Drug Information as part of Advanced Pharmacy Practice Experience

Drug information (DI) skills are essential for all pharmacists. DI skills not only involve answering specific drug therapy-related questions and drug literature evaluation, but also broader medication use policy issues such as formulary management, pharmacoeconomics, adverse event and medication error identification and reporting, and assessment and use of systematic reviews (practice guidelines, etc.). The application of DI skills, like all pharmacy skills, requires a practitioner who can communicate effectively.

Since these skills are needed in all facets of pharmacy practice, it is logical to provide the student with such experiences in all rotations.

Each student will be responsible for his or her DI-related activities while on various rotations. The student is to complete DI-related projects relevant to each rotation site. Therefore, the student should work closely with the preceptor to identify the best projects. The goal is to provide "real world" DI experience.

Goals
1. Develop competency in providing drug information, evidence-based practice, and medication use policy services.
2. Understand the role and use of drug information, evidence-based practice, and medication use policy services in a variety of practice settings
3. Improve and enhance written and verbal communication skills

Objectives
1. Identify drug information questions from various practice settings
2. Respond to requests for drug information in a timely manner
3. Obtain accurate and thorough background information necessary to respond to the drug information question
4. Systematically and efficiently search appropriate drug information sources
5. Use appropriate primary, secondary and tertiary reference sources in providing answers to drug information questions
6. Critically analyze and synthesize information from tertiary, secondary, and primary sources as appropriate
7. Formulate clinically relevant drug information responses to optimize patient care and outcomes
8. Identify adverse drug events and medication errors in various practice settings
9. Document all appropriate information from adverse drug events and medication errors in an electronic method designed for this purpose
10. Report adverse drug events and medication errors to appropriate individuals and organizations (e.g., Medwatch)
11. Evaluate primary literature, such as a randomized, controlled trial, and determine its application to clinical practice
12. Research and prepare a formulary drug monograph that would be appropriate for consideration by a Pharmacy and Therapeutics Committee or other formulary management group
13. Participate in a pharmacy-related meeting associated with drug therapy issues (e.g., Pharmacy & Therapeutics Committee, Arizona State Board of Pharmacy) in a health care institution or setting
14. Review and evaluate an evidence-based practice guideline published (electronic and/or print) by a national or international professional organization or governmental agency
15. Effectively communicate drug information to other health professionals and/or patients verbally and in writing
16. Maintain a portfolio
17. Assure patient privacy and confidentiality in all drug information activities

**Recommendations and ideas for each rotation:**

<table>
<thead>
<tr>
<th>3 Drug Information Responses per rotation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend and report 1 pharmacy related meeting per rotation</td>
</tr>
<tr>
<td>2 Adverse Event Reports per rotation</td>
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<tr>
<td>2 Medication Error Reports per rotation</td>
</tr>
<tr>
<td>1 Formulary Drug Monograph where possible</td>
</tr>
<tr>
<td>1 Journal Club where possible</td>
</tr>
<tr>
<td>1 Practice Guideline Review where possible</td>
</tr>
<tr>
<td>1 Patient Education Material where possible</td>
</tr>
<tr>
<td>1 Pharmacoeconomic Analysis where possible</td>
</tr>
<tr>
<td>Present projects as posters or abstracts at meetings</td>
</tr>
<tr>
<td>Submission of a Drug Information Response for publication</td>
</tr>
<tr>
<td>Reflective Reports</td>
</tr>
</tbody>
</table>
Drug Information Responses:

Drug information questions should be selected based on the following criteria.

1. The request requires a great deal of research (i.e., Medline search and review of primary literature) and preparation.
2. The answer is of sufficient value to keep for future reference.

Responses should have three primary sections:

1. An introduction or background.
2. Your findings from the literature review including a synopsis of each pertinent study with any inadequacies or deficiencies noted.
3. Your recommendations or conclusions to answer the request.

Do not rely on review articles or textbooks to answer the questions although these sources can be helpful for developing your introduction. When submitting draft copies of the response to your preceptor, provide copies of reference materials as well as the search strategy or history. Expect to revise the response after receiving feedback from your preceptor.

