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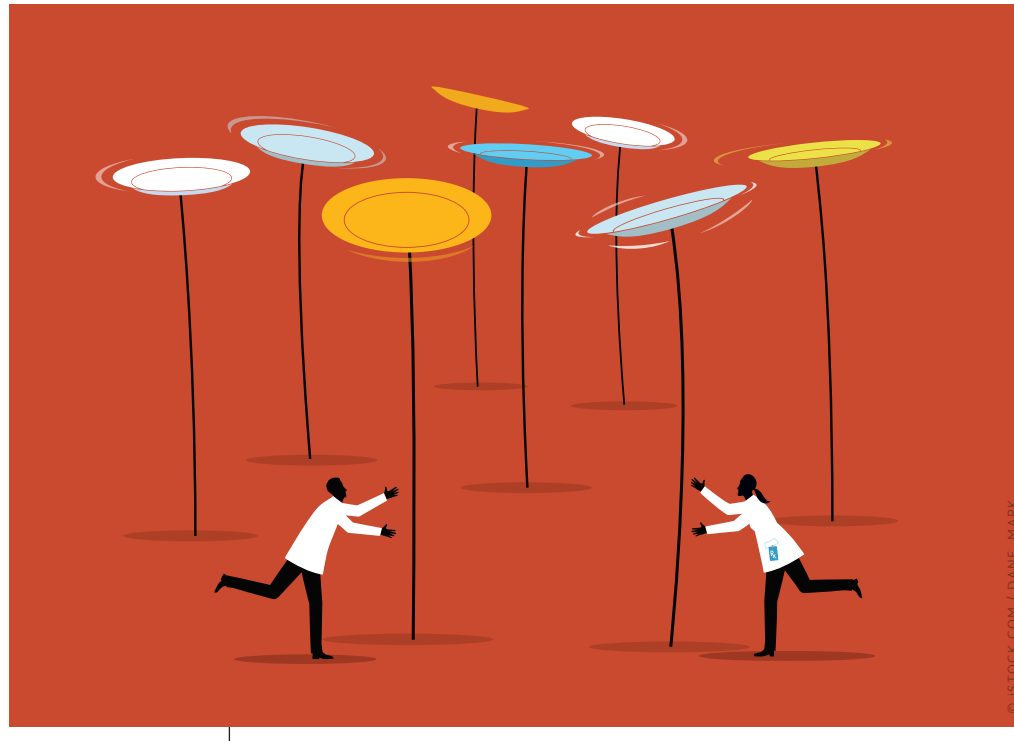
CME

How to Integrate Clinical Pharmacists Into Primary Care

Clinical pharmacists can take team-based care to the next level.



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In today's practice environment, with increased demands on physicians' time, increased complexity of medication management, and increased performance expectations, primary care physicians need not go it alone. Collaborating with clinical pharmacists is a promising way to expand team-based care.

Clinical pharmacists are among the least understood and most underrated members of health care teams. The duration of their education and clinical training surpasses that of nurse practitioners and physician assistants, yet clinical pharmacists are too often relegated to episodic consultations for individual patients or tinkering at the edges of clinical care in supply-based assignments calibrated below their doctorate degrees. With high ratios of education and training to sphere of practice, clinical pharmacists are capable of stepping into the challenges of daily clinical care, making substantial contributions to care teams, and building robust population health programs. (See "Get to know clinical pharmacists" in the online version of this article at https://www.aafp.org/fpm/2021/0500/p12.html.)

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This article shares practical ideas for collaboration, assuring clinical pharmacists are working at the top of their licenses while expanding the ability of primary care doctors to resolve complex clinical challenges and enhance quality of care for their patients. (See "Three prerequisites for working with clinical pharmacists" on page 15.)

GETTING STARTED

If you have not yet worked with a clinical pharmacist, a good place to begin is referring at-risk patients to them for medication safety reviews. Clinical pharmacists can improve patient safety by simplifying onerous dosing regimens, reducing drug loads in polypharmacy situations, and minimizing vulnerable patients' exposure to high-risk medications. You could refer to clinical pharmacists on an ad hoc basis or direct them to consult with all patients who meet specific criteria, such as those who use more than 10 prescriptions or those who use a dangerous medication such as amitriptyline. (See "Medication safety: duds, bombs, and zombies" on page 16.)

