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Addressing the Rheumatology Workforce Shortage: A Question of Supply *and* Demand

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The combination of a growing and aging population and advances in treatment have increased demands for rheumatology services across the world. In the United States, a shrinking rheumatology workforce, driven by retirements and a shift toward part-time work, coupled with this increased demand, has led to estimates that the demand for rheumatology clinical providers will outstrip supply by over 100% by 2030.[1] A number of suggestions have been made to address the supply of rheumatology care. These suggestions include changes to payment structure and documentation requirements that can improve the desirability of rheumatology as a subspecialty in the hopes of retaining current providers and attracting new ones; increasing the number of training positions; and maximizing the use of nurse practitioners, physician assistants, and even pharmacists to provide care. All these strategies rely on increasing the volume of care provided to account for the increased demand. To date, however, there have been few suggestions to address the demand side of the equation. Efforts are underway to train primary care providers (PCPs) to address basic rheumatologic issues without turning to specialty care, but are there ways in which that care itself can be modified to reduce the need for fellowship-trained rheumatologists?

One proposal has been to increase the use of "e-consults," which allow rheumatologists to provide guidance to PCPs without using time in their clinical schedules.[2] Telemedicine has also been suggested as a potential solution, although primarily as a way to address the disconnect between the location of rheumatologists and the patients who require their care; rheumatologists would still be required to deliver this care, although it could be done from a distance. In this issue of *The Journal of Rheumatology*, Hermans and colleagues report on a study that offers an intriguing opportunity to use technology to reduce demand for in-office visits with rheumatologists, while still providing appropriate patient care.[3] While the standard of care for most chronic, rheumatic diseases continues to be regular, scheduled visits—typically at 3- to 6-month intervals—the bidirectional transmittal of data in current electronic health record (EHR) platforms allows physicians to gather information from patients before, or between, scheduled visits. Could this information be taken a step further, allowing rheumatologists to reduce the frequency of in-person visits, while maintaining disease control?

In their study, Hermans and coauthors used a separate platform, SpA-NET, to collect data on patient-reported outcomes (PROs) and disease activity in patients with spondyloarthritis (SpA) in the Netherlands.[3] They then selected a representative sample of clinic visits, provided the rheumatologists with patient responses and relevant laboratory results from the week prior to the visit, and asked whether the rheumatologist felt, in retrospect, whether the visit was truly necessary. When they looked at 114 visits this way, the rheumatologists determined that 34% of the visits had not been necessary. This was true in over half of the visits in which the patient had reported that they were in a state of low disease activity (LDA). Further, medication changes, often considered a reason for follow-up visits, were infrequent in this study; changes were made in only 5 of the 39 visits considered unnecessary.

This particular study asked only whether the treating physician considered the visits necessary and did not fully consider patient input or other important outcomes from visits, aside from collecting information about treatment. More work will need to be done to determine whether these "unnecessary" visits could have been foregone without a detrimental effect on the patients' disease, but these data offer a tantalizing opportunity to modify the way in which care is delivered to reduce the necessity for in-person visits. In theory, this could allow the same number of rheumatology providers to deliver care to more patients by reducing the demands on their time for face-to-face interactions. This could be considered a form of "population management," in which a rheumatologist or a rheumatology and advanced practice provider (APP) team manages a patient panel using a variety of modalities (eg, in-office visits, telemedicine, interval check-in questionnaires). There is certainly something appealing about this idea, as it would finally allow providers to use the EHR as a tool to optimize care, rather than as simply the billing mechanism to which it is frequently relegated.

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See Necessity of SpA outpatient visits, *page 1214*

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We believe that further work like this may offer one potential solution to the rheumatology workforce shortage, by focusing on demand rather than supply. Most EHRs now offer the ability to push out questionnaires and other material to patients that could be timed with scheduled visits. A review of this information may allow rheumatology clinics to modify subsequent visits, either by switching them to a more brief telemedicine appointment, using other staff (APPs or even nurses when all that may be needed is a prescription refill) to replace the physician, or canceling the visit altogether when the patient is clearly well controlled and has no other concerns. We have been piloting a similar system in the inflammatory arthritis clinic at the University of Pennsylvania. Patients complete a Routine Assessment of Patient Index Data 3 (RAPID3) questionnaire 2 weeks prior to their office visit. If the patient is in an LDA state based on this assessment, reports an absence of recent flares, and does not have concerns about their current treatment plan, the patient is moved to a telemedicine visit with the nurse practitioner. The open in-office visit slot is then offered to a patient experiencing a flare or one who needs to come in more urgently. While the clinicians and patients perceive this process as beneficial, the system does require input (eg, a nurse scanning the schedule in advance and sending out questionnaires). Automating these types of questionnaires within existing EHRs requires special builds that are entirely feasible but often land on a long list of priorities for the programming staff. Additionally, as the APP visit schedule fills, these care providers may also need decompression. Thus, while this may be a strategy to aim for, there are certainly still aspects of this system to be worked out.

There are several important issues that will need to be addressed before an approach like this could be implemented on a widespread basis. This study looked specifically at SpA, a diagnosis in which assessment of disease activity largely relies on PROs. It is not clear how this approach would work in diseases like rheumatoid arthritis or systemic lupus erythematosus, where physical exam findings and other objective outcome measures are a more critical component of this assessment, particularly in an era in which a treat-to-target approach has been shown to lead to better long-term outcomes. Even there, however, validated self-assessment tools such as the RAPID3, other advances in self-management approaches, and patient-initiated joint counts may provide a way forward in some situations.[4-6] There is already evidence that telemedicine can be used effectively in RA.[7,8] Nevertheless, it is quite possible that not all diseases managed in rheumatology can be properly addressed with this model.

One of the advantages of an approach that uses advance patient information to determine the necessity of an in-person visit is that it allows all members of the clinic staff to "work to the top of their license." Nurses and pharmacists could provide management for stable patients, or those with straightforward issues, when appropriate; this approach has already been used with some success in gout management.[9-11] APPs could be used to staff more directed telemedicine visits in patients who do not need an assessment in clinic, leaving rheumatologists to maximize their time and availability to focus on less well-controlled or more complicated patients requiring their expertise.

Finally, there are a number of logistical issues that would need to be addressed before embarking on this approach. Who will review the information that the patient submits? Who will determine the need for an in-person visit rather than another method of care delivery? These considerations may require some restructuring of clinic workflows. Pivoting a visit to telemedicine or canceling it altogether on short notice may result in open slots in the clinic schedule, although changes in workflow that allow those slots to quickly be filled by patients in need may be able address this. Last, telehealth rules are in flux as the coronavirus disease 2019 (COVID-19) pandemic winds down, and restrictions by payors and regulators on when telemedicine is allowable, such as for interstate visits, may limit the ability to pivot to this option even when clinically warranted.

Nevertheless, we applaud Hermans and colleagues for exploring this approach,[3] and we see its potential as another useful mechanism to address the looming workforce shortage in rheumatology. Efforts to increase the supply of rheumatology clinicians will continue to be critical, but efforts like this to address demand will be important as well.

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Correction

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In the editorial, the surname of the first author in the accompanying article (reference 3) mentioned in the second, third, and final paragraphs should be Hermans. We apologize for this error. This correction only applies to the September 1 First Release. The correct text appears in the print and online issues.

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