Objectives

• Reflect upon your experiences as medical students and residents
• Discuss how medical students learn from you in the workplace
• Operationalize the skills of teaching on the fly
• Review feedback principles
• Review how your teaching is evaluated by the clerks
• Familiarization with the RWJMS student and the curriculum
• Incorporate Learning Objectives and Professionalism Guidelines into your daily activities
“Anybody who believes that all you have to do to be a good teacher is to love to teach also has to believe that all you have to do to become a good surgeon is to love to cut.”

When did you feel best as a clerk?

- Welcomed
- Treated as a member of the team
- Did not feel like a burden but helpful
- Understood my role **ORIENTATION**
- Saw patients first
- Practiced technical and problem solving skills **CLINICAL SKILLS**
- Felt comfortable asking questions and making mistakes
- Felt like resident cared for me, my learning and progress
- Received direction **FEEDBACK**
- Enthusiastic teacher
- Skills expanded in a non-threatening way through questioning
- Observed great bedside manner and professionalism **LEARNING ENVIRONMENT**
- **ROLE MODELED A PHYSICIAN IN THAT SPECIALTY**
How medical students learn from residents in the workplace  Karani et al.  Acad Med  2014

– Qualitative study:  Sinai, JHU and U Chicago
  • Themes
  • What they really learned?
  • Were skills taught in typical Resident as Teacher Curricula?
<table>
<thead>
<tr>
<th>Domains and themes</th>
<th>theme</th>
<th>per domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role-modeling</td>
<td>—</td>
<td>63 (28)</td>
</tr>
<tr>
<td>Role-modeling/by example—generally</td>
<td>47 (75)</td>
<td>—</td>
</tr>
<tr>
<td>Admitting limitations</td>
<td>7 (11)</td>
<td>—</td>
</tr>
<tr>
<td>Applying knowledge to clinical care</td>
<td>5 (8)</td>
<td>—</td>
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<tr>
<td>Advocating for patients</td>
<td>4 (6)</td>
<td>—</td>
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<tr>
<td>Focusing on teaching</td>
<td>—</td>
<td>49 (21)</td>
</tr>
<tr>
<td>Finding teachable moments</td>
<td>24 (49)</td>
<td>—</td>
</tr>
<tr>
<td>Taking time to teach</td>
<td>16 (33)</td>
<td>—</td>
</tr>
<tr>
<td>Showing interest in teaching</td>
<td>9 (18)</td>
<td>—</td>
</tr>
<tr>
<td>Creating safe learning environment</td>
<td>—</td>
<td>44 (19)</td>
</tr>
<tr>
<td>Offering opportunities for safe practice</td>
<td>14 (32)</td>
<td>—</td>
</tr>
<tr>
<td>Establishing rapport with students</td>
<td>10 (23)</td>
<td>—</td>
</tr>
<tr>
<td>Offering reassurance</td>
<td>8 (18)</td>
<td>—</td>
</tr>
<tr>
<td>Creating a sense of team</td>
<td>6 (14)</td>
<td>—</td>
</tr>
<tr>
<td>Being open to questions</td>
<td>5 (11)</td>
<td>—</td>
</tr>
<tr>
<td>Using humor</td>
<td>1 (2)</td>
<td>—</td>
</tr>
<tr>
<td>Providing experiential learning opportunities</td>
<td>—</td>
<td>26 (11)</td>
</tr>
<tr>
<td>Providing experiential learning opportunities—generally</td>
<td>12 (46)</td>
<td>—</td>
</tr>
<tr>
<td>Creating opportunities for ownership of patients</td>
<td>7 (27)</td>
<td>—</td>
</tr>
<tr>
<td>Involving student in the team</td>
<td>7 (27)</td>
<td>—</td>
</tr>
<tr>
<td>Giving feedback</td>
<td>23 (100)</td>
<td>23 (10)</td>
</tr>
<tr>
<td>Setting expectations</td>
<td>—</td>
<td>12 (5)</td>
</tr>
<tr>
<td>Setting expectations for student performance</td>
<td>8 (67)</td>
<td>—</td>
</tr>
<tr>
<td>Explaining student role explicitly</td>
<td>4 (33)</td>
<td>—</td>
</tr>
</tbody>
</table>

On amusing students’ tears and concerns about their knowledge and confidence in functioning in the clinical workplace environment (8/44; 18%). Creating a sense of team through leadership and involvement (6/44; 14%) was another theme.

Providing experiential learning opportunities, or ways for students to learn by doing and becoming involved, accounted for 11% of student comments (26/228). Residents facilitated student participation in experiences such as doing procedures, examinations, or literature searches (12/26; 46%), thus helping them make meaning from these direct experiences. As one student stated: “I learned a lot more from being allowed to do something, by working it out by myself rather than just being told how it happens. Residents let me try and that learning really stuck.” Giving opportunities for ownership of patients and involving students in the team were additional themes within this domain.

