



RHEUMATOLOGY NURSE NEWSLETTER

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Practical information and tools you can apply to your everyday practice!

LEARNING OBJECTIVES

- Identify the primary roles of interdisciplinary members of the healthcare team who treat patients with rheumatic diseases
- Evaluate published research that has attempted to define the role of the rheumatology nurse based on your day-to-day responsibilities
- Discuss the value that rheumatology nurse specialists, such as nurse educators and infusion nurses, bring to overall patient care
- Assess new opportunities that may be available for rheumatology nurses and nurse practitioners in the near future

WHAT'S INSIDE

- How can physical and occupational therapists help patients with rheumatic disease get back to work more quickly?
- What duties do rheumatology nurses most commonly perform in clinical practice?
- Where are the bottlenecks in the care of patients with rheumatic disease that rheumatology nurses may be expected to ease in the future?
- What is happening with various initiatives being developed to define and promote rheumatology nursing?

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The Evolving Role of the Rheumatology Nurse

INTRODUCTION

Rheumatology nursing is a rapidly evolving field shaped by several forces: increasing demands for modern services, new opportunities for specialization, and dramatic changes to educational opportunities. Each of these factors influences both the delivery of rheumatology care and the trajectory of nursing careers.

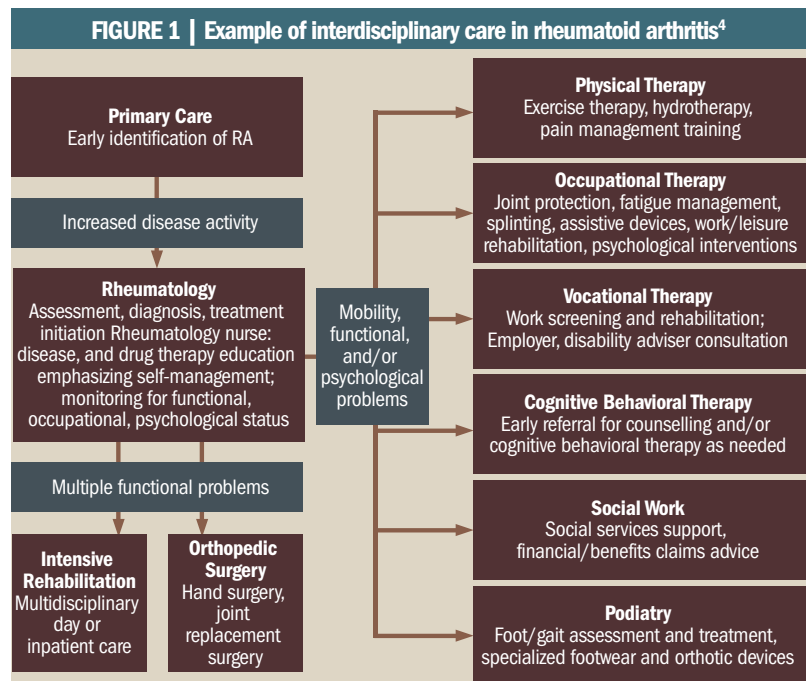
With new healthcare laws and an aging population, an expected 32 million Americans will acquire healthcare coverage and an additional 36 million people will be eligible for Medicare by 2015. At that time, there will be an estimated shortage of 63,000 physicians, with additional shortages by 2025.¹ The field of rheumatology is expected to mirror those trends as the demand for specialty services soars in the coming years. According to the American College of Rheumatology (ACR), demand for adult rheumatology services will exceed supply by more than 2,500 providers in 2025.² One suggested option for addressing this looming shortage is to expand the role of rheumatology nurses and other rheumatology-trained interdisciplinary providers. Another option involves redesigning practice patterns to improve efficiency (for example, through the use of nurse-led care).

Signs of excess demand for rheumatology services are already apparent. In current U.S.-based rheumatology practices, the average appointment wait time for new patients is 30 days. In an attempt to meet growing demands, 25% of rheumatologists have already expanded their practices to include a nurse practitioner (NP) or physician assistant (PA), and another 25% intend to hire an NP or a PA within the next 5 years.² The ACR, the Association of Rheumatology Health Professionals (ARHP), the Rheumatology Nurses Society (RNS), and other organizations are developing initiatives focused on specialty training that will help nurses gain the required clinical competence in rheumatology.

The future of rheumatology care is likely to include more prominent roles for nurses, rehabilitation specialists, and other healthcare professionals. Rheumatology nurses should be aware of opportunities to collaborate with interdisciplinary providers, as well as new and expanded opportunities for specialized nursing care.

INTERDISCIPLINARY CARE IN RHEUMATOLOGY

For patients with rheumatic diseases, successful management largely depends on access to interdisciplinary care.³ Once patients have been referred to the rheumatology clinic, the rheumatology nurse is often responsible for coordinating referrals to other providers (Figure 1).⁴ Early screening for patients at risk for functional deficits, work disability, and psychological distress is important for identifying patients who may benefit from early rehabilitation services.⁴



PHYSICAL THERAPY

Physical therapy is an essential feature of comprehensive care for most patients with rheumatic disease. For conditions such as rheumatoid arthritis (RA) and fibromyalgia, aerobic and strengthening exercises may significantly improve key aspects of physical status, including aerobic capacity, muscle strength, endurance, and function, without exacerbating disease activity.^{5,6} Aerobic exercise may also improve psychological outcomes, including overall well-being and self-efficacy.⁷ Physical therapists can create tailored exercise programs that include moderate aerobic exercise and strength training to maximize these benefits in patients with RA.⁷

Other physical therapy interventions may also improve musculoskeletal symptoms. For example, weekly hydrotherapy has been shown to improve grip strength and physical activity levels, while thermotherapy (eg, paraffin wax baths) may provide relief for arthritic hands.^{4,8} Comprehensive physical therapy programs that include education, exercise, and pain relief have reduced

disease activity in patients with RA and improved mobility and health status in patients with ankylosing spondylitis (AS).^{4,9}

Because of their focus on the musculoskeletal system, physical therapists are well suited to provide specialized care for patients with inflammatory joint diseases. In one survey of 258 physical therapists working in orthopedic clinics, the majority felt adequately prepared to work with patients with osteoarthritis (OA), RA, and AS.¹⁰ Physical therapists were most likely to report sufficient training in the management of OA, including history-taking (80%) and exercise prescription (77%), with less training in areas specific to RA and AS. Across all rheumatic diseases, most physical therapists also reported high levels of comfort in pre- and post-surgical care (75%), prescription and assessment of mobility aids (68%), assessment of damaged joints (53%), and education regarding self-management strategies (51%).¹⁰

