

# Model Pharmacy/Dispensing Laboratory Manufacturer Products Resource Update

Eddie B. Dunn  
Glynn G. Raymond  
Jonathan J. Wolfe

**ABSTRACT.** The pharmacy curriculum is changing to prepare future practitioners for expanded roles in patient care. Model pharmacies, like those utilized in dispensing laboratories, are a logical part of the educational process. This article describes how a well-maintained model pharmacy reinforces what students learn in other courses. It also lists addresses and current contact persons at pharmaceutical manufacturers which provide model pharmacy stock for instructional purposes. Basic guidelines for requests are also described. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: [getinfo@haworth.com](mailto:getinfo@haworth.com)]*

## INTRODUCTION

The practice of pharmacy is changing. Some believe that changes in the marketplace and technology will ultimately result in a decrease in pharmacy's traditional dispensing function (1,2). Over the past several years, colleges of pharmacy have made dramatic changes in curricula to prepare future practitioners for an expanded role in patient care. With the emphasis

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Eddie B. Dunn, Pharm.D., is Assistant Professor in the Department of Pharmaceutics at the University of Arkansas for Medical Sciences College of Pharmacy, Little Rock, AR 72205. Glynn G. Raymond, Ph.D., is Associate Professor of Pharmaceutics at the University of New Mexico College of Pharmacy, Albuquerque, NM 87131. Jonathan J. Wolfe, Ph.D., is Associate Professor in the Department of Pharmacy Practice at the University of Arkansas for Medical Sciences College of Pharmacy, Little Rock, AR 72205.

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of the profession shifting from product to patient, is it still necessary to expose students to manufacturers' bulk containers/products in simulated professional practice (dispensing) laboratories? The answer is yes.

### **MEDICATION ERROR REDUCTION**

"Hands-on" experience with manufacturers' products will introduce students to some of the causes of medication errors made by pharmacists who personally dispense and by those who check the work of technicians (3). Pharmacists' checking of technicians' work will likely increase as the pharmacist's time is increasingly applied to direct patient care. This is in line with an overall trend, particularly in hospitals, to structure dose preparation in ways that maximize the use of support personnel (4,5). Instructors can use model pharmacy stock to teach students that medication errors can occur as a result of different medications being packaged in containers that have similar appearances (6). Students will see these packaging similarities as they fill mock prescriptions using stock from a well-maintained model pharmacy. It is important for instructors to replace expired stock so that displayed products are of current package design. This is especially important for products which have packaging changes resulting from pharmaceutical manufacturer mergers (7). Instructors can also use the model pharmacy to introduce students to medications frequently involved in look-alike, sound-alike mix-ups (8,9,10,11,12). Students who are aware of this potential problem, reinforced by seeing problem products, will be less likely to make this type of error in practice. Errors have also been made due to confusion in trade-name product suffixes. For example, a patient's Catapres TTS transdermal system was changed three times weekly instead of once weekly because the suffix was interpreted as Tuesday, Thursday, and Saturday (13). Instructors can use model pharmacy stock to show students different trade-name suffixes, and how they can be misinterpreted.

### **STERILE PRODUCTS**

The need to display and use manufacturers' parenteral products in the practice laboratory is especially critical, since parenteral products offer greater potential for harm than drug products administered orally or topically. This distinction may arise from a lower therapeutic index for drugs given parenterally. Furthermore, such drug entities immediately achieve

wide distribution in the body and are therefore practically impossible to remove in case of therapeutic misadventure. It is important for students to have direct experience with manufacturers' containers of injectable drug products as part of the curriculum. Handling actual dosage units builds skill and confidence which can translate into the ability to recognize incorrect doses and reduce future economic loss due to wasted drugs. Pharmacists will benefit throughout their careers by practicing with actual products. It enhances aseptic technique and builds the technical expertise necessary to effectively supervise the work of supportive personnel.

### ***MUTUAL BENEFITS***

A well-maintained model pharmacy can be used to enhance other courses. For example, students can use model pharmacy stock when learning patient counseling techniques. Using the actual product adds a "real world" dimension to these exercises. This is especially important for specialty dosage forms and devices, such as metered-dose inhalers, ophthalmic products, and auto-injectors. The actual or placebo products should be available to students to allow them to gain practical experience in counseling patients on the correct use of these specialty products. The model pharmacy can also show students that many products are available in several dosage forms. Lab experiences can be designed which require students to use this information in solving therapeutic problems encountered when patients are unable to use a usual route of administration.

### ***STAYING CURRENT***

Pharmacy instructors today generally have less contact with pharmaceutical manufacturers' representatives than ever before. This is partly due to the downsizing of sales forces in the aftermath of corporate mergers. It is also a function of the redirection of "detailing" energies to produce a sharp focus on a single disease entity, on the promotion of a particular medication, or on the actions of decision makers within a hospital or a care network. In this environment, pharmacy college faculty must increasingly rely on practice-focused publications for information about new medications. Another important source of such information is their part-time employment in pharmacies. It is reasonable to hope that information about new and changed products will reach the colleges faster by establishing links between faculty members who teach dispensing and the pharmaceutical manufacturers which supply the practical laboratories.

### GUIDELINES

Pharmaceutical manufacturers will in general provide at no cost reasonable amounts of drug products for instructional needs. This is predicated on the college guaranteeing that the products will under no circumstances be used for patient care. The college must also comply with the Prescription Drug Marketing Act of 1987, which prohibits the sale or trade of drug samples (14).

