Clinical Precepting

A Comprehensive Evidence-Based Guide for Community Physician Preceptors at LMU-DCOM

A research foundation for the "Introduction to Precepting" presentation for OMS-III and OMS-IV preceptors.

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Date: June 2026

Executive Summary

Community physician preceptors are among the most consequential educators in medicine. They shape not only clinical competence but professional identity, specialty choice, and career trajectory. Yet most physicians become preceptors with no formal training in teaching — and practice in environments that structurally punish the time teaching demands. This report synthesizes the strongest available evidence across nine domains of the preceptor's job: role and identity, learner development, rotation setup, teaching microskills, assessment, feedback, workflow integration, special situations, and synthesis. The goal is to equip preceptors with theoretical grounding and practical tools they can use immediately — including sample scripts and frameworks.

Section 1: The Role and Identity of the Clinical Preceptor

What Is a Clinical Preceptor?

A clinical preceptor is an experienced practitioner who provides supervision during clinical practice and facilitates the application of theory to practice for students in real patient care settings (Dalhousie University Faculty of Health[1]). The term is distinct from didactic teaching (classroom instruction divorced from patient care) and from supervision-only (oversight without deliberate educational intent). A preceptor occupies the intersection: responsible for patient safety and for learner development simultaneously.

This dual accountability is what makes community precepting uniquely demanding and uniquely valuable. Unlike a medical school classroom, the clinical environment delivers authentic problems, real consequences, and irreducible uncertainty — exactly the conditions under which deep professional learning occurs.

The Multiple Roles Preceptors Play

Research consistently shows that effective preceptors occupy at least eight distinct roles (Frontiers in Education conceptual framework study, 2026[2]):

Role	Core Function	Clinical Example
Teacher	Transmits knowledge and skills	Explains mechanism of atrial fibrillation at the point of care
Role Model	Demonstrates professional behavior	Shows how to deliver bad news with presence and honesty
Supervisor	Ensures safe patient care	Oversees the student's first suture
Assessor	Judges learner competence	Completes the end-of-rotation evaluation
Coach	Supports skill refinement over time	Debriefs after a difficult patient encounter
Mentor	Guides professional development	Advises on specialty choice
Advocate	Represents the learner's interests	Writes a strong letter of recommendation
Gatekeeper	Protects patients and the profession	Escalates concerns about a student's unsafe practices

These roles are not always compatible. The preceptor who grades a student's evaluation is simultaneously the coach trying to create safety for honest self-reflection — a tension the literature calls the assessment paradox (Academic Medicine[3]).

Professional Identity Formation as a Clinician-Educator

Most community physicians come to precepting as clinicians first. The shift to clinician-educator involves a second identity layer — one that does not develop automatically but requires deliberate cultivation. A scoping review published in Family Medicine[4] found that community preceptors who develop a strong educator identity show greater commitment to teaching, higher learner satisfaction, and more deliberate use of teaching strategies. Identity as an educator is reinforced through engagement with peers in communities of practice, faculty development programming, and explicit recognition from institutions.

The Hidden Curriculum and Role Modeling

Hafferty's influential 1998 analysis articulated a critical insight: students learn far more from observing what their teachers do than from what they explicitly teach (Hafferty, Academic Medicine, 1998[5]). The hidden curriculum encompasses the implicit lessons transmitted through institutional culture, role modeling, and everyday behavior. When a preceptor complains about "frequent fliers," interrupts a patient's story, or dismisses a student's question as obvious — these are teaching moments, whether intended or not.

The 2026 Frontiers in Education conceptual framework study[2], surveying 222 participants (173 students, 49 preceptors), identified 90 distinct attributes of effective preceptors as role models. The highest-valued were: clinical competence, communication with patients, ethical behavior, and genuine engagement with learners. Notably, unintentional role modeling — how the preceptor behaves under pressure, with difficult patients, when fatigued — was rated as highly influential as intentional teaching.

Practical implication: Every encounter is a teaching encounter. The preceptor who pauses before entering a room and says to a student, "Watch how I greet this patient — I always start by asking what's most important to them today," converts invisible modeling into explicit teaching.

Why Preceptors Matter: Evidence Linking Preceptor Quality to Learner Outcomes

The evidence that preceptor quality matters is substantial:

- Specialty choice: Students' choice of primary care careers is significantly influenced by the quality of their clinical preceptors and the community practice experience (Academic Medicine ambulatory care teaching review, Irby 1995[3]).
- Clinical competence: Direct observation by supervisors during training is associated with better skill acquisition and earlier identification of deficiencies (Holmboe, Academic Medicine, 2004[6]).
- Professional identity: The professional identity that students form during clerkships — their sense of what kind of physician they will be — is profoundly shaped by the preceptors they work with (Cruess professional identity formation, Academic Medicine[7]).
- Career trajectory: Mentorship by a clinical educator who models work-life integration, intellectual curiosity, and humane practice is among the strongest predictors of long-term physician satisfaction and reduced burnout.

Preceptor Barriers: What the Evidence Shows

The barriers are real and documented. A study on community preceptor decline published in Academic Medicine[8] identified five major factors driving preceptor attrition: time pressure, productivity/RVU expectations, EMR burden, lack of institutional support, and inadequate training. The PMC preceptor behavior review[9] confirmed that increasing workloads and diverse trainee needs compound these challenges.

Critically, research consistently shows that the perceived time cost of teaching is greater than the actual time cost (Queen's University Clinical Teaching Toolkit, Simpson[10]). Studies of ambulatory teaching environments demonstrate that trained preceptors can deliver high-quality teaching in 1–3 minutes per patient encounter using structured microskills — the tools reviewed in Section 4.

Key Takeaways for the Preceptor

- You play eight roles simultaneously; being explicit about which role you occupy in a given moment reduces confusion for learners.
- The hidden curriculum is always running. Preceptors who reflect on their own behavior teach professional values more effectively.
- The evidence confirms: your quality as a preceptor matters enormously to your learners' development, specialty choice, and identity.
- Barriers are real but surmountable with specific, time-efficient teaching strategies.

