

# CASE TEACHING NOTES

## for

### “Discovering Long-Term Care Pharmacy Practice: A PBL Case for Pharmacy Students?”

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#### **INTRODUCTION / BACKGROUND**

“Discovering Long-Term Care Pharmacy Practice” is a three-part progressive disclosure case designed to introduce pharmacy students to the pharmacist’s role in long-term care (LTC) facility consulting pharmacy practice. These teaching notes describe how the authors use this case in a problem based learning (PBL) laboratory environment at The University of Iowa. Educators from other institutions who consider using this case are encouraged to adapt it to the needs of their students and curriculum.

#### ***Student Preparation and Prerequisite Knowledge***

This case is appropriate for courses such as introduction to pharmacy practice, pharmacy practice laboratory, introduction to pharmaceutical care, or career options. Students are assumed to be unfamiliar with long-term care pharmacy practice. Although pharmacotherapy knowledge is not required, students who can recognize differences between drug classes may understand better the rationale for specific medication regimen review guidelines. Students must be able to develop strategies to search Internet and print sources for relevant information.

#### ***General Instructional Goals***

The primary goals of this case are to introduce students to pharmacy practice in the long-term care facility and to acquaint the student with essential, basic resources for conducting drug regimen review. A secondary goal, which is related to lifelong learning, is to create an instructional context in which students must consider strategies for learning new practice skills after they have attained professional licensure.

To achieve these goals, the case uses a problem-based learning approach to simulate steps a newly-licensed pharmacist might take to learn about the roles and responsibilities of a long-term care facility pharmacist. The problem-based learning approach is intended to help students learn the subject matter presented and develop search strategies that can be used for self-education in other areas they may encounter as practicing pharmacists.

#### ***Students’ Learning Objectives***

After participating in Parts I–III of the case, the student will be able to:

- Describe the roles and responsibilities of a pharmacist who provides services to long-term care facility residents.
- Identify state and federal laws and regulations that pertain specifically to LTC facility drug regimen review and pharmacy consulting.<sup>[1]</sup>

- Understand the significance of Beers' criteria to long-term care facility regulations and pharmaceutical care for the geriatric patient.<sup>[2]</sup>
- List medication classes that are specifically mentioned in federal long-term care facility regulations.
- Learn the criteria for proper use of medication classes subject to federal nursing facility guidelines.
- Identify medications used in connection with certain disease states that fall under the Beers' criteria.

### **Additional Topics**

During case discussion, the following topics may arise and can be investigated by students as appropriate for the scope of the course:

- Pharmacy practices, procedures, products, systems, or regulations for dispensing medications to long-term care facilities.
- Living arrangements available for seniors other than long-term care.
- Nursing facility regulation development process.
- Medicare benefits—in particular, benefits for long-term care facility residents.
- National long-term care practice pharmacy employers.
- Credentialing of geriatric pharmacy specialists and geriatric pharmacist certification.
- LTC residents' freedom of choice to select pharmacy service.
- Effect of the Health Insurance Portability and Accountability Act (HIPPA) on the pharmacist/nursing facility relationship.<sup>[3]</sup>
- Application of evidence-based guidelines in the LTC setting.
- Reimbursement for pharmaceutical care services in the LTC setting.
- Professional organizations, journals, and resources for consulting pharmacists.

### **CLASSROOM MANAGEMENT**

This case is used in laboratory sections comprised of 36 students working in groups of nine where each group has access to one to three computers. Each group is facilitated by a teaching assistant or instructor. Each laboratory session lasts 1 hour and 50 minutes. The authors anticipate that this case could be adapted for groups ranging in size from three to 10 students and for sessions of different lengths.

Prior to being introduced to the case, students participate in a one-hour class session that includes background information about the long-term care pharmacy practice environment. This class session provides information about demographics of aging and medication use, types of places where the elderly reside, increased risks associated with medication use in the elderly, and the ability of the pharmacist to prevent medication related problems in this population. The class session is intended to stimulate students' understanding of the potential problems of medication use in the elderly, provide a rationale for nursing facility regulations, and set a context for students to explore the case material.

The case is disclosed to students one part at a time. They identify facts, gaps, hypotheses, and learning issues as defined below and as appropriate for the part of the case.

- Facts—Information specifically stated in the case narrative.  
(Example: the specific name of the pharmacy, as stated in the case.)
- Gaps—Information that students would like to know if it were available to them.  
(Example: the number of pharmacists employed by the pharmacy who conduct monthly drug regimen reviews. This information is not stated in the case narrative.)

- Hypotheses—Students’ explanations for the facts presented in the case. Students may generate or eliminate hypotheses at any time.
- Learning issues—Topics or issues, ranging from simple to complex, that are raised during discussion and that students do not understand. Students are strongly encouraged to state each learning issue as a question to facilitate recall of the context.  
(Example: What is a drug regimen review?)