In summary, most physical therapists felt equipped to work with OA, RA, and AS patients, and those already working with arthritis patients were particularly interested in specializing in arthritis and/or rheumatology care. These providers may be ideal partners in the management of patients with rheumatic diseases.¹⁰

OCCUPATIONAL THERAPY

Occupational therapy is designed to improve a patient's ability to perform so-called daily "occupations" — a broad scope of activities that includes personal care and domestic, work, leisure, and social activities. When there is a loss of hand function — such as in RA, in which grip strength in established disease is, on average, only 29% of normal grip strength — occupational therapy may incorporate functional adaptations. Occupational therapy also aims to improve psychological status, including patients' coping skills.⁴



MY, HOW THINGS HAVE CHANGED by: Kori Anne Dewing, MN, ARNP

Recently, I heard a nursing scholar discuss the concept of "being repotted," which got me thinking about all of the changes I have seen in the eight years since I became a rheumatology nurse practitioner (NP). I am due to graduate in June with a Doctor of Nursing Practice degree, and during the course of my studies, I have been forced to spend significant amounts of time reflecting on the lessons I have learned and the ways that I will be able to translate my education into daily practice. My studies have challenged me to question what I do and don't know, invigorated a desire for research and discovery, and spurred me to make change happen. I have grown out of my little pot and found a bigger one with room to grow and blossom.

The same can be said of the rheumatology nursing community as a whole. A decade ago, there were few licensed nurses working in rheumatology, but as treatment options became more complex, the need for skilled nurses became increasingly necessary. We have grown and matured as a field. Today, there are nurses and NPs who manage rheumatology practices, who diagnose and treat complex rheumatologic illnesses, who specialize in infusions, who work in multidisciplinary clinics, and others who fill a combination of these roles.

Our changing field has required us to grow quickly, to the point at which we are at risk of outgrowing our current pots. It is vital that we continue to develop educational tools specific to the needs of rheumatology nurses to support this growth. I urge you to join professional organizations to help develop a unified voice in support of nursing. Volunteer and mentor to help strengthen our field. Don't be afraid to let your needs be known. Be your own advocate and tell your employer you need more support and education. Help to build your bigger pot and grow!

Rheumatology nurses can screen patients with rheumatic conditions to identify those who may benefit from occupational therapy (see Table 1). Early referral to occupational therapy is critical for limiting deterioration of function and preventing work disability. This is particularly important for patients with poor psychological status, who tend to have poorer outcomes without early intervention. Occupational therapy is most beneficial for patients who are willing to use self-management methods to control their symptoms. Standard occupational therapy interventions include joint protection, the use of assistive devices, splints and orthopedic devices (orthoses), and hand exercises.¹¹

JOINT PROTECTION | Joint protection describes a group of interventions designed to improve functional ability by minimizing joint overload. Strategies can include providing education about proper joint and body mechanics, altering work methods, and incorporating the use of assistive devices. Management of fatigue, with an emphasis on energy conservation and frequent rest periods, is another important strategy. By applying specific techniques, patients can reduce the effort required to perform activities of daily living, thereby lessening strain on the joints, reducing localized inflammation, relieving pressure on pain receptors, and reducing fatigue.¹²

Intensive joint protection programs provide broad advantages to patients with RA. In a randomized study of 126 patients with early disease, joint protection reduced pain, early morning stiffness, frequency of disease flares, and rheumatology clinic visits over a 1-year period. The use of joint protection strategies also improved grip strength, enhanced patient self-efficacy, and allowed patients to maintain physical function.¹³

ASSISTIVE DEVICES | After identifying specific deficits in a patient's ability to perform activities of daily living, the occupational therapist can provide training in the use of alternative methods or assistive devices to bridge these functional gaps. To improve a patient's mobility at home, the therapist may recommend options for housing adaptations, such as the use of half-steps, stair rails, grab rails, and access ramps.⁴ Tools such as book rests, jar openers, adaptive knives, and ergonomic kitchen utensils can help to compensate for reduced hand function. Additional devices such as long-handled reachers, bath aids, and bed and toilet raisers can help patients with limited knee or hip flexion.¹⁵

SPLINTS AND ORTHOSES | Resting hand splints, finger splints, wrist supports, and supportive footwear with orthotic inserts can be useful for patients with rheumatic diseases. Wrist splints can reduce pain when worn during activities, while hand splints can improve grip strength, range of motion, and overall function in patients with RA.⁴ Resting splints can relieve hand pain at night, and finger splints can improve function in patients with a correctable deformity.¹⁵

HAND EXERCISES | As hand function begins to deteriorate in early RA, hand exercises can be used to maintain range of motion and strength.⁴ Hand exercises can also be coordinated by physical therapists.

VOCATIONAL THERAPY

Vocational therapy is a specific type of occupational therapy that focuses on helping patients in their working life. An estimated 23 million working-age individuals in the United States have some form of arthritis, and work-related limitations are commonplace.¹⁵ In one survey of employed RA patients, 98% had at least one barrier to remaining employed or returning to work after time away. Two-thirds (68%) reported

10 or more barriers, including the following¹⁶:

- Pain adversely affecting ability to work (63%)
- Physical limitations restricting duties (62%)
- Fatigue adversely affecting ability to work (60%)
- Excessive sick-time absenteeism (33%)
- Barriers related to travel to work (13%)
- Lack of understanding and/or support from employer (12%)
- Lack of specific adaptations (4%)
- Problems with colleagues (2%)
- Lack of family support (2%)

Disease-related pain and physical limitations associated with early RA can increase work absenteeism, even among patients who display otherwise low levels of disease activity. As RA progresses, many working patients report a precipitous decline in their ability to perform work-related tasks. Patients often perceive that their employment is in jeopardy, particularly as their health status deteriorates. In a study of 90 employed patients with RA, those with higher disease activity scores and greater functional impairment reported significantly higher levels of work instability.¹⁷ Work instability can also exacerbate the emotional stress associated with RA and other rheumatic conditions.