Section 2: Learner Development and the Psychology of Clinical Learning

Adult Learning Principles (Andragogy) Applied to Clinical Teaching

Malcolm Knowles' andragogy framework identifies five assumptions about adult learners that are especially relevant in clinical education (PMC adult learning theory review, Healthcare[11]):

1. Self-concept: Adults are self-directed learners who resist being treated as passive recipients.
2. Experience: Adults bring rich prior experience that must be acknowledged and built upon.
3. Readiness: Adults learn most when the content is immediately relevant to their real-world problems.
4. Orientation: Adults are problem-centered, not subject-centered, learners.
5. Motivation: Adults are primarily intrinsically motivated.

Clinical implication: The OMS-III student presenting a patient is not an empty vessel waiting to be filled. They have hypotheses, reasoning, and often a diagnosis. The preceptor who asks "What do you think is going on?" before pronouncing the answer activates the student's intrinsic motivation and prior knowledge — and is practicing andragogy.

Experiential Learning (Kolb's Cycle)

David Kolb's 1984 model describes learning as a cycle: Concrete Experience → Reflective Observation → Abstract Conceptualization → Active Experimentation (Kolb experiential learning review[11]). In clinical settings, most learners are immersed in concrete experience (seeing patients) but lack the scaffolding to complete the cycle. The preceptor's job is to facilitate the other three phases:

- Reflective Observation: "What went well in that visit? What surprised you?"
- Abstract Conceptualization: "What's the general rule you can take from this case?"
- Active Experimentation: "Next time you see a patient with this presentation, here's what I'd try differently..."

Without these debriefing moments, clinical experience can produce competent technicians rather than reflective clinicians.

Stages of Clinical Learner Development

The Dreyfus Model

Dreyfus and Dreyfus (1986) described five stages of skill acquisition: Novice → Advanced Beginner → Competent → Proficient → Expert (Dreyfus skill acquisition model[12]). Critically, each stage requires different teaching approaches:

- Novice (many OMS-III early rotations): Needs explicit rules and close supervision. Does not yet see context; applies rules mechanically.
- Advanced Beginner (later OMS-III): Begins recognizing patterns; needs guidance to prioritize.
- Competent (OMS-IV, sub-I): Deliberate planning; benefits from case-based discussion.

Teaching an expert strategy to a novice is ineffective. Teaching a novice strategy to a near-expert is insulting and demotivating.

The RIME Framework

Pangaro (1999) proposed the RIME framework as a vocabulary for describing clinical learner development (Pangaro RIME framework, Academic Medicine[13]):

Level	Core Ability	Typical Stage
Reporter	Accurately collects and communicates clinical data	Early OMS-III
Interpreter	Generates and prioritizes a differential diagnosis	Mid OMS-III
Manager	Develops and executes a management plan	Late OMS-III / OMS-IV
Educator	Synthesizes and teaches knowledge to others	Advanced OMS-IV / residency

RIME is particularly useful because it is behaviorally anchored — you can observe what level a student is at, not just assign a global impression. It also gives preceptors a shared language for feedback: "You're doing excellent Reporter work — your history is thorough and organized. The next step is Interpreter: I want to hear your differential in priority order with your reasoning."

Entrustable Professional Activities (EPAs)

The AAMC's 13 Core EPAs for Entering Residency (2014) define the clinical tasks a graduating student should be able to perform with indirect supervision (AAMC Core EPAs guide[14]). EPAs are assessed using an entrustment-supervision scale:

1. Allowed to observe only
2. Allowed to do with direct supervision
3. Allowed to do with indirect supervision (supervisor immediately available)
4. Allowed to do without supervision
5. Allowed to supervise others

For OMS-III and OMS-IV students, levels 2–3 are typically appropriate depending on the task and learner. The preceptor implicitly makes entrustment decisions every day; making them explicit ("I'm going to let you see this patient independently and then we'll debrief") is more educationally effective and more professionally meaningful (ten Cate, entrustment and EPAs, Medical Education[15]).

OMS-III vs. OMS-IV: Key Differences

Feature	OMS-III	OMS-IV
Primary goal	Building clinical foundations	Demonstrating readiness for residency
Supervision level	Direct, close	Indirect, increasing autonomy
COMLEX focus	COMLEX-USA Level 2-CE	COMLEX-USA Level 2-PE preparation
Knowledge gaps	Significant; still linking basic science to clinic	More refined; gaps are specific
Feedback orientation	Focused on skill-building	More nuanced, career-developmental
Sub-internship (OMS-IV)	N/A	Functions near-independently; preceptor as supervisor-coach

Psychological Safety in Clinical Learning Environments

Amy Edmondson's concept of psychological safety — the belief that one can take interpersonal risks without fear of punishment or humiliation — is now well-established as a prerequisite for learning in clinical environments (PMC: ABCs of Cultivating Psychological Safety for Clinical Learners[16]). A 2023 scoping review in Medical Education[17] confirmed that psychologically unsafe environments are associated with decreased speaking up, reduced help-seeking, higher rates of burnout, and diminished learning.

Preceptors directly shape psychological safety through:

- Inviting questions explicitly: "There are no stupid questions in this rotation."
- Responding non-punitively to errors: "Good catch. Let's think through what happened."
- Modeling uncertainty: "I'm not sure — let's look that up together."
- Avoiding humiliation in any form, including sarcasm about a student's knowledge gaps.

A critical review in Medical Education (2025)[18] noted an important nuance: excessive protection of learners from discomfort ("psychological safety" misunderstood as "never feel bad") can paradoxically inhibit growth. The goal is productive discomfort within safety — learners should feel stretched, but not humiliated or afraid.

Growth Mindset (Dweck) in Clinical Education

Carol Dweck's research distinguishes between fixed mindset (abilities are innate and fixed) and growth mindset (abilities can be developed through effort and feedback) (Dweck growth mindset longitudinal study in medical education[11]). In clinical education, fixed-mindset messaging — "you either have good clinical instincts or you don't" — is demotivating and factually wrong. Growth-mindset preceptors:

- Praise process, not innate ability: "Your systematic approach to that history showed real growth."
- Treat errors as information, not verdicts.
- Connect struggle to development: "This is hard because it's supposed to be hard at this stage."