Pharmacy-Related Meeting:

Students are encouraged to attend multiple pharmacy-related committee or subcommittee meetings in order to understand the activities of the pharmacy department and practice management, in the context of medication use policy. Note that attendance educational meetings (inservice, CE, etc.) does not meet the criteria for this activity. Examples of relevant activities include attendance at committee meetings such as Pharmacy and Therapeutics, Infection Control, Quality Assurance, Medication Error, JCAHO preparation, and Arizona State Board of Pharmacy. Ideally, the student should attend meetings that involve pharmacists, other health professionals and management personnel.

Adverse Drug Event Report and Medication Error Report:

Students in all patient care settings should be actively monitoring for potential and actual adverse drug events and medication errors. Each rotation site may use a somewhat different method of reporting, and the student should be oriented to such procedures during the overall rotation orientation.

Formulary Drug Monograph:

This should be completed at a site where formulary drug monographs are routinely
produced and utilized (e.g., hospitals, managed care organizations). The student should review material covered in PhPr 861c "Drug Literature Evaluation" prior to beginning this activity. The preparation of a drug monograph may take a significant amount of time and should be initiated early enough to assure successful completion. Successful completion of the monograph will require an extensive literature search and review. The rotation preceptor who is evaluating the monograph may require several revisions of the written monograph. If possible, the student should be involved in presenting the monograph to the Pharmacy and Therapeutics Committee.

Journal Club:

Journal clubs allow a group of practitioners to critically assess and discuss new scientific information regarding drug therapy. Practice sites may differ somewhat in the format of journal clubs. Students are asked to follow the format of the practice site and any forms specific to that practice site. The form linked above can be used if the practice site does not have a specific format.

Practice Guideline Evaluation:

Practice guidelines are systematically developed statements used to assist practitioners and patients with decisions about appropriate health care for specific circumstances. Guidelines are being used with increasing frequency by individual clinicians and health systems. Because there are no widely used, standardized methods for guideline production and assessment, pharmacists must be able to identify those guidelines that are appropriate to apply in a particular practice setting.

Students (with the guidance of their preceptor) will select a guideline published (electronically or print) by a national or international professional organization (e.g. ASHP, American College of Physicians) or a governmental agency (e.g. NHLBI, UK NHS).

Patient Education Material

Pharmacoeconomic Analysis

Submission of abstracts for meetings or DI for publication

Consider having your students submit their DI assignments to journals such as the Arizona Journal of Pharmacy, Journal of Pharmacy Practice and the Journal of the American Pharmacists Association.

Reflective Reports

As a form of evaluation and recording student activities, have them do reflections on any topic. These can be done as frequently as you would like. Some examples include: What was your favorite thing you learned this week? What is the most challenging part of this rotation for you? What topics would you like more discussion on? What has
been most surprising about this rotation? These reflective reports can be helpful to preceptors in evaluating and improving their sites and can provide a nice reference for letters of recommendations later. These can also help the student step back and self-assess their performance and have records of their activities for portfolios.

**Evaluation & Grading**

The rotation preceptors will evaluate all assignments in the longitudinal DI experience. The student should submit work for evaluation to the rotation preceptor early enough so that the evaluation and grading can be completed prior to the end of the rotation. Rotation preceptors will likely, after initial review of the activity, return the work for further revision by the student. All revisions must be completed no later than one week after the end of the rotation. If revisions are not completed on time, additional make-up assignments will be coordinated through the preceptor.

**Patient Privacy & Confidentiality**

The Health Insurance Portability and Accountability Act (HIPAA) defines who may have access to confidential patient information and how such information may be handled. Other than the patient’s actual medical record or other forms being used by the institution in the care of the patient, there should be no patient identifying information on any of the materials you are using or submitting for this course. Nor should any patient identifying information be used in discussions about patients unless the discussion is with those directly involved with the patient’s care. Examples of patient identifying information include full name, Social Security number and medical record number.

**Scholastic Integrity**

Honesty is expected of all students. Any compromise in scholastic integrity will not be tolerated. To obtain detailed information, please refer to the [University of Arizona Code of Academic Integrity](http://deanofstudents.arizona.edu/academicintegrity) at the following web site.