The Art of Precepting: A Student’s Perspective

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Kayli Bendlin, PharmD, MEd, BSChm
Disclosure

We have no financial relationship with pharmaceutical companies, biomedical device manufacturers or distributors or others whose products or services may be considered related to the subject matter of this presentation.
Objectives

1. Describe the characteristics of an effective learning environment
2. Identify the tools utilized by effective preceptors
3. Discuss the major factors that impact learner motivation
4. Explain how to build an effective learning experience
Experiential Education

- Pharmacist Oath:
  “I will utilize my knowledge, skills, experiences, and values to prepare the next generation of pharmacists.”

- Pharmacy practice sites = one third of a student’s education

*American Association of Colleges of Pharmacy
American Pharmacists Association: 2007.*
Effective Learning Experience
Clinical Teaching Environment

- Very Complex Balancing Act
  - Patient Health Care Needs
  - Student Learning Needs

- Must know and balance needs of patients and students to be a good practitioner and educator.

*The University of Houston College of Pharmacy: 1998.*
List three characteristics of a positive learning environment.
Characteristics of an Effective Learning Environment

1. Enthusiastic and Competent Preceptor
2. Organized Orientation to the Rotation
3. Identified Learning Outcomes
4. Supportive Team Environment
5. Large Variety of Learning Opportunities
6. Adequate Teaching Time
7. Assessment is Persistent and Authentic

The University of Houston College of Pharmacy: 1998.
Enthusiastic and Competent Preceptor

- Actively interested in rotation students
  - Ask thought-provoking questions
  - Considerate of student time

- Clinical role model
  - Up-to-date clinical knowledge
  - Integral member of the health care team
  - Strong communication skills

The University of Houston College of Pharmacy: 1998.
Organized Orientation to the Rotation

- Clearly explains expectations
  - Example presentations
  - Project outlines

- Provides and reviews calendar of rotation activities

- Tour of rotation facility

- Introductions to other health care providers

The University of Houston College of Pharmacy: 1998.
Identified Learning Outcomes

- Supplied outcomes
  - Dictated by the institution
  - Adequate clinical knowledge
  - Maintains accreditation requirements

- Developed outcomes
  - Joint creation by the preceptor and student
  - Develop a working relationship
  - Specific to each student
  - Establish ownership in the experience
Supportive Team Environment

- Level of trust between student and preceptor
  - Comfortable asking questions
  - Goal is to expand on current knowledge

- Interaction with interdisciplinary team
  - Support student’s education
  - Challenge student to grow as a practitioner

The University of Houston College of Pharmacy: 1998.
Large Variety of Learning Opportunities

- Supplement direct patient experience
  - Journal Clubs
  - Presentations
  - Patient Cases
  - Patient Education Projects
- Focus on a multitude of learning styles
- Challenge students to utilize various resources
- Engage students in the experience

The University of Houston College of Pharmacy: 1998.
Adequate Teaching Time

- Time to discuss specific topics
  - Daily
    - Reviewing specific patients
    - Answering student questions
  - Scheduled
    - Topic discussions (student and preceptor directed)
    - Formal presentations (grand rounds, speakers)
Assessment if Persistent and Authentic

- **Formative**
  - Daily
  - Student strengths
  - Recommendations for Improvement

- **Summative**
  - Written and Verbal
  - Midpoint and Final
  - Student and Preceptor Input

- Above all, provide honest and on-going feedback

Tools Utilized by a Preceptor

1. Effective Communication
2. Individualized Learning Opportunities
3. A Variety of Teaching Methods
4. Role-Modeling
5. Other Resources at the Site
Effective Communication

- Develop a calendar and daily schedule
- Orient student to the site and rotation
- Set clear goals and expectations
  - Provide guidance to help achieve goals
  - Set the student up for success
# Infectious Diseases Rotation – June 2015

**Resident:** Ashley Kenkel, PharmD

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
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</tbody>
</table>
| Ashley – PTO | ID Lecture Series 8:30 am  
PGR Practice 12:00 – 1:00 pm  
Micro/Path Rounds 1:00 pm | ID Lecture Series 8:30 am | ID Case Conference 8:00 am (Methodist)  
PGR Practice 12:00 – 1:00 pm  
Micro/Path Rounds 1:00 pm |  |
| 8      | 9       | 10        | 11       | 12     |
| Ashley – PTO | Penicillins, Cephalosporins | ID Lecture Series 8:00 am  
PGR Practice 12:00 – 1:00 pm  
Micro/Path Rounds 1:00 pm | ID Lecture Series 8:00 am | Carbapenems, Monobactams  
Ashley PGR 3:00 – 4:00 pm  
Micro/Path Rounds 1:00 pm | Disease State Review  
*Midpoint Evaluation* |
| 15     | 16      | 17        | 18       | 19     |
| FQs, AMGs, Polymixins | ID Lecture Series 7:30 am  
Micro/Path Rounds 1:00 pm | Disease State Review | ID Lecture Series 8:00 am | Ashley – PTO |
| 22     | 23      | 24        | 25       | 26     |
| Ashley – PTO | Vanco, Dapt, Linezolid  
Leadership Development 3:00 – 4:30 pm | Disease State Review | ID Case Conference 8:00 am (VA)  
Micro/Path Rounds 1:00 pm  
Residency Reception 2:30 – 4:00 pm | Miscellaneous Agents  
(Tetracycline, Macrolides, Clinda, TMP/SMX)  
ID Lecture Series 8:30 am |
| 29     | 30      | Notes:    |          |        |
| Disease State Review | Disease State Review | Micro/Path Rounds 1:00 pm | Notes:  
*Final Evaluation* |

