Excellent Clinical Teaching in a Busy Practice: Make the Most of Your Limited Time

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Disclosures

• I have no disclosures

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OBJECTIVES

Goal: Participants will become better teachers.
By the end of this presentation you will:
1. Ask focused questions to assess knowledge
2. Teach using techniques such as One-Minute Preceptor and SNAPPS
3. Assimilate learners into a busy clinical setting
BACKGROUND

Why is this important?
Medical College of Georgia

- 230 students on 5 clinical campuses
- Mission to train physicians for the state of Georgia
- Highly reliant on community preceptors
- 40% of students spend at least part of their clerkship with a community physician
We wear many hats . . .
Balance

Patients

 Students
"I desire no other epitaph ... than the statement that I taught medical students in the wards, as I regard this as by far the most useful and important work I have been called upon to do."
Clinical Teaching

• Teaching in context of ongoing patient care
• Involvement of and teaching about patients
• Diagnose and treat
  • Patient
  • Student

Bannister et al. Pediatrics 2010
How Much Time Does it Take?

• Less Time per Patient
  • Charting and gathering history

• More Time per Patient:
  • Listening to presentations and teaching

• Bottom line is about 1 minute per patient or about one hour per day

You can minimize the impact!

Usatine. Acad Med 2000
Time-Efficient Strategies

Planning and Preparing

Evaluating and Reflecting

Teaching

Plan/Prepare

Strategies for Efficient Teaching
Prepare Your Staff

- Involve them in Orientation meetings
- Ask them how students can help
- Listen to their concerns about having a student in the office
- Strategize how to best incorporate a student
- Let them help you
  - Orient the student
  - Maintain patient flow
  - Teach the student procedures (vital signs, immunizations, phlebotomy)
How Can Students Help?

• **Before visit**
  • Pre-visit planning
  • Meet patients in hospital prior
  • Goal-setting before visit
  • Review social history

• **During visit**
  • Help families complete forms
  • Take patient to room
  • Document in EHR
    • Update problem and med lists
    • Write/pend orders, Rx
    • Write notes (ROS, PMH, FH, SH)

• **After visit**
  • Answer questions from patients
  • Communicate lab results
  • Follow-up calls
  • Help coordinate care

• **Other:**
  • Work with front desk/nurse/lab
  • Work on quality improvement
  • Create patient handouts
  • Bookmark patient education sites
  • Answer clinical questions

www.teachingphysician.org
Wave Scheduling
<table>
<thead>
<tr>
<th>Time</th>
<th>Preceptor</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30</td>
<td>Patient #1</td>
<td>Patient #2</td>
</tr>
<tr>
<td>8:45</td>
<td></td>
<td>Listen to student presentation and see Patient #2 with student pointing out key findings</td>
</tr>
<tr>
<td>9:00</td>
<td>Patient #3</td>
<td>Student writes note for Patient #2</td>
</tr>
<tr>
<td>9:15</td>
<td>Patient #4</td>
<td>Patient #5</td>
</tr>
<tr>
<td>9:30</td>
<td></td>
<td>Listen to student presentation and see Patient #5 with student pointing out key findings</td>
</tr>
<tr>
<td>9:45</td>
<td>Patient #6</td>
<td>Student writes note for Patient #5</td>
</tr>
<tr>
<td>10:00</td>
<td></td>
<td>Catch up, review student notes, teach</td>
</tr>
<tr>
<td>10:15</td>
<td>Patient #7</td>
<td>Patient #8</td>
</tr>
<tr>
<td>10:30</td>
<td></td>
<td>Listen to student presentation and see Patient #8 with student pointing out key findings</td>
</tr>
<tr>
<td>10:45</td>
<td>Patient #9</td>
<td>Student writes note for Patient #8</td>
</tr>
<tr>
<td>11:00</td>
<td>Patient #10</td>
<td>Patient #11</td>
</tr>
<tr>
<td>11:15</td>
<td></td>
<td>Listen to student presentation and see Patient #5 with student pointing out key findings</td>
</tr>
<tr>
<td>11:30</td>
<td>Patient #12</td>
<td>Student writes note for Patient #11</td>
</tr>
<tr>
<td>11:45</td>
<td></td>
<td>Review student notes, feedback, teaching, reflection</td>
</tr>
</tbody>
</table>
Orient Your Learner
Orientation - Mechanics
Orientation - Mechanics