Work disability often begins early after diagnosis, with the greatest loss in function occurring in the first 3 years of the disease. Approximately one-third of patients with RA leave the workforce early, leading to serious social and financial consequences for patients and their families.¹⁸ Vocational rehabilitation is most effective at preventing job loss; once patients are unemployed, interventions are less successful at facilitating a return to work.¹⁶ Therefore, early vocational therapy aimed at slowing the onset and progression of work disability is an important component of comprehensive disease management.

Occupational therapists can provide work assessments and advice on job modifications that may relieve disease-related limitations, such as more ergonomic movement patterns, work postures, and equipment modifications. Therapists can also provide cognitive-behavioral training and coping strategies to address psychological factors affecting work ability. In some cases, occupational therapists can work directly with the patient's employer to modify job tasks, shifts, and other workplace factors. For patients who have been out of the workforce, occupational therapists can also facilitate a return to work.¹¹

Several studies have shown the benefits of vocational therapy in patients with rheumatic conditions. One study randomized 32 employed RA patients to comprehensive occupational therapy or usual care. After 6 months, patients in the occupational therapy group had significantly greater improvements in work-related functional outcomes ($P < 0.001$), perceived work stability ($P = 0.04$), work performance ($P = 0.01$), and work satisfaction ($P < 0.001$) compared with patients in the usual care group. Occupational therapy was also associated with significantly greater improvements in pain ($P = 0.007$), disease activity ($P = 0.03$), and quality of life ($P = 0.02$).¹⁹

In another randomized study, 242 patients with RA, OA, systemic lupus erythematosus (SLE), AS, or psoriatic arthritis (PsA) and mild disability scores were assigned to standard follow-up care with or without occupational therapy. In this long-term study, investigators noted the importance of convenient occupational therapy services — such as those held at the patient's home, workplace, or another community location — for facilitating early intervention and improving outcomes. When occupational therapy services are less convenient, therapy is often delayed until patients face an employment crisis and/or require extended sick leave.²⁰ Therefore, to increase the likelihood that patients will participate in and benefit from occupational therapy, nurses can determine which options may be most convenient for patients.

OTHER COLLABORATIONS

Rheumatology nurses may collaborate with several other types of providers as different needs arise, including social workers, podiatrists, and orthopedic surgeons.

Other unique collaborations are also used to address specific aspects of patient care. For example, patients with rheumatic diseases are often managed with potentially teratogenic medications that can complicate pregnancy. One hospital established a combined rheumatology and obstetric clinic to coordinate the care of such patients.²¹ In the first 2 years, the multidisciplinary clinic managed the care of 65 women, including patients with SLE, RA, PsA, AS, Sjögren's syndrome, and other rheumatic conditions. Patients had histories of poor pregnancy outcomes, including first-trimester miscarriages in 28% of all patients and premature deliveries (<37 weeks' gestation) in 7%. Key interventions included modified drug therapy for 68% of patients pre-conception, 39% during pregnancy, and 32% post-partum. Among 42 new pregnancies, only 1 SLE patient had a first-trimester miscarriage and 4 patients had preterm deliveries.²¹ Findings from this pilot project showed that a multidisciplinary rheumatology and obstetric clinic may improve pregnancy outcomes in high-risk patients with rheumatic illnesses.

RHEUMATOLOGY NURSING: CURRENT SNAPSHOT

"Rheumatology nurse practitioner," "advanced nurse practitioner," "clinical nurse specialist," and other titles are often used with no consensus about the levels of expertise or professional responsibilities associated with these roles, and wide variations exist among different providers and across different geographic areas.^{22,23} In the absence of defined core competencies, the roles of rheumatology nurses are often unclear.²⁴ In addition, given that compensation often correlates with knowledge and skill level, it would be beneficial for rheumatology nurses to be able to demonstrate competence in the specialized skills of rheumatology care. This is difficult when the skills of rheumatology nursing are poorly defined.²⁴

Several recent and current research programs are aimed at defining the role of the rheumatology nurse. Goh and colleagues surveyed 95 rheumatology nurses to identify recent trends in the scope of clinical practice and concluded that rheumatology nurses are skilled in the management of several rheumatic diseases.²² Although rheumatology nurses most commonly care for patients with RA (96.8%), PsA (95.8%), and OA (63.2%), many also work with patients with AS (62.8%), SLE (51.6%), or scleroderma (34.7%).²²

Rheumatology nurses also participate in a wide range of clinical activities (Figure 2).²² For instance, most rheumatology nurses (>80%) routinely provide patient education and counseling, arrange basic clinical and laboratory investigations, and monitor drug therapy. Many others serve in additional roles such as coordinating care with



MY, HOW THINGS HAVE CHANGED by: Joyce M. Kortan, RN

When I first began as a rheumatology nurse 18 years ago, it was not uncommon to administer multiple intramuscular gold injections in a day. The results were often dramatic, and not always in a positive way. Gold had significant toxicity and often did not slow disease progression. It was not easy to convince patients that injectable gold would help them feel better, and while there were some patients who did benefit from it, it was discouraging meeting with patients during follow-up visits whose disease was spiraling out of control knowing that there were limits to how much I could help them.

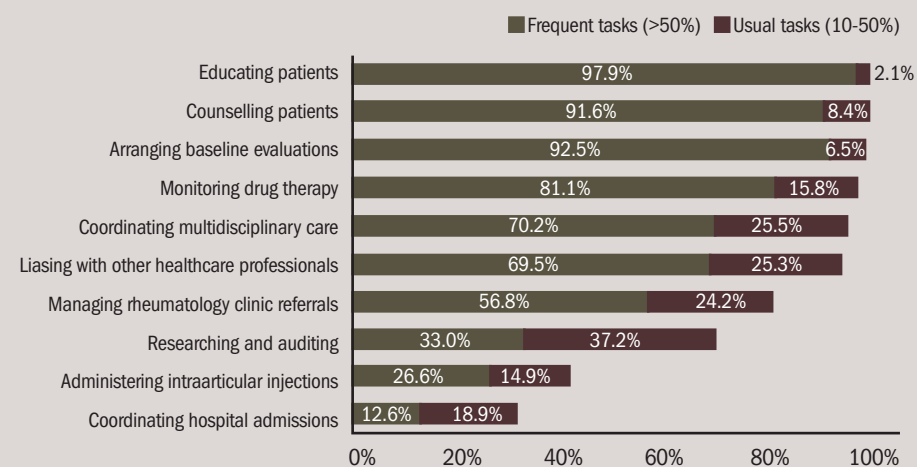
Fortunately, research breakthroughs in molecular biology soon led to the beginning of the biologics

era. My personal education curve was steep — understanding how biologic agents interact with specific molecules and receptors to mimic the natural anti-inflammatory functions took time, and even when I got it down, I had to figure out how to pass this information onto my patients.

