Correction

Dalfampridine: a new agent for symptomatic management of multiple sclerosis (December 15, 2011, Clinical Review). On page 2339, column 3, the sentences beginning on line 12 and ending on line 20 should read as follows: “These patients were prescribed one 10-mg tablet of dalfampridine two or three times per day for the treatment of ambulatory decline. After ingesting the first dose of dalfampridine, these patients began to experience sensory or behavioral symptoms that transitioned into status epilepticus. All the patients had received their tablets from compounding pharmacies, and later analysis revealed that the dalfampridine content of remaining tablets was actually 90.1–125.6 mg each.”

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Pharmacy integral to collaborative care at Mass General

When Massachusetts General Hospital (MGH) and the Massachusetts General Physicians Organization (MGPO) planned to test a Medicare-funded disease program for high-risk, medically complex patients, a pharmacy component was viewed as a relatively minor piece of the overall project.

“But what we discovered relatively quickly into the program was that it’s actually something that we needed much more of,” said Eric Weil, associate chief of clinical affairs for the division of general medicine and medical director for MGH’s Care Management Program (CMP). CMP was one of six projects selected in 2005 by the Centers for Medicare and Medicaid Services to take part in the Care Management for High Cost Beneficiaries demonstration program. The program targets high-cost enrollees in Medicare’s fee-for-service population.

According to CMS, the goal of CMP and the other demonstration projects was to “increase adherence to evidence-based care, reduce unnecessary hospital and emergency room visits, and help participants avoid costly and debilitating complications.”

Under CMP, care managers work in physicians’ offices to address program participants’ medical and psychosocial needs. Joanne Doyle Petrongolo, the CMP pharmacist, said the initial plan was for her to spend about four hours per week on the project, mostly reviewing medication lists and optimizing therapy.

“Pretty soon, we learned that most of the issues weren’t necessarily medication reconciliation or complex regimens, but access issues,” she said. “In the five-plus years that I’ve been involved with this, 60% of my results have to do with access—the patients can’t afford their medications, or they can’t pick them up, or some other type of cost issue.”

One way CMP addresses affordability issues is by helping eligible patients enroll in state-run prescription assistance programs that can save participants hundreds or thousands of dollars in their annual prescription costs. “It’s nice when you streamline a regimen. But when you save people money, it’s the greatest thing in the world to them,” Petrongolo said.

CMP solved the problem of home-bound patients being unable to get their medications by instituting a delivery program. Patients who participate in the demonstration project are eligible for home delivery of their medications upon referral by a care manager.

Petrongolo now devotes three full days each week to the demonstration program and spends the other two days working in MGH’s outpatient pharmacy.

Lessons learned. In a January 2012 report that analyzed lessons learned from Medicare demonstration projects, the Congressional Budget Office (CBO) found that CMP cut hospital admissions by 19–24% and reduced Medicare expenditures by 12–16%. CMP was the highest performing of the 34 demonstration programs evaluated by CBO, most of which had no overall effect on hospital admissions or Medicare costs.

CMP was the only project described in the report that mentioned having a pharmacy component. The demonstration project was one of three in its category to be renewed, and its second three-year term runs through July of this year.

Weil said the program would not have been as successful as it was without Petrongolo’s services.

“The biggest component of savings for us always stems from the prevention of unnecessary admissions to the hospital,” Weil said. “It’s hard to attribute pharmacy savings specifically to that. But what I can say is that every time a high-risk medication was addressed, there was a good chance that an admission was prevented.”

Weil said many of MGPO’s physician practices were large enough to support a high-risk case manager onsite, which contributed to CMP’s success. He said smaller practices with fewer high-risk patients might not be able to place care managers onsite.

He also said MGH’s advanced information technology infrastructure contributed to the success of the project. But he noted that such technology is becoming the norm at other hospitals, too.

Weil said that all of the care managers were able to communicate with Petrongolo by e-mail, page, or by assigning tasks in the team’s patient-management database.

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“We had tried doing this . . . five years ago. We had an inpatient pharmacist trying to do the discharge counseling. And it didn’t work, because it was hard to identify the patients who were leaving,” Petrongolo said.