The domain giving feedback accounted for 10% of student responses (23/228). Students commented that residents who
Key Documents to be Acknowledged and Read

• Learning Environment Assessment Program Policies for medical students and residents: Teacher Learner Contract, Behavior Expectations and Avenues for Reporting and Closing the Loop
• School-wide Competencies and Objectives
• Knowing the core clinical encounters expected in the core clerkships
So who are the RWJMS Clerks?
Selection and Education

• Selected by Multiple Mini Interview based upon core personal competencies
• Integrated Systems-Based Curriculum
• Patient Centered Medicine
  – Biopsychosocial approach
  – Clinical reasoning
• Gateway to the third year exercise
How are they learning in the M-3 and M-4 Years

- Medicine / Surgery / Neurology / Electives OR
- Psychiatry / Family Medicine / Pediatrics / Ob Gyn

- Boot Camps in fourth year in addition to critical care and emergency medicine clerkships
- Return to basic science-help them reinforce skills
- Mini CEX
- Colleges and College Advisory Program
How do you **orient** a learner?

- Be explicit on what the learner’s role is on the team and your expectations.
- Before seeing a patients, give the student a bit of information to help her focus and be more organized.

  - Example: We are going to see a woman with post-menopausal woman. What are the common caused of post-menopausal bleeding.

  - Example: *while running to evaluate a patient with hypotension*: I am going to be moving past. Watch me and learn as much as you can. We will discuss the case later.
How do you keep the student involved (and feel helpful?)

• Let the student help you; Let the student teach you by looking something up for the team or reviewing the fundamental science behind the disease/treatment

• Get the student involved in the assessment

• Let the student help prepare for a procedure, etc
How do you help them **learn clinical skills** better?

- Think out loud
- You are the role model
- Teach your most important 1 or 2 PEARLS about each case
  - Avoid overwhelming the student with too much information
  - KEEP IT RELEVANT AND TO THE POINT!
- Remember to repeat later or ask them what they remember
  - Remember interns know more than third year students
How do you ask questions in a non-threatening way and reinforce clinical decision-making?

The Microskills of Teaching

1. Get a commitment: “what do you think is going on?”
   - Resist the urge to tell the learner what is and what needs to be done next
2. Probe for supporting evidence: diagnosis of learner/patient
3. Teach general concepts
4. Reinforce what has been done correctly
5. Correct mistakes

What/Why/Teach/Good/Bad
How do you refine their problem-solving skills?

• The assessment and plan is the most critical part of teaching about a new admission because it helps the student to learn how to reason clinically

• These students have learned in their Patient Centered Medicine course to summarize the presentation and findings in a few sentences and provide a differential diagnosis with reasoning for the chief complaint. This should be reinforced for every patient encounter.
Teach these steps in clinical reasoning:

1. GATHER DATA CAREFULLY
2. Define the patient’s central problem
3. Generate and prioritize the differential diagnosis
4. Plan your work-up based on the differential diagnosis

Third year medical students should be enhancing clinical reasoning skills and learning to manage the patient

Reporter---Interpreter---Manager---Educator
Focus 1: Central Problem particularly in presentation of the HPI Written or Oral

• Define the patient’s central problem
  – List problems
  – Define central problem
    • What’s in the foreground?
    • What’s in the background?
  – State the central problem clearly and concisely

• Patient with a background presenting with

• For example: 62 year old woman with an 80-pack year smoking history presenting with hemoptysis
Focus 2: Generation of a complete differential diagnosis

• Generate and prioritize the differential diagnosis:
  Reinforce this skill via mnemonics such as vitamin or vindicate or:
  – Congenital, traumatic or acquired
    • If acquired: infectious, inflammatory, neoplastic, toxic/metabolic, vascular, degenerative, ETC.
  – Start with a complete list: common things are common, but don’t miss high stakes diagnoses
  – For each possible diagnosis decide, is it:
    • Likely?
    • Possible and high stakes (potentially lethal or requires prompt specific therapy)?
    • Possible and low stakes?
    • Unlikely?
Practicum: Central Problem/Differential Diagnosis and Work-up

• Mr. Jones is a 55 y.o. man who presented to the ED this afternoon after developing the sudden onset of chest pain after he had a coughing fit while mowing his lawn. The pain is constant and sharp, made worse with inspiration and associated with moderate dyspnea. Past history is positive for hypertension, type 2 diabetes, high cholesterol and seasonal allergies.

• Abnormal findings on physical exam: HR 120, BP 150/90, R 28, O2 sat 92% on room air. Absent breath sounds over the right chest. There is no JVD and the trachea is midline.
Define the Central Problem/Prioritize Differential/Plan Work-up

- Salient history and physical findings?
  - Chest pain and dyspnea and absent right sided breath sounds
- Background
  - Hypertension, diabetes, hypercholesterolemia

52 year of man with hypertension, diabetes and elevated cholesterol presenting with acute onset of chest pain, dyspnea and absent breath sounds
Likely: pneumothorax CXR
Possible and High Stakes: acute coronary syndrome ECG
Possible and Low Stakes: muscle tear, rib contusion
Unlikely: aortic dissection, pericarditis, pneumonia
Discuss the work-up

• Plan work-up based on differential diagnosis
  – Aggressively work-up all “likely” diagnoses
  – Aggressively work-up all “possible high stakes” diagnoses
  – Defer work-up of possible low stakes and unlikely diagnoses
How do you like your feedback?
What is feedback?