Raszka. Pediatrics 2010
Orientation - Mechanics

RESTROOMS
Orientation - Mechanics
Orientation - Process

• Awareness of Goals, Objectives, Competencies
• Awareness of student (rotations done, career goals, learning style)
• Set personally relevant education goals
• Support student’s self-reflections
• Listening to and acting on student requests – conveys respect
• Clearly define expectations and goals
Teach

Strategies for Efficient Teaching
WHAT MAKES A GREAT TEACHER

Cognitive
• Knowledgeable
• Clinical Skills
• Organized
• Clear expectations
• Explains concepts
• Communication skills
• Direct supervision
• Gives feedback

Non-Cognitive
• Enthusiastic
• Stimulating
• Professional
• Positive learning environment
• Encouraging
• Focus on student needs
• Listening

Bannister. Pediatrics 2010
Child

• Accumulate knowledge and skills that might be useful later in life

• *Subject-centered*

Adult

• Accumulate knowledge and skills they can apply right away

• *Problem-centered or performance-centered*
**ADULT LEARNING THEORY**

- Adults will learn what is **relevant**
- Adults learn better if they are **involved** in the process
- Adults learn with **practice**
- Adults need **feedback**
- Adults need opportunity for **reflection**

FOCUSED QUESTIONS

• Diagnose the learner
  • What do you think is going on?
  • Why do you think that is so?

• Allows focused teaching
  • Don’t waste time telling something they know

• Make your teaching relevant
ONE MINUTE PRECEPTOR

Five Steps
1. Get a commitment
2. Probe for evidence
3. Teach 1-2 points related to the case
4. Reinforce what was done well
5. Correct errors

Examples
1. What do you think is going on?
2. Why do you think that?
3. Whenever you see . . . you should think about . . .
4. You gave good evidence to support your diagnosis
5. In the future, you should avoid . . .

Problem Representations

• Synthesize the entire patient story into one “big picture” statement.

• Uses semantic qualifiers
  • Acute/chronic
  • Unilateral/bilateral
  • Bilious/nonbilious
A previously healthy 5 week old first-born male presents with non-bilious projectile emesis. He is afebrile, well-appearing, and on exam has an olive-shaped mass in the right upper quadrant.
Illness Scripts

- Mental representation that assists in pattern recognition
- Includes Epidemiology, Pathophysiology, and Clinical Features

### Pyloric Stenosis

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Epidemiology</td>
<td>1-3 months, first born, male</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>Hypertrophy of the pylorus leading to obstruction</td>
</tr>
<tr>
<td>Clinical Features</td>
<td>Non-bilious projectile emesis, olive-shaped mass in epigastrum or RUQ, peristaltic wave, hyperkalemic, hypochloremic alkolosis</td>
</tr>
</tbody>
</table>

Teaching Scripts

- 3-5 points with illustrations
- Appreciate common errors learners typically make
- Effective way to help beginners build their own “illness scripts”
Horizontal Learning

- Compare several diagnoses side by side to easily see differences
- 3 week old with cough

<table>
<thead>
<tr>
<th></th>
<th>Pneumococcal PNA</th>
<th>Chlamydia PNA</th>
<th>Pertussis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>recent URI, fever, grunting, rtxs, flaring, hypoxia</td>
<td>“staccato”; happy tachypneic, h/o conjunctivitis; maternal STI</td>
<td>“paroxysmal”; post-tussive emesis; contact with chronic cough</td>
</tr>
<tr>
<td>Labs</td>
<td>Bandemia</td>
<td>Eosinophilia</td>
<td>Lymphocytosis</td>
</tr>
<tr>
<td>CXR findings</td>
<td>Lobar</td>
<td>Interstitial</td>
<td>Interstitial</td>
</tr>
<tr>
<td>Treatment</td>
<td>Ampicillin</td>
<td>Erythromycin</td>
<td>Erythromycin</td>
</tr>
</tbody>
</table>
SNAPPS Learner Driven

