Population Health Management

"Doing Good by Doing Better" and Why You Must Care

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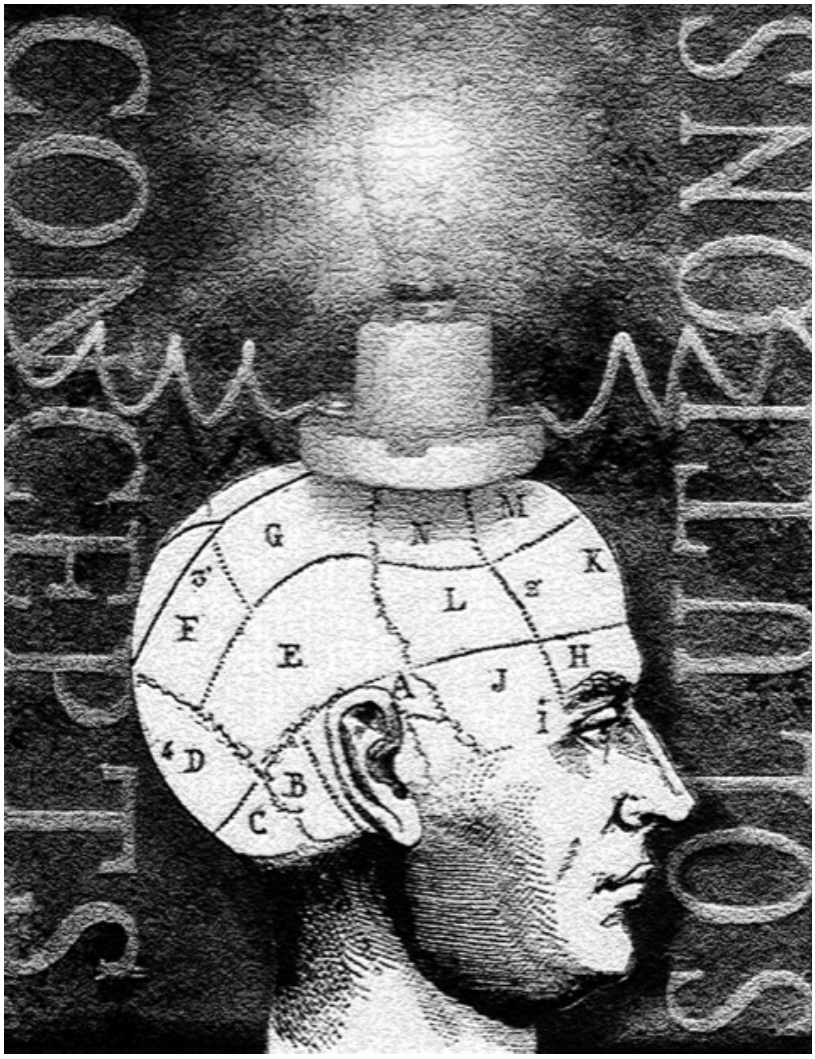

Introduction:

We, as podiatrists, are at a crossroads that coincides with the diabetes epidemic. While our services are being scrutinized and often marginalized, we are compensated at a lower rate for identical care and services provided by MDs and DOs.

We as a profession need to ask ourselves, "What's next?" Do we continue to function as we do, or do we become proactive and take our efforts to a level that increases the value of the care we provide?

Changes are already underway, as our healthcare system seeks to reward providers through better quality of care than through the present fee for service model, where incentive often comes through quantity of procedures, not quality. "Doing good by doing better" must become our mindset and our rallying cry.

As we look to answer the question "What's next?" the concept of population health management must be considered.

What Is Population Health Management (PHM)?

Population Health Management (PHM) has been defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group. It is an approach to health that aims to improve the health of an entire human population.

PHM is also the aggregation of patient data across multiple health resources to create action plans through which providers can improve both clinical and financial outcomes across measurable cohorts.

So how does this apply to the podiatric profession? Let's begin with comprehension and application of concepts you are already familiar with, specifically, management of the diabetic population as it pertains to the concept outlined in the definition of population health management.

No later than the first year of clinical experience, students at all podiatry schools begin to learn the fundamentals of performing a diabetic foot exam. We begin to learn the importance of assessing the skin, vascular status, neurological and structural / biomechanical aspects of the diabetic foot. Over time, we also begin to see the devastating complications that can occur when one or several of the components of the exam are abnormal. We know all too well that abnormalities in the diabetic foot are often symptoms of more serious and significant underlying issues that can lead to infection, amputation, and death.