• “…distinct from evaluation, feedback presents information, not judgment. As an integral part of the learning process it allows the student to remain on course in reaching a goal. Evaluation, on the other hand is summative. It comes after the fact and presents a judgment.”

Guidelines

• Teacher and trainer working as allies with common goals
• Well-timed
• Expected
• First hand data
• Regulated in quantity and limited to behaviors that are remediable
• Descriptive and non-evaluative language
• Specific performances, not generalizations

Ende, JAMA 1983
Types of Feedback

• Brief

• Formal-not done often enough even after observed encounters with patients: should be done after a day’s encounter

• Major-must occur mid-clerkship
Why Feedback Can Fail

• The data
  – Failure to obtain it from others
  – Failure to do the observation

• The deliverer
  – Discomfort of the deliverer
  – Failure to present data often to learner

• The learner
  – Defensiveness and/or resistance: I only want to hear it if it confirms my positive thoughts about myself
Why Feedback Fails: Mismatches—Perspectives from Student Affairs Deans

• What is done poorly and how it is self-assessed
  • What is said and what is heard
• What we think we said, what we said, and what is heard
  • What is observed and what is said
  • What is said and what is written
• What is written in formative and what is written in summative assessments
  • What is performed and what is written
• How much and how well delivered according to faculty and learner
Why Feedback Fails: *Mismatches—Perspectives from Students (and residents)*

- What is said and what is written
- What is not said and what is written
- How I think I did and how you think I did

*Tip:* Ask for the student’s self-assessment before providing your assessment
Why Feedback Fails: Inadequacies of Reflection and Self-Assessment

• Reflective capacity needs to be supplemented by feedback given the propensity for inadequate self-assessment due to
  – 1) information neglect and memory biases
  – 2) sociobiological – self preservation to be optimistic
  – 3) Social – no one ever told you the truth to help with calibration (Anderson)
  – Self assessment least developed in the least competent and most confident
  – 4) Is the learner “metacognitively” capable of processing the information? (Bing-You, Trowbridge)
Why Feedback Fails: Learner’s Perceptions of Feedback

• Not enough
• Not good enough
• Just plain mean
Tips for Effective Feedback: Focus on an observation that can be remediated

• I thought that you looked very nervous with the patient
  – I observed you fidgeting
• You have communication deficiencies
  – You speak very quickly with a mumble and it was difficult to understand you
• You appear disengaged to me
  – After the patient told you her husband was diagnosed with cancer, you went on to the next question and did not acknowledge this
Tips for Effective Feedback: Make it descriptive and non-evaluative

• You seem to have a gap in assessment in children
  – After you presented the case on an infant with diarrhea and vomiting, I was waiting to hear about hydration status. Let’s discuss the signs of dehydration

• I think you need to read more
  – On the cases of our Bipolar female and Alcohol Dependent male, you did not cite relevant literature upon which treatment recommendations were based

• Your presentation was disorganized
  – In presentations, you skipped some physical exam findings, lab results, and elements from your review of systems
Tips for Effective Feedback: The Sooner the Better

- Adopted from David Thompson, MD
- UCSF-San Francisco General
- End-Of-Shift Feedback

**For the learner to answer:**
- What went well today?
- What is something you can work on for your next shift?
- What was something you learned today?

**For the educator to answer:**
- I noticed you did a great job with…
- Something I noticed you could work on…
- A teaching point to remember this shift….
Tips to Set the Stage for Teachers: Feedback Fuels Breakthroughs

• Tell learners feedback should be taken as an opportunity to grow
• Ask the learners what their goals are on the rotation and areas in which they want to improve
• Tell the learner to be sure to ask for feedback if it is not occurring regularly
• Tell the learner to ask for specificity of comment
• Tell the learner to ask for specific ways to improve
My Advice to Medical Students

- Be proactive
- Ask
  - Ask for clarification
  - Ask for reassessment
- Be open to feedback
Feedback for Residents: Guiding Your Development as Teachers

How students evaluate you

The resident clarified roles and expectations
The resident created a conducive learning environment
The resident allowed for open communication and participation
The resident provided constructive feedback with regards to my oral, written and/or examination skills in a positive manner
The resident was able to use practical and theoretical knowledge in a wide range of clinical situations
The resident displayed professional demeanor towards patients, their families, peers, trainees and staff
The Education Continuum: Milestones for Residents and Students

• Synergies between UME and GME

• Learners come in at different levels

• Feedback fuels breakthroughs and needs to be a regular and expected part of learning

• End game: get medical students to a milestone of 1 or 2 in New Accreditation System as you are moving along your continuum “Entrustment”