

# Collaborative drug therapy management services and reimbursement in a family medicine clinic

GRACE M. KUO, THOMAS E. BUCKLEY, DANA S. FITZSIMMONS, AND JEFFREY R. STEINBAUER

Pharmacy has greatly evolved since the initial Medicare statutes were enacted in 1965, but pharmacists have not received federal recognition as health care providers. In some states, however, Medicaid and pharmacy practice acts have been revised to include pharmacists among recognized health care providers. In other states, Medicaid administrators will not authorize reimbursement of cognitive services by pharmacists until they achieve Medicare provider recognition status. Moreover, most third-party payers do not have formal policies preventing or allowing reimbursement to pharmacists for clinical pharmacy services, with many referencing restrictive federal or state policies. Despite these barriers, new opportunities for cognitive service reimbursement may be forthcoming.

## Federal legislation

Great strides have been made to educate the U.S. Congress about the benefits of the patient care services provided by pharmacists. The American Society of Health-System Phar-

**Purpose.** The legislative and regulatory issues surrounding the reimbursement of pharmacists for cognitive services are reviewed and billing practices for a pharmacist-physician collaborative drug therapy management service (DTMS) in a family medicine clinic are examined. A case study is offered to illustrate the real-world application of these practices.

**Summary.** As regimens of prescription medications have become more complex and the potential for adverse drug reactions and interactions has increased, the need for individualized optimal drug therapy and drug-therapy experts has grown. Pharmacists, who are professionally trained to be an integral part of the medical team, are well prepared to ensure optimal drug therapy and medication safety for patients. Consequently, collaboration between physicians and pharmacists can lead to improved patient care and reduced medication errors. The following 10 steps are recommended for establishing a successful collaborative DTMS: (1) establish a working

relationship with physician colleagues, (2) assess the needs of your patients, (3) draft collaborative DTMS protocols and agreements, (4) apply for credentialing status within your health organization, (5) consult the billing office staff at the clinic, (6) design a clinic-encounter form, (7) identify and train support personnel, (8) allocate resources, (9) advertise the DTMS, and (10) evaluate and improve your service.

**Conclusion.** Establishing a DTMS presents many challenges and obstacles, but they should not lead to discouragement. Rather, pharmacists should be diligent and continue to explore ways in which they could provide optimal medication therapy to patients through appropriate channels that also facilitate reimbursement.

**Index terms:** Certification; Errors, medication; Patient care; Pharmaceutical services; Pharmacists; Physicians; Professional relations; Professionalism; Regulations; Reimbursement; Toxicity

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macists (ASHP) has made the granting of Medicare provider status to pharmacists its top legislative priority, and all of the major national pharmacy organizations are supporting the increased use of pharmacists as

medication-use experts and advocating for proper payment for these services for all Medicare prescription-drug beneficiaries. Two pieces of legislation that will affect the provider status of pharmacists have been intro-

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duced in recent years. During the 107th Congress, the Medicare Pharmacist Services Coverage Act and the Medicare Medication Therapy Management Services Coverage Act were introduced in 2001 and 2002, respectively. Because the intent of these two pieces of legislation is similar, ASHP has worked to educate the 108th Congress about the important distinctions between them and toward advancing a unified approach to making pharmacists' medication-therapy management services accessible to Medicare beneficiaries.

The cause of provider status for pharmacists has been furthered in other ways. In a June 2002 report to Congress, the Medicare Payment Advisory Commission (MedPAC) acknowledged the value of drug therapy management services (DTMSs) provided by pharmacists and recommended that the Department of Health and Human Services (HHS) assess contemporary models of DTMS to determine how they can be incorporated into Medicare.<sup>1</sup> In July 2002, the Department of Labor HHS appropriations bill included language directing the Secretary of HHS to act on MedPAC's recommendation; however, Congress did not finish work on this legislation, and it was not signed into law.<sup>2</sup> National pharmacy organizations are now working with the Secretary of HHS to evaluate health care delivery models to ensure that Medicare beneficiaries receive these pharmacist-provided services.

The impact of this federal legislation is not inconsequential, as third-party and other payers usually follow the lead of Medicare in setting their reimbursement policies. The federal legislation defers the ultimate authority for determining the scope of pharmacy practice to the individual states' pharmacy practice acts. For example, the legislation covers collaborative DTMSs that pharmacists are legally authorized to provide within their state of residence. Phar-

macists in states that authorize reimbursement of DTMSs will be eligible to participate in federal recognition compensation. As of December 2002, at least 39 states had authorized licensed pharmacists to provide DTMSs with physicians.

#### State and local activities

Some states have enacted legislation to modify their practice acts to recognize pharmacists as health care providers. Such legislation has eased third-party-payer reimbursement from the private sector but has not necessarily affected Medicaid reimbursement for pharmacist-provided services. To address the Medicaid issue, some states have received waivers from the Centers for Medicare and Medicaid Services (CMS) or have amended their state Medicaid plan. In 1998, Mississippi became the first state to receive a CMS Medicaid waiver, permitting payment for disease management services provided by pharmacists. The waiver was approved by CMS, with several stipulations addressing the following elements for participation<sup>3</sup>:

- Patient privacy consultation areas,
- Disease management under protocol through referral from a physician for four diseases (diabetes, asthma, hyperlipidemia, and coagulation),
- Record-keeping requirements,
- Open communication among providers,
- Avoidance of duplication of services,
- Pharmacist credentialing (i.e., completion of a disease-specific certification program approved by the state board and recredentialing every two years), and
- Payment made on a per-encounter basis (15–30 minutes) up to \$20 per encounter, with 12 encounters per recipient per year.

An alternative option to seeking a Medicaid waiver through CMS is to pursue legislation to amend the state Medicaid plan. In 1996, Wisconsin

began the nation's first online payment system to financially reward pharmacists for finding and solving medication problems and to encourage collaboration among health care providers to improve medication therapy outcomes. The Wisconsin Medicaid Pharmaceutical Care Payment System pays pharmacy providers an enhanced dispensing fee for 28 unique DTMSs, ranging from patient education to the dispensing of the most appropriate drug.<sup>4</sup> Enhanced dispensing fees range from \$9.45 to \$40.11 when the service provided is deemed payable and results in a positive outcome. Payment levels are based on time and intensity of service, and actual service dispensing fees (exclusive of traditional product dispensing fees) average \$60–\$75 per hour. Pharmacists code the reason for the medication management service, the action taken, the result of the action, and the level of service provided (designated time segments). To make Wisconsin Medicaid even more flexible, plans that would permit payment to pharmacists for medication management service fees separate from dispensing fees would expand the availability of reimbursable disease management services. This would enable pharmacists and physicians to address high-risk patients using complex medication regimens and is under consideration.