Steps

1. **Summarize** the case
2. **Narrow** the differential
3. **Analyze** the possibilities
4. **Probe** the preceptor about uncertainties
5. **Plan** management for the patient
6. **Select** case-related issues for self-study (self-directed learning)

Prepare the Student
- Orient everyone
- Cards
- Posters
- Keep track of learning topics

Preceptors were “ready to teach at the drop of a question”.

Other Teaching Strategies

- Role model (history, exam, thought process)
- Think aloud as you make decisions
- Make brief handouts of most commonly seen illnesses
- Give mini-lectures to the student on medical topics
- Observe a history and physical exam and give feedback
Evaluate/Reflect

Strategies for Efficient Teaching
Evaluate

• Provide feedback
FEEDBACK SHOULD BE

• Timely
• Given in an appropriate location
• Descriptive, non-judgmental

• Based on direct observations
• Be formative, use verbs and nouns
• Reinforce what is done right
• Correct errors
• Be given on a regular basis
  • “Feedback Fridays”

• **S**pecific, **T**imely, **O**bjective, **P**lan
• **Feedback Video**

Evaluate

• Provide feedback
• Specific comments on learner strengths
• Recommendations for improvement
• Referenced to required competencies

Irby. Clin Teach 2004
PRIME+ Model for Evaluation

- **Professional** – remark on professionalism
- **Reporter** – history and exam skills, presentations, documentation
- **Interpreter** – data interpretation, prioritization, diff dx
- **Manager** – diagnostic/therapeutic plans; procedures; managing time
- **Educator** – self-directed learning, response to feedback, interpreting literature, teaching others

+ - suggested areas for improvement

Holmes. *Pediatrics* 2014
• **Professional** – everyone should be professional
• **Reporter** – expected level of 2\textsuperscript{nd} year or early 3\textsuperscript{rd} year med students
• **Interpreter** – expected level of most 3\textsuperscript{rd} year medical students
• **Manager** – expected for late 3\textsuperscript{rd} year, 4\textsuperscript{th} year, and residents
• **Educator** – expected for 4\textsuperscript{th} year and residents
• **+** - suggested areas for improvement
Reflect
Reflect - Learner

- Have the learner reflect on one thing they learned today
- What went well
- What could be done better
Reflect - Teacher

• Take 1 min to identify a teaching approach that was effective or ineffective
  • Why was the approach (in)effective?
  • What if anything would you do differently next time, and why?
An Efficient & Effective Clinical Teacher

Diagnose the Patient
- Orient the Student to Your Practice / Clinic
- Establish Performance Expectations
- Allow the student to play an active role in patient care

Diagnose the Learner
- WHAT
  - Ask the student to make a commitment or decision
  - Summarize the case in a single sentence
- WHY
  - Probe for evidence to support the commitment or decision

Teach the Learner
- Identify a key point of emphasis from the case
- Link the key point of emphasis to a generalizable, relevant teaching point for the student to learn, based upon the student’s learning needs
- Provide feedback for specific, observed behaviors
- Reinforce positive behaviors
- Correct mistakes or misconceptions

Slide used with permission from Christopher B. White, MD
"No bubble is so iridescent or floats longer than that blown by the successful teacher."
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4. Ende J. Feedback in Clinical Medical Education. *JAMA* 1983; 250: 777-781


REFERENCES


12. Mutnik A. Ask-Tell-Ask Feedback Process developed at Columbia - Video [https://www.youtube.com/watch?v=SYXgMobMU8U](https://www.youtube.com/watch?v=SYXgMobMU8U)
REFERENCES


QUESTIONS?