Students are given a group record sheet, which they use to summarize group discussion about specific questions on the case pages. Learning issues generated during discussion of Parts I and III are written on this sheet along with a summary of the group’s understanding of the duties of a consultant pharmacist after Part II.

Students complete all parts of the case during the laboratory session except the individual learning issue report assigned by the facilitator at the end of the session. (See description of Part III below.)

### ***Part I***

Students identify facts, gaps, hypotheses, and learning issues after disclosure of Part I and respond to questions related to Part I on the group record sheet. Many possible learning issues may arise during the discussion. The learning issues that are most related to the primary instructional goals of the case are listed below. Other learning issues that arise should be included as appropriate for the course in which the case is used.

- What is the difference between dispensing and consulting?
- What is a “drug regimen review”?
- What does a pharmacist do in a LTC?
- Am I qualified to do this? Do I need a special degree or certification?
- What is “consulting”?
- How does consulting differ from counseling?
- Who is involved in consulting?
- Who receives consulting?
- How is drug regimen review related to providing drug distribution services?

### ***Part II***

Students do not generate learning issues in response to Part II. However, they search the Internet to investigate information about long-term care facility pharmacy practice and drug regimen review and report their findings back to the group. Students then proceed to Part III, where the disclosure of new information results in new learning issues and another search for information.

### ***Part III***

As in Part I, many learning issues are possible. The following list includes learning issues most relevant to the instructional goals described in these teaching notes:

- What are the LTC regulations pertaining to pharmacy services?
- What does the pharmacist do if a patient’s drug regimen has issues addressed by the regulations?
- For the medications or classes of medications listed,
  - What do the regulations state about the medication?
  - What does the pharmacist need to do if an issue exists?
- What does it mean to “conduct” a drug regimen review? Where does the pharmacist go?
  - What does he/she use? Where is it located?

- Where can the regulations be found? [place/book]
- What is an indicator?
- Which drug classes are included in the regulations? Why?
- What does it mean for a LTC patient to have a diagnosis?
- What are the Beers' criteria?
- How are the Beers' criteria important to the pharmacist?
- What is an inappropriate medication order?
- What are long-acting benzodiazepines?
- What are short-acting benzodiazepines?
- What are sedatives?
- What are hypnotics?
- What are antipsychotics?
- What are antidepressants?

Group work on the case ends after discussion of Part III. At the end of the session, the facilitator assigns one of the following learning issues to each student. Additional learning issues can be assigned, depending on the instructional goals of the course where this case is used.

1. What do federal regulations state about the use of benzodiazepines in a nursing facility resident? Include diagnosis, dosage, duration, and choice of agents in your report.
2. What do federal regulations state about the use of medications for sleep induction (sedative/hypnotics) in a nursing facility resident? Include diagnosis, dosage, duration, and choice of agents in your report.
3. What do federal regulations state about the use of antipsychotics in a nursing facility resident? Include diagnosis, dosage, duration, and choice of agents in your report.
4. What do federal regulations state about the use of antidepressants in a nursing facility resident? Include diagnosis, dosage, duration, and choice of agents in your report.
5. What are the Beers' criteria? What are the implications of the Beers' criteria for consultant pharmacy practice? List several medications that are listed in these criteria.

Students' learning issue reports are shared with other students by posting them on the course web site and, after review by the instructor, are used by students as study aids. In addition, each group submits its completed group record sheet to the instructors. The laboratory learning activities related to this case close with a quiz based on the contents of students' learning issue reports. The quiz is administered online later in the course.

## REFERENCES

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<http://www.ascp.com/public/pr/start/>

Beers MH. Explicit criteria for determining potentially inappropriate medication use by the elderly. *Archives of Internal Medicine*. 1997; 157:1531-1536.

Centers for Medicare and Medicaid Services.

<http://www.cms.hhs.gov/>

Federal interpretive guidelines for OBRA regulations governing unnecessary drug and drug regimen reviews.

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Gong J. ed. *Healthcare Practitioner Reference Manual for Use in Long-Term Care Facilities*. Novartis; 2002:95-103.

<http://www.novartisvin.com/seniorcare/hps/refman/appendixE.pdf>

## END NOTES

- [1] Educators who consider using this case are encouraged to expand the resource list to include print or electronic resources related to their state laws that pertain to LTC pharmacy consulting practice.
- [2] Beers MH. Explicit criteria for determining potentially inappropriate medication use by the elderly. *Archives of Internal Medicine*. 1997; 157:1531-1536.
- [3] Center for Medicare and Medicaid Services. HIPAA Insurance Reform. <http://cms.hhs.gov/hipaa/hipaa1/default.asp>.

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