Although Wisconsin Medicaid has not yet conducted a comprehensive cost-benefit study of the program, the success of the program has attracted the private payer community, as several health plans have joined Medicaid in paying pharmacists for event-based and disease management services. In September 2002, Wisconsin's "Senior Care" program became the first program in the country to provide drug and service coverage for qualified seniors through the use of state (>\$50 million) and federal (>\$500 million) funding. This program allows qualified seniors to receive medication

and pharmacist cognitive services with 5- to 15-minute appointments for pharmacist-directed interventions. Although Wisconsin is similar to other states in experiencing pressures from budget deficits to reduce reimbursement for pharmacist dispensing fees, the reimbursement of successful cognitive service interventions should not be affected.

The Iowa state legislature approved funding for pharmacists and physicians to provide pharmaceutical case management services to high-risk Medicaid patients in 1999. In 2000, CMS granted federal approval to amend the state Medicaid plan to begin the service. Pharmacists and physicians work collaboratively on care teams and are eligible to receive equal payments, ranging from \$75 for initial assessments to \$25 for preventive assessments. High-risk patients are defined as receiving at least scheduled nontopical medications, not being residents of nursing homes, and having at least 1 of 12 defined diseases. Eligible pharmacists must complete a professional training program in drug-therapy management; submit five acceptable patient care plans that demonstrate their ability to identify, prevent, and resolve drug-therapy problems and document patient care; and meet state licensure requirements. In addition, pharmacists and physicians must complete state-specific training for the provision of pharmaceutical case management services under the Iowa Medicaid program.

Results of the initial phase of the program were presented to the Iowa legislature in December 2002.<sup>5</sup> Although the program was modeled on hospital and clinic arrangements between pharmacists and physicians, the Iowa plan involves community and ambulatory care settings. During the first year of the program, 117 pharmacies participated in the program, and pharmacists performed 90% of the reimbursed services. Pharmacists detected an average of

2.6 medication-related problems per patient. The most common recommendation made by pharmacists was to start a new medication. Physicians accepted roughly half of the pharmacists' recommendations; however, most were not acted on rather than actually rejected. The majority of physicians had positive experiences with pharmacists. Most importantly, the program improved medication safety for high-risk patients and did not increase costs to Medicaid.

While public payer opportunities do exist in a limited number of states, private payer options may provide greater prospects for reimbursement in states where aggressive legislative initiatives have not begun. Numerous examples of case-by-case reimbursement procurement have been reported by various private payers. One of the most successful programs has been the Asheville Project.<sup>6</sup> The program began with pharmacists contracting with the city of Asheville, North Carolina, to provide diabetes management for city employees. Total health care costs decreased by \$2000 per enrollee per year, and all quality-of-life and ability-to-function parameters significantly improved. Because of the program's success, pharmacist services were expanded to the management of asthma, hypertension, and hyperlipidemia. In addition to city employees, the program was offered to employers in the area and has triggered the start of similar employer programs in other areas of the state.

### Federal developments

Two major federal developments occurred in 2003 that could dramatically affect the reimbursement landscape for pharmacists. The Medicare Prescription Drug Bill of 2003 was passed by both the House of Representatives and Senate and is currently undergoing final review of program details.<sup>7</sup> A key component of this bill requires Medicare sponsors to cover pharmacist-provided DTMS. Pa-

tients taking multiple medications or suffering from selected chronic diseases (asthma, diabetes, hypertension, hyperlipidemia, and congestive heart failure) would be eligible to receive these services.

The second federal bill of importance in 2003 was the reintroduction of the Medicare provider status legislation, entitled the Medication Therapy Management Act of 2003.<sup>8</sup> This bill purposely uses the same language as the Medicare prescription-drug bill in defining pharmacist services as DTMS. While the Medicare prescription-drug bill may produce inconsistent reimbursement across state third-party provider plans, the "provider bill" payment mechanisms will be set by CMS, and pharmacist DTMS will be defined by each state's practice act or regulatory authority. The impact of the "provider bill," therefore, would be broader for most pharmacists and not be affected by a private payer's potential narrow scope of coverage.

### Developing a collaborative DTMS

As discussed above, legislative and regulatory factors at the federal and state levels may influence the reimbursement of pharmacists' cognitive services. A key to reimbursement success is for pharmacists to educate legislators about the value of their services and offer themselves as a resource to legislators on pharmacy issues. Many pharmacists, however, are not actively engaged in collaborative DTMSs, even in the states that have legislative approval, because of various obstacles including (1) difficulty obtaining physician acceptance, (2) lack of support from directors and support personnel, (3) slow processes for getting credentialing status, (4) inadequate knowledge of billing and clinical skills, (5) indifferent attitude of pharmacy practitioners, (6) lack of a cohesive vision for practice models, (7) insufficient space to perform the services, and (8) outcomes failing to meet expectations. We offer

advice about establishing a collaborative DTMS.

We began a pharmacist–physician collaborative DTMS in a family medicine clinic in 2000; the collaborative service protocols were approved and eventually used by all 10 physicians in our clinic. Based on our experience, we recommend that pharmacists take the following 10 steps to establish such a service and receive reimbursement.

**Step 1: Establish a working relationship with physician colleagues.** Providing pharmaceutical care services that are eligible for reimbursement requires pharmacists to have the ability to build dedicated relationships with patients and other health care providers. A collaborative DTMS, as described in many state legislatures, is a collaborative practice between pharmacists and physicians in the care of patients who have established relationships with the physicians. It is imperative, therefore, that pharmacists establish and maintain a good working relationship with physician colleagues who will refer their patients for pharmaceutical care. Physicians may have different expectations for pharmacists,<sup>9</sup> but several pharmacy and medical organizations have endorsed cognitive services provided by pharmacists. ASHP supports participation of pharmacists in collaborative DTMSs.<sup>10</sup> The standards of practice as approved by the American College of Clinical Pharmacy for clinical pharmacists include developing professional relationships through effective communication.<sup>11</sup> The American Pharmacists Association has established an Advanced Practice Institute to train pharmacists to engage in collaborative practices.<sup>12</sup> Primary care physician groups, such as the American Academy of Family Physicians and the American College of Physicians–American Society of Internal Medicine, support pharmacist–physician collaborative practice to improve patient safety and reduce medical errors.<sup>13</sup>

Pharmacists can enhance their working relationships with physician colleagues by being resourceful and willing to help. When called upon for a drug information consultation, pharmacists can provide information beyond what is asked or expected by anticipating parameters needed to achieve optimal drug therapy. One way of doing this is to provide updated evidence-based drug information pertinent to each patient's needs.

