A Pharmacy Mini-Externship for Medical Students

Joseph A. Mosso, Sr.

Several years ago, it occurred to me that an opportunity existed for both education and improved interprofessional understanding between physicians and pharmacists. I knew that Latrobe Area Hospital was a teaching hospital affiliated with the Jefferson School of Medicine in Philadelphia. A rotation of six fifth-year medical students occurs every six weeks. These students participate in the family practice setting under the direction of Joseph Govi, M.D.

I approached Dr. Govi and asked him if it was possible to have the medical students come to my pharmacy for a visit. My intentions were to have these future practitioners meet with a practicing registered pharmacist and view the workings of a pharmacy—a hands-on experience. I wanted these future physicians to see what a pharmacy is and what a pharmacist really does in his practice of pharmacy. I wanted them to know that pharmacists and physicians have much in common and that we should be able to work together for the good of the patient.

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I have always been a firm believer in the physician-patient-pharmacist relationship, and I thought that this medical student pharmacy program could enhance that relationship. I knew that physicians had a great impact on my profession, and I believed that they did not realize what pharmacy was all about. I hoped that this program would give these future physicians a better understanding of what a pharmacist and pharmacy can do for their practice and that it could open the lines of communication between us to a greater degree. Here is how it works.

The goals of the program are to:
1. Introduce the profession of pharmacy to medical students
2. Enhance the physician-pharmacist relationship through understanding
3. Open the lines of communication between pharmacist and medical student, leading to a better understanding of:
   a. Practice of pharmacy
   b. Obstacles that exist between medicine and pharmacy
   c. Legal aspects involving medicine and pharmacy
   d. Impact of other forces on medicine and pharmacy, including:
      • Government
      • State boards
      • Physician dispensing
      • Patients
      • Generic drugs
      • Computers
      • Regulatory agencies (DEA, FDA, FTC, etc.)
      • Pharmaceutical manufacturers
      • Third-party prescription insurance plans
      • Pharmaceutical representatives
      • USP Drug Product Problem Reporting Program
      • Forged prescriptions
      • Medicaid DESI list and MAC list
      • Others
4. Discuss patient consultations:
   a. Patient aids (dose charts, patient information pamphlets, available literature)
b. Pharmacist one-on-one consultation
c. Mailings (newsletter, emergency notices)
d. Durable medical equipment and ostomy products

5. Describe pharmacy services available, such as:
   • Patient profiles
   • Delivery service
   • Compounding
   • 24-hour emergency service

6. Discussion of various professional issues
   • Mail-order pharmacy
   • Medicare and Medicaid
   • Pharmacy law
   • Business trends.

**SPECIFIC ACTIVITIES**

I arrange to have the medical students come to the pharmacy when I can have an extra pharmacist on duty. This allows me to give undivided attention to the student and provides another pharmacist who can interact with the student. The other pharmacist will often add items that I have not covered. The students spend about three hours at the pharmacy. I immediately give a copy of the “Medical Student’s Pharmacy Visit” sheet to the student. I let the student review the goals and objectives to see if there is anything in particular he or she would like to discuss. The student takes an evaluation sheet to fill out later and turn over to the hospital advisor (unsigned). The advisor sends me copies of the sheets when he gets six or more.

I give the student a stack of prescriptions to review. Without a doubt, and within a few minutes, the student asks one of us, “What does this say?” This leads me into prescription-writing pros and cons, and then I show one of our better-writing (legibility and specific directions) physician’s prescriptions. These medical students are trained in generic terminology and do not know brand names. So, I discuss generics, going from the FDA Orange Book to the Pennsylvania Generic Substitution Act to why we stock a specific generic company’s products (I am able to get dissolution, bioequivalency, bioavailability, etc., reports from this company
and a good price). The price I tie in with the MAC list that we have to use in Pennsylvania for Medicaid. I also discuss third-party programs, fees, generic plans, AWP less 10%, etc. They know nothing about these. I also give the students a list of the top 200 drugs.

I give the students handouts that we give our patients at the pharmacy. These include “Drug-Drug Interactions,” “It Would Be Wise to Avoid Alcohol,” “Drug-Nutrient Depletion Guide,” “Guide to Food-Drug Interaction,” and “Helpful Hints to the Caregiver.” We discuss services the pharmacy performs: patient consultation, 24-hour emergency service, free medical expense reports, free prescription delivery service, computerized drug interaction and allergy check. I then give them copies of patient aids. I let the students see the operation of the pharmacy: obtaining and dispensing a prescription, checking for interactions and allergies, and consulting with patients. The students are very weak in pharmacology and will usually enter into a discussion about drugs.

I let the students see my pricing of the prescription and how I use various pricing codes to meet competition. They are usually surprised at the small margin. They have had no business courses and therefore do not realize what turnover, return on investment, and cash flow mean. We talk a little about these; someday they may be looking for cash flow in their practices. I stress the need for a computer. I show them my billing system and let them talk to the person who does all my third-party billing, durable medical equipment (DME) business, and accounts receivable.

I have saved several forged prescriptions which I show them. Then I enter into the subject of how we can check DEA numbers to see if they are valid, how we call physicians to verify prescriptions, etc. I finish by telling them to keep their prescription pads safely protected from the public. As a past member of the Pennsylvania State Board of Pharmacy, I relate some of the problems we have had with pharmacists and physicians perpetrating Medicaid fraud and with physicians the DEA catches abusing their prescribing privileges by writing narcotics prescriptions for addicts.

I try to show them how their practice and our practice are intertwined and constantly talk about the physician-patient-pharmacist relationship and the necessity for it. With their visit, they witness the constant phone calls between our pharmacy and physicians’ of-
fices. I show them the reference books we use: *USP-DI, Facts & Comparisons, Merck Manual.* We do a lot of compounding in the pharmacy, and most students do not realize that this is even done anymore. So, we discuss the compounding of specific suppositories and ointments.

Most students do not know what a DESI list is, so I review this with them and usually give them a copy of several pages of my present DESI list. They are surprised at some of the products listed—this *does* affect their prescribing practice.

**REACTIONS**

Each student completes a brief evaluation by answering the following questions:

1. Was your visit worthwhile?
2. Was enough time allotted to your needs?
3. Were all of your needs and questions satisfied?
4. What other areas would you like to see addressed?
5. Would you revisit a pharmacy to continue this type of interaction?
6. How would you rate your host pharmacist? (1 = excellent, 2 = good, 3 = fair, 4 = poor)

Students are also encouraged to provide comments based on their experience. A few of these should provide a flavor for their experience:

This was a valuable experience, since we have no exposure to this information in medical school.

It added much to my thought processes when I wrote prescriptions after my visit.

I have a much greater appreciation for the pharmacist’s medical role after my visit.

They spent time showing me their computer system, reviewing prescription writing, and reviewing reference material on pharmacology.
It gave me a much more informed perspective on the pharmacy business and the ways in which the M.D. can facilitate prescription filling.

It is great to see how our prescriptions are processed and to understand the flexibilities that the pharmacist has in filling prescriptions.

CONCLUSION

There are so many items to discuss with the students to let them know what we do, who we are, and how we serve our patients. We walk around the store and meet our patients. I let them see patients ask me for over-the-counter (OTC), DME, and ostomy items. I want them to know the responsibility that I face as opposed to that of the grocery or beauty aids store, where OTC items are not even considered in a patient’s medical profile. We generally conclude the rotation with a discussion of current issues that affect pharmacy and medicine and how trends in health care will affect all practitioners.

I urge other practicing pharmacists to consider implementing a program such as this.