Self-Regulated Learning and Metacognition

Expert clinicians monitor their own thinking in real time — they know what they know and what they don't. Medical education research emphasizes the importance of developing self-regulated learning (SRL) in trainees (SRL in clinical education, Academic Medicine[19]). Preceptors facilitate SRL by asking metacognitive questions:

- "How confident are you in that diagnosis, and why?"
- "What would change your mind?"
- "Where do you think the gaps in your reasoning were?"

The Struggling Learner

Approximately 5–15% of medical students experience significant difficulty during clinical training (PMC struggling learner competency-based approach[20]). Early identification is the most important intervention — the longer a pattern goes unaddressed, the more entrenched it becomes.

A practical detection framework based on Guerrasio's Struggling Medical Learner approach (Guerrasio, Burrell College resource[21]) suggests the preceptor:

1. Detect the problem — often a subjective impression: "Something feels off."
2. Gather objective data — specific behavioral observations, not global impressions.
3. Assess the domain — is the difficulty in knowledge, skills, professional behavior, or wellbeing?
4. Intervene — with feedback, remediation plan, and specific goals.
5. Escalate when needed — contact the clerkship director promptly.

Domains of difficulty include: knowledge gaps (can be taught), skill deficits (can be practiced), professional behavior problems (require explicit coaching and monitoring), and wellness/personal crises (require referral). The preceptor's role is identification and initial feedback, not diagnosis or treatment of personal issues.

A PMC review of clinical teacher strategies for struggling learners[22] found that the four-step clinical approach — subjective impression, objective data, assessment, plan — applies equally to diagnosing struggling learners as to diagnosing patients.

> **Key Takeaways for the Preceptor**
>
> - Know where your learner is on the developmental spectrum (RIME, Dreyfus) and teach to that level.
> - Psychological safety is not optional — it is the precondition for honest clinical learning.
> - Struggling learners need early, specific, compassionate feedback and, when indicated, prompt escalation.
> - OMS-III and OMS-IV students have distinct needs: the former need foundation-building; the latter need near-independent autonomy with coaching.

Section 3: Setting Up for Success — The Foundation of a Good Rotation

Day-One Orientation: What to Cover

The first encounter sets the climate for everything that follows. Research on clerkship performance consistently identifies inadequate orientation as a root cause of student dissatisfaction and underperformance (Queen's University Clinical Teaching Toolkit[10]).

Day-One Orientation Checklist:

1. Logistics: Schedule, parking, dress code, EMR access, call expectations.
2. Introductions: Who's who — staff, nurses, MAs, front desk, other providers.
3. Roles and responsibilities: What will the student do? What level of autonomy is expected?
4. Communication norms: How to reach you; how to flag a problem; what to do when you're unavailable.
5. Expectations for patient care: How independently should the student see patients?
6. Feedback expectations: When and how feedback will be delivered; the student's role in asking for it.
7. Learning goals: What does the student want to get out of this rotation?
8. School requirements: Review the objectives and evaluation form with the student.

Sample Day-One Orientation Script:

> "Welcome. Here's how this rotation works. You'll see patients before me — do a complete H&P;, form your own diagnosis and plan, and then present to me. I'm going to ask you what you think first before I share my thoughts. That's not to put you on the spot — it's how you'll learn to trust your own reasoning. Every Friday we'll have a five-minute check-in where you tell me one thing you want to work on. I'll give you feedback regularly — in the moment and at mid-rotation. What are two or three things you most want to get out of this month?"

Establishing a Learning Climate

The learning climate emerges from concrete behaviors, not aspirations. Research on learning environments[16] identifies these behaviors as climate-setting:

- Using the student's name, not "the student."

- Introducing the student to patients as a member of the care team.
- Including the student in all discussions, not just assigned tasks.
- Responding to wrong answers with curiosity, not correction: "Interesting — walk me through your reasoning."
- Checking in regularly: "How are you doing? Is there anything not working for you?"

Collaborative Goal-Setting and Learning Contracts

A learning contract is a brief written agreement between preceptor and learner that specifies goals, methods, resources, and assessment criteria (Clinical teaching and learning contract evidence[10]). It converts vague expectations ("do well") into specific targets ("present three complete H&Ps; using the RIME Manager level by week two").

Goal-setting framework (modified from Zimmerman SRL framework):

- Student-driven: "What are your specific goals for this rotation?"
- Preceptor-guided: "Given your goals, here's what I'll focus on in your feedback."
- Aligned with school requirements: "Here's the evaluation form — let's connect your goals to these domains."
- Revisitable: "At mid-rotation, we'll revisit these and adjust."

Pre-Rotation Preparation by the Preceptor

Effective preceptors prepare before the student arrives:

- Review the student's level (OMS-III vs. OMS-IV), rotation objectives, and school evaluation form.
- Review any prior evaluation comments, if available, to identify areas for focus.
- Alert clinic staff and patients that a learner is joining the team.
- Prepare one or two "teaching cases" that recur frequently in your practice and are well-suited to clinical teaching.

> **Key Takeaways for the Preceptor**
>
> - The first day sets the climate for the entire rotation; invest in it.
> - A learning contract converts vague expectations into specific, revisable targets.
> - Pre-rotation preparation — reviewing the student's level and objectives — takes 10 minutes and pays dividends throughout the month.