**Step 2: Assess the needs of your patients.** The patient population of each ambulatory care clinic is unique and requires pharmacists to know the needs of individual patients, as well as the characteristics of the entire population. Such knowledge can be gained using several approaches. Generally, a pharmacist can help rule out drug-related reactions, interactions, or adverse effects for an individual patient by reviewing his or her medication regimen. With this approach, the pharmacist maintains a more traditional role. By adopting a disease management approach, the pharmacist can identify patients who should receive pharmaceutical care services and drug therapy counseling on the basis of diseases commonly found in primary care patients, such as diabetes, hypertension, hypercholesterolemia, osteoporosis, arthritis, and asthma. Healthy People 2010 initiatives also identified medical conditions that could be comanaged by pharmacists.<sup>14</sup> By focusing on the medications taken by patients that require frequent monitoring or dosage adjustments, pharmacists can offer drug-therapy management for patients taking medications such as anticoagulant or hormone replacement drugs.

**Step 3: Draft collaborative DTMS protocols and agreements.** Before a collaborative DTMS can be implemented, business agreements and clinical protocols must be drafted and copies of those documents made readily retrievable. Depending on state board of pharmacy require-

ments, a collaborative practice agreement usually contains a brief description of the types of services to be offered, the names and license numbers of participating pharmacists and physicians, and the address of the clinic where the services will be rendered to patients. The incident-to billing allowances set by CMS require the pharmacist who provides DTMS to be a full-time, part-time, or leased employee of the physician or the physician's institution.

Once the pharmacist and physician identify the specific diseases or drug therapies to be comanaged, collaborative practice protocols should be written and compiled. Each protocol may contain evidence-based clinical guidelines, services to be performed by pharmacists (e.g., medication counseling, disease management, specifying laboratory tests and physical examinations to be performed), as well as any limitations agreed upon by both the pharmacist and physician. Evidence-based clinical guidelines are excellent references for collaborative practice protocols. Many clinical guidelines can be retrieved from Web sites, such as the National Guideline Clearinghouse ([www.guideline.gov](http://www.guideline.gov)) and the National Heart, Lung, and Blood Institute's listing of clinical practice guidelines ([www.nhlbi.nih.gov/guidelines/](http://www.nhlbi.nih.gov/guidelines/)). We have developed collaborative service protocols for general approach (e.g., assessment of medication therapy, adverse effects, complications, interactions), asthma, diabetes, hyperlipidemia, hypertension, arthritis, thyroid disease, osteoporosis, anticoagulation, and hormone replacement therapy.

Such collaborative DTMS protocols enable the pharmacist to (1) collect and review medication histories through patient interviews, (2) perform routine drug-therapy-related physical assessment procedures, (3) order medication-related monitoring tests and evaluate the results with the approval of the physician, (4) ad-

just dosage and dose intervals to improve medication efficacy and safety, (5) recommend the initiation or discontinuation of drug therapy when appropriate and agreed upon by the physician, and (6) perform any other drug-therapy-related act delegated by the physician.

**Step 4: Apply for credentialing status within your health organization.** Even though pharmacists in many states cannot obtain provider status under current laws, they still need to be credentialed by their institution because each organization has its own procedural requirements and paperwork that allow pharmacists to be involved in a collaborative practice, have chart documentation privileges, and obtain liability insurance coverage. Institutional credentialing requires pharmacists to have proof of pharmacist licensure, professional continuing-education credits, certificates in disease or drug management for some diseases (e.g., diabetes management, anticoagulation management), and letters of recommendation. Applying for institutional credentialing can be a protracted process and requires patience.

**Step 5: Consult the billing office staff at the clinic.** Pharmacists must be willing to make an initial effort to educate themselves about billing services to successfully obtain appropriate reimbursement amounts with appropriate billing rates. The physician group with whom a pharmacist collaborates will most likely have well-established billing policies and procedures, and its billing specialists can offer guidance in preparing a bill for services rendered. These billing specialists can review the pharmacist's patient-specific SOAP (subjective, objective, assessment, and plan) notes and billing records and make helpful suggestions. In addition, some published articles may serve as helpful references.<sup>15-19</sup> In our clinic, we decided that the clinical pharmacist would collaboratively manage

relationships with their family physicians and required complex care. We determined that the Current Procedural Terminology (CPT) billing codes most commonly used for such collaborative management are 99213, 99214, and 99215. We also determined that the counseling codes (e.g., V65.49) or the ancillary service codes (e.g., the finger-stick glucose blood monitoring code 82962) could be applied if appropriate.

**Step 6: Design a clinic-encounter form.** Whether the pharmacist decides to use the format of a SOAP note or a pharmacotherapy consult note, he or she should design a clinic-encounter form so that patient visits will be properly and efficiently documented. These forms can be disease specific (e.g., for a diabetes visit) or medication specific (e.g., for an anticoagulation therapy visit). Elements to be included in the clinic encounter form are based on the collaborative service protocols and should also include the seven components necessary for billing: medical history, physician examination, medical decision-making, counseling, coordination of care, nature of the presenting problem, and time spent with the patient. If your clinic uses an electronic medical record system, these templates can be designed and incorporated to help you accurately and efficiently document the pharmaceutical care service provided to patients.

**Step 7: Identify and train support personnel.** In a group practice, teamwork among support personnel is key to the success of a pharmacist-physician collaborative practice. These support personnel may include a scheduler, to make appointments for patients; a receptionist, to give patients the correct forms to fill out; a nurse, to prepare an examination room, take the patients' vital signs, and coordinate the encounter for both the pharmacist and the physician; a billing clerk, to check and bill the CPT codes corresponding to

the services provided; and an administrator, to evaluate billing and reimbursement outcomes. In our clinic, we created an appointment template to link patient visits with both the physician and the pharmacist, allowing the patient to have a 45-minute visit with the pharmacist before a 15-minute visit with the physician.