I still remember my first lecture on tumor necrosis factor (TNF) and cytokines in 1999. A medical scientist from a pharmaceutical company spoke to a group of home infusion nurses about the immune system and how a new drug — infliximab — worked. I admit, it was way over my head. But instead of throwing up my hands in frustration, I sought additional resources that would help me understand what was being billed

as a huge breakthrough for our specialty. I saw how desperate my patients were, and I was committed to devoting as much time as I could to helping them. Eventually, I grew comfortable with talking about biologic DMARDs to my patients, and I became an educator myself, helping those who are in my old shoes understand how these drugs work.

For so many of us, we serve as our patients' advocates, and being able to speak intelligently to them about their condition and treatment options is vital to optimizing outcomes. I'm proud of how far we've come and, as always, look forward to what's around the next corner.

FIGURE 2 | Current tasks of rheumatology nurse practitioners²²

Tasks reported as frequent (>50%) or usual (10-50%) parts of routine clinical practice among rheumatology nurse practitioners. It should be noted that many tasks within this chart are currently being performed by rheumatology nurses as well.



other healthcare providers, managing referrals to and from the rheumatology clinic, participating in research tasks, administering intraarticular injections, and coordinating hospital admissions.²²

RHEUMATOLOGY NURSE-LED CARE

Li and colleagues observed that current rheumatology practices are often “a loosely coordinated effort with multiple possibilities for bottlenecks.”³ Patients with chronic rheumatic diseases require ongoing follow-up care, and once treatment has been initiated, most patients are scheduled in advance for follow-up appointments every 3-6 months. In the typical rheumatology clinic, pre-planned follow-up visits account for up to 75% of rheumatologists’ caseloads, leaving little time for new patients or patients who require urgent care.²⁵ As a result, some patients are seen when no help is needed, while others do not have access to their rheumatologist when help is needed most. One strategy for easing this common bottleneck is for rheumatologists to offload routine follow-up care to rheumatology nurses, allowing rheumatologists to focus on more complex or urgent cases.²⁶

Rheumatology nurse-led care is emerging as an attractive model for the management of patients with chronic rheumatic diseases. In a systematic review of studies that included 1,036 patients with RA, OA, or fibromyalgia, nurse-led care consistently matched or surpassed the quality of care provided by rheumatologists, primary care physicians, and multidisciplinary teams.²⁷ Under the supervision of a rheumatologist, nurse-led care may either be determined on a case-by-case basis or take the form of a specialized nurse-led clinic. Many experienced rheumatology nurses lead specialized clinics focused on particular diagnoses (eg, RA) or aspects of care (eg, biologic therapy). In one small survey, nurses who specialized in rheumatology for an average of 10 years led an average of 4 specialized clinics per week (range, 2-6).²⁴

Specialized clinics can be hospital based, community based, or may take advantage of newer formats such as telemedicine. Rheumatology nurse-led telephone consultations are a beneficial alternative to clinic visits for patients with an established diagnosis who are waiting for a routine follow-up appointment. In a pilot study, patients with RA, OA, PsA, fibromyalgia, SLE, AS, and other conditions who were awaiting an outpatient rheumatology appointment were offered a nurse-led telephone consultation instead.²⁸ Telephone appointments reduced wait times by 2 months compared with standard clinic visits. Most patients (72%) stated that they were “very happy” with the telephone consultation and that they would be happy to use the service again, and another 12% of patients said that they would be “fairly happy” to use the service again. Patients who were satisfied with the telephone consultation cited the convenience of the service as a primary benefit. In particular, some patients at further distances from the outpatient clinic appreciated avoiding long travel times, especially around the holidays, and elderly patients appreciated the overall convenience of staying at home.²⁸

Other models of nurse-led care include a mix of visit types. In the United Kingdom, community rheumatology nurses work as lone practitioners for a portion of their time, providing an extension of clinic-based services to patients within the community setting. To describe this emerging care model, investigators recently summarized the activity of three community rheumatology nurses.²⁹ During a period of 3 months, the three community nurse specialists

had 1,510 patient contacts, including 67 home visits, 170 urgent contact visits (eg, for the administration of joint injections), 475 clinic visits, and 798 telephone consultations. The community rheumatology nurses effectively assessed and managed patients both at the clinic and at home, which was particularly beneficial for housebound patients who developed an acute disease flare. These timely nursing services prevented hospital admissions and increased patient confidence in their overall rheumatology care.²⁹

Several additional studies have focused on the benefits of nurse-led care in specific patient subgroups, including those with RA, OA, AS, and fibromyalgia.³⁰⁻³⁴

NEW SKILLS FOR RHEUMATOLOGY NURSES

RHEUMATOLOGY NURSE EDUCATORS

Patient education significantly improves functional ability, pain, and psychological status associated with rheumatic conditions.⁴ Although patient education is available from a range of resources, including informational brochures and websites, education provided by rheumatology nurses is superior to passive education in at least two major ways.^{35,36}

First, as skilled educators, rheumatology nurses can assess knowledge deficits to provide tailored information. Nurses can also assess a patient's receptiveness to education and, if needed, incorporate strategies to improve the likelihood that education will be successful.³⁷ In 2010, an expert panel of rheumatology nurses convened to identify current needs in the management of RA, particularly in the area of patient education.³⁸ According to the panel, rheumatology nurses are uniquely suited to judge the level of education and support needed by each patient:

“While all panelists agreed that the doctor is more likely to recommend a particular therapy, the nurse has a critical role in educating the patient on efficacy, potential side effects, method and frequency of administration, product storage, and, if applicable, comfort with self-injection, including demonstrating proper device technique. Additionally, the nurse determines the patient's readiness for and understanding of the treatment.”³⁸