Section 4: Teaching Frameworks and Microskills for the Busy Clinical Setting

The One-Minute Preceptor (OMP) / Five Microskills

The OMP, originally described by Neher, Gordon, Meyer, and Stevens in 1992 as the "Five-Step Microskills Model," is the most studied and replicated clinical teaching framework in medical education (Neher et al., J Am Board Fam Pract 1992; JABFP 5:419-424[23]). The five steps are:

Step	Action	Why It Works
1. Get a commitment	"What do you think is going on?"	Forces the learner to commit to a diagnosis, activating reasoning
2. Probe for supporting evidence	"What findings support that?"	Reveals reasoning process, not just conclusion
3. Teach a general rule	"In cases like this, always..."	Delivers transferable knowledge, not just case-specific facts
4. Reinforce what was done right	"I especially liked how you..."	Specific positive feedback; reinforces effective behaviors
5. Correct mistakes	"One thing to do differently..."	Specific corrective feedback, delivered constructively

Evidence base: Multiple RCTs and observational studies have confirmed that the OMP increases the frequency of learner commitment, improves feedback delivery, and is perceived as more educationally effective than unstructured precepting (JABFP 2003 OMP shaping the teaching conversation[24]; 2026 OMP microskills workshop study, Journal of Primary Care[25]). The total time added per case presentation: approximately 60–90 seconds.

Common pitfalls:

- Skipping Step 1 (getting commitment) and going directly to teaching — the most common error.
- Making the "general rule" too specific to be transferable.
- Delivering Step 4 and 5 as evaluation rather than learning prompts.

Sample OMP exchange:

> Preceptor: "You've presented Mrs. G. What do you think is going on?" Student: "I think she has heart failure." Preceptor: "Good. What findings support that?" Student: "Bilateral crackles, peripheral edema, JVD." Preceptor: "Exactly. As a general rule, when you have two of those three — crackles, edema, JVD — the specificity for heart failure is over 90%. Go back to the chart and look at her BNP. Now — you did an excellent job organizing the presentation in problem priority order. The one thing to work on: when you said 'slight edema,' quantify it — say '2+ pitting edema to the mid-calf.'"

SNAPPS: A Learner-Driven Framework

SNAPPS is designed to shift the burden of case presentation from preceptor-driven interrogation to learner-driven analysis (Wolpaw et al., Academic Medicine 2003, PMID 14507619[13]). The six steps:

1. Summarize the history and findings (in 3 sentences)
2. Narrow the differential (to 2–3 diagnoses)
3. Analyze the differential (compare and contrast)
4. Probe the preceptor (ask a question about uncertainties)
5. Plan management
6. Select a case-related issue for self-directed study

SNAPPS is particularly powerful for OMS-IV and sub-internship learners because it places the intellectual burden on the learner and drives self-directed learning. The NEOMED SNAPPS faculty guide[26] recommends SNAPPS for 6–7 minute presentations in outpatient settings.

Bedside Teaching: Best Practices

Bedside teaching — direct observation and instruction in the patient's presence — is increasingly rare despite strong evidence of its educational value (bedside teaching best practices, Academic Medicine[12]). Core principles:

- Prepare the patient and learner before entering: "We're going to do a brief teaching moment at bedside. This student is learning to examine hearts."
- Model, then observe: Demonstrate once, then have the student try while you observe.
- Debrief outside the room: "What did you notice? What surprised you?"
- Involve the patient: Patients often enjoy participating and find it meaningful.

A practical framework for bedside teaching: See one, do one, teach one — though Peyton's four-step approach[27] is preferred for procedural skills:

1. Demonstration (preceptor does it at normal speed)
2. Deconstruction (preceptor does it step-by-step, narrating)
3. Comprehension (learner narrates while preceptor performs)
4. Execution (learner performs while narrating)

Evidence from multiple studies confirms Peyton's approach reduces errors during procedural learning compared to standard "see one, do one" (Peyton four-step comparative studies[27]).

Questioning Techniques

The quality of a preceptor's questions is a proxy for the quality of their teaching. Key principles:

- Open before closed: "What's in your differential?" before "Is this pneumonia?"
- Wait time: After asking a question, wait at least 3–5 seconds. Most preceptors wait less than 1 second. Wait time dramatically increases the quality of student responses.

- Avoid "guess what I'm thinking": Questions should probe understanding, not test whether the student can read the preceptor's mind.
- Socratic probing: "That's interesting — but what would you do if the X-ray was normal?" Build on the student's answer rather than evaluating it.
- Scaffolding: When a student can't answer, ask a simpler question, then build back up.

Teaching Scripts and Cognitive Modeling

Irby (1994) identified teaching scripts — prestructured, readily retrievable explanations for common clinical scenarios — as a hallmark of expert clinical teachers (Irby, Academic Medicine 1994, PMID 8166912[12]). Every experienced clinician already has teaching scripts; the key is to make them explicit and retrievable. Recommended approach: identify five common conditions in your practice and develop a 3-minute teaching script for each. Add a cognitive modeling component: think aloud during your reasoning process.

> "When I see a patient like Mr. K with these risk factors, here's what I'm doing in my head: I'm immediately running a differential based on the three most dangerous diagnoses I can't miss. Let me walk you through that..."

> **Key Takeaways for the Preceptor**
>
> - The One-Minute Preceptor adds 60–90 seconds per case and transforms the teaching encounter. Start with Step 1: "What do you think is going on?"
> - SNAPPS is the learner-driven complement to OMP — ideal for OMS-IV.
> - Peyton's four-step is the evidence-based approach to procedural teaching.
> - Wait time and open questions are free, immediate quality improvements.

Section 5: Direct Observation and Assessment

Why Direct Observation Matters (And Why It's Rare)

Direct observation of clinical performance — watching a student take a history, examine a patient, perform a procedure, or counsel a family — is the gold standard for assessing clinical competence. It is also chronically underused. Studies consistently show that direct observation occurs in fewer than 10% of outpatient encounters (Holmboe, Academic Medicine 2004, PMID 15234301[6]; Hauer direct observation impact[28]). The consequence: most assessment is based on case presentations and self-reports, not observed behavior. Preceptors often rate students they have never directly observed.

Evidence firmly supports direct observation:

- It is the only reliable way to assess communication, physical examination technique, and professional behavior.
- It enables specific, behavioral feedback rather than global impressions.

- It is required for valid completion of the Mini-CEX and EPA entrustment decisions.

