Optimizing pharmaceutical reimbursement: One institution’s approach

LAUREL M. LOYD

Purpose. The importance of understanding the revenue cycle, reviewing the billing system for errors, and collaborating with other health system departments in maximizing pharmaceutical reimbursement, and the approach used at a large academic medical center to justify a reimbursement specialist and achieve this goal are discussed.

Summary. Understanding the revenue cycle may enable pharmacy departments to make wise decisions about programs and services that maximize revenue recovery and meet patient needs. Parts of the revenue cycle that pharmacists can have a favorable effect on include claim denials/payment variances, regulatory changes, compliance, contracting, and price setting. Pharmaceutical reimbursement was increased substantially at one institution through a collaborative effort involving multiple departments and a reimbursement specialist who analyzed the revenue cycle, reviewed billing systems, and took steps to avoid or correct billing errors.

Conclusion. Collaborating with members of key health system departments can help identify and resolve billing system errors that diminish revenue. Documenting efforts to increase revenue recovery can help justify adding personnel dedicated to reimbursement matters. Analyzing the revenue cycle can contribute to wise decision-making that optimizes pharmaceutical reimbursement.

Index terms: Billing; Contracts; Decision-making; Errors; Health-benefit programs; Hospitals; Personnel, pharmacy; Pharmacists; Pharmacy, institutional, hospital; Prescriptions; Pricing; Regulations; Reimbursement; Sociology

Am J Health-Syst Pharm. 2006; 63(Suppl 7):S18-21

Virginia Commonwealth University Health System (VCUHS), a large academic medical center, is a safety-net, disproportionate-share facility (i.e., the institution serves a disproportionately large number of low-income patients who are unable to obtain healthcare elsewhere). Recovery of revenue to the maximum extent possible is vital to the continued fiscal viability of the institution.

Revenue cycle

An understanding of the revenue cycle (Figure 1) in a health system such as VCUHS is needed because failure of any part of the cycle can diminish revenue. Parts of the revenue cycle that pharmacists can favorably affect to increase revenue recovery include claim denials/payment variances, federal and state regulatory changes (e.g., Centers for Medicare and Medicaid Services, Office of Inspector General opinions), compliance (e.g., accurate and appropriate coding, billing risks), contracting, and price setting.

Pharmacists need to evaluate their recovery of revenue for posted charges because the difference between posted charges and recovered revenue can be substantial due to billing errors and claim denials. Posting a charge does not ensure that revenue is received. The departments within a health system often operate independently, and computer systems do not always interface. Some computer systems stand alone. In some systems, charge information is simply dumped into billing programs, regardless of the accuracy of the information. Ensuring accurate billing typically is not the highest priority for healthcare professionals because patient safety takes a higher priority. Therefore, it behooves pharmacists to evaluate revenue recovery so that billing errors do not go undetected.

Potential errors

Failure to recover revenue may be traced to computer system errors. Charges may be posted to a

LAUREL M. LOYD is Assistant Director of Pharmacy, Virginia Commonwealth University Health System, 1201 East Marshall Street, P.O. Box 980042, Richmond, VA 23298-0042 (ljacobse@hsc.vcu.edu).

Based on the proceedings of a symposium held June 24, 2006, during the ASHP Summer Meeting and Exhibition, Orlando, FL, and supported by an unrestricted educational grant from Amgen Inc. Ms. Loyd received an honorarium for her participation in the symposium and for the preparation of this article. Ms. Loyd reports that she has no affiliations with or financial interest in a commercial organization that pose a conflict of interest with this article.

Copyright © 2006, American Society of Health-System Pharmacists, Inc. All rights reserved. 1079-2082/06/1101-0S18$06.00. DOI 10.2146/ajhp060465
closed account, an account without a diagnosis code, or another incorrect account. Some charges may not be posted at all because of incorrect account information. Multiple accounts may be used for a patient receiving treatment and undergoing diagnostic procedures in more than one setting. Failure to provide the correct account number and diagnosis code can result in claim denial and nonpayment as well as failure to enter needed prior authorization information. Systems errors may also include failure to program the computer system to generate claim denial reports. Assuming that computers are properly programmed with the necessary and correct information may not be valid.

Errors in charges may be introduced by a fiscal intermediary, such as a Medicare contractor, in a misguided attempt to correct what appears to be an error. Such errors can involve large dollar amounts.

**Small-scale approach**

Several years ago pharmacists at VCUHS began tracking revenue recovery, focusing initially on high-cost medications (e.g., intravenous immune globulin), high-cost patients (e.g., transplant recipients, oncology patients), and costly medications administered in a clinic setting (e.g., infliximab). Although their approach was on a small scale, the pharmacists documented their activities, financial transactions, and revenue recovery. They realized that charges were accruing to one cost center, although there were seven outpatient pharmacies. This arrangement made it impossible to evaluate each pharmacy’s performance in inventory control, personnel management, and revenue recovery. Separate cost centers have since been established, providing a mechanism to analyze performance and identify problems at each pharmacy.