Unfortunately, the increase in diabetes shows no endpoint. Statistics not only reveal an increase in complications, but an ever-increasing burden on our healthcare system. A study from Duke University demonstrated that patients with diabetes, who were seen by a podiatrist at least once a year, had a significant decrease in amputations. Additionally, earlier studies by Armstrong, Harkless, et al, as well as Patout and Birke, et al, further support the positive impact a Diabetic Foot Examination can have in preventing lower extremity amputation. With such validation, why then, do so few podiatrists perform regular Diabetic Foot Examinations?

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The first step in PHM is the identification of a specific patient population, in this case, people with diabetes who are at risk for foot complications, which would be most adult diabetics.

The second step is to identify gaps in care to the stated population. An assumption could be made that referrals to a podiatry practice would be an obvious solution to caring for the diabetic foot. However, a gap in care exists within this subset of the PHM model for the diabetic foot.

Meet the Real World

In 2018, *Podiatry Management News* conducted an on-line survey in which readers were asked: "Do you schedule an annual Comprehensive Diabetic Foot Exam for your diabetic patients?" A recent follow up question was "Do you participate in the Medicare Diabetic Therapeutic Shoe Program?"

Four hundred seventy-three (473) readers replied and among them, 61.95% Do Not schedule their patients for annual CDFEs, while in a recent PM News poll 67.07 % Do Not participate in or have significantly cut back on participation in the Medicare Diabetic Therapeutic Shoe Program. Let that sink in for a minute.

Our profession promotes itself as the leader in management of the diabetic foot and seeks recognition and resulting compensation as such. Yet, there appears to be recent evidence to the contrary, at least in the case of more than half of podiatrists who responded to two simple questions.

Basic fundamental examinations that podiatry students can perform are apparently not being conducted by the experts on a high-risk population that typically comprises a significant percentage of a podiatric practice. In this time when data and analytics are driving medicine towards evidence-based practice, there are serious concerns regarding the quality of care that is being rendered, at least according to this sample.

We know prevention is a critical aspect of any medical care, and it is much easier to prevent diabetic foot complications than it is to treat them. Then why are podiatrists not using their unique skill set to enhance the care of patients with diabetes when the system is crying out for us and demanding us to do so? One explanation may be the perceived function of time versus compensation when considering whether a true Comprehensive Diabetic Foot Examination (CDFE) is worth the time of the provider in comparison to other more lucrative patient encounters in a typical day. In PM News (2018), Allen Jacobs, DPM wrote a response to a comment, sharing his thoughts about the importance of a more comprehensive examination to determine a patient's risk stratification:

"You can only diagnose, and risk stratify that which you examine for. There is more to risk stratification than feeling for a pulse and using a monofilament or tuning fork, or dispensing diabetic shoes."

Another explanation may be the lack of a comprehensive strategy and tools that provide efficacy, efficiency, and financial reward commensurate with the services and value rendered by the podiatrist. We know how to perform a CDFE in theory, but this overall lack of adoption indicates that a need exists that will empower podiatrists to not only do good, but to do better.

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Arche Healthcare, the originator of the Comprehensive Diabetes Foot Examination has created a population health management strategy called the Arche LEAP (Lower Extremity Amputation Prevention) Collaborative that is specifically architected for podiatrists. Arche Healthcare is seeking to create a connected community of like-minded, forward-thinking practitioners that will embrace an evidence-based, information-technology enabled PHM strategy to reduce the development and recurrence of diabetic foot ulcers (DFUs) and the rate of lower extremity amputations (LEAs).

The process of separating patient populations into high-risk, low-risk, and rising-risk groups is called risk stratification. Risk stratification is the third step in PHM. Having a platform to stratify patients according to risk is key to the success of any PHM initiative.

Risk stratification of the patient with diabetes is essential to developing an effective care plan. The Arche CDFE protocol was developed using evidence-based clinical guidelines to drive the assessment and risk stratification of each patient with diabetes. Stratification is determined by clinical examination and findings. (See chart below)

Risk Stratification and Interventions

LEVEL	STATUS	INTERVENTION
0	Diabetes without sensory neuropathy	Annual Arche CDFE with patient education
1	Sensory neuropathy only	Annual Arche CDFE with patient education ↑ daily surveillance with TempStat
2	Sensory neuropathy with PVD and/or deformity without previous history of wound or amputation	Arche CDFE with patient education annually ↑ daily surveillance with TempStat
3	Previous wound or amputation	Arche CDFE with patient education annually ↑ daily surveillance with TempStat

Engagement of providers and patients is the fourth step in a PHM strategy for management of the diabetic foot. DPM engagement is a hallmark of a successful podiatric PHM strategy. One of the objectives of the Arche LEAP Collaborative is to build a community of physicians dedicated to the same goal: Improving the care of the lower extremity of patients with diabetes. Podiatrists are provided with insightful analytics about how their practice is performing relative to evidence-based guidelines and in comparison with the rest of the Arche LEAP Collaborative community. The physicians managing the patients' diabetes are notified that their patients have had an Arche Comprehensive Diabetic Foot Examination and are provided with a plantar pressure analysis report explaining their risk of ulceration.

Actively engaging patients in their own care and its inherent benefits certainly needs no detailed explanation. The Arche Comprehensive Diabetic Foot Examination is architected as both an examination and educational experience that drives increased health literacy.

Assisting patients in managing their own care must be ongoing and is the fifth component of a Population Health Management strategy for the diabetic foot.

The Arche CDFE was designed with the idea that seeing is believing. We accomplish this by using tools that help the patient visualize their area of risk and teaches them to manage it. This is essential to improving patient health literacy.

At the end of every Arche CDFE, each patient is given a risk stratification number and education about their odds of developing a foot ulcer. Education about managing their risk is also provided.

Finally, every ambulatory patient is provided with their PressureStat images depicting areas of increased focal pressure on the bottom of their feet to reinforce where they have the potential to develop foot ulcers.

The patient is offered a home-monitoring device that identifies potential areas of inflammation by showing areas of increased focal plantar temperature or hot spots. These "smoke alarms" for the feet alert a patient that they need to return to their podiatrist for evaluation and care. Using home-montioring of plantar temperature has been clinically shown to reduce the incidence of ulcers when used as directed.

Doing Good, Doing Better and Doing More While Further Validating Podiatric Medicine

To ultimately determine success or failure, measuring outcomes – an essential component of a PHM strategy – is the sixth and final step in a population health management system for the diabetic foot.

Key metrics in the management of a population of podiatric patients with diabetes reflects the trajectory of their risk over time. Metrics should include year-over-year incidences of wounds and amputations, timeliness of an Arche CDFE and at-risk foot care visits, and appropriate prescriptions for therapeutic footwear and insoles. Through use of insightful analytics, it will be evident which podiatrists have implemented evidence-based clinical practice guidelines in the management of their population of patients with diabetes.

Value-based care is coming, whether podiatry is ready or not. David Nash, MD, MBA and Founding Dean of the Jefferson College of Population Health warns the medical community, "You can run but you can't hide from it. We are heading toward the total accountability for the outcome of care, and with no outcomes, there will be no income for doctors, and that is a sea change". Nash has gone as far as to trademark the phrase "No outcomes, No income" to use as he talks about this fast-approaching trend.

Those providers that implement a PHM strategy will be better prepared for success when encountering the current drive to change reimbursement from fee-for-service to value-based. By embracing this change, these physicians will be providing greater service for their patients, will contribute to the improved financial health of our healthcare delivery system, and will be rewarded financially in the process.

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References

Boulton, A. J. M., Armstrong, D.G., Albert, S., Frykberg, R.G., Hellman, R., Kirkman, M.S…Wukich (2008).

Comprehensive Foot Examination and Risk Assessment. A report of the Task Force of the Foot Care Interest Group of the American Diabetes Association, with endorsement by the American Association of Clinical Endocrinologists. Diabetes Care 8, 1679-1685.

Feinglos, F. A. & Grossman, D.S. Receipt of Care and Reduction of Lower Extremity Amputations in a Nationally Representative Sample of U.S. Elderly, Health Services Research. DOI: 10.1111/j.14756773.2010.01157.

Jacobs, A. (2018). RE: Comprehensive Diabetic Foot Exam and 2019 ADA Guidelines. PM News.

Patout, C.A. Jr., Birke, J.A., Horswell, R., Williams, D., Cerise, F.P (2000). Effectiveness of a comprehensive diabetes lower-extremity amputation prevention program in a predominantly lowincome African-American population. Diabetes Care, 23 (9), 1339-1342.

Shyrock, T. (2018). Succeed at Population Health Management. Medical Economics, 95 (22). http://www.medicaleconomics.com/article/succeed-population-health-management.

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