As confidence in the team approach grows, you can extend collaborations into more complex areas. One dilemma that doesn't seem to get easier despite its frequency is deciding whether, when, and how to start or stop anticoagulant therapy. These high-stakes decisions must be individualized and deserve a full review with active patient or caregiver engagement. Clinical pharmacists can formalize the approach to these cases by digging deeper into patient histories to uncover occult risks such as excessive alcohol use, deploying assessment tools (CHA_2DS_2-VASc and HAS-BLED) that quantify risks of thrombotic or hemorrhagic stroke, and documenting patient consent.

MEDICATION INTRODUCTIONS AND PATIENT OUTREACH

For some drugs, temporary side effects can cause patients to jettison therapeutic plans before benefits occur. Metformin, oral and topical acne medications, and selective serotonin reuptake inhibitors (SSRIs) are typically tolerable in the long run, but have rocky starts. Early side effects and late-arriving benefits understandably discourage patients. Clinical pharmacists can check in with patients during the first weeks of treatment, reassure them that side effects are likely diminishing nuisances, and reinforce the overall treatment goals. They can also reconnect with patients who have not kept an appointment in years, by contacting those who are past due for evaluations or whose prescriptions have lapsed. These connections can help reduce patient attrition (which often goes unnoticed in busy practices), lend insight into your actual patient panel size, and unearth reversible trends that lead patients to depart care.

DRUG MONITORING

Some drugs need frequent monitoring that can get crowded out by the competing demands of medical practice. Left unchecked, patients may unknowingly venture into harm's way because of accumulating drug levels or vulnerabilities created by debilitation and comorbidities. Amiodarone requires regular thyroid assessments that the patient's cardiologist may not be monitoring (if the patient still has a cardiologist). Oral anti-fungal drugs and naltrexone require monthly hepatic evaluations. Are you confident all your at-risk patients are up-to-date? Clinical pharmacists can check lab-result registries, order missing tests (per provisions in your collaborative practice agreement), and intervene when results are concerning.

You may have inherited treatment plans from other doctors that include testosterone, lithium, or anti-seizure medications, but not realized that you also inherited the monitoring requirements for these fickle drugs. Clinical pharmacists can take on those duties, allowing you and your team to prevent side effects rather than taking the more arduous course of restoring

KEY POINTS

- Options for collaboration include employing a clinical pharmacist whose time can be shared by the physicians in your group, contracting with a clinical pharmacist in the community, or partnering with a nearby school of pharmacy.
- A good way to begin collaboration with a clinical pharmacist is by making referrals for medication safety reviews for at-risk patients.
- As confidence in the team approach grows, you can extend your collaborations into more complex areas such as drug monitoring, chronic care management, deprescribing, and population health.

health after therapeutic mishaps.

Clinical pharmacists should also be on the lookout for over-the-counter drugs that elude registry searches. For example, if a patient is using a non-steroidal anti-inflammatory drug (NSAID) and has not had a recent glomerular filtration rate (GFR) check, the clinical pharmacist may order this to help prevent short-term renal damage and long-term disease progression.

CHRONIC CARE MANAGEMENT

Patients with chronic conditions often need intensive interprofessional interventions to avert catastrophic outcomes. For example, patients with chronic obstructive pulmonary disease (COPD) who continue to smoke are careening toward irreversible complications, recurring hospitalizations, and extensive suffering that create huge expenses within health systems. Empowered clinical pharmacists who meet regularly with patients are well-positioned to assess the severity of disease and rates of progression, and to escalate therapy as needed. They can also assure safe and effective use of metered dose inhalers, nebulizers, and dried powder inhalers. Simultaneously, clinical pharmacists can prescribe and guide treatments for nicotine dependence and smoking cessation.

Reimbursement commensurate with these efforts is available. A single visit could warrant code 99213 or 99214 (depending on time or visit complexity), 94664 for demonstration or evaluation of patient utilization of a metered dose inhaler, and 99407 for smoking and tobacco use cessation counseling greater than 10 minutes.

> A good place to begin is referring at-risk patients for medication safety reviews.

Another strength of interprofessional collaborations is that participants can see each other's blind spots and fill the gaps in shared care plans. Clinical suspicion can overcome clinical complacency and its subsequent harms. For example, a patient's blood pressure may stealthily creep upward over the years while renal function dwindles imperceptibly. With priorities set by the care team, clinical pharmacists can help patients with chronic renal insufficiency avoid or delay progression to renal failure by combining registries to reveal overlapping risk factors. Patients with the precarious trifecta of A1C above 8.0%, blood pressure above 140/90 mm Hg, and GFR below 60 could be contacted, further screened for NSAID use and adequate hydration, and scheduled for more frequent and rapid escalations of therapy for all three conditions. Even with highly complicated chronic disease, it's easier to prevent and manage problems than attempt to salvage health after irreversible damage.