Pharmacists at VCUHS have found that establishing and maintaining working relationships with the pharmacy software vendor and personnel in key departments (e.g., patient accounting, financial counseling, registration, information technology) and specialty clinics (e.g., oncology clinic, transplant clinic) is invaluable for identifying and correcting billing errors and increasing revenue recovery. Meeting staff members in person rather than relying on the telephone often is beneficial.

At VCUHS, it is feasible to devise a plan to accommodate unusual patient circumstances (e.g., the need for a one-day registration for specialized treatment) when members of the departments involved have a rapport. The goal of accommodating the patient’s needs is met through such collaboration among different departments.

Although pharmacy staff can seek assistance from the information technology department, communicating with the pharmacy software vendor may be vital for quickly resolving coding or data entry problems. The VCUHS pharmacists found that judicious contact with the software vendor was instrumental in assuring the vendor’s staff that they would only be contacted when absolutely necessary. Consequently, the vendor was promptly responsive when the pharmacy staff needed help.

**Review of current systems**

Reviewing claim denials is a good way of evaluating the ability of the billing system to recover revenue. However, a lack of denials can be misleading; it is not necessarily indicative of good system operations because it might reflect failure to properly post process charges. Questions or confusion about the reason for denial may be resolved by requesting an explanation of benefits.

It is important to ensure that Medicare Healthcare Common Procedure Coding System codes (e.g., J, C, and Q codes), status indicators, billing units, and conversion factors (see the article by Jarrett about understanding basic concepts and strategies for obtaining pharmaceutical reimbursement in this supplement) in the pharmacy software program are correct. The Centers for Medicare & Medicaid Services web site should be checked for changes periodically, and updates to the software program should be made as needed (the pharmacy computer system is updated every two weeks at VCUHS).

It also is important to ensure that both credits and charges are posted appropriately on the hospital’s billing system. Failure to ensure that the interface is intact for processing both charges and credits could result in lost revenue.

Ensuring that purchase prices are current in the pharmacy drug database is vital. Frequent updates may be needed to stay current.

The interface between the pharmacy computer system and the

---

**Figure 1. Revenue Cycle of Virginia Commonwealth University Medical Center.**

Price Setting ➔ Registration ➔ Financial Counseling ➔ Billing ➔ Collection ➔ Denials & Payment Variance ➔ Analyses

- Cost Accounting
- Coding
- Contracting
- Compliance
- Regulatory changes

$SSSS$
Collaborative efforts

Pharmacists at VCUHS developed a collaborative working relationship with members of the managed care department who had been reviewing contracts without obtaining pharmacy input. These contracts could affect the pharmacy department because of the reimbursement rules of Medicare, Medicaid, commercial insurance, and most recently, the Prescription Drug Plans for Medicare Part D; the use of multiple tiers (e.g., level 1 might include an inexpensive generic product with a nominal copay, level 2 a more expensive generic or inexpensive brand product, and level 3 an expensive brand name product that may or may not require a prior authorization) or formulas (i.e., how much the pharmacy will actually make when the prescription is adjudicated) by commercial insurance companies; and 340B pharmaceutical procurement program discounts. A copy of each contract should be kept on file in the pharmacy department. All contracts should be reviewed semiannually or annually and renegotiated if the terms are no longer favorable to the institution. Reimbursement should be reviewed on an ongoing basis. Collaboration between the pharmacy and managed care departments at VCUHS facilitated detection and resolution of problems with private commercial contracts (e.g., BlueCross BlueShield, Aetna, Cigna).

Collaboration with members of the oncology department is important because of the high cost of oncology drugs, although carve-outs (contractual arrangements that allow for separate payments) often are established for particularly costly drugs. At VCUHS, pharmacists collaborate with analysts in the oncology department in performing a monthly review to identify claim denials, payments that went uncollected, and outstanding balances.

Members of the pharmacy and oncology and pharmacy departments at VCUHS recognize the need to share information and for each department to perform essential functions to ensure reimbursement. The oncology department must enter the proper billing and diagnosis codes when patients receive drug therapy, and the pharmacy department must post charges to the proper account.

Four years ago consultants evaluated the system for obtaining pharmaceutical reimbursement at VCUHS. The consultants made recommendations to modify the pricing structure for oncology drug products and advised the pharmacy department to frequently reevaluate its charge for these products to remain competitive with outside oncology clinics and other oncology pharmacies.

Pharmacists at VCUHS also focus on high-cost medications administered in a clinic setting (e.g., botulinum toxin type A, infliximab). Reimbursement for such therapies in randomly-selected patients is spot checked using financial databases and reports of patients receiving such drug therapies.

Collaboration between the pharmacy and patient accounting departments has been worthwhile at VCUHS. A member of the patient accounting department reviews Medicare payments that appear low, especially for chemotherapy services, and notifies members of the pharmacy and oncology departments as appropriate if errors or other problems are identified. Collaboration with the patient accounting department also allows the pharmacy department to ensure that reimbursement checks are received and posted to the proper accounts.

