(4):197-203. https://doi.org/10.1515/dx-2018-0052

Supervisor (Faculty) Global Performance Evaluation

Faculty global performance evaluations are often used by supervisors to assess overall performance in all six core competencies over a period of time. These tools combine quantitative measures, usually rating scales, with narrative comments describing performance. Likert scales are used to distinguish levels of performance. In the past scales often used anchors (descriptors to anchor rating) related to quality (poor, fair, good, very good, excellent) or comparison to a norm (fails to meet expectations to exceeds expectations). Currently most scales use anchors with descriptions of behavior, a developmental scale (novice to expert), or an entrustment scale which describes the amount of supervision necessary (see Table 2 entrustment scales on page 5). The faculty ratings are informed by faculty observations of learners in clinical care, in interactions with the patient and family, and with team members. While the use of these assessment forms may seem efficient (all competencies are assessed), limitations of their use include reliability.

Tool: The Ottawa Clinical Assessment Tool (OCAT)

Purpose

The Ottawa Clinic Assessment Tool was developed to measure learners' skills in managing the clinic in addition to caring for their patients and has been used in both surgery and internal medicine.

The tool is designed to assess a learner's progression toward independent clinic management by querying the amount of supervision that was necessary for the completion of each activity. The tool was developed to assess:

- History-taking
- Physical examination
- Case presentation
- Differential diagnosis
- Management plan
- Patient/family communication
- Documentation
- Collaboration
- Time management
- Procedures (if performed)
- Areas for improvement

There are 11 items (9 required and 2 optional). The rating scale is based on behaviorally anchored levels of entrustment for each domain. A level 1 on the rating scale would denote "I had to do" and requires complete guidance, level 4 would be "I needed to be available just in case" and level 5 would be "I did not need to be there." The supervisor also makes a global yes/no judgment on whether or not the "Resident is safe to independently manage/run this clinic at a generalist level." At the end of the form the supervisor provides comments on "one specific aspect of the clinic done well" and "one specific suggestion for improvement." The form can be reviewed in the supplementary material in the Halman article.

Competencies: Patient Care, Medical Knowledge, Professionalism, Interpersonal and Communication Skills

How it works

- Supervisor/assessor observes the learner over the course of a day in the clinic.
- The level of entrustment is rated for each item at the end of the day and narrative comments are written.
- Supervisor/assessor provides feedback based on the observation.

Responsibility

- The supervisor schedules time to provide feedback to the learner.
- The learner reviews the feedback and incorporates it into their individualized learning plan as needed.

Resources

Halman S, Rekman J, Wood T, Baird A, Gofton W, Dudek N. Avoid reinventing the wheel: Implementation of the Ottawa Clinic Assessment Tool (OCAT) in internal medicine. BMC Medical Education. 2018;18(1):1-8. https://doi.org/10.1186/s12909-018-1327-7

Rekman J, Hamstra SJ, Dudek N, Wood T, Seabrook C, Gofton W. A new instrument for assessing resident competence in surgical clinic: The Ottawa Clinic Assessment Tool. Journal of Surgical Education. 2016;73(4):575-82. https://doi.org/10.1016/j.jsurg.2016.02.003

Simulation

Simulation employs standardized scenarios to ensure consistent evaluation conditions across learners. It provides controlled environments, eliminates patient safety risks, and enables detailed performance review through audiovisual recording. Simulation can be implemented in various formats to support the assessment of the ITP, including high-fidelity simulators, standardized patients, virtual reality platforms, task trainers, and hybrid simulations, each of which offers different advantages for evaluating specific competencies.

The simulation should align with the competency being assessed. For example, clinical decision-making and diagnostic reasoning can be evaluated through case-based scenarios that assess the ITP's understanding of medical knowledge and its application to patient care. Procedural skills may be assessed with task trainers using validated tools such as the Objective Structured Assessment of Technical Skills (OSATS). Communication skills can be evaluated with standardized patients and interprofessional team scenarios. More complex domains such as professionalism and systems-based practice can be assessed through carefully designed simulations that incorporate ethical dilemmas, team-based coordination, and navigation of health care systems.

Successful implementation of simulation requires upfront investment, which varies depending on the chosen modality, as well as ongoing attention to faculty development, case development, standardized patient training, and quality assurance. Collaborating with established simulation programs, such as those affiliated with medical schools, residency programs, simulation consortia, or physician re-entry programs, is recommended to leverage existing infrastructure and expertise.

Resources

Uchida T, Comes S. Standardized Patients. In: Practical Guide to the Assessment of Clinical Competence. Third Edition. Elsevier: 118-141.

Portfolios

A portfolio is a structured collection of documents and materials that provide evidence of a learner's professional development, clinical experience, competencies, and academic achievements throughout their training. Key components of a portfolio typically include assessments, evaluations, clinical experience logs, individualized learning plans, documentation of competencies, self-assessments, and reflections. Portfolios help learners and educators monitor progress and ensure that training program requirements are being met. They also promote learner autonomy and reflective practice, encouraging continuous self-improvement and critical thinking.

For the ITP supervisory period, we recommend the development of a system to collect and document the ITPs competence in all six general competency domains including assessments, case logs, and reflections. This system may be implemented through a learning management system or something simpler such as a secure electronic file. This record of the ITP's achievement can be used to track progress, provide feedback, and ultimately inform a final summative decision on the ITP's preparedness for unsupervised practice.

Primary responsibility for the portfolio lies with the ITP, who is expected to regularly update the portfolio with logs, reflections, and any other required documentation. However, guidance and oversight from faculty and program leadership is necessary to monitor progress, provide feedback and mentorship, and ensure that portfolio requirements are met.

Resources

Siddiqui ZS, Fisher MB, Slade C, Downer T, Kirby MM, McAllister L, Isbel ST, Christine Brown Wilson. Twelve tips for introducing e-portfolios in health professions education. Medical Teacher. 2023;45(2):139-144. https://doi.org/10.1080/0142159X.2022.2053085.