Chronic care management hinges on access to sophisticated medication regimens, especially for diseases like Type 2 diabetes and COPD. But keeping up with ever-shifting coverage rules for many expensive, long-term drugs can eat up your time with patients. Clinical pharmacists can help quell the coverage chaos by substituting lower cost medications, matching medications within a drug class to updated formularies (your collaborative practice agreement should include provisions for pharmacist-directed in-class substitutions), enrolling patients in alternate payment mechanisms, and strategizing with patients about how to time and batch annual deductions and dodge "donut holes" (gaps between a plan's initial coverage and when catastrophic coverage begins). With your guidance, clinical pharmacists can go further and reconsider diagnoses like asthma that are sometimes made without objective findings, and monitor deprescribing trials of expensive metered dose inhalers.

If you participate in chronic care management programs (billed using codes 99490, 99487, or 99489, or add-on code G0506), clinical pharmacists' activities can count toward the threshold time for monthly reimbursement. Qualifying patients must have opted in to the program and have two or more chronic conditions that place them at significant risk of death, acute exacerbation or decompensation, or functional decline.

THERAPEUTIC EVOLUTIONS

Clinical pharmacists can identify therapeutic evolutions and invite selected patients to update their treatment from a partially effective or side-effect-prone medication

THREE PREREQUISITES FOR WORKING WITH CLINICAL PHARMACISTS

Medium and large medical groups may employ a clinical pharmacist whose time is shared among several clinics. Smaller groups could consider contracting with a clinical pharmacist in the community or partnering with a nearby school of pharmacy to provide part-time clinical space and patient access while expanding patient care services to include clinical pharmacy.

With either approach, three ingredients are a must for working effectively with clinical pharmacists.

1. A Collaborative Practice Agreement (CPA) is a written statement, guided by federal law, your state board of pharmacy's regulations, and your organization's defined scope of practice for clinical pharmacists. It outlines the inclusion and exclusion criteria for clinical pharmacists' interventions, the classes of drugs clinical pharmacists may prescribe, and the degree of oversight from participating physicians. This agreement enables incident-to billing for clinical pharmacists' patient care services and assures stakeholders that the collaborations are legal and beneficial.

2. Your electronic health record's capacity to generate registries of patient conditions, diagnoses, and medications is indispensable. Registries scale up clinical pharmacists' efforts and replace random physician-requested referrals with organized pharmacist-researched batches of patients. Registries change the piecemeal approach into a comprehensive one and reduce the chances of eligible patients falling through care cracks. Registries are especially useful for quality improvement initiatives and for identifying patients receiving high-risk medications.

3. The final piece is scheduling support, which also affects revenue. Because clinical pharmacists are rarely assigned medical assistants, they can be burdened with clerical chores that encroach on their clinical availability. Clearing space on their schedules can help maximize their face-to-face (and revenue-generating) interactions with patients. Additionally, referrals to clinical pharmacists carry more weight when the physician promotes the referral to the patient and the physician's assistant schedules the patient with the clinical pharmacist. Be sure to schedule the appointment at a time when the supervising doctor is immediately available in the same building, so that incident-to billing can be assured. Incident-to billing allows clinical pharmacists' services to be reimbursed at the same rates as primary care clinicians, often at 99213 or 99214 levels.

to a favorable alternative. One example is offering patients using high-dose tamsulosin a trial of daily low-dose (and now, affordable) tadalafil, which has fewer therapeutic trade-offs. Monitoring can be done with an accepted tool like the International Prostate Symptom Score (IPSS), and the pharmacist can typically perform safety checks with patients more frequently than physicians can. Clinical pharmacists' concentration on pharmacotherapy keeps them more up-to-date on novel medications and recently approved indications, and their schedules typically allow more flexibility to see patients frequently and arrive at treatment goals quickly.

DEPRESCRIBING

Clinical pharmacists can be highly effective at deprescribing unhelpful or hazardous medications. Two areas of opportunity are drug walk-backs and age-outs.

Walk-back candidates include daily dosed drugs used for intermittent or cyclical conditions. Furosemide for edema, proton-pump inhibitors for gastroesophageal reflux, and SSRIs for depression are eligible for trials of tapering to discontinuation, with reintroduction if symptoms recur.