Reimbursement specialist

The errors identified through random spot checking of pharmaceutical reimbursement and the large dollar amounts often involved suggested the potential for a much larger undetected reimbursement problem at VCUHS. Efforts to detect and correct these errors using an organized, large-scale approach could allow the institution to substantially increase revenue recovery. For example, correction of an error introduced by a fiscal intermediary in processing charges for epoetin alfa allowed VCUHS to recover $250,000 in revenue. Pharmacists’ efforts to document activities, financial transactions, and revenue recovery facilitated justification of a new reimbursement specialist position. Revenue recovery of $900,000 had been achieved on an ad-hoc basis by one pharmacist over a 19-month period.

A full-time equivalent position dedicated to reimbursement was proposed to increase revenue recovery at VCUHS. This individual would have expertise in reimbursement rules and devote as much as 100% of his or her time to reimbursement concerns. A position description and performance evaluation for the proposed position were developed and presented with the revenue recovery data to the position control committee and administration, and approval for a reimbursement specialist was received.

The certified pharmacy technician staff provided a pool of interested candidates for the job opening. The certification was required to ensure the reimbursement specialist possessed a familiarity with drug names, doses, and dosage forms. The reimbursement specialist salary represented an increase for technicians,
and the duties and responsibilities of the position presented a challenge. Other qualifications for the position included prior experience with online billing and prior authorizations, computer competency (e.g., familiarity with common spreadsheets), attention to detail, excellent organizational and written and oral communication skills, initiative, and an ability to work independently. The communication skills were considered critical because of the need for the reimbursement specialist to make contact with external customers (e.g., insurers) and internal customers (e.g., nurses, physicians). Initiative also was viewed as important because when the position was first authorized, there was uncertainty about how much time the successful candidate would spend on reimbursement matters. It was hoped that any extra time could be redirected to conventional technician tasks with little or no supervision. As things turned out, all of the reimbursement specialist's time was consumed by reimbursement activities, and there was enough reimbursement-related work for an additional two or three specialists. Nevertheless, initiative is a beneficial attribute for the reimbursement specialist because it facilitates channeling of his or her efforts in directions with a maximum impact on revenue recovery.

The duties and responsibilities of the reimbursement specialist include reviewing daily reports of transactions, errors, and missing elements. Transactions are reported by cost center and eyeballed by the specialist for possible error. Errors are promptly corrected and resubmitted. Missing elements usually involve International Classification of Diseases, 9th Revision codes, which are researched by the specialist.

The reimbursement specialist also reviews weekly Medicaid reports from the patient accounting department. This report contains patient names, medical record numbers, and Medicaid eligibility status. This information is valuable to the pharmacy department because there is no other way to know about an indigent patient's Medicaid status. The specialist uses this list to retroactively bill Medicaid instead of writing off drug expenses to charity care.

Correcting rejections (i.e., claim denials) on reports generated by the online billing system, auditing random patient accounts for reimbursement, and making monthly reports on revenue recovery to a supervisor are among the duties and responsibilities of the reimbursement specialist. The random audits often involve the accounts of patients receiving high-cost drugs. These accounts are “flagged” and tracked over a 30- or 60-day period to ensure that reimbursement is received.

Case studies

Several years ago the pharmacy department at VCUHS was approached by members of the hepatology department with a proposal to increase revenue. The hepatology department realized that it was sending patients with hepatitis C and insurance coverage to other specialty care pharmacies for their prescription needs and that these referrals represented a lost opportunity for VCUHS. The pharmacy department conducted a full review of the revenue cycle and prepared a business plan to submit to administration. The hiring of two full-time equivalents (a clinical pharmacist and a certified pharmacy technician) to provide services to hepatitis C patients was authorized. The clinical pharmacist provides patient education, demonstrates self-administration technique for injectable drug therapies, and is available around-the-clock to answer questions about adverse effects or other drug therapy problems. The certified pharmacy technician fills all prescriptions, handles prior authorizations, and prepares the prescriptions for mailing. Prescription drug refills are provided by mail, and the pharmacist ensures that these refills are sent in a timely manner. Follow-up analysis of the revenue cycle associated with this service revealed that it is profitable for VCUHS.

The situation involving the VCUHS home infusion pharmacy service was different. The hospital's home infusion service had been unsuccessfully managed by a large multidisciplinary department, involving representatives from nursing, care coordination, discharge planning, accounting, billing, and pharmacy. Several years ago the decision was made to transfer responsibility for the home infusion pharmacy service to the pharmacy department alone. A full review of the revenue cycle revealed that the original department reviewed posted charges only, and did not analyze reimbursement and billing and collections were poor because the pharmacy department lacked personnel with the proper education and training to perform these functions. The pharmacy department failed to recover enough revenue to support the service. A business decision was made to outsource the home infusion pharmacy, which has been successful.

Understanding the revenue cycle enabled the VCUHS pharmacy department to make wise decisions about programs and services that maximize revenue recovery. Nurturing positive interdepartmental relationships was instrumental in increasing the pharmacy department's credibility, and it has contributed to successes in maintaining fiscal health and meeting patient care needs.

Conclusion

A collaborative effort involving multiple departments and a reimbursement specialist optimized pharmaceutical reimbursement at VCUHS. Analysis of the revenue cycle, a review of billing systems, and efforts to avoid or correct billing errors were key strategies in achieving success for the institution.