The Mini-CEX

The Mini-Clinical Evaluation Exercise (Mini-CEX), developed by Norcini and colleagues, is a structured direct observation tool designed to be completed in 15–20 minutes (Norcini Mini-CEX validity, Medical Education 2003[29]). It assesses seven domains:

1. Medical interviewing skills
2. Physical examination skills
3. Professionalism
4. Clinical judgment
5. Counseling skills
6. Organization/efficiency
7. Overall clinical competence

Each domain is rated on a 9-point scale with behavioral anchors. Evidence supports its validity, feasibility, and acceptability when used across multiple encounters by multiple raters (PMC Mini-CEX utility review[28]). The Mini-CEX is most educationally effective when immediate verbal feedback follows the observation — this is when the learning occurs, not when the form is completed.

DOPS: Direct Observation of Procedural Skills

DOPS follows the same model as Mini-CEX but is designed for procedural assessment. The preceptor watches the student perform a clinical procedure (e.g., venipuncture, pelvic exam, suturing, lumbar puncture) and rates performance on standardized dimensions including: understands indications, consent, preparation, technical performance, aseptic technique, and communication with patient.

Programmatic Assessment

Van der Vleuten's concept of programmatic assessment argues that no single assessment tool is sufficient for high-stakes decisions, but a portfolio of multiple low-stakes assessments across multiple contexts and raters provides valid and defensible evidence of competence (van der Vleuten programmatic assessment, Medical Teacher 2012[30]; Ottawa 2020 programmatic assessment consensus[31]). For the preceptor, this means:

- Multiple short observations are more valuable than one long one.
- Variety of context (inpatient, outpatient, procedures, communication) improves validity.
- The end-of-rotation evaluation should be a synthesis of accumulated observations, not a single-moment judgment.

Formative vs. Summative Assessment

- Formative assessment: Ongoing, low-stakes feedback designed to support learning. Occurs throughout the rotation. No permanent consequence; encourages risk-taking.

- Summative assessment: End-of-rotation judgment of competence. Permanent record. Used for promotion, credentialing, residency applications.

The tension: students who know the preceptor is simultaneously their coach (formative) and judge (summative) may be reluctant to show vulnerabilities. The antidote is to make formative feedback the norm and to explicitly distinguish it from summative judgment.

Writing Useful Narrative Comments

Narrative comments on end-of-rotation evaluations are among the most powerful tools a preceptor has for supporting (or impeding) a student's career. They are also frequently inadequate. Research consistently identifies three failure modes (PMC narrative evaluation quality study[32]):

1. Vague global praise: "A pleasure to work with. Would recommend highly."

2. Content-free professionalism focus: "Very professional. On time. Good attitude."

3. Absent behavioral evidence: "Excellent clinical skills." (What did you observe?)

Rater errors to avoid:

Error	Description	Example
Halo effect	One positive trait inflates all ratings	"Great bedside manner" → all domains rated excellent
Leniency bias	Rating everyone as excellent; fear of harming student	Every student receives 4/5 or above
Central tendency	Regression to the middle; avoiding extremes	All 3/5, regardless of actual performance
Gender bias	Different language for equally performing men and women	Men: "confident, assertive"; Women: "pleasant, approachable" (PMC gender/race bias in narrative evaluations[33])
Race bias	Different language for URM vs. non-URM students	URM students more often described in terms of effort, less in terms of competence (Evaluation of bias and concordance, academic medicine[32])

Principles of strong narrative comments:

1. Behavioral and specific: Describe what you observed, not what you inferred.

2. Contextualized: Name the situation, task, and outcome.

3. Balanced: Include both strengths and areas for growth.

4. Forward-looking: "Would benefit from..." rather than "failed to..."

Weak: "Good student. Showed good understanding of medicine. Would make a fine physician."

Strong: "During a complex inpatient case involving a patient with ESRD and pneumonia, [Student] independently developed a differential, presented a structured H&P;, and proposed an evidence-based

plan that was clinically appropriate. Communication with the patient during consent was empathic and clear. Area for growth: physical exam documentation lacked specificity — I recommend deliberate practice with cardiac and pulmonary exams before residency applications."

> **Key Takeaways for the Preceptor**
>
> - Direct observation is the only valid way to assess clinical skills. Commit to watching the student perform at least twice per week.
> - The Mini-CEX with immediate verbal feedback is a 15-minute evidence-based tool ready to use.
> - Narrative comments should be specific, behavioral, and contextualized — they have real career consequences.
> - Be aware of leniency, halo, gender, and race bias in written evaluations.

Section 6: Feedback — The Heart of Clinical Teaching

Defining Feedback in Clinical Education

Feedback in clinical education is specific information about learner performance, delivered in a way that can guide improvement. It is distinct from evaluation (a summary judgment) and from praise ("Good job!"). The distinction matters: many preceptors conflate positive feedback with encouragement, and negative feedback with punishment. Effective feedback is neither — it is information.

Why Feedback Is Hard: The Feedback Paradox

The feedback paradox is well-documented in medical education (PMC feedback dilemma, learner/preceptor perspectives[34]): learners say they want more feedback; when they receive specific corrective feedback, they often reject it, become defensive, or are demotivated. Preceptors, anticipating this reaction, give less feedback, more vague feedback, or only positive feedback.

Barriers from the preceptor side: fear of damaging the relationship, uncertainty about criteria, time constraints, discomfort with conflict, limited observation data.

Barriers from the learner side: ego-protective processing, identity threat, discrepancy between self-assessment and external assessment.

The solution is not more feedback but better feedback — delivered in a context of trust, based on specific observations, and oriented toward improvement rather than judgment.

Feedback Models

Ask–Tell–Ask

The simplest, most widely applicable framework:

1. Ask: "How do you think that went?" (activates learner's self-assessment)
2. Tell: Share your specific observations and perspective.
3. Ask again: "What are you going to do differently next time?" (consolidates learning)

Pendleton's Rules (1984)

A structured four-step model:

1. Learner identifies what went well.
2. Preceptor confirms/adds what went well.
3. Learner identifies what could be improved.
4. Preceptor confirms/adds suggestions for improvement.