Second, nurses can use patient education to address psychological and social problems, significantly improving physical and emotional well-being. Pain is often the worst symptom of RA for many patients, and persistent pain can lead to stress and depression. Providing emotional support is consistently cited by patients as one of the greatest

benefits of working with rheumatology nurses. In one recent survey of 173 RA patients, most patients were satisfied with the level of education that their rheumatology nurses provided, but 24% were unsatisfied.³⁹ For these patients, the most common reason for dissatisfaction was that the rheumatology nurse did not focus on providing emotional support. This was particularly true for newly diagnosed patients, who felt that they were given information about RA when they were diagnosed, but were left to manage their disease on their own. In contrast, an encouraging atmosphere, in which nurses took time to discuss their patients' feelings and concerns, improved the patient-nurse relationship and increased patients' satisfaction with patient education. Thus, according to the study authors, “rheumatology nurses should find the balance between patients' needs of emotional support and knowledge and what nurses think RA patients should know.”³⁹

RHEUMATOLOGY INFUSION NURSES

Drug therapy in RA and other rheumatic diseases is evolving toward the increased use of biologic disease-modifying antirheumatic drugs (DMARDs) such as anti-TNF agents. Biologic DMARDs require highly skilled providers to safely and effectively manage each step in the assessment, administration, and management of these therapies.^{40,41} Nursing tasks related to the use of biologic therapies may include⁴²:

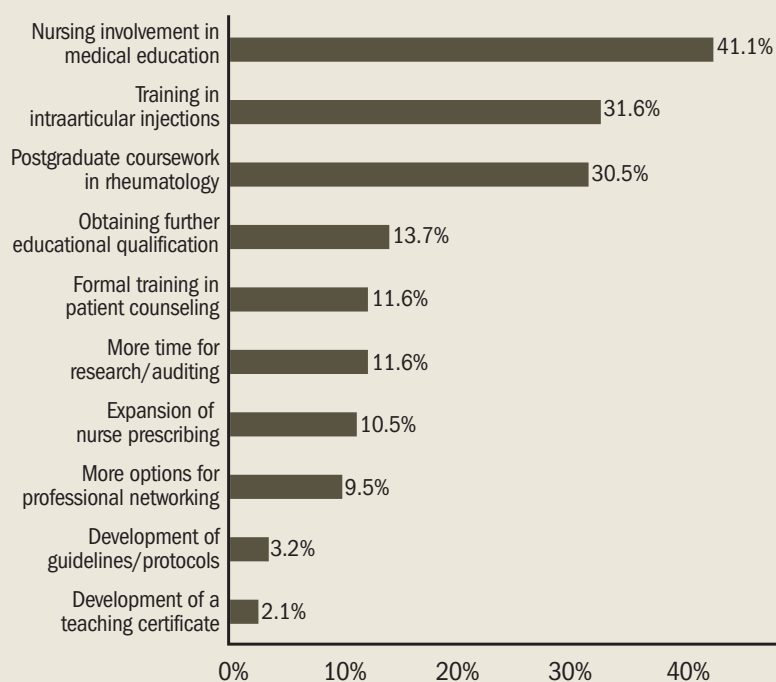
- Assessing patients for possible contraindications to treatment
- Providing pre-treatment screening for patients who are scheduled to initiate therapy, including screening for current or latent infections (eg, tuberculosis and hepatitis B)
- Managing the use of pre-treatment adjunctive medications such as antihistamines, antiemetics, analgesics, and other therapies prior to infusions
- Identifying signs and symptoms of disease activity and/or adverse reactions that may indicate transfusion reactions in patients receiving biologic therapy transfusions
- Training patients to self-administer subcutaneous injections
- Providing patient education related to the use of biologic therapies, including pretreatment requirements, administration, potential adverse effects, and side effect management
- Monitoring treatment responses to determine the appropriateness of remaining on treatment or the need for switching biologic therapies
- Coordinating care pathways with different members of the healthcare team, such as respiratory specialists who assess tuberculosis risk
- Collaborating with nurse specialists in different clinical areas involved in the management of patient comorbidities

Rheumatology nurses are taking leadership roles in the management of biologic therapy. For example, one hospital established an outpatient nurse-led biologic clinic, held twice weekly, that focused on the administration of anti-TNF therapies for patients with RA.⁴³ Prior to establishing the biologic clinic in 2005, adherence to RA treatment guidelines was low, including poor adherence to recommendations regarding pre-treatment chest x-rays (43%) and laboratory tests (39%). By 2008, adherence to RA guidelines for anti-TNF therapy increased to 100% for patients who participated in the nurse-led biologic clinic. Rheumatology nurses also prevented inappropriate care by identifying patients who were not suitable candidates for anti-TNF therapy (12%) despite referral to the biologic clinic. Thus, by managing a dedicated biologic clinic, rheumatology nurses improved adherence to RA guidelines and reduced unnecessary treatment, allowing patients to avoid the costs and potential side effects associated with contraindicated drug therapy.⁴³

RHEUMATOLOGY NURSING: FUTURE ROLES

Rheumatology nurses have established their role as valuable members of the interdisciplinary rheumatology care team. Now, practicing rheumatology nurses are interested in furthering their professional development through several potential routes (Figure 3). For example, although the majority of rheumatology nurses already engage in patient counseling, some would like formal training and certification in this area.²² Many other rheumatology nurses would like to pursue postgraduate coursework in rheumatology (30.5%), and others would like formal training in aspects of care such as intraarticular injections (31.6%) and nurse prescribing (10.5%).

FIGURE 3 | Rheumatology nurse practitioners' suggestions for expanding the scope of rheumatology nursing²²



MY, HOW THINGS HAVE CHANGED

by: Nicole N. Furfaro, MSN, ARNP

"Mrs. Robinson, I will need to collect that urine specimen before your gold shot."

Due to advances in the diagnosis, treatment, and understanding of RA, I have not had to utter that sentence in more than a decade (thankfully!). It's amazing how far we have come — some of you may even remember the days when a diagnosis of RA could take years to finalize, treatment was rarely initiated prior to severe damage or disability being established out of fear of adverse effects of immunosuppressant therapy, and medication options were few.

In that era (pre-1990s or thereabouts), understanding of the role of inflammation in cardiovascular disease and infection was just starting to develop, and researchers were just starting to look at the impact of comorbid conditions in patients with rheumatologic conditions. If a patient was lucky enough to be an initial responder to one of the few DMARDs we had to choose from, the best he or she could hope for was to delay progression to joint replacement surgery or the wheelchair.

