Primary Intended Outcomes

1. Integrate pharmacy interns to serve as extenders and expand more comprehensive services,
2. Reduce human resource time and expenses,
3. Prepare pharmacy students to be competitive candidates for residency training programs,
4. Improve quality of care by allowing pharmacists more time for clinical duties and direct patient care, and
5. Strengthen relationship with the affiliated pharmacy school.

Relevant PPMI Recommendations

**B26:** Every pharmacy department should:

- **B26b:** Develop a plan to reallocate its resources to devote significantly more pharmacist time to drug-therapy management services.

- **B24c:** Develop a plan to allocate pharmacy student time to drug therapy management services.

Situation Analysis

Froedtert Hospital is a 500-bed academic medical center in Milwaukee, Wisconsin. For many years, Froedtert has offered pharmacy internship programs in both the inpatient and ambulatory settings for students who have completed their first and second years of pharmacy school. Participation in the internship programs has been limited to summers because there were no pharmacy schools in Milwaukee. Summer interns staffed technician shifts in the central pharmacy, shadowed pharmacists throughout the hospital, and assisted with project work as needed. Based on need and interest, interns had opportunities to pick up additional hours during breaks from school. Starting in 2006, interns in their fourth year of pharmacy school were hired to assist with admission medication histories in the evenings (5:00 p.m. to 9:00 p.m.). While students completing Froedtert’s internship program reported a positive experience, interns were not well integrated into daily pharmacy operations and practice.
Service Description

Concordia University of Wisconsin College of Pharmacy opened in a suburb of Milwaukee in the fall of 2010, allowing us access to pharmacy students year-round. Intern full-time equivalents (FTEs) from our summer internship program were redistributed to allow the hiring of additional interns who would each work one to two nights per week (5:00 p.m. to 9:00 p.m.) and rotate weekend shifts, year-round. Through attrition, several technician FTEs were converted to support the internship program.

The primary goal of the year-round internship program is to provide students who are interested in health-system pharmacy practice with experience that will make them competitive candidates for residency training programs. Interns are recruited upon acceptance into pharmacy school or upon completion of their first year of pharmacy school and are expected to commit to the internship program until graduation. During summer breaks, the more advanced interns are expected to train the incoming group.

Interns interested in exploring different pharmacist roles within the health system have the opportunity to complete shadowing experiences, although they are not reimbursed for shadowing time. Administrative experiences throughout the program include assisting with intern training and scheduling, mentoring less-experienced interns, and doing project work as needed. The first two years of the program are designed to give interns a good operational foundation, while the second two years focus on direct patient care.

| Intern 1 | Enrolled in 1st year of Pharm.D. program | Dispensing, Packaging, Non-sterile compounding, Stocking |
| Intern 2 | Completed 1st year of Pharm.D. program | Above tasks and: Sterile compounding, Training of Intern “1s” |
| Intern 3 | Completed 2nd year of Pharm.D. program | Admission and discharge reconciliation, Patient education, Profile review, IV to PO interchanges, Renal dosing |
| Intern 4 | Completed 3rd year of Pharm.D. program | Above tasks and: Training of Intern “3s” |
Key Elements for Success

1. To recruit Intern “1s,” we collaborated with our affiliated college of pharmacy to include information about the internship program in pharmacy school admission packets. Hiring interns the summer prior to their first year helped to avoid conflicts with required hospital orientation and training. It also helped with recruiting.

2. In a time when it is increasingly difficult to justify the addition of new FTEs, it was essential to convert existing FTEs to expand our internship program. With the opening of Concordia, we saw interns as a way to recruit students interested in health-system practice into future student, resident, and pharmacist positions.

3. As part of the human resources/personnel management component of the PGY2 Health-System Pharmacy Administration Residency, the resident is responsible for the day-to-day management of the interns. Under the guidance of an inpatient pharmacy manager, the resident organizes intern training, coordinates recruitment, oversees scheduling and program development, maintains job descriptions, handles sick calls, and assists with evaluations.

Resource Utilization

**Personnel:** Twenty-two interns account for roughly four FTEs, making up $135,000 in salary expense per year. Interns are optional part-time employees and are not eligible for benefits.

**IT and other infrastructure:** Interns use workspace that is already available.

Recognized Intangible Benefits

Pharmacists have increased job satisfaction and more time for clinical activities and direct patient care. The program has experienced improved recruitment and retention, stronger pharmacy student development, and a better relationship with the affiliated pharmacy school.

Outcome Measures

1. Number and total percentage of admission medication histories completed by interns,
2. Number and total percentage of discharge medication reconciliation completed by interns,
3. Number and total percentage of discharge medication education completed by interns, and
4. Number of profile review tasks (e.g. IV to PO interchanges, renal dosing changes) completed by interns.

Lessons Learned

1. Adequate training materials and an orientation training checklist are essential.
2. We must continually think of areas where pharmacy interns can best be used as pharmacist extenders while still allowing them a positive intern experience.
3. It is essential to set clear expectations on time requirements with students during the hiring process. We require our interns to commit to working shifts during breaks from school. Additionally, our interns are responsible for finding their own coverage when they have scheduling conflicts. This allows us to staff intern shifts consistently throughout the year.
Suggestions for Other Hospitals/Health Systems

1. Collaborate with local schools of pharmacy to aid in the recruitment process. Getting the information out to incoming students early is essential to having a seamless transition from year to year.

2. Set clear timelines for recruiting and training new interns each year in order to avoid gaps in coverage.