Evidence: Pendleton's model improves learner engagement with feedback and reduces defensiveness. Limitation: can feel formulaic if overused.

The "Feedback Sandwich" — and Its Critique

The feedback sandwich (positive → constructive → positive) is widely taught but poorly evidenced. Current medical education literature[35] increasingly critiques it because: (1) learners learn to wait for the "real" feedback buried in the middle; (2) the final positive dilutes the corrective message; (3) it prioritizes preceptor comfort over learner clarity. It is not recommended as a primary feedback model, though acknowledging strengths before corrective feedback remains appropriate.

R2C2: The Evidence-Based Coaching Conversation

Sargeant and colleagues developed the R2C2 model (Relationship, Reaction, Content, Coaching) as an evidence-informed, theory-driven feedback framework (Sargeant R2C2 model, Academic Medicine 2015, PMID 25734536[36]; R2C2 in residency education, Academic Medicine 2018[34]):

- R — Relationship: Build trust and psychological safety before the content conversation.
- R — Reaction: Explore the learner's reaction to the feedback before adding your own.
- C — Content: Collaboratively review the feedback data — what does it show?
- C — Coaching: Develop a forward-looking action plan together.

The R2C2 model has strong empirical support from multiple qualitative and mixed-methods studies. Its key insight is that feedback efficacy depends on the relational context in which it is delivered, not just the content of the message. Learners who feel respected are more likely to accept and act on feedback.

Sample R2C2 script for a difficult conversation:

> R (Relationship): "I want to have a helpful conversation with you about how things are going. I've enjoyed working with you this month and want to be honest with you because I think you're capable of more." R (Reaction): "Before I share what I've noticed, how do you think your presentations have been going?" C (Content): "I've noticed that your presentations are often incomplete — specifically, you're frequently missing a social history and you're not including a clear plan. This has come up in five of the eight cases we've discussed this week." C (Coaching): "What do you think is getting in the way? Let's make a specific plan: for every patient this week, write the social history and plan on your notecard before you come find me."

Delivering Corrective Feedback: The Conversation

For significant performance concerns, a structured conversation is essential:

1. Request a private setting: Never in front of patients, staff, or other learners.
2. Use specific behavioral language: "On Tuesday morning when you presented Mrs. T, you did not include the medication list." Not: "You're not thorough enough."
3. Connect to consequences: "This matters because missed medications are a leading cause of diagnostic error."
4. Invite the learner's perspective: "How do you see this?"
5. Develop a plan together: Specific, measurable, time-bound goals.
6. Document: If serious, document your conversation and share it with the clerkship director.
7. Follow up: Check back on the plan within days.

The Shift from "Feedback" to "Coaching"

Modern medical education increasingly uses the language of coaching rather than feedback to describe the preceptor's developmental role (Master Adaptive Learner framework, Cutrer 2017, Academic Medicine PMID 28067704[27]). Coaching is ongoing, relationship-based, and forward-looking — it is not delivered in a single post-encounter critique but woven into the texture of the rotation. The Master Adaptive Learner model posits that excellent clinical educators develop learners who plan, learn, apply, and adjust in an iterative cycle — and that coaching scaffolds this process.

> **Key Takeaways for the Preceptor**
>
> - Feedback is information, not praise or punishment. Make it specific, behavioral, and timely.
> - The R2C2 model is the strongest evidence-based feedback conversation structure for complex situations.
> - Ask-Tell-Ask works for everyday, in-the-moment feedback.
> - The shift to coaching language — ongoing, relational, forward-looking — is the direction of the field.
> - For serious concerns: private, specific, documented, with a plan and follow-up.

Section 7: Practical Strategies for Teaching in a Busy Clinical Workflow

Patient-Flow Models That Incorporate Teaching

The most significant structural barrier to clinical teaching is the perception that teaching and seeing patients are mutually exclusive. They are not — but they require intentional workflow design.

Parallel workflow model: The student sees patients independently, writes a note, and forms a plan. While the student is with the patient, the preceptor sees another patient. When both are ready, a focused OMP presentation (2–3 minutes) occurs. The student then implements the plan under indirect supervision.

Wave scheduling: In high-volume practices, scheduling patients in "waves" creates brief gaps where teaching moments can occur between clusters of appointments. Many practices find that a trained student allows a net increase in patient throughput rather than a decrease — a finding that addresses the productivity objection directly (STFM preceptor resources on workflow[37]).

Priming, microskills, debriefing as a three-part workflow loop:

- Before the encounter (1 min): "Before you see Mrs. H, what do you know about managing chronic pain in elderly patients with renal insufficiency?"
- During the encounter: Student sees patient; preceptor observes or waits.
- After the encounter (2–3 min via OMP): Commit, probe, teach rule, reinforce, correct.

CMS Guidance on Student Documentation

The 2018 CMS update to Medicare documentation policy was significant for medical education: attending physicians may now use medical student documentation in the medical record for billing purposes, as long as the attending physician personally reviews and verifies (or re-documents) key portions (updated CMS policy, teaching physician guidelines[9]). Prior to 2018, attendings had to re-document essentially everything a student wrote.

Key points for preceptors:

- Students may contribute to notes in the EMR; the attending must review and attest.
- The student note is a learning tool — requiring students to write notes reinforces clinical reasoning and communication skills.
- The attending's attestation statement should be specific: "I have reviewed the student note. I personally examined the patient and agree with the assessment and plan as documented, with the following addendum..." (then add any pertinent details).
- Students cannot bill independently; the attending is the billing provider.

EMR Strategies That Support Teaching

The EMR is often the enemy of teaching — it demands attention exactly when the student needs it. Strategies to mitigate this:

- Screen-sharing during note review: "Let me show you how I'm structuring the assessment section."
- Requiring student notes before attending notes: Forces the student to engage clinically rather than copy.
- Using chart-stimulated recall: After a patient visit, pull up the last three notes on a patient and use them as teaching material.
- Deliberate EMR-free time: Designate the case presentation and debrief period as screen-free.