Instructors need to follow basic guidelines when requesting model pharmacy stock from pharmaceutical manufacturers. The letter of request should be on college stationery. It should state that the products are for instructional use only and will not be resold or used in patient care (6). This letter should be signed by the course instructor and include the exact address for shipping. The list of requested products should contain the product name, strength, package size, number of packages, and product NDC number. Table 1 lists pharmaceutical manufacturers' addresses, along with the appropriate contact person.

TABLE 1. Pharmaceutical Manufacturers' Liaison Personnel

COMPANY	CONTACT
Abbott Laboratories	Tip Parker Manager/Trade Relations Dept. 355 AP30 #1 Abbott Park Road Abbott Park, IL 60064
Abbott Laboratories (Parenterals)	Debbie Perry Medical Affairs Hospital Products Division #1 Abbott Park Road Abbott Park, IL 60064
Astra/Merck Group	Ms. Nancy Singer Director, Customer Service 725 Chesterbrook Boulevard Wayne, PA 19087-5677
Baxter Laboratories	I.V. Systems Division Baxter Healthcare Corporation Route 120 & Wilson Road Round Lake, IL 60073

COMPANY	CONTACT
Bayer Corporation	Eric Anderson Director, Pharmacy Affairs 400 Morgan Lane West Haven, CT 06516-4175
Bristol-Myers Squibb	William D. French Director, Professional Relations P.O. Box 4500 Princeton, NJ 08543-4500
CibaGeneva Pharmaceuticals	Gail H. Sulla Coordinator, Trade Relations 556 Morris Avenue Summit, NJ 07901
Daniels Pharmaceuticals, Inc.	Medical Division 2517 25th Avenue North St. Petersburg, FL 33713
Eli Lilly and Company	Robert L. Seib, Jr. Manager, Professional Relations Lilly Corporate Center Indianapolis, IN 46285
Forest Pharmaceuticals	Angela Fausek Scientific Affairs Pharmacist 13622 Lakelront Drive St. Louis, MO 63045
Glaxo Wellcome, Inc.	Sheila Kelly Customer Service Five Moore Drive Research Triangle Park, NC 27709
Hoechst Marion Roussel	Joe Canny Manager, Professional Education/Research K3-M0814 10236 Marion Park Drive Kansas City, MO 64137-1405

TABLE 1 (continued)

COMPANY	CONTACT
Hoffmann-LaRoche, Inc.	Barbara L. Malzone, R.Ph. Manager, Pharmacy Relations 340 Kingsland Street Nutley, NJ 07110-1199
Key Pharmaceuticals	Jack Robbins, Ph.D. Director, Pharmacy Affairs 2000 Galloping Hill Road Kenilworth, NJ 07033-0530
Knoll Pharmaceuticals	Robert Radecki Director of Sales Operations 3000 Continental Drive North Mt. Olive, NJ 07828
McGaw Laboratories	McGaw, Inc. P.O. Box 19791 Irvine, CA 92713-9791
Merck and Company	David G. Miller Director, Pharmacy Affairs P.O. Box 4 (WP 39-349) West Point, PA 19486-0004
Ortho Pharmaceutical Corporation	James A. Kitchen Executive Director 1000 Route 202 Raritan, NJ 08869
Pfizer Pharmaceuticals	Donald H. Douglas Manager, Trade Development 235 East 42nd Street New York, NY 10017
Pharmacia & Upjohn	Douglas P. Johnson, R.Ph. Director, Professional & Academic Policy 7000 Portage Road Kalamazoo, MI 49001-0199

COMPANY	CONTACT
Proctor and Gamble	Dennis Worthen, Ph.D. Director, Pharmacy Affairs 11520 Reed Hartman Highway Cincinnati, OH 45241
Rhône-Poulenc Rorer	Robert Uzzo, R.Ph. Director, Pharmacy Affairs 500 Arcola Collegeville, PA 19426-0107
Sanofi Winthrop Pharmaceuticals	Lisa Gottlieb, Pharm.D. Director of Medical Affairs 90 Park Avenue New York, NY 10016
Sandoz Pharmaceuticals	Susan Pratola Administrator, Pharmacy Affairs 59 Route 10 East Hanover, NJ 07936-1080
Schering Corporation	Jack Robbins, Ph.D. Director, Pharmacy Affairs 2000 Galloping Hill Road Kenilworth, NJ 07033-0530
SmithKline Beecham	George C. Heil, R.Ph. Manager Professional Affairs One Franklin Plaza P.O. Box 7929 Philadelphia, PA 19101-7929
Solvay Pharmaceuticals, Inc.	Katie Peace, Coordinator Sales and Marketing Communications 901 Sawyer Road Marietta, GA 30062
3M Pharmaceuticals	James R. Reith Market Development Manager Bldg. 275-3W-01 St. Paul, MN 55144

TABLE 1 (continued)

COMPANY	CONTACT
Wyeth-Ayerst Laboratories	Timothy Burelle, Pharm.D. Executive Director, Pharmacy Relations P.O. Box 8299 Philadelphia, PA 19101-8299
Zeneca Pharmaceuticals Group	Jordan D. Johnson, R.Ph., M.S. Manager, Pharmacy Affairs 1800 Concord Pike Wilmington, DE 19850-5437

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