**Step 8: Allocate resources.** A successful business plan for a collaborative DTMS also requires the proper allocation of resources and identification of budgetary needs. Such resources include sufficient space, adequately equipped examination rooms, reference books and computer software containing up-to-date drug information, medical instruments to perform physical examinations, and patient-care-monitoring tools, such as glucometers and glucometer-compatible computer software programs. Overhead costs must also be considered.

**Step 9: Advertise the DTMS.** Medical directors and clinic managers have experience advertising medical services and can help develop creative and effective ways to market the pharmacist-physician collaborative practice. DTMSs can be marketed through inservice education programs for physician staff and support personnel, flyers, patient letters or post cards, dedicated Web sites, and appointment reminders sent to patients. In our case, inservice programs for both physicians and clinic staff (nurses, medical assistants, schedulers) were offered after the medical director, clinic manager, and pharmacist had designed the collaborative service model to be implemented in the clinic. Post cards that contained information about the pharmacist were printed and placed at the clinic's reception desk. We also printed referral slips to schedule appointments for physician colleagues to use and give to patients as reminders. For collaborative services between physician and pharmacist to be effective, the pharmacist must be

available and visible to the physician and clinic staff. The pharmacist can simply be present at the clinic to help answer any drug information questions, to interview patients for a complete medication history, or to help develop clinical protocols for clinic directors and administrators. Providing feedback to physicians and clinic administrators about patients' clinical outcomes and reimbursement records after a collaborative DTMS is implemented helps to further market such services.

**Step 10: Evaluate and improve your service.** Data regarding clinical outcomes, billing, and reimbursement are helpful in evaluating pharmacist-physician collaborative practices. Clinical outcomes studies can evaluate disease-specific indicators, such as the level of fasting blood glucose or glycosylated hemoglobin.<sup>20-26</sup> Billing and reimbursement data can be further stratified by referring physician, disease, and insurance type. In order to generate a report comparing billing and reimbursement data for collaborative services, the clinic needs to maintain a record of patients seen and the dates of the visits during which the services were provided. Clinic administrators can then retrospectively query reimbursement data, including the CPT codes used, the patient's copayment, the amount the clinic billed for the services provided, and the actual reimbursement amounts the clinic received from the insurance carriers. A patient satisfaction survey is also a helpful way to collect suggestions for improving the collaborative practice.

#### Experience in a collaborative DTMS

When we designed our collaborative-service practice, our purpose was to improve the quality of patient care by (1) optimizing medication regimens for patients, (2) educating patients about medications and diseases, and (3) decreasing disease- and medication-related complications in

patients. During the initial stages, we faced many administrative hurdles as we worked to establish our collaborative service. We have overcome these challenges and have witnessed clinical improvements in our patients.

It has been a rewarding experience for the clinical pharmacist to work with a group of family medicine physicians. Through a collaborative DTMS, the pharmacist also has the opportunity to work with physicians on designing therapeutic protocols to be implemented in the clinic, evaluating disease management outcomes and drug utilization, and conducting clinical research studies.

Family physicians are well poised to collaborate with clinical pharmacists. Primary care physicians, as part of their training, are imbued with the belief that teamwork is critical to the optimal delivery of health care. It is impossible for a generalist to "know everything." Other team members can offer alternative suggestions for both diagnosis and therapy. This is especially true in our experience with doctor of pharmacy faculty members in both inpatient and outpatient settings.

The patient population in many family medicine clinics tends to be older, have the "big three" chronic diseases (i.e., diabetes, hyperlipidemia, and hypertension), and be treated with multiple medications. The clinical pharmacist has consulted with the physicians regarding patients whose chronic diseases have been especially difficult to control. Such expertise may also be used to review patient charts for potential medication interactions. This is especially important in training clinics, where medical residents and students are learning the proper use of many medications in providing care to their patients.

Experience has demonstrated how clinical pharmacists can provide up-to-date information to physicians on the latest treatment recommendations for the many diseases they frequently manage. With their interper-

sonal skills and clinical training, pharmacists can also be a resource for patients. The clinical pharmacist has consulted with patients who have poorly controlled diabetes or hyperlipidemia, take multiple drugs, and have unusual drug reactions or interactions. We plan to expand this program to include formal diabetes education in group sessions and open an anticoagulation clinic.

The expertise of a pharmacist is important to any clinical practice that desires to measure and improve clinical outcomes. In our clinic, the pharmacist has played an active role in clinical research by encouraging the physicians to look for ways to reduce medication errors and suggesting innovative primary care outcome studies that involve medication use. From a service point of view, clinicians and patients alike have appreciated the availability of a pharmacist in our clinic. We have also found that this can be a financially successful endeavor.

#### Documentation

The clinic encounter note used by any clinician must be designed for the direct documentation of the patient care provided, appropriate billing, adherence to legal requirements, and continuity of care. The note should contain the reason (the chief complaint) for the patient's visit and a statement of medical necessity, the source of referral or the name of the collaborating physician, a description of the services provided to the patient, the level of intensity of the evaluation and services, and the total time spent with the patient.

There are many types of notes pharmacists can use to document the services they provide, including the SOAP note, pharmacotherapeutic workup reports, and pharmacotherapy consultation notes. The following section will describe the SOAP note format for billing for collaborative services provided to established patients who are referred to the phar-

macist by physicians. The methods described are based on CMS guidelines for coding and documenting clinic encounters for appropriate billing.<sup>27</sup> As mentioned earlier, it is important that pharmacists work with billing experts in their organization to be credentialed and trained to comply with organizational regulations.

The SOAP note describes the evaluation conducted and the management decisions made during clinical encounters with patients. SOAP notes contain three key components—history, examination, and medical decision-making—and four contributory components—patient counseling, coordination of care, problem severity, and time spent with the patient—that are used to determine the CPT codes and the appropriate billing level for each patient's clinic encounter. Both the pharmacist and physician should date and sign the SOAP note.