One common age-out candidate is aspirin. Multiple studies have revealed its impotence at preventing heart disease in most age groups, yet it perseveres as one of the most frequently taken medications in older patients who are vulnerable to gastrointestinal bleeding. Clinical pharmacists can spot those who have aged out of aspirin and save them from bleeding events. Similarly, the primary prevention benefits of statins decrease substantially in advanced-age patients, for whom drug toxicity looms larger than drug benefits. This makes them a reasonable candidate for deprescribing. (See the related "Choosing Wisely" recommendation at https://www.aafp.org/afp/recommendations/viewRecommendation.htm?recommendationId=98.)

Donepezil is also a drug to consider stopping. With few, if any, benefits in most treated patients and a side-effects profile that triggers prescribing cascades to treat the side effects, it may do more harm than good.[1] (For more deprescribing candidates, see the American Geriatrics Society Beers Criteria at https://agsjournals.onlinelibrary.wiley.com/doi/abs/10.1111/jgs.15767 and the STOPP: Screening Tool of Older Persons' potentially inappropriate Prescriptions

at https://academic.oup.com/ageing/article/37/6/673/40813.)

POPULATION HEALTH

Clinical pharmacists can partner with you to improve quality of care by using clinical registries to focus on granular measurements of defined populations, lab markers, and disease entities. They can also help you demonstrate quality, which is becoming increasingly important as fractional differences in reported performance can qualify you for bonuses or trigger penalties.

Keys to representing quality include keeping abreast of current quality campaigns, knowing the numerators and denominators of the highest priority quality measures, and accurately attributing patients to the correct clinicians and correct groups. These responsibilities can be delegated to clinical pharmacists. For many metrics, the last documented measurement of the year is the one that counts most. If you are working with one clinical pharmacist, it may be worthwhile to use the first quarter for medication safety projects and use the final quarter to fill lab gaps and schedule patients for blood pressure rechecks.

Of course, a single measure does not adequately define a patient nor complete the patient's story. (See "Clinical vignette" on page 17.) Much of the time clinical pharmacists spend with patients should involve discovering more about patients' lives and integrating those findings into care plans. Social determinants of health should be emphasized (for example, Z59.6, "Low income," and Z91.120, "Patient's intentional underdosing of medication regimen due to financial hardship"). These details bolster code selection, portray the challenges involved in assuring patients can dependably access and use therapeutics, and help identify interprofessional team members who are more adept at coordinating resources. Ignoring social factors can undermine the value of medications and allow patients' health to further collapse.

Medicare wellness visits provide a potential opportunity to capture

MEDICATION SAFETY: DUDS, BOMBS, AND ZOMBIES

Duds. These are drugs whose first use is often for self-limited conditions or cyclical diseases, but whose initial utility sputters because of quick tolerance, or their purpose fades but their use persists. Healed patients may be convinced that these "duds" are keeping symptoms at bay, but the power of these drugs is time-limited. Continuing use offers minimal benefits and renders the drugs inert should symptoms return. Cyclical conditions benefit from cyclical prescribing. Clinical pharmacists can help patients convert these chronically used drugs to as-needed use.

Examples include meclizine; ondansetron and prochlorperazine; promotility drugs such as dicyclomine and metoclopramide; topical steroids; topical antibiotics and antifungals; antidepressants (when uncomplicated depression has resolved); and post-herpetic neuralgia (PHN) drugs like tricyclic antidepressants and gabapentinoids more than three months after PHN treatment is completed.

Bombs. These are common, episodically used drugs whose ubiquity confers innocence, but whose common usage actually causes substantial damage. As the high-risk nature of these drugs becomes better known, prescribing them should end. In the meantime, clinical pharmacists can substitute safer alternatives. Examples include pseudoephedrine, benzonatate, and diphenhydramine.

Zombies. These drugs once had a purpose but have since transformed into vaguely reasoned, indefinite-use drugs that appear unstoppable because of patient adamancy. Their harms are legion and well-documented. Their benefits are legend — but only testimonial. Yet they stumble forward under an unwritten indication that's best described as placation therapy.

Zombies include pre-op or post-op drugs, like opioids and central nervous system depressants (cloaked in the benign-sounding term "muscle relaxants") that don't go away after surgery; benzodiazepines that convert occasional situational anxiety to daily lifestyle cravings; "z-drugs" that conflate successful sleep with insensate states; and inadequately monitored legacy drugs.

