

2015

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## Recommended Citation

Mospan G. A Night-shift Pharmacy Introductory Pharmacy Practice Experience. *Inov Pharm.* 2015;6(2): Article 196.  
<http://pubs.lib.umn.edu/innovations/vol6/iss2/1>

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## A Night-shift Pharmacy Introductory Pharmacy Practice Experience

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**Key Words:** Night-shift, experiential, student(s), IPPE, precepting, rotation, third shift

### Abstract

*Although not commonly thought of as an option for experiential training during pharmacy school, night-shift rotations offer many benefits for the student. Aside from the learning experience, students are able to view the challenges of practicing as a night-shift pharmacist and refine their problem-solving skill set. Night-shift rotations provide more opportunities for experiential directors to schedule rotations. This commentary will highlight the value of night-shift experiential rotations and detail a personal experience from precepting two students on a hospital Introductory Pharmacy Practice Experience during the night-shift.*

### Introduction

Many post-graduate or residency-trained pharmacists seek positions with a day or afternoon schedule. However, the current competitive market for pharmacists is resulting in less of these opportunities and more third shift positions, especially in metropolitan areas. Third shift, also known as night-shift or the “graveyard” shift, commonly refers to the time frame of approximately 8 PM to 7 AM. Patients require 24-hour care and pharmacies are commonly staffed to meet this need.

Practicing as a night-shift pharmacist requires a unique problem-solving skill set. Night-shift pharmacists have to work around medication outages, computer system downtimes, and decreased personnel support. Typically, there is a lack of additional pharmacists to consult when problems arise, especially when the decision has to be made quickly. Moreover, several hospital pharmacy practice residencies have added an overnight or on-call component to their program.<sup>1-3</sup> As a result of all these factors, offering night-shift experiential rotations to pharmacy students provides exposure to a potential practice environment and refines problem-solving abilities. This commentary will detail an experience as a preceptor for a night-shift hospital Introductory Pharmacy Practice Experience (IPPE) and discuss the value of night-shift rotations.

### Practice Site and Rotation

The rotation took place at a sixteen bed, full-service, free-standing emergency department in a suburb of a large metropolitan city. Comprehensive pharmacy services were provided and included dispensing medication orders,

restocking automated dispensing cabinets, and filling discharge prescriptions. The daily census for the emergency department averaged 65 patients. Approximately 25 patients arrived during the night hours, with a majority of the patients discharged by two in the morning.

After collaboration with a nearby college of pharmacy, two students entering their third professional year were scheduled. This rotation satisfied their hospital IPPE requirement and each student completed four, ten-hour shifts to total 40 hours.

After the scheduling process, preparations were made to ensure the students were provided with a valuable rotation. Given the patient census and the hours patients generally seek care, downtime was anticipated. As a result, plans were made to review various institutional pharmacy topics, in addition to preceptor-led topic discussions and assignments for the students to complete while on-site. Since the students had differing levels of hospital experience, the rotation and topic discussions were tailored accordingly. The goal of the rotation was to provide a structured practical experience of pharmacy practice in the hospital setting.

Daily activities for the students included: shadowing in the emergency department and pharmacy, participating in interactions with physicians, counseling patients, and participating in the medication dispensing process. All planned inpatient pharmacy topic discussions occurred, most frequently when the patient census was low. The students were not assigned any take home projects, presentations, or readings and were given adequate time while on-site to research topic discussions. The students took advantage of additional shadowing opportunities with nurses, the radiology technician and the pharmacy technician.

After completion of the rotation, the students provided positive feedback of the experience and site on the

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evaluation. Both students responded “strongly agree” with the following statements: “The site was conducive to learning”, “I was able to interface directly with health-care providers”, and “The experience complimented my didactic work”. Additionally, both students strongly agreed that they are better prepared to perform the following tasks: accurately dispense medications, identify and assess drug related problems, and demonstrate knowledge of commonly used medications, formulations and drug products. The unique practice site allowed the students to have close observation of the entire medication use process: order entry, filling of the order, pharmacist verification, delivery to bedside, and for intravenous medications, usage of smart pumps. The members of the health care team were accessible given the decreased staff at night, allowing for additional teaching opportunities.

### Discussion

Although night-shift rotations have occurred previously in various institutions around the country, published literature on the topic is lacking and the benefits need to be discussed. From my experience, if a critical patient came in to the emergency department, the student was able to get involved at bedside and participate in the differential diagnosis while the patient was being stabilized. During the day shift on a busy medicine floor, this opportunity would have been more difficult to provide for the student. Students who have families or circumstances in which they need timely completion of their IPPE hours could find benefit in the overnight schedule. For pharmacists and other team members interested in teaching, precepting provides additional job satisfaction one may not come to expect during the overnight hours.

The United States has seen a drastic increase in the number of colleges of pharmacy. In certain areas of the country, rotation sites for experiential rotations may be limited. This issue is further compounded with the need for both IPPE and Advanced Pharmacy Practice Experience (APPE) rotations. Developing preceptors who practice during the night-shift could be a creative solution for increasing rotation availabilities. Furthermore, night-shift experiential training has been described in the literature for medical and nursing students.<sup>4-7</sup>

There are some disadvantages for night-shift experiential rotations that need to be considered. Pharmacy students may not receive exposure to all aspects of the practice site. Pharmacy services provided at night are generally limited in hospitals and less specialized rotations would be available. Although there may be a significant amount of downtime

during the overnight hours, well thought out topic discussions could alleviate this aspect. Finally, students may find it difficult to adjust to the scheduled hours. Further research and evaluation needs to be performed to determine effectiveness and student-perceptions of night-shift rotations. Descriptions of other night-shift rotations would provide benefit for preceptors and institutions who are planning to offer these opportunities.

### Summary

Overall, night-shift rotations are a valuable option for experiential education in pharmacy. Students will view the challenges associated with practicing during the night-shift and refine their problem-solving skill set. Colleges of pharmacy should consider this educational opportunity, if willing sites are available.

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