**History.** The history includes a chief complaint, a history of the present illness, a review of systems, and past, family, and social histories. The chief complaint is a required element on the chart document. The history of the present illness assesses the location, quality, severity, duration, timing, context, modifying factors, and associated signs and symptoms of a particular medical condition or disease. The review of systems is usually organized by organ systems (i.e., constitutional symptoms; eyes; ear, nose, throat; cardiovascular; respiratory; gastrointestinal; genitourinary; musculoskeletal; integumentary; neurologic; psychiatric; endocrine; hematologic and lymphatic; and allergic and immunologic systems). The past, family, and social histories include the patient's own past medical history (e.g., prior major illnesses and injuries, hospitalizations, operations, medications, allergies, immunization records, dietary status), family medical history, and social history (i.e., employment; use of recreational drugs, alcohol,

and tobacco; level of education; sexual history). The history is classified as *problem focused* if it contains the chief complaint and a brief history of the present illness (1–3 items); *expanded problem focused* if it contains the chief complaint, brief history of the present illness (1–3 items), and problem-pertinent review of systems (1 organ system); *detailed* if it contains the chief complaint, extended history of the present illness ( $\geq 4$  items), extended review of systems (2–9 organ systems), and pertinent past, family, and social histories (at least 1 of the 3 past, family, and social history items); or *comprehensive* if it contains the chief complaint, extended history of the present illness ( $\geq 4$  items), complete review of systems ( $\geq 10$  organ systems), and complete past, family, and social histories (at least 2 of the 3 past, family, and social history items).

**Examination.** The examination component can be evaluated on the basis of either multisystem or single-system nomenclature. A multisystem examination includes assessment of constitutional signs; the eyes; the ears, nose, and throat; the neck; and the respiratory, cardiovascular, chest (breast), gastrointestinal, genitourinary, lymphatic, musculoskeletal, dermatological, neurologic, and psychiatric systems (Table 1 provides examples of elements of a multisystem physical examination). A single-system examination includes assessment of the eyes; ears, nose, and throat; and respiratory, cardiovascular, genitourinary, hematologic, lymphatic, immunologic, musculoskeletal, dermatological, neurologic, or psychiatric system. The examination is classified as *problem focused* if it is limited to physical assessment of the affected area or system, including 1–5 elements in at least 1 organ in a multisystem examination or 1–5 elements in a single-system examination; *expanded problem focused* if it is limited to physical assessment of the affected area or system and other

symptom-related systems, including either over 6 elements in at least 1 organ in a multisystem examination or over 6 elements in a single-system examination; *detailed* if it is an extended physical assessment of the affected area or system and other systems, including either 2 elements in at least 6 organs or 12 elements in at least 2 systems in a multisystem examination or over 12 elements in a single-system examination (with the exception of eye and psychiatric systems that only require over 9 elements in a single-system examination); or *comprehensive* if it is either a general multisystem physical assessment (all elements in at least 9 organs) or a complete physical assessment (all elements) of a single system.

**Medical decision-making.** Medical decision-making refers to the complexity of the clinic encounter in establishing a diagnosis or selecting a management option. The number of medical problems, the amount or complexity of the medical data to be reviewed, and the risk of complications influence medical decision-making.

The number of medical problems each patient has are scored as follows: a self-limiting or minor problem (1 point), an established problem that is stable or improving (1 point), an established problem that is worsening (2 points), a new problem without additional workup planned (3 points), and a new problem with additional workup planned (4 points). The total score is calculated by multiplying the number of problems and the sum of points; however, the maximum total for a self-limiting or a minor problem is 2 and that for a new problem without additional workup planned is 3. The total scores are also stratified according to the complexity of the data they represent: minimal (1 point), limited (2 points), multiple (3 points), and extensive (4 points) levels of complexity.

The quantity or complexity of the data to be reviewed is also scored:

Table 1.  
Examples of Physical Examination Elements in a Multisystem Nomenclature

Organ or System	Elements of Examination
Constitutional	Vital signs: blood pressure, pulse rate, respiration rate, temperature, height, weight; general appearance
Eyes	Inspection, examination of irises and pupils, visual acuity, ophthalmoscopic examination
Ears, nose, and throat	Inspection of ears and nose; otoscopic examination; hearing evaluation, inspection of nasal cavity; inspection of buccal mucosa, teeth, and gums; examination of oral cavity
Lungs (respiratory)	Inspection, palpation, percussion, auscultation
Heart and blood vessels (cardiovascular)	Palpation, auscultation, carotid arteries, pedal pulses
Musculoskeletal	Inspection or palpation of muscles in at least one of the following areas: (1) head and neck, (2) spine, ribs, and pelvis, (3) right upper extremity, (4) left upper extremity, (5) right lower extremity, and (6) left lower extremity; examination of range of motion; assessment of muscle strength and tone
Skin (dermatological)	Inspection of skin, digits, and nails; palpation
Neurologic	Examination of gait, balance, and coordination; examination of sensation; evaluation of deep tendon reflexes
Psychiatric	Orientation to time, place, and person; evaluation of mood and affect; description of patient's judgment

review or order clinical tests (1 point), review or order tests with CPT radiology codes (1 point), review or order tests with CPT medicine codes (1 point), discuss test results with the performing physician (1 point), review past records or take history from patient's family, caretaker, or other source (2 points), and independently review an image, tracing, or specimen (2 points). The totals of these scores are also stratified: *minimal* (0–1 point), *limited* (2 points), *moderate* (3 points), and *extensive* (4 points) levels of complexity.

The risk of complications is determined for the presenting problem (category 1), the diagnostic procedure ordered (category 2), and the management option selected (category 3). There are four levels of risk (i.e., *minimal*, *low*, *moderate*, and *high*).

**Category 1.** For the presenting problem, a self-limiting or minor problem (e.g., a cold) has a minimal level of risk; two or more self-limiting or minor problems, one stable chronic illness, or an acute uncomplicated illness has a low level of risk; two or more stable chronic illnesses, one or more chronic illnesses with progression, mild exacerbation, adverse effects of treatment, or an acute complicated illness has a moderate level of risk; and one or more chronic illnesses with progression, severe exacerbation, adverse effects of treatment, life-threatening acute or chronic illnesses, or an abrupt change in neurologic status (e.g., seizure, transient ischemic attack) has a high level of risk.

**Category 2.** For the diagnostic procedure, laboratory tests requiring venipuncture, urinalysis, or electro-

cardiogram have a minimal level of risk; clinical laboratory tests requiring arterial puncture or skin biopsies have a low level of risk; a cardiac stress test has a moderate level of risk; and cardiovascular imaging with contrast media and risk factors has a high level of risk.