*Final Evaluation*
Effective Communication

- Develop a calendar and daily schedule
- Orient student to the site and rotation
- Set clear goals and expectations
  - Provide guidance to help achieve goals
  - Set the student up for success
<table>
<thead>
<tr>
<th>Date</th>
<th>Neurologic</th>
<th>RASS:</th>
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<th>RASS:</th>
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<tbody>
<tr>
<td></td>
<td>Sedation (arousal/dawakening) (dipr and rint) (NIV/PIN cross given)</td>
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<td>Nutrition/Electrolytes</td>
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<td>Feeding, IV, fluid status</td>
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<td>Pulmonary</td>
<td>Ventilation (V/IN)</td>
<td>Vent</td>
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<td>Cardiovascular</td>
<td>BP:</td>
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<td>Vasoressor/vasopressor (Drips and rates)</td>
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<td>GI</td>
<td>Stress ulcer prophylaxis (V/IN)</td>
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<td>Endocrine</td>
<td>Blood sugar control</td>
<td>SSI</td>
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<td>Renal</td>
<td>SLED</td>
<td>INS/OUTS:</td>
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<td>SLED</td>
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<tr>
<td>DVT prophylaxis</td>
<td>Type of prophylaxis</td>
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<tr>
<td>ID issues</td>
<td>Suspected infections</td>
<td>ABX</td>
<td>Tmax: Line Type/Date</td>
<td>ABX</td>
<td>Tmax: Line Type/Date</td>
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<tr>
<td>Hematology issues</td>
<td>Blood transfusions, etc...</td>
<td>INR:</td>
<td>INR:</td>
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<tr>
<td>Surgical issues</td>
<td>Upcoming procedures?</td>
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<tr>
<td>Other</td>
<td>Pharmacy student assessment of acute problems and pharmaceutical plan for the day</td>
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<tr>
<td></td>
<td>What issues do you recognize and how would you want to address them?</td>
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</table>
Patient Initials:
MRN:

Chief Complaint:
History of Present Illness:

Past Medical History:

Family History:
Social History:
Medications:

Allergies:
Review of Systems:

Physical Exam:

Labs/Imaging:

Assessment:

<table>
<thead>
<tr>
<th>Pharmaceutical Problem</th>
<th>Objective</th>
<th>Pharmaceutical Plan</th>
<th>Monitoring/Follow-up</th>
<th>Recommendation Reference/Support</th>
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Individualized Learning

- Assess knowledge and skills of the student
- Understand specific interests and goals
- Arrange unique learning opportunities
- Follow-up throughout the rotation
<table>
<thead>
<tr>
<th>Topic</th>
<th>Readings</th>
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<tbody>
<tr>
<td>Initial Evaluation of Trauma</td>
<td>Initial Evaluation of the Trauma Patient</td>
</tr>
<tr>
<td>Fluid resuscitation</td>
<td>C. Entner, “Fluid Resuscitation in Multiple Trauma Patients,” Curr Opin Anesthesiol, 2011</td>
</tr>
<tr>
<td></td>
<td>D. Hampton, et al., “Prehospital IV fluid is associated with increased survival in trauma patients,” J Trauma Acute Care Surg, July 2013</td>
</tr>
<tr>
<td>Fluid Resuscitation in TBI</td>
<td>Cooper DJ, Myles PS, McDermott FT, et al., Prehospital hypertonic saline resuscitation of patients with hypotension and severe traumatic brain injury, JAMA 2004;291:1350–7</td>
</tr>
<tr>
<td></td>
<td>SAFE TBI Analysis. NEJM 2007</td>
</tr>
<tr>
<td>Tranexamic Acid in Bleeding</td>
<td>CRASH-2 collaborators, “Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant hemorrhage (CRASH-2), a randomized, placebo-controlled trial.” Lancet June 2010</td>
</tr>
<tr>
<td></td>
<td>L. Napolitano, “Tranexamic acid in trauma: How should we use it?” J Trauma Acute Care Surg 2013</td>
</tr>
<tr>
<td>Abdominal trauma</td>
<td>B. Waibel, “Damage Control in Trauma and Abdominal Sepsis,” Crit Care Med 2010</td>
</tr>
<tr>
<td></td>
<td>A. Nathens, “Management of the Critically Ill Patient with SAP,” Crit Care Med 2004</td>
</tr>
<tr>
<td>VTE Prophylaxis</td>
<td>CHEST Guidelines</td>
</tr>
<tr>
<td></td>
<td>Diagnosis and Management of Complicated Intra-abdominal Infection in Adults and Children: Guidelines by the Surgical Infection Society and the Infectious Diseases Society of America Published: Clinical Infectious Diseases, 2010; 501 : 133 -164</td>
</tr>
</tbody>
</table>
Role–Modeling