The 30-Second Debrief and Elevator Feedback

Not every teaching moment requires 3 minutes. High-value micro-teaching patterns:

- The 30-second debrief: Immediately after a patient encounter, one observation + one question. "Your history was focused and efficient. What was your biggest uncertainty in that case?"

- The hallway teaching moment: Walking between rooms, ask the student to summarize their reasoning in 60 seconds.
- The end-of-day synthesis: "Tell me the most important thing you learned today and one thing you're still confused about."

Involving the Full Care Team

Medical students learn from everyone in the clinical environment, not just the attending physician. Actively triangulate teaching by:

- Asking nurses to observe the student's patient communication and provide feedback.
- Introducing the student to the pharmacist for a brief medication counseling review.
- Having the student shadow a procedure performed by a different provider.
- Debriefing with the MA about the student's behavior with staff.

Burnout and the Bidirectional Benefit of Teaching

Counter-intuitively, well-supported preceptors report that teaching enhances their own professional satisfaction, intellectual engagement, and sense of meaning. Research on preceptor wellbeing[9] shows that:

- Preceptors with faculty development training report less burnout related to teaching than those without training.
- Teaching reinforces the preceptor's own knowledge (the protégé effect — teaching something makes you understand it better).
- Being a role model for the next generation of physicians is consistently cited as a source of professional meaning among community preceptors.

The key to avoiding teaching-related burnout is not doing less teaching but doing it more efficiently and with more institutional support.

> **Key Takeaways for the Preceptor**
>
> - Students who see patients in parallel do not cost time — they redistribute it.
> - The 2018 CMS update allows students to contribute to documentation; learn your system's attestation workflow.
> - The 30-second debrief is a high-yield, zero-cost teaching tool.
> - Teaching protects against burnout when it is supported and efficient.

Section 8: Special Situations and the Modern Context

Remote/Telehealth Precepting

The COVID-19 pandemic accelerated integration of learners into telehealth encounters, and telehealth is now a permanent feature of medical practice. A 2021 PMC review of telehealth medical education[38] and a 2022 teleprecepting resource from University of Colorado[39].pdf) identified these principles:

- Triangulation of roles: In a telehealth encounter, the student can be: (a) observing on a separate screen, (b) co-present with the patient at a clinic, or (c) participating via a three-way video call.
- Consent: Patients must be informed that a learner is participating in the telehealth encounter.
- Modified exam teaching: Virtual physical examination (home vitals, visual inspection, patient-guided palpation) is a teachable skill in its own right.
- Documentation applies identically to telehealth and in-person visits.
- The preceptor's pedagogical principles — OMP, feedback, direct observation — apply to telehealth encounters with adaptations for the virtual format (PMC teleprecepting NP students[40]).

The UNH Quickstart Guide to Teleprecepting (UNH Quickstart Guide[41]) recommends: review the virtual orientation with the student before the first telehealth session; establish a back-channel (text) for real-time coaching during the encounter; debrief after each visit just as you would in person.

The Struggling Learner (Clinical, Professional, Personal)

When a student is not progressing as expected, the preceptor has specific responsibilities:

1. Name the problem directly and early: Do not wait until the end-of-rotation evaluation to document a serious concern for the first time. This is unfair to the student and may constitute procedural neglect.
2. Distinguish between domains: Knowledge deficiency, skill deficit, professional behavior, and wellbeing issues require different interventions.
3. Document your observations in the rotation record: Specific behaviors, dates, situations.
4. Contact the clerkship director: Any concern that you would hesitate to put in the final evaluation should go to the clerkship director by mid-rotation at the latest.
5. Maintain the educational relationship: Even students in academic difficulty benefit from continuing engagement, not distancing.

Mistreatment, Microaggressions, and Learner Safety

Preceptors have both a legal and ethical obligation to maintain a safe learning environment. Medical student mistreatment — verbal abuse, sexual harassment, humiliation, discrimination — remains underreported but prevalent. Preceptors may be perpetrators, bystanders, or recipients of reports from students.

Preceptor obligations:

- Respond immediately and directly to witnessed mistreatment, including by other staff.
- Never participate in or condone humiliation, degradation, or discriminatory comments.

- Know the school's reporting pathway and share it with students at orientation.
- Distinguish constructive critique (which may be uncomfortable) from mistreatment.

Microaggressions — subtle, often unintentional communications that demean based on identity — are particularly insidious because they may be invisible to the perpetrator and cumulative in effect. Preceptors who receive a report of microaggression should respond with curiosity rather than defensiveness: "Tell me more about what that felt like" rather than "I didn't mean it that way."

Cultural Humility and Bias in Assessment

Assessment bias is not a theoretical concern — it is documented in the literature. Analysis of narrative evaluation comments[33] demonstrates that:

- Male students receive more ability-attributing language ("strong clinical reasoning"); female students receive more personality-attributing language ("compassionate, pleasant to work with").
- Underrepresented minority students receive shorter, less specific narratives on average.
- Students with non-Western names receive different language patterns even when clinical performance is equivalent.

Cultural humility in assessment means:

- Applying the same behavioral observation standards to all students.
- Reviewing one's own written comments before submission: "Would I write this about a student from a different background?"
- Actively resisting affinity bias (rating students who are similar to you more favorably).

Wellness and Learner Mental Health

Medical students experience rates of depression, anxiety, and burnout substantially higher than age-matched peers. Preceptors are often the first adults in a position to notice signs of distress.

Warning signs for preceptors:

- Sudden changes in performance, mood, or engagement.
- Repeated absences or tardiness without explanation.
- Emotional dysregulation disproportionate to clinical situations.
- Statements suggesting hopelessness or excessive self-criticism.

Preceptor response protocol:

1. Private, compassionate inquiry: "I've noticed you seem different this week. Are you doing okay?"
2. Do not diagnose or counsel: Your role is to open the door and refer.
3. Connect to resources: Student health, student affairs, wellness programs.
4. Contact clerkship director if there is a safety concern or significant impairment.