Nowadays, genetic factors have been recognized that not only make patients more susceptible to the development of disease, but also play a role in metabolism of certain medications, such as MTX, hence altering an individual's response to therapy.¹ A recent joint EULAR/ACR task force created new criteria to classify RA that will further assist us in recognizing which patients should be treated early based upon their likelihood to progress to full-blown disease.² Early identification and treatment of disease is becoming a hallmark of RA disease management as we are no longer always expected to wait until patients meet the old ACR diagnostic criteria for RA (now considered the "end of the spectrum" in disease development).³ Perhaps the best news of all for our patients is that attainment of a full remission or even a "cure" is no longer a fantasy.

There are now biologic agents that target four different mechanisms of action, giving us better and more chances to stop disease progression. Oral agents are currently in development, and research into possible "personalization" of treatment based on the genetic makeup of an individual appears to be on the horizon. Standards of care specific to multiple rheumatic diseases are now available, which would have been unheard of in decades past when our treatment armamentarium was so limited.

Will "Mrs. Robinson, it is time for your infusion" become as passé as gold injections a decade or two from now? Based on how far we've come, it's not as crazy as it might sound.

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NEW INITIATIVES IN RHEUMATOLOGY NURSING

Several organizations are developing initiatives to promote the image of rheumatology nursing. The Rheumatology Nurses Society (RNS), established in 2007, provides guidance on nursing specialization and career development.⁴⁵ The RNS is currently developing practice guidelines to define the scope and standards of rheumatology nursing, which may in turn be used to establish a distinct certification in rheumatology nursing through the American Association of Colleges of Nursing (AACN). The ARHP is also working to promote rheumatology as a specialized area of nurse training. In conjunction with ACR, the ARHP offers the Advanced Rheumatology Course (formerly the Nurse Practitioner and Physician Assistant Postgraduate Rheumatology Training Program) for nurses and other providers interested in developing competency in the care of patients with rheumatic diseases. Participants must complete 16 web-based modules to obtain a certificate of completion in adult rheumatology.⁴⁶ As of November 2010, 121 providers have completed the course, and 235 are currently enrolled. The ARHP is also developing a web-based Fundamentals

in Rheumatology course, which will have 5 modules focusing on rheumatology, assessment, management, biologic infusion, and pre-authorization of medications and is expected to launch in 2012.⁴⁷

FUTURE OF NURSING PRACTICE

Initiatives from the RNS and ARHP align with a wider trend toward improving nursing education and training. In 2010, the Institute of Medicine (IOM) published a report on the future of nursing that supports an expanded role for nurses with advanced degrees.⁴⁸ For example, the IOM recommends removing institutional and regulatory scope-of-practice barriers in order to allow advanced practice registered nurses (APRNs) to practice to the “full extent of their education and training.” Specifically, this includes expanding Medicare and Medicaid coverage to reimburse APRN services at the same level as services provided by physicians.⁴⁸

Regarding nursing specialization, the IOM report recommends that nurses achieve higher levels of education and training. Targets for higher education include increasing the proportion of nurses with bachelor-level degrees (ie, BSNs) to 80% and doubling the number of doctorate-level nurses by 2020 (see Table 2). In response to this recommendation, new educational programs for nurses are likely to flourish.

DOCTOR OF NURSING PRACTICE: NEW OPPORTUNITIES & NEW CONTROVERSIES

The Doctor of Nursing Practice (DNP) is a relatively new degree designed as a clinically focused, non-research-based alternative to the Doctor of Philosophy (PhD) in nursing. Proponents of the DNP observe that many master-level nursing programs have credit requirements that are equivalent to doctoral degrees in other health professions, and that nurses doing doctoral-level work should receive actual doctoral degrees. Thus, the DNP is also offered as a complement to other practice doctorates that require rigorous clinical training, including doctoral degrees in medicine (MD), pharmacy (PharmD), dentistry (DDS), psychology (PsyD), and physical therapy (DPT).⁴³ Schools of nursing began offering DNP programs in 2002.⁴³ As of June 2010, 120 schools offered DNP programs in 36 states, and another 161 programs were in the planning stages.⁴⁵

The role of the DNP is controversial.^{44,46} In 2004, the AACN voted to move the current level of preparation required for advanced nursing practice from the master's level to the doctorate level by 2015.⁴⁷ However, this represents a dramatic shift in current practice. Although 13% of nurses hold a graduate degree, <1%

have doctoral degrees (28,369 nurses). More than 375,000 nurses have a master's degree in nursing or a nursing-related field as their highest level of nursing education.⁴³ Nurses with advanced degrees can work in research or non-clinical areas, but the majority work as APRNs. As of 2010, more than 250,000 master's-level and doctoral-level nurses were working as APRNs, including nurse practitioners (n=143,348), clinical nurse specialists (n=59,242), certified registered nurse anesthetists (n=32,821), and certified nurse midwives (n=18,492).⁴³

Despite the growing demand for DNP programs, the DNP has detractors. Some nursing advocates are concerned that the DNP reflects a trend toward the emergence of “pseudo-doctors” who are moving away from providing traditional, valuable nursing skills.²² Others are concerned that the surge in DNP programs may reduce enrollment in nursing PhD programs, slowing the pace of nursing research and scholarship.⁴⁶

Physicians have long expressed concerns about the encroachment of non-physician providers who are seen as physician-equivalents in the eyes of lawmak-

ers and patients. For example, despite a contentious lawsuit brought by the California Society of Anesthesiologists, California recently joined several other states in allowing certified registered nurse anesthetists to work without physician supervision.⁴⁸ New objections related to the DNP are also emerging. Physician leaders recently expressed concern when the National Board of Medical Examiners began offering a modified version of the U.S. Medical Licensing Examination (USMLE) to DNPs.⁴⁹ Critics argued that the modified USMLE test for DNPs was deliberately misrepresented to imply equivalence to the physician USMLE test. Other physicians also object to the terms “residency” and “fellowship” related to advanced nursing education, arguing that it further confuses patients about differences in the skills and training between physicians and doctoral-level nurses.⁴⁹ The role of the DNP in providing rheumatology nursing care is unclear but may evolve with new initiatives from the RNS and AHRP that promote rheumatology as a specialized area of nursing practice.

