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Pharmacists are often the last health professional to join multidisciplinary teams and may face challenges with integration. We sought to examine perceptions among existing members of a rheumatology practice to inform roles and responsibilities for pharmacists joining care teams.

Les pharmaciens sont souvent les derniers professionnels de la santé à intégrer les équipes multidisciplinaires et cette intégration peut leur poser des défis. Nous avons examiné les perceptions des membres existants d'une clinique de rhumatologie afin de documenter les rôles et les responsabilités des pharmaciens qui intègrent les équipes de soins.

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Multidisciplinary members' perspectives on a pharmacist joining a rheumatology practice team

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ABSTRACT



Background: Pharmacist participation in chronic disease management benefits patients in many ambulatory settings. We explored the attitudes and perceptions among multidisciplinary members of a rheumatology team towards the skills and responsibilities of a pharmacist joining their practice.

Methods: The physicians, nurse, physiotherapist and staff of a rheumatology clinic were invited to participate in focus group and semistructured interviews. Practice members also completed an inventory of perceived health professional roles in the medication use process.

Results: Discussions with 2 physicians, a nurse, physiotherapist and 1 office administrator were conducted. Concepts related to 3 key themes included positively viewed pharmacist roles broadly related to activities that encompass

provision of medication-related services for the patients, the providers and the practice. Examples of such care included educational tasks related to therapies (rheumatological and otherwise) and maintenance of accurate drug histories. These findings were reflected in high scores for perceived pharmacist roles in *education* and *medication review* responsibilities using the Medication Use Processes Matrix instrument. Most members were not comfortable with pharmacists conducting physical assessments and emphasized the need for a team member who could adapt to variations in workflow preferences across rheumatologists in the practice.

Interpretation: Perceived pharmacist roles expressed by existing rheumatology team members were largely consistent with the scope of pharmacist knowledge, skills and responsibilities in primary care.

Conclusion: Overall, existing multidisciplinary staff exhibited favourable attitudes towards a pharmacist joining their practice setting. Data from this job analysis exercise were used to inform the development of a job description for a rheumatology clinical pharmacist. *Can Pharm J (Ott)*; 2015;148:200-208.

Introduction

Medical care is increasingly complex and must draw upon the distinct, yet complementary, skills of various health disciplines. Collaborative care within both acute and ambulatory settings contributes to improved patient and population outcomes.¹ Successful multidisciplinary models exist for the management of chronic diseases related to diabetes, psychiatric illness, cardiovascular and infectious diseases.²⁻⁵

Rheumatology specialty practices are similarly ideal for diverse team-based patient care

due to the multisystem diseases afflicting individuals among varied age groups and the need for specialized drug administration and education. Such pharmacist care is becoming established among rheumatology clinics in a number of other countries.⁶⁻⁹ While pharmacists have assumed medication management roles in both inpatient and outpatient hospital care settings, there is not yet a proliferation of pharmacists in specialty primary care practices in Canada. Nearly 75% of the nation's pharmacists work in commercial community settings.¹⁰ At the same

time, pharmacists are expected to play important roles in primary health care reform efforts.¹¹

Despite the will to expand existing collaborative care in primary care and specialized clinics, pharmacists are frequently among the last health professionals to join and can face challenges when trying to integrate. Established multidisciplinary teams may not recognize the potential contributions of pharmacists joining these settings, which may contribute to barriers to participation in patient care.¹² Elements to facilitate successful admission include determination of needs and priorities of the existing team and the patient population in their care, as well as of their expectations of the services a pharmacist is capable of providing.¹³ We sought to explore the attitudes and perceptions of multidisciplinary members of a rheumatology clinic about the skills and responsibilities of a pharmacist joining their practice, with a view to developing a pharmacist job description.

Materials and Methods

A mixed-methods study design using focus group and semistructured interviews, as well as questionnaires for data collection, was employed. