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Integrating clinical pharmacists into primary care:
There's no need—or time—to wait

Primary care physicians face more stress than ever before. Clinical pharmacists can help.

Increasing demands on their time, energy and resources contribute to physician burnout, and although the pandemic played a huge role, it's not the only factor driving burnout. Medication management has emerged as a major stressor. As new medications—especially biologics—enter the market, medication management has grown more complex.

Medications play an outsized role in medical care, but they don't receive outsized attention. One reason is that—at least for the most part—clinical pharmacists have not fully engaged at the point of medication decision-making. Collaborating with clinical pharmacists offers a promising way to expand team-based care, expanding the ability of primary care doctors to resolve complex clinical challenges and enhance quality of care for their patients.

But there's no time to waste. There is a growing unmet need for safe, effective and affordable treatments, says Peter G. Teichman, MD, MPA, family medicine clinician and primary care information technology lead, Asante Physician Partners. We know the cost of non-optimized medications: $528 billion and 275,689 deaths per year.[1] "It's difficult to wrap our heads around it, so I want us to think about two easy numbers: four and 400 billion," he says.

Four years. $400 billion.

Four years is how long clinical pharmacists spend in education and training. "No one comes close to that. As a doctor, I have not received four years of dedicated study in medication management."

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Clinical pharmacists complete a four-year PharmD degree with rigorous basic and clinical science curriculum. Of those, he says, 30% also complete residency training[2], and 10% attain a

[1] Watanabe JH, McInnis T, Hirsch JD. Ann Pharmacother. 2018 Sep;52(9):829-837

[2] Lyons, K., Taylor, D.A., Minshew, L.M., Mclaughlin, J.E., 2018. Student and School-level Predictors of Pharmacy Residency Attainment. *American Journal of Pharmaceutical Education 82,* 6220.. doi:10.5688/ajpe6220

Board Certified Pharmacotherapy Specialist credential[3].

Shaowei Wan, PhD, MS, MA, BPharm, T32 research fellow in palliative care and aging, University of Colorado School of Medicine, has been teaching in the professional PharmD curriculum for the past seven years. "I know the PharmD curriculum is very rigorously designed to connect between basic biomedical science, clinical science and administrative science to prepare our pharmacy graduates ready to deliver cognitive medication therapy management services and direct-to-patient care. I know my colleagues and my students; they are ready to join the team and step up to the challenges."

The other number? "$400 billion is the cost of prescription-based medication in the United States per year, give or take a few billion," Teichman explains. "We need to match up those numbers. We should not let go to waste the wonderful resource of professionals who've had four years of dedicated training," he says.

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We accomplish this, he says, by integrating clinical pharmacists into primary care. Team-based care is essential, and health care teams need the participation of clinical pharmacists.

Connecting with the patient

A clinical encounter between a clinical pharmacist and patient is quite similar to a clinical encounter between a physician and a patient, Wan explains. The difference is the focus. The pharmacist will review all the medications a patient is taking. The pharmacist evaluates those medications, drawing on their own knowledge and on established guidelines. They offer an assessment of what needs to be changed and provide the rationale for both the patient and prescriber.

It's the process Holly Christian, PharmD, a clinical pharmacy specialist with Asante Physician Partners, follows. She works alongside Teichman and his colleagues. "I love sharing the patient load and helping take some of that burden off of my providers that might not have that specialized information."

That information can include different formulations of medications, which are available, the costs of the medication and, importantly, the barriers patients encounter. "Our specialty is medications. It's an evaluation of: is the medication indicated? Is it efficacious? Is it safe? Are we getting the most bang for your buck for a patient? Are we getting the most that we can out of these medications if we're choosing to use them?"

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Accomplishing that requires having processes in place that get the right patients to the clinical pharmacist. "We've got a really good system worked out for Dr. Teichman's team. His medical assistants know if he's going to refer to me, and the patient gets the appointment with me the minute that they're referred—usually within the next couple of weeks, which is pretty rare for a specialist or referrals in general."

Teichman emphasizes the importance of this. "There's a lot of drift in referrals." The further out the appointments are, the less likely patients are likely to keep them. "Let's face it: It's important and should be done quickly."

"Doing it quickly" also applies to actually making the referral. "When you make the connection, tell your patient you're going to do the referral; you tell them why. You hand that off. I hand it off to my medical

[3] Koval, Peter G. "Growth of Pharmacist Board Certification." Board of Pharmacy Specialties, 3 May 2018, https://www.bpsweb.org/2018/05/03/growth-of-pharmacist-board-certification/.

assistant who then schedules directly on [Christian's] schedule. It's done before the patient leaves. It's smooth, it's easy and it works better than any other referral. You already have the infrastructure. It's just a matter of being confident in using it."

Which patients?

