Medication Reconciliation by Pharmacists May Cut Hospital Readmission Rates

A pharmacist-driven medication reconciliation intervention led to significantly lower hospital readmission rates among older patients with chronic diseases compared with national averages, according to a pilot program presented by Adrienne Roberts, PharmD, Kelsey-Seybold Clinic, Houston, TX, and colleagues.

For the targeted conditions, readmission rates were 50% to 65% lower than national averages, and 40% to 50% lower than the readmission rates for patients in Medicare Advantage (MA) plans. Overall, 6 of the 75 patients in the medication reconciliation program were readmitted within 30 days of hospital discharge; the overall hospital readmission rate was 8%.

The rate for heart failure (HF) was approximately 8.6% less than the national MA readmission rates, and chronic obstructive pulmonary disease (COPD) was approximately 9.6% less than the national MA readmission rates.

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“The current trend of data suggests that medication reconciliation performed by a pharmacist had a positive impact on readmission rates,” Dr Roberts and colleagues noted.

The 30-day readmission rate for Medicare beneficiaries in fee-for-service plans is approximately 19%, and the rate in MA plans is 14.5%. The Centers for Medicare & Medicaid Services (CMS) has reported national readmission rates of almost 20% for myocardial infarction (MI) and pneumonia, approximately 25% for HF, and approximately 23% for COPD.

Advocates of healthcare reform have identified readmission as a key area for care coordination as a means of achieving cost-savings. CMS has projected savings of $8.2 billion between 2013 and 2019 as MA plans implement quality improvement programs that will include hospital readmissions.

The program focused on members of the MA prescription drug plan. Medication reconciliation occurred within 72 hours of discharge, and was coordinated by a pharmacist in concert with a multidisciplinary team that included physicians, physician assistants, nurses, case managers, and social workers.

The program included patients diagnosed with HF (N = 24), acute MI (N = 16), pneumonia (N = 2), COPD (N = 25), and social issues (N = 8).

Using electronic medical records (EMRs), hospitalists submitted a discharge summary to a hospital readmission program pharmacist, who completed medication reconciliation, documented medication changes, and used the EMR system to perform a patient evaluation. In addition, the pharmacist documented detailed information for subsequent data analysis, including patient demographics, readmission referrals, medication-related issues, scheduled follow-up, and additional comments.

Readmission data were compared with national averages for the targeted diseases.

Medication reconciliation was associated with readmission rates of 12.5% for HF and 8% for COPD, a significant reduction from the national rates. The program also revealed potential problem areas for medication reconciliation. [Roberts A, et al. Impact of a pharmacist intervention on hospital readmission rates in a health plan.]
Comparative Effectiveness Research in Coverage Decision-Making

Comparative effectiveness research (CER) is expected to play a key role in coverage decisions by Pharmacy & Therapeutics (P&T) committees, but useful data have been slow to materialize, according to a survey of medical and pharmacy directors.

“The coverage decision-making process is becoming increasingly complex,” Richard A. Brook, MS, MBA, Vice President of TPG National Payor Roundtable, LLC, and Vice President of Business Development at JeSTARx Group, and colleagues concluded in their poster presentation.

“The introduction of ever-greater numbers of specialty pharmaceuticals requires stakeholders to have a better understanding of the process. These cloud the question of whether they will be covered via the medical benefit or the pharmacy benefit,” Mr Brook and his colleagues noted.

The online survey was completed by 20 medical directors and 9 pharmacy directors (of 235 directors invited to participate), most of whom represented commercial health plans (Table). The objective was to outline strategies that would enhance the P&T committee process and are favored by medical and pharmacy directors.

The survey focused on the current decision-making process related to formulary coverage and the potential influence of CER on coverage decisions. The responders indicate that the managed care community regularly incorporates evidence-based medicine into coverage decisions, as reflected by an average rating of approximately 7 on a 10-point scale.

However, the medical and pharmacy directors expressed skepticism about the progress being made to obtain more usable CER information, which received a below-average (<5) rating from the respondents.

When asked about areas that CER could influence most, guideline development was cited most often, but by only 22.6% of the respondents. Medical and pharmacy benefit management was cited second at 19.4%.

The responses to a question about how best to improve the P&T process included the greater use of CER data and emphasis on value in decisions (27.6%), concerns about insufficient physician involvement with the committees (17.2%), and more time to allow for in-depth evaluations (6.6%).