- Skillful interactions with patients
- Communication with healthcare professionals
- Organization and time-management

- Important for both beginning and advanced learners!
Variety of Teaching Methods

- Role-modeling
- “Learn, Do, Teach” method
- Case Presentations
- Topic discussions
- Direct questioning
  - “Grilling” versus the “One-Minute Preceptor”

Mastering the Role of Precepting: Challenges to Clinical Teaching
## "One–Minute Preceptor"

<table>
<thead>
<tr>
<th>Steps</th>
<th>Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student makes a decision.</td>
<td>“What do you think?”</td>
</tr>
<tr>
<td>2. Student provides supportive findings and involves critical thinking.</td>
<td>“Why do you think that?”</td>
</tr>
<tr>
<td>3. Tell student what was right.</td>
<td>“You did a good job…”</td>
</tr>
<tr>
<td>4. Correct and explain errors.</td>
<td>“You didn’t consider..”</td>
</tr>
<tr>
<td>5. Teach a general principle or take-home message.</td>
<td>“The key point to remember…”</td>
</tr>
</tbody>
</table>
Other Resources at the Site

- Beneficial for preceptors
  - Helpful for busy rotation sites

- Beneficial for students
  - Broadens education
  - Enriches learning opportunities

*Mastering the Role of Precepting: Challenges to Clinical Teaching*
Motivation

“A student’s willingness, need, desire and compulsion to participate in and be successful in the learning process.”
Motivation

- Extrinsic
  - Task is performed to gain reward or avoid punishment
  - Outside influences
  - Require encouragement, persuasion and coercion to complete task

- Intrinsic
  - Task itself is rewarding
  - Internal desire
  - Eager to learn without inducement

*Educational Theory and Practice: 2013.*
Eight Major Human Desires

- Activity
- Ownership
- Power
- Affiliation
- Competence
- Achievement
- Recognition
- Meaning

Expression of these desires results in motivation
Kenneth Kovach’s Questionnaire

- Job Security
- Good Wages
- Work that Keeps My Interest
- Promotion and Growth
- Personal Loyalty to Workers
- Good Working Conditions
- Tactful Discipline
- Full Appreciation of a Job Well Done
- Feeling In on Things
- Sympathetic Help on Personal Problems
Top 3 Items from Questionnaire

1. Work that Keeps My Interest
2. Full Appreciation of Work Done
3. Feeling In on Things
<table>
<thead>
<tr>
<th>Most Important Factors in a Job</th>
<th>Desires met by these Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work that Keeps My Interest</td>
<td>Activity, Ownership, Power, Competence, Achievement, Meaning</td>
</tr>
<tr>
<td>Full Appreciation for Work Done</td>
<td>Recognition, Meaning, Achievement, Affiliation, Power</td>
</tr>
<tr>
<td>Feeling In on Things</td>
<td>Competence, Affiliation, Recognition, Meaning, Power, Ownership</td>
</tr>
</tbody>
</table>
Work that Keeps My Interest

- Exciting, challenging and meaningful experiences
- Students have control over the task
- Students see the task through from beginning to end
- Experiences that can measure overall growth
- Specific goals
Full Appreciation for Work Done

- Recognition
- Praise
  - Be specific
  - Do it on the fly
  - Mean what you say
  - Tell them
  - Put it in writing
- Provide incentives
Feeling In on Things

- Communicate
- Provide ongoing feedback
- Provide education and information
- Get input from the student
# Unmotivated Students

<table>
<thead>
<tr>
<th>Clues to Poor Motivation</th>
<th>Reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engages in negative self-talk</td>
<td>Lack of confidence</td>
</tr>
<tr>
<td>Procrastinates, complains, frequently seeks teacher’s help</td>
<td>Overwhelmed Views objectives as unrealistic</td>
</tr>
<tr>
<td>Requires extrinsic motivation in order to apply greater effort</td>
<td>Fails to see intrinsic benefit of work</td>
</tr>
<tr>
<td>Indifferent or hostile behavior toward preceptor</td>
<td>Poor student/preceptor relationship</td>
</tr>
</tbody>
</table>
Ways to Build an Effective Learning Environment

- Creative learning activities
  - Topic discussions by students for students
  - Combined case presentation and topic discussion

- Off-site learning activities

- Creative projects
  - Resident/student collaboration
Ways to Build an Effective Learning Environment

- Publication opportunities
  - Case reports
  - CE articles

- Meaningful projects
  - Pocket cards
Presenter Contact Information:

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- Kayli Bendlin
  - kbendlin@nebraskamed.com