Zombie drugs' physiologic actions are often misunderstood by patients and prescribers alike, so the potential for serious side effects are unacknowledged or dismissed. These drugs require serious, intentional review rather than hand-on-doorknob, incidental prescribing. Reforming the use of zombies is one of the hardest tasks in health care. Patient responses to reasonable dose adjustments and tapers range from reluctance to resistance. It's wearying to attempt safety improvements without multiple layers of interprofessional assistance. Involving clinical pharmacists early and often can provide the monitoring and reassurance to free patients from years of using these drugs.

CLINICAL VIGNETTE

Ms. M is a 53-year-old mother of two who called your office requesting a same-day appointment for increasing right arm pain. Because your schedule was full, you made time to see her during your lunch break. She has diabetes that had been well controlled, but she missed her last scheduled visit for assessment of her diabetes, hypertension, and obesity.

She described non-traumatic right shoulder pain after starting a new job that requires lifting heavy boxes. Exam did not show vascular or neurologic deficits, and she was given a short-term prescription for meloxicam and advised to modify her activity. A note advising refined work duties for two weeks was prepared for her employer. While she was in the office, her previously controlled blood pressure was found to be 150/90 mm Hg, with later recheck at 146/88 mm Hg. Her body mass index had increased to 32. In-office A1C was 8.1%.

These new findings were unexpected and concerning. In the limited time available, you consider altering or supplementing her current metformin and losartan medications, and perhaps starting empagliflozin. Instead, you refer her to your group's clinical pharmacist. Your scheduler makes the appointment.

Within a few days, the clinical pharmacist has a telemedicine visit with the patient. The pharmacist learns that the patient started a second job to supplement the family's income after her partner lost her job during the COVID-19 pandemic and moved to another state for a new job. This has strained their relationship and increased her child care responsibilities while decreasing her available time. She had coped by returning to cigarette smoking after 15 years nicotine-free.

Six months ago, she saw a gynecologist for post-menopausal hot flashes and began using a brand name estrogen replacement therapy. The medication helped, but was unaffordable. She responded by using it every other day. She decided to do the same with her diabetes and blood pressure medications, so she has not been using full doses for several months.

Rather than change or add medications, the clinical pharmacist was able to substitute an affordable generic version of the estrogen replacement medication. She counseled the patient to return to daily use of all her medications and advised her about healthy food selections with supportive patient education links. She arranged a follow-up blood pressure evaluation in one week. She connected the patient to the group's resource coordinator for help with child care.

The clinical pharmacist also urged smoking cessation, provided a prescription for nicotine replacement patches, and arranged a follow-up appointment to reinforce smoking cessation. The pharmacist added in the note that six minutes were spent on smoking cessation.

The pharmacist ordered an A1C for two months later and topped off the patient's prescriptions so she would have sufficient quantities to last beyond her next scheduled appointment.

The following ICD-10 codes were used: E11.65, Type 2 diabetes mellitus uncontrolled (hierarchical condition category); I10, essential hypertension; Z78.0, post-menopausal status; N95.1, menopausal hot flashes; F17.210, cigarette nicotine dependence; Z91.120, patient's intentional underdosing of medication regimen due to financial hardship (social determinants of health); and Z63.0, problems in relationship with spouse or partner (social determinants of health).

The clinical pharmacist's visit was billed as 99214 plus 99406, smoking and tobacco use cessation counseling visit, greater than three minutes, up to 10 minutes.

performance data (at least for Medicare beneficiaries). Though clinical pharmacists are not "providers" per Medicare Part B definitions, they may complete Medicare initial (G0438) and subsequent (G0439) annual wellness visits (but not G0402, "Welcome to Medicare" visits). Paradoxically, medication management is not among the many required elements of these visits. However, Medicare wellness visits often open the door to detection of and treatment for nicotine dependence and risky alcohol use — sweet spots for clinical pharmacists. Follow-up visits for these issues can be arranged and billed under a combination of evaluation and management codes plus 99408, "Alcohol and/or substance abuse structured screening and brief intervention services, 15-30 minutes" (G0396 for Medicare) or 99407, "Smoking and tobacco use cessation counseling visit, greater than 10 minutes."

EMBRACING COLLABORATION

Clinical pharmacists are uniquely capable of collaborating with primary care physicians to relieve their heavy workload and help improve care for a wide variety of patients. They have your back. If you are fortunate enough to have a clinical pharmacist on your team, learn their strengths, leverage their skills, and champion similar collaborations that extend excellence throughout the health care system. FPM

1. Kaduszkiewicz H, Zimmermann T, Beck-Bornholdt HP, van den Bussche H. Cholinesterase inhibitors for patients with Alzheimer's disease: systematic review of randomised clinical trials. *BMJ*. 2005;331(7512):321-327.

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