**Category 3.** For the management option, applying bandages, changing an injury wound dressing, or recommending rest at home has a minimal level of risk; recommending over-the-counter drugs, minor surgery, physical therapy, or occupational therapy has a low level of risk; prescribing medications has a moderate level of risk; and prescribing drug therapy that requires intensive monitoring for toxicity or administering parenteral medications has a high level of risk.

**Levels of decision-making.** The levels of medical decision-making are determined by the guidelines listed below. Note that at least two of the three elements must be met or exceeded to qualify any particular level of medical decision-making. Decision-making is classified as *straightforward* if the number of medical problems, the amount or complexity of data to be reviewed, and the risk of complications are all minimal; *low complexity* if the number of medical problems is limited, the amount or complexity of the data to be reviewed is limited, and the risk of complications is low; *moderate complexity* if the patient has multiple medical problems, the amount or complexity of data to be reviewed is moderate, and the risk of complications is moderate; or *high complexity* if the patient's medical problems are extensive, the amount or complexity of the data to be reviewed is extensive, and the risk of complications is high.

**Counseling.** Counseling provided to patients or family members on the risk and benefit of treatment options needs to be documented, as well as giving instructions regarding treat-



ment and/or follow-up plans. Education provided to patients about the importance of medication compliance and risk-factor reduction also needs to be documented. If more than 50% of time is spent counseling the patient during the visit, this should be noted in the patient's chart as well. Time is considered the key factor for qualifying a specific level of billing and coding (e.g., CPT code of V65.49).

**Coordination of care.** Coordinating care for the patient's disease management includes making proper referrals (e.g., to ophthalmologists, podiatrists, cardiologists, radiologists, oncologists). Efforts in coordinating care during the office visit must be documented.

**Problem severity.** The severity of patients' presenting problems can be stratified into five levels: *minimal* if the problem does not require that a physician be present, though the physician will supervise treatment; *self-limited or minor* if the problem is transient and has a good prognosis; *low severity* if the problem has a low risk of morbidity and mortality without treatment; *moderate severity* if the problem has a moderate risk of morbidity and mortality without treatment; and *high severity* if the problem has a high risk of morbidity and mortality without treatment.

**Time spent with the patient.** The actual face-to-face encounter with the patient must be documented in

the chart, usually in time units of minutes.

**Summary.** All seven of these components (history, examination, medical decision-making, patient counseling, coordination of care, problem severity, and time spent with the patient) are necessary for appropriate chart documentation to justify billing for pharmacist-physician collaborative DTMSs.

#### Billing and reimbursement

Billing for pharmacist-physician collaborative DTMS requires the use of the physician's unique provider identification number (UPIN) because the service provided to patients utilizes an incidence-to physician visit billing mechanism. The most common billing form to be completed is the CMS-1500 form, formerly called the HCFA-1500 form. The CMS-1500 form can be accessed at <http://cms.hhs.gov/providers/edi/cms1500.pdf>. Additional information about the CMS-1500 form can be accessed at [www.cms.hhs.gov/forms](http://www.cms.hhs.gov/forms). The billing forms must include patient demographics, the physician's UPIN, the CPT codes for evaluation and management, the *International Classification of Disease* codes, the laboratory tests ordered, payment types, the patient's signature, and the providers' (pharmacist and physician) signatures. Various types of billing codes (e.g., CPT codes) are assigned for different

health care settings (e.g., inpatient, outpatient, new patients, and established patients). Categories of CPT codes correlate with services provided to established patients in the outpatient clinic, including the three major key components and the four contributory components described above. Table 2 summarizes the CPT codes for collaborative DTMSs for established patients in primary care clinics.

To illustrate proper billing for cognitive services rendered by pharmacists, we present a patient case. An established patient of a physician was diagnosed as having type 2 diabetes mellitus (chief complaint), and the physician requested that the pharmacist collaborate with him in managing the patient's drug therapy. The pharmacist and the physician both provided care for the patient during this office visit. A sample SOAP note is provided in Appendix A, and a synopsis of the evaluation and management of the patient is shown in Appendix B.

As shown in Table 2, the CPT code of 99214 is appropriate for collaborative DTMSs in this case (two of the three major key components are required—comprehensive history, detailed examination, and moderate complexity of medical decision-making). Codes 82962 and V65.49 could also be applied. Most of the pharmacist-physician collaborative care at our family medicine clinic is

Table 2.

**CPT Evaluation and Management Codes for Collaborative Drug-Therapy Management Services for an Established Patient<sup>a</sup>**

CPT Code	History	Examination	Medical Decision-making	Problem Severity	Time (min)
99211	Problem focused	Problem focused	Physician presence not required	Minimal	5
99212	Problem focused	Problem focused	Straightforward	Minor to moderate	10
99213	Expanded problem focused	Expanded problem focused	Low complexity	Minor to moderate	15
99214	Detailed	Detailed	Moderate complexity	Moderate to high	25
99215	Comprehensive	Comprehensive	High complexity	Moderate to high	40

<sup>a</sup>CPT = *Current Procedural Terminology*. For established patients, two of the three major key components (history, examination, and medical decision-making) are required to select the appropriate CPT billing code. Counseling and coordination of care were consistent with patient's needs and problems.

provided this way. It would differ if the pharmacist sees the patient alone under the supervision of the physician, as the CPT code 99211 could only be billed for the service.

We have found that pharmacist-physician collaborative practice can be a financially successful endeavor. Since our collaborative service was established, we have successfully provided collaborative DTMSs for patients with diabetes, hypertension, thyroid disorder, hyperlipidemia, or asthma; those taking anticoagulants; and those needing assessments to prevent adverse reactions and drug interactions. The CPT codes for which we billed and were successfully reimbursed include 99211, 99212, 99213, 99214 (75% of claims), 99215, and 82962. Our average reimbursement rate, when compared with the amount billed, is approximately 70%.

### Discussion and conclusion

As pharmacists strive to receive reimbursement for cognitive services, we should remember that our primary obligation is to help patients improve their health indicators (e.g., a decrease in glycosylated hemoglobin levels). Our motivation to provide cognitive services to our patients should simply be to make such services available to them. Establishing a collaborative DTMS presents many challenges and obstacles, but they should not lead to discouragement. Rather, pharmacists should be diligent and continue to explore ways in which they could provide optimal medication therapy to patients through appropriate channels that also facilitate reimbursement. Ultimately, our obligation is to demonstrate and promote the value of pharmaceutical care services.