TABLE 2 | Institute of Medicine recommendations for nursing education⁴³

RECOMMENDATION	EXPLANATION
Implement nurse residency programs	State boards of nursing, accrediting bodies, the government, and healthcare organizations should support nurses in completing nurse residency programs after they have completed a degree program or when they are transitioning into new clinical practice areas.
Increase the proportion of nurses with a bachelor's degree to 80% by 2020	Academic nurse leaders across all schools of nursing should work together to increase the proportion of nurses with a bachelor's degree from 50% to 80% by 2020.
Double the number of nurses with a doctorate degree by 2020	Schools of nursing, with support from private and public funders, academic administrators and university trustees, and accrediting bodies, should double the number of nurses with a doctorate degree by 2020.
Ensure that nurses engage in lifelong learning	Accrediting bodies, schools of nursing, healthcare organizations, and other educators from multiple health professions should collaborate to encourage nurses, nursing students, and faculty members to continue their education and participate in lifelong learning activities to gain the skills needed to provide care for diverse patient populations.

Over the past few decades, rheumatology nursing has evolved in scope to include an increasing number of specialized skills, including those related to patient counseling and the administration of biologic DMARDs. With new prospects for specialization and educational advancement, rheumatology nurses have unprecedented options for professional advocacy. Moreover, as the demand for rheumatology services surges in the coming years, rheumatology nurses will have new opportunities for leadership roles in patient care.

“The DNP stimulates the creation and adoption of new advanced practice roles. As more programs are planned and implemented, the status quo has been disrupted. Some may see this as an exciting opportunity. Others may be experiencing disequilibrium or loss.”⁴⁹

— Marie-Annette Brown, PhD, ARNP, FAAN
Professor, University of Washington

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“The knowledge and skills required to be a rheumatology nurse specialist take years to acquire, and it has been demonstrated that they are of great benefit to patients and central to the operation of the multidisciplinary team. Perhaps the question that we should ask is not do we need rheumatology nurse specialists, but rather, what would patients, multidisciplinary teams, and the [rheumatology] service do without them?”⁴⁴ ”

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ACTIVITY LEARNING ASSESSMENT REQUEST FOR CREDIT & EVALUATION FORM

ACTIVITY INSTRUCTIONS & CRITERIA FOR SUCCESS

Continuing Nursing Education contact hours are offered to all activity participants. To successfully complete this activity and obtain a Certificate of Contact Hours awarded, the learner is required to read the entire newsletter, complete the post-test, and complete the activity evaluation form. Learners are required to correctly answer 70% of the learning assessment questions. Statements of Credit will be forwarded via regular mail within 4 to 6 weeks. All forms must be received by December 15, 2012, to be eligible for credit.

1. Please fax both sides of this evaluation to the Institute at (215) 592-9085, OR
2. Please complete the evaluation online by going to www.iche.edu and clicking on Enduring Materials.

NAME _____

DEGREE/CERTIFICATION _____

ACTIVITY POST-TEST QUESTIONS *(Please circle the letter that matches the correct response to each question below)*

1. According to a published study, how long does the average new rheumatology patient wait for an initial appointment with a provider?
 - a. 20 days
 - b. 30 days
 - c. 40 days
 - d. 60 days
2. Which of the following specialists would be the least likely to be involved in the care of a patient with rheumatoid arthritis?
 - a. Hematologist
 - b. Occupational therapist
 - c. Orthopedic surgeon
 - d. Podiatrist
3. Which of the following statements about vocational therapy has been demonstrated in clinical trials?
 - a. Vocational therapy is more effective in helping patients with rheumatoid arthritis return to work than patients with ankylosing spondylitis
 - b. Vocational therapy is more effective in helping patients with ankylosing spondylitis return to work than patients with rheumatoid arthritis
 - c. Vocational therapy is more effective at preventing job loss than at facilitating a return to work
 - d. Vocational therapy is more effective at facilitating a return to work than preventing job loss
4. In a study by Goh et al, which of the following duties was most commonly performed on a frequent basis by rheumatology nurse practitioners?
 - a. Monitoring drug therapy
 - b. Counseling patients
 - c. Coordinating multidisciplinary care
 - d. Administering intraarticular injections
5. In a recent survey, what was the main reason patients identified as their primary point of dissatisfaction with their rheumatology nurses?
 - a. Their nurse did not provide them with appropriate education on the treatment they were given
 - b. Their nurse did not prescribe any of the drugs they had asked about
 - c. Their nurse did not properly communicate with their primary care physician about their diagnosis
 - d. Their nurse did not provide them with appropriate emotional support
6. Which of the following arguments has been offered to detract nurses from pursuing a Doctor in Nursing Practice (DNP) degree?
 - a. The DNP will move nurses away from providing traditional services that are valuable to patients
 - b. Because of insufficient training, DNP-led care will cause significantly more patient mortality than physician-led care
 - c. DNPs will likely provide less expensive care than physicians, leading to widespread patient clamoring to reduce out-of-pocket co-payments to physicians
 - d. There is no national standard for the level of training nurses must complete before attaining a DNP degree
7. True or False: While demonstrating the ability to improve the physical status of patients with rheumatic diseases, physical therapy has not shown any ability to improve patients' psychological status, including self-efficacy
 - a. True
 - b. False
8. Which of the following patients would likely benefit most from a referral to an occupational therapist?
 - a. JT, a 46-year-old patient diagnosed with AS 10 years ago who is showing slight signs of depression
 - b. RY, a 28-year-old patient diagnosed with RA 6 months ago who shows a commitment to implementing a self-managed protocol to control his symptoms
 - c. MM, a sedentary 55-year-old patient diagnosed with fibromyalgia 9 years ago who is suffering from severe depression
 - d. NO, a 22-year-old patient diagnosed with RA 6 years ago who is newly pregnant
6. Implementation of an outpatient nurse-led biologic clinic has been shown to:
 - a. Identify patients who were not suitable candidates for anti-TNF therapy
 - b. Improve overall adherence to RA guidelines for anti-TNF therapy
 - c. Reduce the number of times patients needed to visit their rheumatologist for changes in therapy
 - d. A and B only
 - e. All of the above
7. Which of the following organizations is developing web-based competency modules in adult rheumatology for nurses?
 - a. Rheumatology Nurses Society
 - b. American Academy of Nurse Practitioners
 - c. Association of Rheumatology Health Professionals
 - d. American Association of Colleges in Nursing