Clinical pharmacists can play a vital role in delivering meaningful interventions to a higher risk population, she says. Those at risk are not just those with long-term chronic illness either. Social determinants contribute to non-adherence and sub-optimal medication use as well as overall health outcomes. "For example, food insecurities are a precursor for competing needs of medication use. Our clinical pharmacists are well positioned and well equipped to address that."

Many patients also suffer low health literacy. They don't know what and why and how their medications should be used. "This leads to those missed treatment opportunities, which can spiral into a much worse situation. Pharmacists can really break down those knowledge barriers and educate them with plain language."

"Clinical pharmacists are well equipped and trained, having gained foundational knowledge and required skills that offer innovative and creative solutions for the challenges we have seen in the health care system." Clinical pharmacists also offer other creative solutions, such as helping patients navigate health plans or patient assistance programs and identify affordable options.

There are certain patients Teichman will always refer to the clinical pharmacist. An older patient who has, for many years, been taking multiple opioids, or opioids and benzodiazepines, or opioids and Z-drugs for years. It was never safe for a patient to be on such a regimen, "but now that they are elderly, it's just bad news. It's a dangerous situation." At best, patients are reluctant to change, and many are deeply resistant. "It's just too difficult to take that on by myself. The patients don't like hearing from me about starting on tapering plans. While they don't like hearing it from our clinical pharmacist, either, it's sharing that load, and it makes a huge difference."

He also refers willing patients overusing alcohol and tobacco. "I would say the two most undertreated conditions are nicotine dependence and alcohol dependence. Holly [Christian] just does a fantastic job with those folks. They don't always get much better, but plenty of them do. Those people are almost always referred to our clinical pharmacists."

Beyond that, it depends on the patients. Each physician in his practices uses the opportunity differently.

No single path

At Asante, the clinical pharmacist, Christian, works with 10 to 15 doctors plus several nurse practitioners and physician assistants, or PAs. Each has their own preferences for referring. Some, for instance, will refer the patient who has tried two or three specific blood pressure medications, and the provider just cannot seem to figure out which one will work for the patient and which one the patient will take effectively or consistently.

Having collaborative practice agreements (see sidebar below) makes it

What's a collaborative practice agreement?

Clinical pharmacists typically work under a collaborative practice agreement (CPA). Updated yearly, it creates a formal practice relationship between a pharmacist and a prescriber. CPAs specify what functions (beyond the pharmacist's typical scope of practice) can be delegated to the pharmacist. It's a way to standardize the care the pharmacist delivers. The specifics may vary based on pharmacists' and prescribers' scope of practice, their preferences and state law. Functions typically delegated to pharmacists by prescribers include initiating, modifying and/or discontinuing medication therapy.[4,5]

4 Advancing team-based care through collaborative practice agreements: a resource and implementation guide for adding pharmacists to the care team. Atlanta, GA: Centers for Disease Control and Prevention, 2017.

5 Pollack SW, Skillman SM, Frogner BK. Assessing the Size and Scope of the Pharmacist Workforce in the U.S. Center for Health Workforce Studies, University of Washington, Sep 2020.

clear what Christian is able to do. "It allows me to do the review, to do the assessment, order the labs, change the medications, change the doses, switch therapies for specific cases," she explains. If it's outside of that scope—or just something she doesn't feel comfortable doing—she goes back to the provider. "And we bounce it back and forth. So it truly is a team effort."

Patients appreciate it

Patients typically respond well to working with a clinical pharmacist, Teichman says—in fact, they often like Christian more than they like him. That makes sense, he adds. There is agenda overload in primary care. "When we have the opportunity to focus on a specific issue, especially medications, that just washes the patient in attention in an area of critical need."

He benefits from the "halo effect," he says. "Overall, pharmacists are the most trusted profession in our nation. Surveys for years and years have shown that. If some of their shine can be shared with me, I really like that."

Most practices don't have such a system in place. So how do we get there from here?

Reimbursement must change

"Reimbursement, of course, is a major barrier to expanding the role of the clinical pharmacists on the care team," Wan says. "Our US health care system is a mixed

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payment model of those public and private payers. That's quite different from many other countries, including the UK, Germany, Japan and China." In the US, value-based payments are gaining traction, but the system remains rooted in fee-for-service.

Teichman agrees. "The United States health care system is a non-system. We don't have a set of guidelines that everyone follows. Every insurer takes a different approach to payment, and the approaches change over time. The dominant payor is Medicare/CMS, and they may make determinations of how they're going to do things, and they can change their minds. I think they will change their minds soon about this because they've been changing their mind back and forth on this for years."

Changing hearts and minds

Teichman's successful collaboration with clinical pharmacists remains the exception rather than the rule. The lack of payment for comprehensive medication management services isn't the only—or even primary—barrier. Instead, he points to the lack of awareness of capabilities of clinical pharmacists. Clinical pharmacists are among the least understood and most underrated members of the health care team, he says. Doctors, nurse practitioners, PAs—including colleagues in his own clinic—are unaware of patient care services they provide.

It doesn't take long to win them over, however. "When they see what the clinical pharmacist is doing with me, they're amazed. Then they refer far more patients to the clinical pharmacists." Primary care physicians, and other providers, need to "get a clue about what clinical pharmacists do. I go back to that number: *four*. Four years of medication management training; none of us can compare to that."

Awareness is the first step toward needed change. Physicians must acknowledge that they don't—and they can't—have expertise in everything, Teichman says. "I tell my clinical pharmacists 'There are many things you do much better than I do. I would trust you far more than myself about managing the newer diabetes medications. They're just really new, complex, expensive. Finding an affordable pathway that patients can tolerate is difficult, and I don't have that skill set that you have.'"

Success requires space, resources and new roles

According to Teichman, practices need to treat clinical pharmacists

as full clinicians, providing staffing and scheduling support as well as a dedicated office space. “If they don’t get clerical support, the pharmacist will be doing the clerical chores. If you think it’s worthwhile to turn clinicians into clerks, you’re not going to do well with this new model,” he warns.

Know the full capability of your clinical pharmacist, he counsels “One of the really heartbreaking things I see sometimes in practices is that practices do not know how to integrate clinical pharmacists. They have them doing menial or trivial things. I just want to say if you’re involved with pharmacists in your practice, please don’t put them in charge of samples closets or prior authorizations. That’s working well below the tops of their licenses.”

There are multiple effective clinical roles to provide services when integrating clinical pharmacists into pivotal activities of medical care. Wan and Teichman address this in their paper, *How to Integrate Clinical Pharmacists Into Primary Care,*[6] which lays out several pathways for clinical pharmacists to participate in and contributing to direct to patient care. (See Figure 1.)

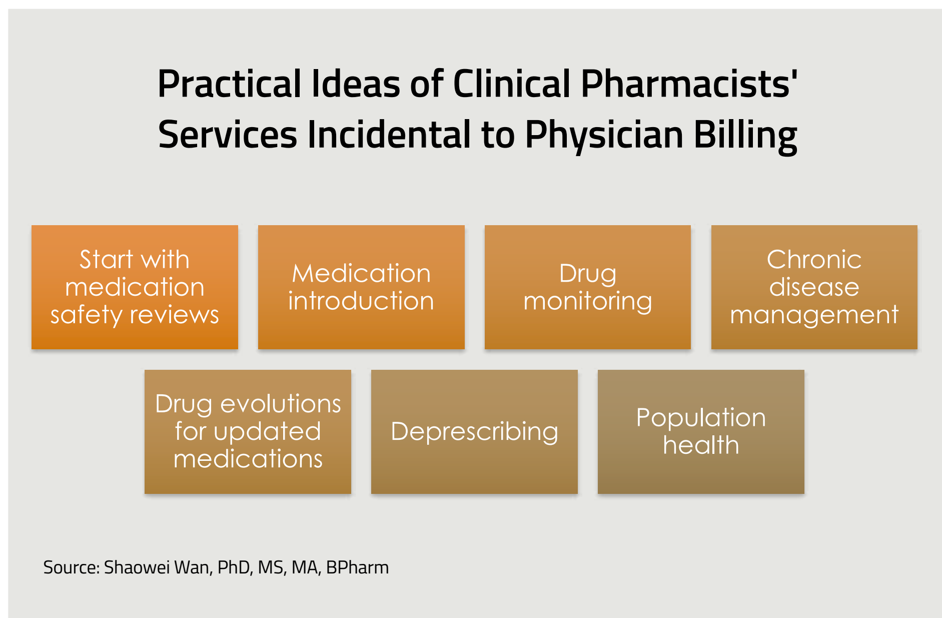

Figure 1

Break down silos and fly

Wan believes that pharmacists are ready for the challenge. Her advice: “Be confident and assertive about what you can offer to the interprofessional health care team.

[6] Teichman PG, Wan S. How to Integrate Clinical Pharmacists into Primary Care. Fam Pract Manag. 2021 May-Jun;28(3):12-17. PMID: 33973757.

Does residency matter?

Christian, Wan and Teichman all see value in residency programs for clinical pharmacists, but they disagree on whether it’s essential.

“I don’t think you necessarily need a residency to do what it is that an integrated clinical pharmacist is doing,” says Christian. “However, I will say it has advanced my practice exponentially.” Wan shares that perspective, noting there are many paths forward and residency is one of them. Her students leave their program well equipped for clinical pharmacy.