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### Appendix A—Sample SOAP note documenting pharmacist-physician DTMSs provided in a family medicine clinic

**Chief complaint:** 57-year-old man with new onset uncontrolled diabetes mellitus (DM) here for DM management and medication therapy evaluation.

#### Subjective

**History of present illness:** Patient diagnosed with type 2 DM two weeks ago. A random plasma glucose at that time was 325 mg/dL; patient also had complained of tingling sensation in bilateral fingers. He noticed symptoms of polydipsia, polyuria, and polyphagia with steadily increasing frequency over the past three months.

#### Review of systems

**General:** Complains of weight loss. Denies fevers, chills, sweats, anorexia, fatigue, and malaise.

**Eyes:** Complains of blurring and vision loss. Denies diplopia, irritation, discharge, eye pain, and photophobia.

**Ears/nose/throat:** Denies earache, ear discharge, tinnitus, decreased hearing, nasal congestion, nosebleeds, sore throat, hoarseness, and dysphagia.

**Cardiovascular:** Denies chest pains, palpitations, syncope, dyspnea on exertion, orthopnea, paroxysmal nocturnal dyspnea, and peripheral edema.

**Respiratory:** Denies cough, dyspnea, excessive sputum, hemoptysis, and wheezing.

**Gastrointestinal:** Denies nausea, vomiting, diarrhea, constipation, change in bowel habits, abdominal pain, melena, hematochezia, and jaundice.

**Musculoskeletal:** Denies back pain, joint pain, joint swelling, muscle cramps, muscle weakness, stiffness, and arthritis.

**Skin:** Complains of dryness. Denies rash, itching, and suspicious lesions.

**Neurologic:** Complains of paresthesias and tingling sensation at fingertips. Denies transient paralysis, weakness, seizures, syncope, tremors, and vertigo.

**Psychiatric:** Denies depression, anxiety, memory loss, mental disturbance, suicidal ideation, hallucinations, and paranoia.

**Endocrine:** Complains of polydipsia, polyphagia, polyuria, and weight change. Denies cold intolerance and heat intolerance.

**Allergic/immunologic:** Denies urticaria, hay fever, persistent infections, and HIV exposure.

#### Past, family, and social histories

**Past medical history:** Knee surgeries in 1993.

**Allergies:** No known drug allergies.

**Current medications:** Multivitamin p.o. every day.

**Immunization:** None received in the past five years.

**Dietary/exercise status:** Started diabetic diet after nutritional consultation one week ago; patient does not exercise regularly.

**Family history:** Father and paternal grandmother had type 2 DM.

**Social history:** Never smoked; occasional wine with dinner about twice a month.

#### Objective

##### Vital signs

**Height:** 70 in.

**Weight:** 206 lb (94 kg).

**Body mass index (BMI):** 29.7 kg/m<sup>2</sup>.

**Temperature:** 98.2 °F (oral).

**Pulse rate:** 64 beats/min.

**Respirations:** 15 breaths/min.

**Blood pressure (BP):** 140/92 mm Hg.

##### Physical exam

**Constitutional:** Alert, no acute distress, well hydrated, well developed, and well nourished.

##### Eyes

**External:** Conjunctivae and lids normal.

**Pupils:** Equal, round, reactive to light and accommodation.

**Ophthalmoscopic:** Discs sharp and flat, no arteriovenous nicking, hemorrhages, or exudates.

##### Ears, nose and throat

**External ears:** Normal, no lesions or deformities.

**External nose:** Normal, no lesions or deformities.

**Otosopic:** Canals clear, tympanic membranes intact with good movement, no fluid.

**Hearing:** Grossly intact.

**Dental:** Good dentition.

**Pharynx:** Tongue normal, posterior pharynx without erythema or exudates.

##### Respiratory

**Respiratory effort:** No intercostal retractions or use of accessory muscles.

**Percussion:** No dullness.

**Auscultation:** No rales, rhonchi, or wheezes.

##### Cardiovascular

**Palpation:** No thrill or palpable murmurs, no displacement of point of maximal impulse.

**Auscultation:** S<sub>1</sub>, S<sub>2</sub>, no murmur, rub, or gallop.

**Carotid arteries:** Pulses 2+, symmetric, no bruits.

**Pedal pulses:** Pulses 2+, symmetric.

**Peripheral circulation:** No cyanosis, clubbing, edema, or varicosities.

##### Musculoskeletal

**Head and neck:** Normal alignment and mobility.

**Extremities:** Normal range of motion and strength, no joint enlargement or tenderness.

##### Dermatologic

**Inspection:** No rashes, lesions, or ulcerations.

**Palpation:** No subcutaneous nodules or induration.

##### Neurologic

**Gait, balance, and coordination:** Normal, can undergo exercise testing and participate in exercise program.

**Reflexes:** Symmetric, no pathological reflexes.

**Sensation:** Intact to touch (bilaterally), intact to monofilaments (bilaterally).

##### Psychiatric

**Orientation:** Oriented to time, place, and person.

**Mood:** Consistent.

**Affect:** Consistent.

**Insight, judgment:** Good.

**Labs (10 days ago):** Glycosylated hemoglobin (HbA<sub>1c</sub>) = 12.6%, creatinine = 1.3 mg/dL, aspartate transaminase = 19 IU/L, alanine transaminase = 24 IU/L, bilirubin = 1.1 mg/dL, total cholesterol = 275 mg/dL, low-density-lipoprotein (LDL) cholesterol = 140 mg/dL, high-density-lipoprotein (HDL) cholesterol = 38 mg/dL, total triglycerides = (TG) 485 mg/dL.

**Assessment:** Type 2, uncontrolled DM; postprandial fingerstick blood glucose (BG) at clinic = 140 mg/dL.

**Diet:** Needs to initiate therapeutic lifestyle changes diet. Patient consulted with dietitian last week and obtained information about dietary plans and nutritional facts suitable for him. Patient has begun keeping food intake diary. Encouraged patient to continue with such good dietary records. Explained to patient the importance of dietary modification in the management of diabetes.

**Exercise:** Patient has not been exercising but has plans to start working out in a gym. Patient

states his goal is to reduce his BMI to about 26 kg/m<sup>2</sup>. Advised patient to start walking, either 30 minutes per day or one hour every other day. Informed patient of the benefit of exercise for improving his glycemic control.