Reflective Practice and Self-Assessment

Reflective practice and self-assessment are both critical in promoting self-directed life-long learning across the continuum of medical education from student to independent practitioner. Reflective practice is the process of deliberately analyzing one's experiences, behaviors, and beliefs to improve performance. In reflective practice, experiences become learning opportunities. Donald Schon, an American philosopher and expert in organizational learning, developed a framework to help practitioners think critically during, after, and in preparation for a professional activity to improve self-awareness, identifying strengths, biases, and opportunities for improvement. The framework is described briefly below:

- Reflection-in-practice – occurs during the activity and allows for adjustment of performance in real time.
- Reflection-on-practice – occurs after the activity with an analysis of what happened, why, and how it could be done more effectively next time.
- Reflection-for-practice – occurs before the activity, when the practitioner reflects on prior experience to shape future actions.

Promoting reflective practice will be especially important in supervising ITPs who bring a wealth of experience from their own training and professional practice. In discussing their clinical performance, ITPs should be encouraged to reflect on their prior experiences to highlight their strengths, areas for growth, and areas of similarities or difference in clinical practice in comparison with the United States. Discussing the rationale for different practices may support mutual learning and integration of feedback. In promoting reflective practice, supervisors may choose to share some of their own experiences in areas such as coping with uncertainty and responding to errors.

Self-assessment, a tool for reflective practice, encourages critical thinking with the specific focus on evaluating one's own work, skills, or performance against set criteria or goals. Benefits of self-assessment include increasing self-awareness, enhancing learning with critical thinking skills, and promoting learner autonomy. However, challenges in self-assessment have been identified: poor performers often overestimate their abilities and high performers underestimate theirs. Nevertheless, research shows that accuracy of self-assessment improves significantly when combined with immediate performance feedback from an observer who can clearly articulate performance goals and engage in structured reflection exercises.

The Chart Stimulated Recall tool contains questions which can help guide reflection, promote reflective practice, and help the ITP calibrate their self-assessment. ITPs should be encouraged to actively engage in self-assessment, reflection, and goal setting during feedback sessions. In providing feedback, supervisors should provide explicit competency-based criteria and facilitate reflection.

Resources

Schön DA. Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. Jossey-Bass. 1987.

Zheng B, He Q, Lei J. Informing factors and outcomes of self-assessment practices in medical education: a systematic review. Annals of Medicine. 2024;56(1). https://doi.org/10.1080/07853890.2024.2421441

Eva KW, Regehr G. Self-assessment in the health professions: a reformulation and research agenda. Academic Medicine. 2005;80(S46-54). https://doi.org10.1097/00001888-200510001-0001546

Scott IA, Doust JA, Keijzers GB, Wallis KA. Coping with uncertainty in clinical practice: a narrative review. Medical Journal of Australia. 2023;218(9):418-425. https://doi.org/10.5694/MJA2.51925

Individualized Learning Plans

Individualized learning plans (ILPs) are learner-centered tools that customize educational opportunities throughout the supervisory period and support professional goal achievement. Grounded in self-directed learning principles, ILPs function as formal agreements between learners and supervisors for achieving specific educational outcomes while supporting the practice-based learning and improvement competency.

The ILP development should be led by the ITP to ensure relevance and promote development of self-directed learning skills. The ITP-led creation process requires the supervisor's guidance, utilizing coaching approaches. A four-step approach for ILP development is described below and in greater detail as Example 1 in Appendix 4.

1. Complete a learning needs assessment
    a. ITP drafts initial version with career goals and self-assessment
2. Define learning objectives
3. Identify strategies/tools/resources
4. Create a plan for evaluating learning

The implementation of an ILP requires regular review and revision as goals are met and new ones are established. The process includes development of goals, progress assessment against previous goals, adjustment of learning strategies, identification of learning resources, and facilitation of reflection on the learning.

See Appendix 4 for two examples of ILPs.

Resources

Burke A. Individualized learning plans: Faculty as facilitators. MedEdPORTAL. 2009. https://doi.org/10.15766/mep_2374-8265.1684

Group Process in Assessment

Group decision-making regarding learner progress is a valuable component of assessment practice in health professions education. It brings together individuals who analyze learner data and make a collective decision. Group-based assessment processes leverage collective judgment and diverse perspectives to enhance assessment accuracy, reliability, and educational impact beyond what individual evaluators can achieve. Well-structured groups generate more comprehensive information, identify errors that individual assessors might miss, and make more accurate judgments when provided with diverse data sources and structured decision-making processes. ACGME clinical competency committees (CCCs) are a required group process in assessment in U.S. residency and fellowship training programs. In the ITP Supervisory Period, the use of group process to review assessment data, interpret the ITP performance, judge progress, and make a final decision on the ITP's readiness for unsupervised practice is especially important.

Effective group assessment requires attention to group composition, process design, and decision-making frameworks to maximize benefits while mitigating potential limitations such as groupthink, dominant member influence, and diffusion of responsibility. Best practices include membership representing different backgrounds and perspectives, structured discussion protocols, facilitation to manage group dynamics, explicit criteria and standards to guide decision-making, and systematic bias recognition and mitigation strategies. Members must have a shared mental model of learner outcome expectations and how competence is assessed. Having a clear understanding (i.e., shared mental model) of the expected outcomes for ITPs will be essential for any group that reviews the ITP's performance.

Establishment of a group to make decisions on learner performance includes:

1. Selecting a group chair who has expertise in assessment and a participatory style in group leadership to ensure that all group members are heard.
2. Choosing membership to bring skills, as well as a variety of perspectives. Non-physician members of the health care team (e.g., Chief Nursing Officer) can add a valuable perspective. The group should not include fellow ITPs as that may be a conflict of interest.
3. Deciding on group size. This is influenced by the local context including the size of the program and numbers of qualified individuals who can participate. A group of at least three individuals and no larger than 10 is recommended.

A number of group procedures need to be considered before, during, and after the meetings. Ideally these are developed by the group and communicated clearly, leading to a shared mental model for group process. Points for consideration and clarification include:

Before the group meets, the group should:

1. Create ground rules including confidentiality of learner information, attendance requirements, commitments to any preparatory work, meeting frequency and format (in-person or virtual), and how decisions will be made about the ITP's progress.

2. Recognize potential conflicts of interest and how to address and mitigate impact.
3. Receive training, including an orientation to effective group process, principles of assessment, bias mitigation, and ongoing sessions to drive improvement of the group process.

During the Meeting:

1. Set an agenda.
2. Monitor for time management.
3. Document the discussion and consider using an AI assistant tool.
4. Create a safe and collegial space for all members to be heard with junior members commenting prior to comments by the chair.
5. Commit to attending the entire meeting and engage in careful listening and active participation and limit multi-tasking.
6. Present and manage data effectively.
7. Ensure clarity in the decision-making process.
8. Mitigate bias, avoidance of groupthink.

After the Meeting:

1. Review the documentation for accuracy and completeness.
2. Consider changes/improvements in the group process.
3. Provide feedback to the learner based on the outcomes of the group process.

For more detailed information on the points listed above, please see the first resource below in the Practical Guide to the Assessment of Clinical Competence. The ACGME's Clinical Competency Guide is also an excellent resource. Finally, if your institution already sponsors graduate medical education, residency program and fellowship directors and the GME office, could also provide advice and support.

Resources

Hauer KE, Kinnear B, Ekpenyong A. Group process in assessment. In: Practical Guide to the Assessment of Clinical Competence. Third Edition. Elsevier: 318-336.

Clinical Competency Committee Guidebook. https://www.acgme.org/globalassets/acgmeclinicalcompetencycommitteeguidebook.pdf

Stanford Medicine Graduate Medical Education. Clinical Competency Committee. Tools available at: https://med.stanford.edu/gme/program_portal/programs/acgme-resrc/clinical-competency-committee.html

Rowland K, Edberg D, Anderson L, Wright K. Features of effective clinical competency committees. Journal of Graduate Medical Education. 2023;15(4):463-8. https://doi.org/10.4300/JGME-D-22-00756.1

Promes SB, Wagner MJ. Starting a clinical competency committee. Journal of Graduate Medical Education. 2014;6(1):163-4. https://doi.org/10.4300/JGME-D-13-00444.1

Managing your Clinical Competency Committee (DFCA). Course access is free to members of the GME Community on Learn at ACGME. It can be accessed at: https://dl.acgme.org/learn/course/managing-your-clinical-competency-committee.

Supervision Levels Framework

The level of supervision for an ITP during the supervisory period should be tailored to the competence of the individual ITP to prioritize patient safety and provide the ITP with the appropriate level of support. These may be helpful in informing the approach for determining appropriate levels of supervision for ITPs during their supervisory period. Brief descriptions were provided earlier in the toolkit. More detailed information is provided below.

Observer means the ITPs should watch a skilled physician in the competency of interest before performing the competency task themselves under the watchful eye of a supervisor. This may be particularly important for specific competencies the ITP did not routinely use or need in the original country of practice. In these situations, practice with a standardized patient (or other forms of simulation), may be helpful if available in your setting.

Direct supervision requires the supervising physician's physical presence (i.e., in the room or telehealth visit) during key patient interaction portions, or real-time monitoring using telecommunication technology.

Indirect supervision comprises two subcategories: direct supervision immediately available (supervisor physically within hospital/clinical site) and direct supervision available (supervisor available via telecommunication but not physically present). Supervisors must be immediately available with response times appropriate to the clinical situation. Typically, supervision should be available within minutes.

Limited supervision refers to supervision that typically occurs some period after a patient encounter. This is sometimes referred to as monitoring in hindsight, and supervisor activities include reviewing the medical record, debriefing with the ITP at the end of a clinic session (e.g. end of day), or conducting an assessment such as chart-stimulated recall (see above).

Unsupervised practice (aka oversight supervision) indicates the ITP is ready for unsupervised practice and can use the remaining time in the supervision period to refine skills and strive for expertise and mastery. Here the supervisor provides review of procedures/encounters with feedback after care delivery. Retrospective review should still occur, with post-encounter evaluation, timely feedback within appropriate learning timeframes, written documentation of cases reviewed and feedback provided, and integration with institutional quality assurance and improvement processes.

Supervisors and ITPs should work together to identify appropriate levels of supervision for the range of clinical activities in which the ITP will participate. This should be revisited at regular intervals in order to promote professional development toward the goal of unsupervised practice while ensuring patient

safety. Protocols should be developed that require ITPs to contact supervisors for specific scenarios based on their required level of supervision (escalation protocol) to further ensure patient safety. Examples include patient hospital admission, unexpected patient death, higher level care transfer, medication errors requiring intervention, adverse outcomes regardless of cause, end-of-life decisions, significant clinical status changes, and uncertainty about patient care plans.

Resources

Accreditation Council for Graduate Medical Education. Common Program Requirements for Residency. Available at: https://www.acgme.org/globalassets/pfassets/programrequirements/2025-reformatted-requirements/cprresidency_2025_reformatted.pdf. Accessed July 25, 2025.

Harvard Medical School. Questioning to assist in Supervision Levels and Entrustable Professional Activities (EPAs). Available at: https://learn.hms.harvard.edu/insights/all-insights/questioning-assist-supervision-levels-and-entrustable-professional-activities-epas. Accessed July 25, 2025.

Ten Cate O. Entrustment as assessment: Recognizing the ability, the right, and the duty to act. Journal of Graduate Medical Education. 2016;8(2):261-2. https://doi.org/10.4300/JGME-D-16-00097.1

Cotter JM, Ziniel S, Lockwood J, Reese J. Care escalation: Teaching residents how to effectively communicate patient care concerns. MedEdPORTAL. 2019;15:10833. https://doi.org/10.15766/mep_2374-8265.10833

Implementation Strategies

Implementation of a program of assessment for the ITP supervisory period requires:

1. Development of the program of assessment, including a selection of assessment tools
2. Training of the supervisor and others who will work with the ITP (e.g., faculty development in assessment practices)
3. Leadership and administrative support
4. Orientation of the ITP to the program
5. Evaluation of the assessment program's effectiveness

Additionally, the program should be clearly documented to ensure consistency of implementation and fairness for all ITPs engaging in the supervisory period.

1. Selection of assessment tools and developing a program of assessment

These should be selected to provide information on all six competencies. Ideally at least one additional tool besides Faculty Global Performance Evaluations should be selected for each competency. Tools should be selected to provide important information on competence and to be feasible within the healthcare system which is hosting the ITP for the supervisory period. Additional tools may be added to an assessment program to address the needs of an individual ITP as part of an individualized learning plan.

Next, **when** and **where** the assessment activities will take place must be decided to ensure that the ITP is assessed in a variety of settings, contexts, and by multiple assessors in a regular cadence. Developing

a schedule ensures that there is ongoing observation and feedback for the ITP and the program. These assessments should be reviewed in real time by the program's director and also compiled as part of a group process monitoring the ITP's progress.

In order to sufficiently and effectively assess the ITP on all of the six general competencies within the scope of their intended practice and supervision period, the institution will need to use a program approach to assessment. Provided below is a basic sample program that institutions can adapt and modify.

See Appendix 5 for an example of a program of assessment for an ITP Supervisory program.

2. Supervisor Training and Health Care Team Member Orientation

Training (called faculty development in medical education) of supervisors should, at a minimum, address supervision skills and assessment practices such as direct observation, rater training, feedback, and coaching. This can be delivered as stand-alone workshops, embedded into regular meetings as snippets, or as online modules. Most medical schools and GME programs have offerings which could address these topics. Faculty training resources are also available online through the ACGME Faculty Development Toolkit: Improving Assessment through Direct Observation. As emphasized throughout, utilize local resources when you can.

Additionally, all health care team members who will be working with the ITP in the clinical setting should be oriented to the role of the ITP and their role in training, assessment, and supervision.

3. Program Leadership and Administration

An individual should be selected to lead the program and be the accountable leader for assessment and supervision during the supervisory period. This person should be the main point of contact for the ITPs, faculty, and the state medical board. An administrator is necessary to manage the distribution, collection, and collation of assessment forms.

4. Orientation of the ITP to the Assessment Program

Given that many ITPs would not have experienced these types of assessments in their training, it is essential that the ITPs are oriented to assessment and supervision in the Supervisory Period. The orientation should include the purpose of the assessments, the implementation of the tools, and the ITP responsibility in each type of WBA. An orientation to feedback, including feedback seeking and integration, and coaching is also important.

5. Evaluation of the Assessment Program's Effectiveness

Quality assurance ensures system effectiveness through regular assessment program evaluation, stakeholder feedback collection, data collection and analysis for outcome patterns, and refinement based on evidence and experience. Success metrics include assessment frequency tracking, inter-rater reliability maintenance, ITP satisfaction monitoring, and competency coverage verification across all six domains. See the next section for more details on program evaluation.

Evaluation of ITP Supervisory Programs

While some program evaluation should occur at the level of the institution hosting the ITP, other evaluation should occur at the state and even national level as we consider the impact and opportunities for quality improvement of additional pathways to licensure of physicians in the United States.

Institution Level Program Evaluation

Programs should determine which outcomes will serve as benchmarks for success and identify the specific data that must be collected to assess progress. Examples include the number of ITPs who apply, enroll, and complete the program; their countries of medical training and citizenship; and the medical specialties they pursue. Beyond participation metrics, institutions sponsoring ITP supervisory programs could use Kirkpatrick's framework for program evaluation.

Kirkpatrick's evaluation model is a widely used framework for assessing the effectiveness of programs. It consists of four levels: Leve1 -Reaction, Level 2- Learning, Level 3- Behavior, and Level 4 - Results. Kirkpatrick's model has been refined for evaluating educational outcomes by breaking Kirkpatrick's Level 2 into Level 2A, change in attitudes. and Level 2B, modification of knowledge or skills.

Kirkpatrick Level 1 - Reaction

This level focuses on the immediate response of participants to the program. It assesses their satisfaction with the program, their engagement, and whether they found it relevant and useful. Data is typically gathered through surveys, feedback forms, interviews, or focus groups. For an ITP supervisory period program, participants surveyed should include ITPs, supervisors, and any other important stakeholders in your institution who participated in the program.

Kirkpatrick Level 2 – Learning

This level measures what participants have learned during the training. It assesses the acquisition of knowledge, skills, and attitudes. Kirkpatrick level 2A measures changes in participant attitudes or perceptions related to the learning. Kirkpatrick Level 2B measures changes in knowledge or skills. Evaluation methods include quizzes, tests, assignments, and practical demonstrations. For an ITP supervisory period program, measuring learning in level 2A could occur through surveys of self-efficacy (what are the changes they feel have occurred, do they feel more capable). Level 2B would include aggregate data from assessments of knowledge and skills.

Kirkpatrick Level 3 - Behavior/Ability

This level examines whether the knowledge and skills learned are being applied in the workplace. It looks for changes in behavior and the extent to which participants are effectively using their new capabilities. Evaluation can involve observations, performance appraisals, and feedback from supervisors. For an ITP supervisory period program, this would include aggregate data from workplace-based assessments and other assessments of clinical performance in the workplace.

Kirkpatrick Level 4 - Results

This level assesses the ultimate impact of the training on the organization's goals and objectives in sponsoring the ITP supervisory program. It measures the achievement of desired outcomes, such as increased productivity, improved quality, reduced costs, or enhanced safety. In an ITP supervisory program Level 4 measures could include:

- Practice location (urban vs. rural, underserved areas)
- Duration of service in medically underserved communities
- Employment setting, such as safety-net hospitals, community health centers, or private practices
- Retention rates within the state of supervision
- Progression to board certification
- Malpractice claims
- Patient experience scores
- Total programmatic cost per ITP

State Level Program Evaluation

Ideally, states enacting legislation should also assess patient outcomes and potential barriers encountered by ITPs in adapting to the U.S. health care system. Regular collection and analysis of this data will enable longitudinal research aimed at informing iterative adjustments to the program and broader implications for health care access and delivery. The Joint Committee on Standards for Educational Evaluation has developed Program Evaluation Standards that provide a comprehensive framework for evaluating educational public programs across multiple sectors, including health care and licensure. More detailed information is available at www.jcsee.org. You may want to check with your state medical board to learn if they plan any evaluation activities and/or can provide resources and support.

The goal of the additional pathways to licensure is to streamline the medical licensure process to increase access to care in undeserved and rural communities, utilizing competency-based medical education practices to achieve the desired outcome for the ITP and supervision program. The success of policy implementation should evaluate the extent to which the goal was achieved. There should be a plan in place to compare the outcomes for ITPs compared with those who are licensed through traditional means. If it is at all feasible, ensure that similar information is collected on all physicians including:

- Post-licensure practice location (urban vs. rural, underserved areas)
- Post-licensure employment setting, such as safety-net hospitals, community health centers, or private practices
- Duration of post-licensure practice in underserved areas
- Specialty type – primary care vs. other
- Complaints to the state medical board

National Level Program Evaluation

Collection of data supports improvement in the training program and provides evidence of the efficacy of policy implementation. Given that states have enacted legislation with varying requirements for entry, it would be useful to compare programs across states with a unified set of metrics to compare outcomes.

Resources

Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, Prideaux D. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. Medical Teacher. 2006;28(6):497-526. https://doi.org/10.1080/01421590600902976

Conclusion

Assessment of the ITP during the supervisory period requires sophisticated integration of multiple evaluation approaches supporting both ITP development and accountability standards. Supervisors' mastery of these interconnected systems—from individual, self-directed learning plans through competency-based supervision decisions—creates powerful training environments preparing physicians for independent practice complexity.

Implementation of an additional licensure pathway using supervised practice provides an opportunity for regular assessment of the ITP using varied assessment approaches. The tools detailed in this document support the Advisory Commission on Additional Licensing Models recommendations. The instruments are those that have produced validity evidence and demonstrated reliability when used in training, meeting both ITP development and accountability standards.

We offer the following recommendations to guide the evolution of these additional pathways:

1. Supervisors and institutions should keep in mind the assessment criteria discussed above: validity, reliability, feasibility, and acceptability.
    a. All stakeholders participating in the process of implementing an additional pathway should understand these principles and commit to them.
    b. Stakeholders should understand that developing an assessment is a collaborative process.
2. Assessors, supervisors, and ITPs should be aware of the educational effect of the assessment occurring before, during, and at the end of the supervised practice period. A common framework of competency definitions facilitates alignment with the goals of the program and U.S. health care.
3. When selecting instruments for use with ITPs, consider what is being assessed using a competency definition.
4. The fairness of the process can be enhanced by using the same tools to assess all learners. Multiple evaluations by different assessors over the course of supervised practice can reduce the effects of rater severity (or leniency) and ensure that all learners face tasks of similar difficulty.
5. Plan to collect information before, during, and after the training period to support evaluation efforts.

We recognize that developing and implementing a program of assessment is complex and resource intensive. We anticipate that specialty societies will partner to develop guidelines for assessment and

documentation of competence. This will be essential if pathways to specialty Board Certification for ITPs are developed. The American Board of Medical Specialties has already provided a guidance document addressing the potential for ITPs to be Board Certified in their specialty.

By prioritizing the demonstration of competence in the six core competency areas, health care systems should be able to effectively assess and integrate internationally trained physicians, to ensure that patients receive high-quality care while acknowledging the valuable contributions that these professionals can bring to the health care workforce.

Rater Assessment Form for
Direct Observation of Clinical Skills (Mini-CEX)

ITP Name:	
Supervisor Name:	
Procedure:	
Date:	

Encounter Complexity:		☐ Low	☐ Moderate	☐ High
Focus:	☐ Data gathering	☐ Diagnosis	☐ Therapy	☐ Counseling

Instructions: Thinking about the encounter that you just watched, please answer the following questions.

What did you observe the ITP do well?

What deficiencies and/or errors did the ITP commit?

Based on your observations, what would you prioritize for the ITP to improve? Provide up to three specific areas of opportunity.

Based on this single observation, how would you approach your supervision of this ITP in this skill the next time?

	Levels of ITP Entrustment and Supervision				
	1	**2**	**3**	**4**	**5**
Rate each item below	**ITP can be present but only as observer**	**ITP can practice skill with direct supervision** (supervisor in room)	**ITP can practice skill with indirect supervision** (supervision available within minutes)	**ITP can practice skill with limited supervision** (supervisor provides supervision if requested and monitoring in hindsight)	**Unsupervised practice allowed for the ITP with a provisional license*** (supervisor provides monitoring in hindsight for continuous professional development and supervision in accordance with state requirements for provisional licensure.)
Medical Interviewing	☐	☐	☐	☐	☐
Physical Examination	☐	☐	☐	☐	☐
Humanistic qualities/ Professionalism	☐	☐	☐	☐	☐
Clinical judgment	☐	☐	☐	☐	☐
Counseling skills/informed decision making	☐	☐	☐	☐	☐
Organization/efficiency	☐	☐	☐	☐	☐
Overall clinical performance in this patient encounter	☐	☐	☐	☐	☐

* *This is the goal for the ITP until they hold a full, unrestricted license to practice medicine*

Adapted from: Kogan JR, Dine CJ, Conforti LN, Holmboe ES. Can rater training improve the quality and accuracy of workplace-based assessment narrative comments and entrustment ratings? A randomized controlled trial. Academic Medicine. 2023;98(2):237-247

Rater Assessment Form for
Direct Observation of Procedural Skills

ITP Name:	
Supervisor Name:	
Procedure:	
Date:	

Instructions: Thinking about the encounter that you just watched, please answer the following questions.

What did you observe the ITP do well?

What deficiencies and/or errors did the ITP commit?

Based on your observations, what would you prioritize for the ITP to improve? Provide up to three specific areas of opportunity.

-

Based on this single observation, how would you approach your supervision of this ITP in this skill the next time?

	Levels of ITP Entrustment and Supervision				
	1	**2**	**3**	**4**	**5**
Rate each item below	**ITP can be present but only as observer**	**ITP can practice skill with direct supervision** (supervisor in room)	**ITP can practice skill with indirect supervision** (supervision available within minutes)	**ITP can practice skill with limited supervision** (supervisor provides supervision if requested and monitoring in hindsight)	**Unsupervised practice allowed for the ITP with a provisional license*** (supervisor provides monitoring in hindsight for continuous professional development and supervision in accordance with state requirements for provisional licensure.)
Knowledge (indications, anatomy, procedure, complications)	☐	☐	☐	☐	☐
Informed consent	☐	☐	☐	☐	☐
Pre-Procedure Preparation	☐	☐	☐	☐	☐
Appropriate Analgesia	☐	☐	☐	☐	☐
Aseptic Technique	☐	☐	☐	☐	☐
Technical Ability	☐	☐	☐	☐	☐
Communication with Patient	☐	☐	☐	☐	☐
Communication with Staff	☐	☐	☐	☐	☐
Professional behavior throughout procedure	☐	☐	☐	☐	☐
Post-Procedure Management	☐	☐	☐	☐	☐

Adapted from: Kogan JR, Dine CJ, Conforti LN, Holmboe ES. Can rater training improve the quality and accuracy of workplace-based assessment narrative comments and entrustment ratings? A randomized controlled trial. Academic Medicine. 2023;98(2):237-247, College of Physicians and Surgeons of Alberta DOPS Form https://cpsa.ca/wp-content/uploads/2021/07/Family-Med-PCA-DOPS-Form.pdf, and Intercollegiate Surgical Curriculum Programme DOPS Form https://www.iscp.ac.uk/curriculum/surgical/assessment_dops.aspx

Chart Stimulated Recall – Clinical Reasoning Focus

ITP Name:			
Evaluator:			
Date:		**Service:**	

Chart Audit Notes *Consider clarity, focus, and completeness.*		Any evidence of cut and paste?	☐ Yes ☐ No

Chart Stimulated Recall Notes *Note which clinical reasoning questions asked*

Feedback
1.
2.
3.

Chart Stimulated Recall – Clinical Reasoning Questions

1. What did you think was going on when you heard it was a …year old patient with…
    a. Initial hypotheses (most likely, most alarming)
2. What data were important for discriminating between these hypotheses?
   What are the relevant *discriminating key features* in your note?
    a. History
    b. Physical
    c. Initial diagnostic tests
3. Can you summarize this case in 1-2 sentences?
    a. *Problem representation*-write it out
4. Problem list
    a. Define each problem to the best of your ability
    b. Identify plan for each problem
    c. What is the patient's most pressing problem now? *Prioritization*
5. Is the illness script for the working diagnosis consistent with the patient's history and findings? Write the *illness script* for the working diagnosis.
    a. Predisposing conditions – who gets it and why?
    b. Pathophysiologic insult – what causes it?
    c. Clinical consequences
        i. What are the defining clinical features?
        ii. How does the disease progress?
        iii. How is the disease managed?
6. Are there any features which do not fit the illness script of the working diagnosis?
    a. Any potential biases?
7. Is there additional data you need?
    a. History
    b. Physical
    c. Diagnostic tests
8. Why did the patient require admission?
9. What are criteria for discharge?
10. Compare the way you documented with how you gathered the information. Which questions did you ask first?
11. What have you learned from this case?
12. What additional questions do you have about this case?
    a. How did you document clinical uncertainty?
    b. What is your PICO question?

Adapted by Konopasek L., from Physician Achievement Review Chart Audit Field Note and Chart-Stimulated Recall Worksheet, 2012.

Appendix 4: Individualized Learning Plan Examples

Examples of Individualized Learning Plans (ILPs)

ITPs could use this structured worksheet to complete a learning needs assessment as they enter the Supervisory period. After completing a draft, they should work with a supervisor to review and consult about the ILP.

Individualized Learning Plans (ILPs): Example 1

Step 1 Completing a Learning Needs Assessment

Define Career Goals

Long-Term (over Supervisory Period or into practice and beyond)

Short-Term (next six to 12 months)

Self-Assessment

1. Patient Care Compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
Strengths:

Areas for Improvement:

Proceed to the next page →

Self-Assessment (continued)

2. Medical Knowledge Established and evolving biomedical, clinical, and cognate (e.g., epidemiology and social-behavioral) sciences and the application of this knowledge to patient care
Strengths:

Areas for Improvement:

3. Practice-based Learning and Improvement Involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
Strengths:

Areas for Improvement:

Proceed to the next page →

Self-Assessment (continued)

4. Interpersonal and Communication Skills Result in effective information exchange and teaming with patients, their families, and other health professionals
Strengths:

Areas for Improvement:

5. Professionalism Commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
Strengths:

Areas for Improvement:

Proceed to the next page →

Self-Assessment (continued)

6. Systems-based Practice Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value.
Strengths:

Areas for Improvement:

Step 2 Defining Learning Objectives

Try to come up with three objectives you will work to achieve over the next months. Take into consideration the strengths and weaknesses you just identified earlier in the ILP process. Each Objective should try to follow the SMART criteria: Specific, Measurable, Achievable, Relevant, Time-based.

Step 3 Identifying Strategies/Tools/Resources

Once you have set your objectives, decide what you will need to accomplish them. There may be books, new journal subscriptions, online resources, or courses you wish to take. There may be tools you need, such as an electronic calendar, a dry erase board in your office, or other organizational equipment from an office store. People may also be resources, and you may plan to set up a meeting or to have coffee with a prospective mentor or more senior physician at the institution.

Proceed to the next page →

Appendix 4: Individualized Learning Plan Examples

Step 4 Evaluating Your Learning

You need to state how you will evaluate the results of what you have planned. How will you know that you have accomplished the above? Some measures are simply that you have completed a set task. Some require more specific outcome measures. One example of an outcome measure that could be tracked for the ITP Supervisory Period includes rising ratings on entrustment/supervision scales in workplace-based assessments.

Lastly, set a time to follow up with your supervisor. Decide when you will review how you did on the plans you have set forth and continue to refine and update your ILP.

Created by: Moutsios SA. 2009. Adapted from Burke A. "Individualized Learning Plans: Faculty as Facilitators. MedEdPORTAL. Accepted Dec. 15, 2008. Adapted by Konopasek L., for use in the ITP Supervisory Period 2025.

Individualized Learning Plans (ILPs): Example 2

Goal	Timeline 1	Timeline 2	Resources Required	Challenges	Identifiable Results
Describe a specific, observable learning objective or goal (can be a milestone subcompetency)	When will you begin?	When do you expect to see results?	Identify the resources needed. Who else will you involve? What learning will be necessary?	What may get in the way of accomplishing the objective or goal?	How will you know the results are obtained? What observable measures demonstrate you have achieved this objective or goal?
1)					
2)					
3)					

Template courtesy of Joan Sargeant. Dalhousie University, Canada

Appendix 5: Example of a program of assessment for an ITP supervisory program

<table>
<tr><td rowspan="6">Orientation and Needs assessment

Consider using standardized patients (e.g. OSCE) if available, or other services referenced in the resources. A review of past ITP experiences and creation of an initial ILP is recommended</td><td colspan="12">Months</td><td rowspan="6">Exit assessment for Final decision

Review entire assessment program as final quality assurance check</td></tr>
<tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr>
<tr><td>Frontload 3-4 mini-CEXs as a baseline assessment

Probe clinical reasoning using CBD or CSR in the first month</td><td>1-2 mini-CEXs</td><td>1-2 mini-CEXs</td><td>1-2 mini-CEXs

Probe clinical reasoning using CBD or CSR</td><td>1-2 mini-CEXs</td><td>1-2 mini-CEXs</td><td>1-2 mini-CEXs</td><td>1-2 mini-CEXs

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Probe clinical reasoning using CBD or CSR</td><td>1-2 mini-CEXs</td></tr>
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<tr><td>Faculty Global Eval</td><td></td><td>Faculty Global Eval</td><td></td><td>Faculty Global Eval</td><td></td><td>Faculty Global Eval</td><td></td><td>Faculty Global Eval</td><td></td><td>Faculty Global Eval</td><td></td></tr>
<tr><td colspan="12">Longitudinal case logs (if applicable depending on goals and use)</td></tr>
</table>

Key:

Mini-CEX – mini-Clinical Exercise

CBD – case-based discussion

CSR – chart stimulated recall

MSF – multi-source feedback

OSCE – objective structured clinical examination

Appendix 6: Additional Resources for Institutions Sponsoring Additional Pathways to Licensure

Medical Knowledge/Patient Care

- Check the resources available through the relevant **specialty society**. Many specialty societies provide multiple resources for medical knowledge and patient care skills, including board preparation materials and in-training type practice exams.
- HumanDx – A useful diagnostic reasoning tool, especially for internal medicine.
- Stanford Medicine 25 – A comprehensive resource on bedside and physical examination skills.
- Community Improving Diagnosis in Medicine (CIDM) – A community focused on improving diagnostic quality and safety

Communication and Interpersonal Skills

Center for Professionalism and Communication in Healthcare (University of Texas Health Science Center at Houston) – Offers free web-based modules on communication skills.

- Delivering Bad or Life-Altering News – American Academy of Family Physicians (AAFP) – A structured framework for delivering difficult news in clinical encounters.
- VitalTalk – A nonprofit organization providing communication training for clinicians working with seriously ill patients.
- Core Competencies for Interprofessional Collaborative Practice – 2016 Update – A set of team-based care competencies developed by the Interprofessional Education Collaborative (IPEC).
- Academy of Communication in Healthcare – is a non-profit association founded in 1979 as the professional home for all those who are committed to improving communication and relationships in healthcare. This organization offers training in Relationship-Centered Communication skills.

Professionalism

- American Board of Internal Medicine (ABIM) Foundation Charter on Medical Professionalism – A foundational document articulating professional responsibilities of physicians.
- American Medical Association (AMA) Principles of Medical Ethics – A comprehensive ethics guide for physicians.
- Accreditation Council for Graduate Medical Education (ACGME) AWARE Suite of Well-being Resources – A set of modules addressing well-being and burnout in GME. *(Free registration required)*

Practice-based Learning and Improvement and Systems-based Practice

Self-Directed Activities

- Review an ILP (Individualized Learning Plan) template and write an initial draft.
- Understand the basics of reflective practice, motivation, and self-regulated learning.
- Learn how to effectively seek and use feedback.
- Read *Thanks for the Feedback* by Douglas Stone and Sheila Heen – a practical guide to receiving feedback.

Resources

- Institute for Healthcare Improvement (IHI) Open School – Offers online modules on quality improvement and patient safety. *(Fee required)*
- Association of American Medical Colleges (AAMC) Quality Improvement and Patient Safety (QIPS) Competencies – A framework to help integrate QI/PS education into health professions curricula.
- PICO Question Creation Guide – University of Toronto – A tool to assist learners in framing evidence-based clinical questions.

Resources for Competency-based Medical Education

Van Melle Framework for Competency-Based Medical Education

Component	Description
An Outcomes-Based Competency Framework	• **Desired outcomes of training are identified based on societal needs** • **Outcomes are paramount so that the graduate functions as an effective health professional**
Progressive Sequencing of Competencies	• **In CBME, competencies and their developmental markers must be explicitly sequenced to support learner progression from novice to master clinician** • **Sequencing must consider that some competencies form building blocks for the development of further competence** • **Progression is not always a smooth, predictable curve**
Learning Experiences Tailored to Competencies in CBME	• **Time is a resource, not a driver or criterion** • **Learning experiences should be sequenced in a way that supports the progression of competence** • **There must be flexibility to accommodate variation in individual learner progression** • **Learning experiences should resemble the practice environment** • **Learning experiences should be carefully selected to enable acquisition of one or many abilities** • **Most learning experiences should be tied to an essential graduate ability**
Teaching Tailored to Competencies	• **Clinical teaching emphasizes learning through experience and application, not just knowledge acquisition** • **Teachers use coaching techniques to diagnose a learner in clinical situations and give actionable feedback** • **Teaching is responsive to individual learner needs** • **Learners are actively engaged in determining their learning needs** • **Teachers and learners co-produce learning**
Programmatic Assessment (i.e., Program of Assessment)	• **There are multiple points and methods for data collection** • **Methods for data collection match the quality of the competency being assessed** • **Emphasis is on workplace-based assessment** • **Emphasis is on providing personalized, timely, meaningful feedback** • **Progression is based on entrustment** • **There is a robust system for decision-making** • **Good assessment requires attention to issues of implicit and explicit bias that can adversely affect the assessment process.**

Core Competencies and Examples of Competency-Based Assessments that Could be Used during the Supervisory Period

Competency	Competency-Based Assessment Options
Medical Knowledge	• **In-training exam** • **Feedback from multiple evaluators**
Patient Care	• **Work-based clinical assessment through direct observation of the individual during care delivery** • **Feedback from evaluators who work with the ITP and peer evaluations** • **External structured curriculums, standardized assessments, and simulation**
Professionalism	• **Informed self-assessment** • **Feedback from multiple evaluators and peer evaluations from individuals that work with the ITP** • **Multisource feedback, such as a 360-degree evaluation**
Communication	• **Patient-reported feedback** • **Feedback from multiple evaluators and peer evaluations from individuals that work with the ITP** • **Multisource feedback, such as a 360-degree evaluation, especially regarding interprofessional care**
Practice-based Learning and Improvement	• **Evaluation of knowledge, skills, and attitudes from participation in systematic efforts to improve the quality, safety, or value of health care services**
Systems-based Practice	• **Feedback from multiple evaluators regarding ability to practice in a complex health care system** • **Multisource feedback, such as a 360-degree evaluation, especially regarding interprofessional care**

Accreditation Council for Continuing Medical Education (ACCME) Resources

This curriculum framework, developed by the Accreditation Council for Continuing Medical Education's IMG Advisory Committee, provides guidance for institutions aiming to support international medical graduates (IMGs) during onboarding and early clinical integration. Building on the recommendations of the Advisory Commission, it provides a standardized, scalable framework to support the development of learning materials by accredited educational organizations, including specialty societies, medical schools, state medical societies and healthcare institutions across the country.

https://accme.org/wp-content/uploads/2025/03/1066_2025_03_24_Curriculum-Framework-for-Onboarding-and-Orienting-International-Medical-Graduates.pdf

Federation of State Medical Boards (FSMB) Resources

The FSMB's Directory of Physician Assessment and Remedial Education Programs lists programs for physicians seeking assessment and remediation. These centers may provide resources for assessment of ITPs.

https://www.fsmb.org/siteassets/spex/pdfs/remedprog.pdf

Accreditation Council for Graduate Medical Education (ACGME) Resources

The ACGME offers a suite of tools and guidebooks to support assessment, remediation, and program management in graduate medical education**.**

Toolkits and Courses:

- Improving Assessment Using Direct Observation Toolkit
- Managing Your Clinical Competency Committee (Free registration required via Learn@ACGME)
- Remediation Toolkit (Free registration required via Learn@ACGME)

Guidebooks:

- Clinical Competency Committee Guidebook (PDF)
- ACGME Assessment Guidebook (PDF)

Well-being Resources

- ACGME AWARE Suite of Well-being Resources (Free account required via Learn@ACGME)
- NAM Action Collaborative on Clinician Well-Being and Resilience

Tools for Improving Feedback

These evidence-based models support the delivery of structured, learner-centered feedback in clinical education.

R2C2 Feedback Model

Developed by faculty at Dalhousie University in Canada, the R2C2 model provides a structured framework for feedback based on four key phases: **Rapport**, **Reaction**, **Content**, and **Coaching for Change**.

- R2C2 Overview – Dalhousie University
- Video: Using Competency-Based Language
- Video: Using Generic Language
- Video: Using ACGME Milestones

ADAPT Feedback Model

The ADAPT model, developed by the Graduate Medical Education team at the University of Washington, offers a flexible structure for educators to deliver personalized feedback in a way that fosters growth and collaboration.

- Prepare to ADAPT – University of Washington GME