Teichman, however, sees residency as essential. “I think you definitely need residency to do this work,” he says. “I had to do three years of my specialty training and get my skill set up. I think that the schooling side of it is like learning a language, and the residency side of it is learning the culture.”

Even if it’s not essential now, it will be eventually, he says. “We need some sort of indicator of what that is. Perhaps residency is not the best indicator, but it’s the one we have available.”

"Be confident and assertive about what you can offer to the interprofessional health care team. You have all the foundation, knowledge, training and skills to really put yourself forward. To be this change agent, break down the silos of the health care team's culture and really start to educate and talk about medication use with your patients, with your peers, and with physicians.

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You have all the foundation, knowledge, training and skills to really put yourself forward. To be this change agent, break down the silos of the health care team's culture and really start to educate and talk about medication use with your patients, with your peers and with physicians."

Teichman agrees, and continues to spread the word among his peers: It's time to integrate clinical pharmacists into the medical care team at the practice level. "I know it works because I've worked in practice with clinical pharmacists for years. I hope others will get the opportunity to work with clinical pharmacists," says Teichman. "Whether you know it, your colleagues know it, your practice manager knows it, or the CEO knows it, pharmacists have wings. Fly with them." GTMR

About the Experts

Shaowei Wan, PhD, MS, MA, BPharm

Dr. Wan is currently the T32 research fellow in Palliative Care and Aging at the University of Colorado School of Medicine. She earned her PhD degree in pharmaceutical health services research from the University of Iowa College of Pharmacy in 2010. Prior to being awarded as a T32 research fellow, she was an associate professor in the Department of Social and Economic Sciences at the California Health Sciences University. In the past six to seven years, she has been teaching in the professional PharmD programs, on the subjects of health care systems and policies and pharmacoepidemiology. Her research interests focus on health disparities and the team-based care delivery model.

Her published research on implications of rural disparities in access to cancer care among older adults has been cited broadly and contributed to the treatment algorithms of chemotherapy use among older adults with cancer. She has studied interprofessional team-based care in the rural setting and taught interprofessional team-based practice competencies to PharmD students. She is a strong advocate of integrating clinical pharmacists into the team-based care delivery model in our health care system.

In the next phase of her academic career, she is looking forward to expanding her research programs to examine palliative care disparities residing in the intersections of age, race/ethnicities and geographic locations in the underserved communities. She also hopes to pilot team-based care interventions to address their unmet health care needs.

Peter Teichman, MD, MPA

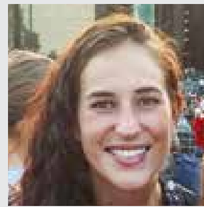
Dr. Peter Teichman, concurrently completed his MD and masters (focus on international health development) at Michigan State University. He completed the Family Medicine Residency

continued

at Brown University and the Harvard University Macy Program on improving medical education.

Dr. Teichman has worked on 6 continents, including developing Family Medicine training programs in China, and four years living in Vietnam where he published guidance on patient safety in the New England Journal of Medicine, including international aeromedical transfers of patients during a pandemic.

Dr. Teichman's many peer-reviewed publications have provided practical tools for providing safe care through clinical challenges, including authoring the first nationally published Medication Use Agreement for managing opioids. He has also co-authored the article, "How to Integrate Clinical Pharmacists Into Primary Care", published in the American Academy of Family Physician's FPM journal. This article discusses barriers and opportunities for reimbursement of CMM level services in team-based care. In addition, he is a "full on" clinician while also helping to develop safe and efficient IT solutions that reduce clerical distractions and increase immediate decision support so clinicians can maximize their face-face time with patients.



Holly Christian, PharmD

Dr. Holly Christian, is a clinical pharmacy specialist in Family Medicine. She currently practices at Asante Physician Partners. She completed her undergraduate degree at North Dakota State University and continued on at NDSU—College of Health Professions to complete a Doctorate of Pharmacy (PharmD). Dr. Christian further continued her training by completing a PGY-1 Ambulatory Care Pharmacy Residency at the University of Minnesota with an emphasis in Family Medicine. Holly is passionate about caring for patients and helping them understand the use, expectations and barriers of medication management. In her free time, she enjoys playing soccer, camping and being on the trails with her dog.

Our **VISION** is to enhance life by ensuring appropriate and personalized use of medication and gene therapies.

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About the GTMRx Institute

The GTMRx Institute is a catalyst for change that brings critical stakeholders together, bound by the urgent need to get the medications right. We are physicians, pharmacists, caregivers, health IT innovators, drug and diagnostics companies, consumer groups, employers, payers and health systems—aligned to save lives and save money through comprehensive medication management, or CMM. By showcasing evidence and innovation, we motivate practice transformation and push payment and policy reform. Together, we ACT to champion appropriate, effective, safe and precise use of medication and gene therapies. Learn more at gtmr.org.

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