“Comparative-effectiveness research will play an enhanced role in helping formulary decision makers determine the value of new therapies and how new agents will fit into clinical practice guidelines, drug formularies, and the medical benefit,” Mr Brook and colleagues concluded.

<table>
<thead>
<tr>
<th>Implications of Comparative Effectiveness Research</th>
<th>Mean respondent rating</th>
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<tbody>
<tr>
<td>Pharmacy directors (N = 9)</td>
<td>Medical directors (N = 20)</td>
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<tr>
<td>Managed care commonly uses evidence-based medicine today in decision-making</td>
<td>6.4</td>
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<tr>
<td>I expect to regularly utilize comparative effectiveness information in formulary decision-making by 2015</td>
<td>6.1</td>
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<tr>
<td>We are making great progress in obtaining usable information on comparative effectiveness of therapies</td>
<td>4.4</td>
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NOTE: Responses are based on a 1-10 scale.

Health Plans Take Minor Hit for Preventive Drug Coverage Required by Healthcare Reform

Implementation of the Affordable Care Act (ACA) so far has had only a minor effect on drug plan costs, despite large increases in the use of preventive therapies, according to a retrospective analysis of pharmacy claims data comparing pre- and postimplementation costs.

The number of patients utilizing preventive drugs more than doubled from 2010 to 2011, and utilization rate increased by 146.3%. Yet, pharmaceutical costs to health plans increased by <51 per member per year (PMPY). Among common preventive therapies, aspirin and folic acid had the most dramatic increases in utilization.

Use of tobacco-cessation products increased by 31% but accounted for almost 98% of the costs for preventive therapies.

“Pharmaceutical costs for plans increased $0.93 PMPY, with the vast majority of that increase coming from tobacco cessation products,” reported Hing Chan, MS, MBA, Analytic Consultant, CVS Caremark. Nevertheless, “even with the increase in costs, the cost of these preventive drugs constitutes less than 0.2% of the total drug plan cost.”
The ACA requires nongrandfathered (ie, not in existence the day the legislation was enacted) health plans to provide certain preventive services without member cost-sharing when delivered within network. As of September 23, 2010, the recommendations of the US Preventive Services Task Force include the use of aspirin, fluoride, folic acid, iron, and tobacco-cessation products, which were the focus of this analysis.

As a result of the mandates, utilization of preventive services and drugs are expected to increase. Over time, healthcare costs and utilization are expected to decrease.

Comparing the preimplementation period of 2010 with the postimplementation period of 2011, 1.2% of the 1.4 million members used a preventive drug in 2011, a 90.2% increase from 2010. Preventive drug gross cost increased by 43.8% to $1.69 PMPY, and preventive drug plan cost increased by 120.6%, to $1.69 PMPY.

Evidence of the effects of the ACA on pharmaceutical costs and utilization has begun to emerge, although it is too early to determine the full impact of the ACA at this point.

To examine the effect of healthcare reform on preventive care coverage and utilization from the perspective of nongrandfathered health plans, Mr Chan retrospectively evaluated an integrated database of administrative pharmacy claims. The analysis included nongrandfathered employer plans with a total of 1.4 million members.

Comparing the preimplementation period of 2010 with the postimplementation period of 2011, 1.2% of the 1.4 million members used a preventive drug in 2011, a 90.2% increase from 2010. Preventive drug gross cost increased by 43.8% to $1.69 PMPY, and preventive drug plan cost increased by 120.6%, to $1.69 PMPY. Preventive drug days’ supply increased 143.6% to 1.06 PMPY.

Tobacco-cessation products accounted for 97.9% of total preventive drug costs, followed by 1.4% of the cost for aspirin. Plan cost PMPY for tobacco-cessation products increased by $0.90, from $0.76 in 2010 to $1.66 in 2011. Days’ supply PMPY increased from 0.29 to 0.35 (a 21.2% increase).

The use of aspirin for preventive purposes increased from 75 individuals in 2010 to 7063 in 2011 (9317.3% growth). Gross cost PMPY for aspirin increased by 7992.9%, resulting in a 2011 gross cost PMPY of $0.02. Days’ supply PMPY increased by 12,697.5% (to $0.58) for aspirin and by 353% for iron, and decreased by 13% for fluorides.

Utilizers of tobacco-cessation products increased from 6331 in 2010 to 8294 in 2011, and utilizers, as a percentage of average members, increased by 19.9% during that period.

