Documenting Patient Care Encounters to Assess the Breadth and Depth of Students’ Clinical Experiences

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GROWING BODY OF LITERATURE REGARDING STUDENTS’ CLINICAL INTERVENTIONS

- Interventions
- Medications involved
- Diseases
- Who initiated
- Clinical outcomes
- Economic measures
- Acceptance rates

Documenting Student’s Clinical Interventions

- Characteristic of learning in clinical practice
  - Brief Reflection—What did you do? Why?
  - Professional Skill—If you didn’t document it, you didn’t do it.

- Opportunity for assessment
  - Bird’s Eye View—experiential curriculum or particular site
  - Individual student’s assessment of his/her own collective experiences

1. Describe a mechanism for student documentation of patient encounters linking a problem to an intervention

2. Assess the breadth of student exposure during all practice-based experiences
Advanced Pharmacy Practice Experience (APPE) Curriculum
40 Weeks of Practice-based Experiences

<table>
<thead>
<tr>
<th>Acute Care Medicine</th>
<th>Ambulatory Care</th>
<th>Community</th>
<th>Hospital</th>
<th>Electives</th>
</tr>
</thead>
<tbody>
<tr>
<td>-- 5 weeks</td>
<td>-- 5 weeks</td>
<td>-- 5 weeks</td>
<td>-- 5 weeks</td>
<td>-- 5 weeks x 4</td>
</tr>
</tbody>
</table>
Data Collection Tool

- **E*Value PxDx Case Logger™**
  - Unique log-in
  - Access from any computer, tablet, or smartphone with internet connection
  - No identifiable patient information collected
- Parameters created by our faculty and staff
- Instruction on use
  - Written and face-to-face instruction
  - Simulated practice in lab activities with feedback

Minimum Requirements for APPE Curriculum

Drug Therapy Problem(s) (DTP) Identified
- Unnecessary Drug
- Wrong Drug
- Dose Too Low
- Dose Too High
- Adverse Drug Reaction
- Inappropriate Compliance
- Needs Additional Therapy
- None

Intervention
- Compounding
- Collaborative Practice Agreement
- Drug Information
- Education to Health Care Providers
- Education to Patients
- Immunization
- Insurance
- Medical Device Fitting
- Medication Therapy Management
- Patient Safety/Quality Improvement
- Pharmacokinetics
- Physical Assessment
- Provider Contact
- Professional Development
- Screening/Testing

Therapeutic Category
- Cardiovascular
- Dermatology
- Endocrine
- Gastroenterology/Nutrition
- Heme/Onc/Immunology
- Infectious Disease
- Musculoskeletal/Pain
- Neurology
- Psychiatry
- Respiratory
- Respiratory
- Urology/Nephrology
- Other

> 70 Patient Encounters

> 3 Encounters in Each Therapeutic Category

Results

- Analyzed data from May 2011-May 2014
- 330 students
# Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Count</th>
<th>Average per Student</th>
<th>Most Common</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patient Encounters</strong></td>
<td>33,360</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Problems Identified</strong></td>
<td>22,146</td>
<td>67</td>
<td>Needs Additional Therapy, Incorrect Dose</td>
</tr>
<tr>
<td><strong>Clinical Interventions</strong></td>
<td>42,507</td>
<td>128</td>
<td>Education to Patient on New Rx, Medication Reconciliation</td>
</tr>
<tr>
<td><strong>Therapeutic Categories</strong></td>
<td>42,808</td>
<td>129</td>
<td>Cardiovascular, Infectious Diseases</td>
</tr>
</tbody>
</table>
Results—Number and Type of DTP

- Unnecessary Drug
- Wrong Drug
- Inappropriate Compliance
- Adverse Drug Reaction
- Dose Too High
- Dose Too Low
- Needs Additional Therapy

The graph shows the number of cases for each type of DTP, with Needs Additional Therapy having the highest number of cases.
Results – Number and Type of Intervention

- Medication Therapy Management
- Education to Patients
- Provider Contact
- Screening/Testing
- Immunization
- Drug Information
- Pharmacokinetics
- Physical Assessment
- Compounding
- Education to Health Care Providers
- Collaborative Practice Agreement
- Insurance
- Patient Safety/Quality Improvement
- Professional Development
- Medical Device Fitting
Limitations

- Self-identification of documented encounters
- Minimum requirement
- Documentation fatigue
- Recall bias
Conclusions

- Mechanism and expectation were effective and reasonable
- Demonstrates diversity and variety in clinical experiences
- Is an important aspect of curricular assessment and completeness
- Provides framework for colleges
**Future Implications**

**NEXT STEPS**
- Engineer curriculum based on what students encountered most often
- Create detailed reports
  - Job/residency applications and letters
  - Portfolio documentation
  - Quality assurance of practice sites

**UNANSWERED QUESTIONS**
- Time involved?
- All patient encounters?
- Economic impact?
- Clinical impact?
- Preceptor verification?
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