The learning objectives designed for this activity (listed below) can help me strive toward:	Nothing at this time	Reinforcement of current practices	Moderate improvement	Significant improvement
Identify the primary roles of interdisciplinary members of the healthcare team who treat patients with rheumatic diseases	1	2	3	4
Evaluate published research that has attempted to define the role of the rheumatology nurse based on your day-to-day responsibilities	1	2	3	4
Discuss the value that rheumatology nurse specialists such as nurse educators and infusion nurses bring to overall patient care	1	2	3	4
Assess new opportunities that may be available for rheumatology nurses and nurse practitioners in the near future	1	2	3	4

Please indicate the extent of your agreement with the following statements:	Strongly Disagree		Not Sure		Strongly Agree	
1. The information presented in this newsletter was pertinent to my professional needs	1	2	3	4	5	6
2. The content of this newsletter contributes valuable information that will assist me in improving patient outcomes	1	2	3	4	5	6
3. Based on my experience, I would recommend future newsletters to my colleagues	1	2	3	4	5	6
4. Were you able to locate information about faculty disclosure at the beginning of the newsletter?	YES			NO		
5. Did you perceive any bias or commercial influence in the newsletter? If so, your help in identifying it is appreciated: _____	YES			NO		

6. Which of the following members of interdisciplinary care team do you feel provide valuable assistance to your patients with RA (choose all that apply)?

- Physical therapists Occupational therapists Vocational therapists Social workers

7. Do you feel that the introduction of a Doctor of Nursing Practice degree is a positive development for the future of nursing in the United States?

- Yes No Not Sure

8. The following is the primary barrier to implementing change at my facility:

- a. Lack of knowledge regarding evidence-based strategies
- b. Misperceptions of or negative attitudes about research and evidence-based care
- c. Demanding patient workloads
- d. Fears about practicing differently from peers

For purposes of certification, please complete the following information. Please note that the Institute will not forward or sell your name to any lists. PLEASE PRINT CLEARLY.

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First Name _____ Middle Initial _____ Last Name _____

Confirm certification types here: RN NP CNS CRNA CNM LPN Other _____

Your certificate will be emailed to the address you list below.

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I certify that I have participated in the above-named continuing-education activity.

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We are interested in adding to our base of faculty and educational development. To help us better plan for education in this area, and to invite you to participate in future educational development, we may contact you for your expertise. If you opt NOT to be contacted, please check here:

All in a Day's Work... *By Vicky Ruffing, RN*

No matter how many years of experience I have, no matter how many articles I read, and no matter how many lectures I attend, there are still days in the rheumatology clinic when I leave me scratching my head. Here is a peek at three recent cases (slightly fictionalized to protect patient confidentiality) that initially stumped our multidisciplinary team and served as a good lesson to all of us to not jump to conclusions.

CASE ONE

Amy, a college junior, had been on methotrexate for three years. She was an excellent, responsible patient who had always had her lab work performed on time, refilled her prescriptions, and showed up for every follow-up appointment. Approximately 18 months ago, routine lab work showed that her liver function test (LFT) results were at three times the normal limit. We stopped her methotrexate and repeated her blood work two weeks later, figuring that LFTs would stabilize. They did, and so we restarted methotrexate. Lab results during each of the next two months were normal, but in the third month, they again spiked to three times the normal limit.

We asked Amy, "Did you have your blood drawn the day after you took methotrexate?"

"No," she told us.

"Have you been drinking excess amounts of alcohol?"

"No."

"Any you currently taking any other medications, legal or otherwise? Any supplements?"

"No and no."

By this time, as you would expect, Amy started to get a bit defensive. Because the easiest explanation we could think of was that she had done something to cause the spike in her LFTs, we took an aggressive approach to our discussions, assuming the worst.

After we ruled out mononucleosis and saw her LFTs once again stabilize, we again started Amy on methotrexate. Nine months passed normally before, once again, her LFTs spiked. This time, not knowing what else to try, we sent her for a hepatology consult. Our answer came back in the form of the hepatologist's note: "Medications: methotrexate 20 mg/week, folic acid 1 mg/day, amoxicillin/clavulanate potassium prn cystic acne."

WHAT WE LEARNED

Sometimes, it is hard to know the right questions to ask our patients. Because Amy was a college student, there was a lot of speculation about alcohol consumption and/or illicit drugs. Our staff asked her the right question about current medications, but should have followed up by asking her whether there were any medications she had taken in the past year. If we had, we would have found out about her acne medication (amoxicillin/clavulanate potassium often raises liver enzyme levels dramatically) and prevented unnecessary blood work, additional office visits, and the hepatology referral.

CASE TWO

Mr. Smith was diagnosed with RA 6 months ago and was immediately started on methotrexate, with a dose escalation to 20 mg/week. When he returned for his 3-month follow-up, he reported no adverse effects or problems with his eight-tablet-a-week regimen. He also said that he felt "a little better." Upon examination by our staff, significant synovitis remained present in several joints, and so we increased his methotrexate by two tablets a week. We asked Mr. Smith to return in one month.

Upon his return, negligible improvement was apparent, and the decision was made to switch Mr. Smith to injectible methotrexate. Before showing him how the injection worked, we asked him a few further questions.

"Mr. Smith, how many pills of methotrexate are you taking?"

"Ten per week, just like you told me."

"What day do you usually take your methotrexate?"

"I take one every day, two on Friday, two on Saturday, and two on Sunday."

WHAT WE LEARNED

Don't assume too much with our patients. At his first follow-up visit, it would have only taken a minute to ask Mr. Smith, "Which day of the week do you take your methotrexate?" Or we could have written the prescription to clearly spell out, "8 tablets every Tuesday." Mr. Smith admitted to us that he thought we told him to take all 8 (and then 10) pills on the same day, but it didn't make sense to him.

CASE THREE

Mr. Wilson came in with severe foot pain across his metatarso-phalangeal (MTP) joints. He said that, after 10 minutes of walking, he has to take off his shoes and rub his feet because of "a burning sensation." He said that it happened regardless of what shoes he is wearing. A physical exam revealed a moderately high instep, and X-rays showed mild degenerative arthritis in his first right MTP. Because of this mild damage, we referred Mr. Wilson to a local physical therapist who specializes in orthotics.

Mr. Wilson returned to our clinic 3 months later, free of foot pain.

"That's wonderful!" we told him. "How do you like your new orthotics?"

"What orthotics?" he responded. "The physical therapist you sent me to told me to get my feet measured before I came to see him. Turns out I've been wearing shoes that are a size and a half too small for years. Once I bought new shoes, no more problems."

WHAT WE LEARNED

I guess we'll know what to ask if this problem ever comes up again....



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