The plan cost for fluorides increased by $0.01 PMPY but did not change for folic acid or iron. [Chan H. Impact of the Affordable Care Act (health care reform) provisions for preventive care coverage on pharmaceutical costs and utilization.] ■

Transitioning to a Patient-Centered Medical Home Does Not Improve Diabetes Outcomes

Transitioning to a patient-centered medical home (PCMH) model of care failed to improve metabolic parameters in patients with type 2 diabetes, according to a retrospective analysis of a large claims database. Medical and pharmacy costs did not change significantly after implementation of a PCMH.

The change in glycated hemoglobin A1c averaged an increase of 0.04% during the first 18 months of PCMH care compared with a decrease of 0.09% in the 18 months before implementation of the PCMH model. The secondary goal of absolute low-density lipoprotein (LDL) cholesterol value also did not differ between the PCMH and the control groups, but the proportion of patients who achieved an LDL of <100 mg/dL did increase significantly with the PCMH.

“The goals established by each of the medical home clinics were not standardized,” noted Anthony May, PharmD, MBA, of SelectHealth in Murray, UT, and colleagues. “Clinics were given the choice of selecting their own PCMH goals each year, and not all clinics had goals surrounding diabetes and lipid management.” This may explain some of the results.

Dr May and colleagues noted that the goal of the PCMH is not only to improve specific clinical outcomes, but rather, the model is intended to improve care coordination and patients’ navigation through the US healthcare system.

Studies of PCMH have documented reductions in hospitalization, emergency department visits, and medical costs, the authors noted in their introduction.

The impact of transition to a PCMH model of care for
Direct Costs Soar for Patients with IBS plus Constipation

The annual direct costs for the care of patients with constipation-predominant irritable bowel syndrome (IBS-C) averages >$11,000, which is >3 times the direct costs of a non-IBS control group, according to a retrospective claims review presented at the meeting.

Most of the difference came from utilization of medical services by patients with IBS-C. A similar cost disparity between patients with IBS-C and the control group existed across noncapitated HMO plans, PPO plans, and Medicare Advantage (MA) plans.

The $8000 difference far exceeded previous estimates from similar comparisons, according to Qian Cai, MS, MSPH, a health economics researcher at HealthCore, Inc, in Wilmington, DE, and colleagues.

“This study highlights the significant economic burden of IBS-C in a commercially insured population, with a consistent burden observed across different health plan benefit designs,” the researchers concluded.

“Opportunities exist to optimize the management of IBS-C to improve symptom control and minimize avoidable or unnecessary healthcare utilization, thereby reducing overall costs,” they added. IBS is a chronic functional gastrointestinal disorder characterized by abdominal pain or discomfort associated with altered bowel habits.

The proportion of patients who achieved the A1c goal of <7% ranged between 50% and 55% in the PCMH and in the control groups, and it did not differ significantly between the 18-month intervals.

However, the proportion of patients in each group who achieved an LDL goal of <100 mg/dL differed significantly between the first and second 18-month periods in the PCMH group (P = .003). The ending value also significantly exceeded the value at the beginning of PCMH implementation (P = .01), unlike the control group.

The pharmacy and medical costs did not differ significantly between the PCMH and the control group. At the end of the follow-up, pharmacy costs averaged $3854 in the PCMH group and $3643 in the control group. The mean medical costs at the end of the study were $2934 in the PCMH group and $3360 in the control group. [May A, et al. Comparison of treatment outcomes among commercial health plan members transitioned to a patient-centered medical home.] ■

The annual healthcare costs averaged $11,182 among IBS-C patients and $3116 in the control group. Medical claims accounted for 81% of healthcare costs in the IBS-C group and for 79% of the control group.

Estimates of IBS prevalence range as high as 20% of adults in North America. The condition comprises 3 subcategories defined by symptomatology: IBS-C, IBS with predominant diarrhea, and IBS with mixed symptoms.

Previous studies of direct healthcare costs associated with IBS-C yielded differences ranging from $1896 and $5441 versus matched control groups. However, these published studies have estimated overall healthcare costs for patients with IBS without regard to disease subtype or different types of health plans.

The researchers analyzed data from January 1, 2010, through December 31, 2010, from the HealthCore Integrated Research Database, which comprises claims from 14 health plans representing 44 million members. The analysis included adults with 12 months of continuous medical and pharmacy benefits. Patients were identified as having IBS-C on the basis of ≥1 medical claims associated with an IBS-related diagnostic code and at least 2 medical claims for constipation or at least 1 medical claim for diarrhea.