Under the collaborative model fostered by CMP, Petrongolo checks the daily patient census and tracks CMP patients through their stay, which gives her an idea of when they will be discharged. And by communicating with the discharge nurse and other nursing staff, Petrongolo is often able to get to a patient’s bedside for medication counseling.

She said some patients who she misses at the bedside get their counseling from her in the outpatient pharmacy when she fills their discharge prescriptions there.

The goal of the counseling, she said, is for patients, “when they leave, they’re all set to be at home. They’ll have their medications at hand, and they’ll know how to take the medications.”

Preliminary findings suggest that patients who did not receive Petrongolo’s discharge counseling services were 66% more likely to be readmitted than those she counseled.

“We’re still looking at our data, but so far it’s looking pretty good,” she said.

Petrongolo said participation in CMP has prepared MGH and MGPO to serve as an accountable care organization (ACO), a type of collaborative health care model created under provisions of the 2010 health care reform laws.

Partners HealthCare, MGH’s parent organization, was one of 32 groups selected by CMS last December to participate in the Pioneer ACO program, an advanced ACO model for entities that have experience with coordinated care programs.

Weil supports the expansion of the project to a variety of patients, and he believes the work supported by the project will continue under the new ACO model.

—Kate Traynor
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Diagnosis codes don’t always aptly describe patients’ conditions

So-called code creep—or the systematic upcoding of diagnosis codes to increase a hospital’s reimbursement—does not in itself pose a threat to the integrity of inhouse evaluations of drug effectiveness and safety, two knowledgeable researchers said. But ignorance of the limitations of those codes can.

The federal government, in adopting its most recent version of a diagnosis classification system for Medicare-covered inpatients, said there is nothing “inappropriate, unethical or otherwise wrong” with hospitals assigning codes that maximize payment. But hospitals must always have documentation in the medical record to support whichever codes appear on claims, the government stated.

Severity levels. Differences between severity levels of a disease are not always readily apparent to coders, especially when the terms in a medical record differ from those in the ninth revision of the International Classification of Diseases (ICD-9), said pharmacoepidemiologist Tobias Gerhard, with Rutgers, The State University of New Jersey.

The diagnosis codes in the clinical modification of ICD-9 (ICD-9-CM) have been in use, directly or indirectly, by hospitals since at least 1983. ICD-9-CM was the basis of the diagnosis-related groups (DRGs) for Medicare’s hospital inpatient prospective payment system.

“I think that the bigger issue in general is that the purpose of this coding is billing and not to provide good research data,” Gerhard said.

He conducts research at Rutgers’ Ernest Mario School of Pharmacy in Piscataway and helps lead the university’s federally funded Center for Education and Research on Therapeutics.

Lee Vermeulen, director of the Center for Clinical Knowledge Management at the University of Wisconsin Hospital and Clinics, in Madison, said any mistaken assignments of diagnosis codes would be consistent within a health system.

“It’s not like some coders are going to upcode and some are not,” he said.

Thus, all patients in the same severity-of-illness level of a DRG at a given health system have roughly the same level of sickness, Vermeulen said. The results of any evaluation of patients in a specific DRG, however, may not be generalizable beyond the health system.

Validation. “Claims data record things that are billed for and paid for,” Gerhard said.

This means, he said, not everything that happens or is revealed during a medical encounter appears as a code on a claim.

In his research on medications for the treatment of mental health disorders, for example, Gerhard has found that relatively few claims include a diagnosis code for obesity.

An estimated 17% of children and adolescents in 2007–08 were obese, according to research based on the National Health and Nutrition Examination Survey. The survey includes questions about height and weight.

Yet the Medicaid claims for fewer than 4% of people ages 6–24 years old who started therapy with aripiprazole, olanzapine, quetiapine, risperidone, or ziprasidone in 2001–05 included a diagnosis code for obesity.

Gerhard’s research team determined.

In presenting these preliminary findings to FDA’s Pediatric Advisory Committee this past September, Gerhard declared claims are not a valid source of information about obesity as a diagnosis in patients. The prevalence of obesity in those Medicaid-covered children and adolescents should have been higher than in the general pediatric population because obesity and mental disorders commonly occur in the same people, he said.

Gerhard, when interviewed in February, said people who want to use claims

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