A Brief Note on OMS Learners and Osteopathic-Specific Context

LMU-DCOM students complete COMLEX-USA Level 1 before OMS-III and are preparing for COMLEX-USA Level 2-CE and Level 2-PE during their third year. Key distinctions for preceptors:

- COMLEX-USA is the primary licensing examination (as USMLE is for MD students); some LMU-DCOM students also take USMLE Step 2.
- Osteopathic Manipulative Medicine (OMM): Students have foundational OMM training; preceptors are not expected to supervise OMM unless they are osteopathic physicians comfortable doing so. Students may incorporate somatic dysfunction assessment into their H&Ps.;
- Holistic patient care orientation: DCOM emphasizes whole-person, primary-care oriented medicine — an orientation that resonates with community practice settings.
- The AOA/AACOM accreditation standards require documented preceptor supervision and specific clerkship objectives. Preceptors should familiarize themselves with the rotation objectives provided by the school.

> **Key Takeaways for the Preceptor**
>
> - Telehealth precepting follows the same pedagogical principles as in-person precepting with format adaptations.
> - Contact the clerkship director for any student concern by mid-rotation — not end-of-rotation.
> - Assessment bias is real and documented; calibrate your written comments with conscious attention to language.
> - Your role in a student's wellness is to notice, inquire, and refer — not to treat or diagnose.

Section 9: Putting It All Together — A Practical Model of "What a Good Preceptor Does"

A Synthesized Framework

Drawing on Irby (1994), Sutkin (2008), the Frontiers conceptual framework (2026), and the broader literature, the following characteristics distinguish excellent from average clinical teachers (Irby 1994, PMID 8166912[12]; Sutkin 2008, PMID 18728456[42]; Frontiers effective preceptor framework 2026[2]):

Six Domains of Excellent Clinical Teachers

Domain	What It Looks Like
Clinical competence	Demonstrates up-to-date clinical knowledge; models excellent clinical reasoning; is visibly humble about uncertainty
Teaching knowledge	Uses structured frameworks (OMP, SNAPPS); varies strategies by learner level; asks high-quality questions

Domain	What It Looks Like
Learner-centeredness	Assesses the learner before teaching; asks what the learner thinks; adapts to individual needs and goals
Relational skill	Creates psychological safety; is enthusiastic and engaged; shows genuine interest in the learner as a person
Feedback and assessment	Provides specific, timely, behavioral feedback; observes directly; writes useful narratives
Professional role modeling	Demonstrates the values and behaviors they want students to internalize — in and out of patient encounters

Day-One, Mid-Rotation, End-of-Rotation Checkpoints

Day One

- Orientation: schedule, logistics, expectations, communication norms.
- Goal-setting: "What do you most want to get out of this rotation?"
- Level assessment: review the student's prior evaluations and current level.
- Establish feedback norms: "I'll give you feedback after every patient and at mid-rotation."

Day-One Script: (See Section 3 for full script)

Mid-Rotation (End of Week 2)

- 15-minute structured check-in (private).
- "What's going well? What are you finding most challenging?"
- "Here's what I've been observing about your strengths and your growth areas."
- Revise goals if needed.
- If there are concerns: name them explicitly, document them, contact the clerkship director.

Mid-Rotation Script:

> "I want to take 15 minutes to do a mid-rotation check-in. First — from your perspective, how's the rotation going? What have you gotten better at, and what feels hard? ... Here's what I've noticed: [specific behavioral observations for strengths]. The main area I'd like us to work on for the second half is [specific area]. Let's set a concrete goal: by end of rotation, I'd like to see you [specific observable behavior]. Does that seem right to you?"

End of Rotation

- Review the evaluation form together before submitting it.

- Provide a verbal summary of the evaluation: "You should not be surprised by anything you read on this form."
- Write a specific narrative comment (see Section 5).
- Offer a forward-looking statement: "As you head into your next rotation, here's what I'd focus on..."
- Invite feedback from the student: "What could I have done better as a teacher this month?"

High-Yield, Low-Effort Behaviors: What You Can Start Doing Tomorrow

These evidence-based behaviors require minimal time investment and have high educational return:

1. Ask "What do you think?" before sharing your assessment. (One-Minute Preceptor Step 1 — takes 5 seconds, transforms the teaching encounter.)
2. Wait 3–5 seconds after asking a question before answering it yourself. (Wait time — free, immediate improvement in student response quality.)
3. Give one specific positive observation and one specific growth area every day. ("Your organization today was excellent. The one thing: slow down your physical exam — you're missing findings.")
4. Introduce yourself and your student on day one with a clear orientation script. (Takes 10 minutes, prevents a month of confusion.)
5. Directly observe the student with at least two patients per week. (Makes assessment valid; is required for Mini-CEX; transforms the quality of feedback you can give.)
6. Write narrative comments that include specific behavioral evidence. ("During rounds on Thursday, [student] identified a drug-drug interaction that the team had missed and communicated it clearly to the attending." vs. "Has good attention to detail.")
7. At mid-rotation, have a private 15-minute conversation using Ask-Tell-Ask. (Prevents end-of-rotation surprises; motivates students who are struggling and affirms those who are excelling.)
8. Model intellectual humility. ("I'm not certain — let me look that up." The strongest thing a preceptor can say to a medical student.)
9. Use the end-of-day synthesis: "What's the most important thing you learned today, and what's one thing you're still confused about?" (60 seconds; drives metacognition and shows you care.)
10. Contact the clerkship director at mid-rotation if you have a concern. (Not just at the end — early contact gives the student a chance to succeed.)

A Final Synthesis

Clinical precepting is not an add-on to the practice of medicine. It is one of its most consequential acts. The physician who precepts well — who creates safety, asks good questions, observes directly, gives honest and caring feedback, and models the values of excellent medicine — does more than teach. They transmit a vision of what medicine can be. And the research is clear: the quality of that transmission matters, permanently, in the professional lives of the students who receive it.

> **The Ten-Word Framework for Excellent Precepting:**
>
> Observe. Ask first. Teach the rule. Reinforce. Correct. Repeat.

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