**Self-monitored blood glucose (SMBG):** Taught patient how to check BG by using Accu-Chek glucometer. Advised patient to check two to three times a day (before meals, two hours after meals, or at bedtime) and keep a good diary. Gave patient an SMBG logbook.

**Medications:** Metformin (renal function tests [RFTs] within normal limits [WNL], estimated creatinine clearance = 62 mL/min); atorvastatin (liver function tests [LFTs] WNL); lisinopril (RFTs WNL). Explained to patient the potential adverse effects and reactions associated with these medications (e.g., abdominal discomfort and lactic acidosis with metformin, muscle aches and hepatic function monitoring with atorvastatin, and dry cough and renal function monitoring with lisinopril), and advised patient to call if these adverse effects or associated symptoms are experienced.

**DM disease management and health maintenance:** Reviewed with patient the etiology of type 2 DM, associated complications (macrovascular [coronary heart disease], microvascular [retinopathy, nephropathy, neuropathy]), therapeutic goal indicators (HbA<sub>1c</sub>, BG, lipids, BP), and health maintenance follow-up (foot exam, eye exam, dental exam). The estimated 10-year coronary heart disease risk (Adult Treatment Panel III guidelines) in this patient is 16%. Gave patient pamphlets and educational materials on the overview of diabetes, nutrition, exercise, acute complications, chronic complications, goal setting for behavior change strategies, and standards of care information. Recommended flu vaccine and pneumococcal vaccine.

**Plan:** Therapeutic goals—prevent and slow the progression of DM-associated complications; HbA<sub>1c</sub> 6–7%, fasting BG 80–120 mg/dL, postprandial BG 120–140 mg/dL, total cholesterol < 200 mg/dL, LDL cholesterol < 100 mg/dL, HDL cholesterol > 60 mg/dL, TG < 150 mg/dL, BP < 120/80 mm Hg.

**Diet:** Continue diet as instructed by dietitian and continue to keep a diary with calorie count.

**Exercise:** Start walking every day (30 minutes) or every other day (one hour); stay away from strenuous exercise for now until stress test results are available.

**SMBG:** Check two or three times a day (before breakfast and rotate different times throughout the day; before meals, two hours after meals, bedtime).

##### Medications

Accu-Chek glucometer. Use as directed.

Accu-Chek test strips. Use as directed b.i.d. or t.i.d. to check BG for DM.

Metformin 500 mg p.o. b.i.d. for DM. Take with lunch and dinner.

Atorvastatin 10 mg p.o. q.d. for hyperlipidemia.

Lisinopril 10 mg p.o. q.d. for hypertension. Continue multivitamin p.o. q.d. for health maintenance.

**DM health maintenance:** Check feet daily; dilated eye exam yearly; dental check-up twice a year; referral to an ophthalmologist for dilated eye exam. Flu vaccine and pneumococcal vaccine.

**New laboratory test order:** Microalbumin/creatinine ratio, random urine.

**Disposition:** Return to clinic in three months; check HbA<sub>1c</sub> and LFTs in three months.

**Summary:** Patient's problem severity is moderate to high; both the pharmacist and the physician provided service during this visit. Spent 40 minutes with the patient; over 50% of time was spent on education/counseling. ICD-9 codes: 250.02 (type 2, uncontrolled DM), 272.0 (hypercholesterolemia), and 401.9 (hypertension). CPT codes: 99214, 82962, and V65.49.

Date and sign the document (signatures of the pharmacist and the physician).

**Appendix B—Classification of components of SOAP note for illustrative case**

- I. History was *comprehensive*.
  - A. History of present illness was extended (the patient's diabetes was reviewed in terms of severity, duration, timing, and associated signs and symptoms).
  - B. Review of systems was complete (the patient was interviewed regarding ≥10 organ systems: constitutional symptoms and symptoms relating to the eyes and the ears/nose/throat as well as the respi-

ratory, cardiovascular, gastrointestinal, musculoskeletal, dermatological, neurologic, psychiatric, endocrine, and allergic/immunologic systems).

- C. Past, family, and social histories were complete (the patient was asked about his past medical history, including allergies, current medications, immunization records, and dietary status; family history of diabetes; and social history, including the patient's use of alcohol or tobacco).
- II. Examination was *detailed*. The physician examined the patient based on a multisystem scale and examined at least two elements in ≥6 organs (constitutional symptoms, eyes, ears/nose/throat, respiratory, cardiovascular, musculoskeletal, dermatological, neurologic, and psychiatric organs/systems).
- III. Medical decision-making was of *moderate complexity* (only two of the three elements are needed).
  - A. Number of diagnoses or management options was *extensive* (at least 4 points: type 2 DM is a new problem and additional workup to assess diabetes-related complications and monitoring is needed).
  - B. Amount and/or complexity of data to be reviewed was *moderate* (at least 3 points: the pharmacist reviewed currently available laboratory test results with the patient [e.g., HbA<sub>1c</sub>, lipid panels, RFTs, LFTs]; ordered a test in the medicine section of CPT codes [e.g., a cardiac stress test]; and ordered additional diabetes-related laboratory tests [e.g., microalbumin/creatinine ratio]).
  - C. Risk of significant complications or morbidity/mortality was *moderate* (moderate risk of the presenting problem [e.g., three chronic illnesses with progression—diabetes, hypertension, hyperlipidemia], moderate level of risk [e.g., cardiac stress test was indicated], and moderate level of the management option [e.g., prescribed metformin, atorvastatin lisinopril]).
- IV. Counseling was consistent with the level of care provided to the patient (the pharmacist counseled the patient on the risk and benefit of treatment options, including diet, exercise, efficacy, and safety profiles of medications, and hypoglycemic and hyperglycemic symptoms and management; the pharmacist gave instructions to the patient about these treatments and follow-up monitoring plans; the pharmacist educated the patient about the importance of medication compliance and the ways in which he could reduce the risk of diabetes-related complications and cardiovascular disease).
- V. Coordination of care was consistent with the level of care provided for the patient (including making referrals for patients to see an ophthalmologist or a podiatrist).
- VI. Severity of presenting problem was moderate to high (the patient requires diabetes treatment options that include lifestyle changes in diet and exercise, as well as medications; otherwise, his risk of morbidity and mortality would be moderate to high without any treatment).
- VII. Time spent with patient was 40 minutes; over 50% of time was spent on DM disease management and medication education/counseling.