The pharmacy and medical costs did not differ significantly between the PCMH and the control group. At the end of the follow-up, pharmacy costs averaged $3854 in the PCMH group and $3643 in the control group. The mean medical costs at the end of the study were $2934 in the PCMH group and $3360 in the control group. [May A, et al. Comparison of treatment outcomes among commercial health plan members transitioned to a patient-centered medical home.] ■
4.3%, and a variety of other benefit designs that covered a total of 6.5% of the population.

The annual healthcare costs averaged $11,182 among IBS-C patients and $3116 in the control group. Medical claims accounted for 81% of healthcare costs in the IBS-C group and for 79% of the control group.

Analysis by plan design yielded average costs of $12,002 for IBS-C for patients in noncapitated HMO plans; $10,579 in PPOs; and $14,237 among MA plans. The costs in the control group averaged $3345 for HMO plans, $2938 for PPOs, and $5700 for MA plans.

After adjustment for differences in demographics and in comorbid conditions, the average annual cost for IBS-C across all health plans was $8621 compared with $4765 for the control group.

By plan design, costs averaged $8157 (PPO); $9532 (HMO); and $10,930 (MA) for IBS-C patients and $4463 (PPO); $5341 (HMO); and $8274 (MA) for the control groups. Medical service claims accounted for approximately 80% of direct costs in the IBS-C and control groups in the overall adjusted analysis and for each type of health plan. [Cai Q, et al. Economic burden of irritable bowel syndrome with constipation: a retrospective analysis of all-cause healthcare costs.]

“Incomplete” Grade for Provider Compliance with HEDIS Recommendations for Osteoporosis

Preliminary data from an ongoing quality initiative in osteoporosis suggested potential obstacles to provider compliance with the recommendation, according to a poster presented at the meeting.

The Healthcare Effectiveness Data and Information Set (HEDIS) includes the recommendation that women aged ≥67 years should have bone mineral density (BMD) testing and/or should initiate treatment to prevent osteoporosis within 6 months after a fracture. Ms Lauren Pusateri, a pharmacy resident at RegenceRx Pharmacy Benefit Management in Portland, OR, and colleagues reviewed pharmacy claims data to identify patients who had a fracture but who had not begun preventive treatment for osteoporosis within 6 months.

Compliance with recommendations for postfracture BMD testing and the use of bisphosphonates declined in the first 3 months of follow-up compared with the year before the quality initiative was implemented.

“By having access to claims data, managed care pharmacists are uniquely positioned to improve members’ outcomes on a large scale through the use of collaborative outreach programs and provider education,” they noted.

Phase 1 of the analysis included October, November, and December of 2012. Regence health plan members who had fractures in April 2012 would have been approaching the 6-month window of the HEDIS measure, allowing for delays in claims submissions.

The primary objective was to compare compliance with the HEDIS measure in 2012 versus 2011, before instituting the outreach program. The first phase of the study included 262 patients identified through medical records. Early data from phase 2 (beginning in January 2013) comprised 3 patients with a recent fracture history.

Overall, 364 (19.3%) of 1890 patients were compliant with the HEDIS measure in 2011. Preliminary data for 2012 showed that 314 (18.8%) of 1673 patients were compliant.

“Because the [outreach] program was not implemented until October 2012, only a small portion of members included in the 2012 compliance rate calculation were contacted during the study,” the investigators pointed out.

Results from a provider survey showed the outreach program useful in increasing their compliance with the HEDIS measure. The providers also cited patient-specific factors that would likely preclude potential benefits of compliance with the HEDIS measure, including advanced age and physical limitations.

When managing patients at risk for osteoporosis after a fracture, most providers noted that referral to a primary care provider would be the best strategy. Use of drugs for osteoporosis prevention, BMD testing, and reliance on recommendations from a hospital were other strategies cited. When asked who should initiate follow-up treatment after a fracture, 8 respondents said the primary care provider and the rest said follow-up care should be the hospital’s responsibility.

“Varying responses from provider surveys indicate the need for continued provider contact and education,” concluded Ms Pusateri and colleagues. “Provider feedback identified limitations associated with the osteoporosis measure, including patient barriers to care and no upper age limit on the measure.” They added that “a similar [outreach] process can be used with other HEDIS measures to identify possible areas of improvement for health plans.” [Pusateri LL, et al. Impact of a collaborative outreach program for osteoporosis HEDIS measure compliance.]}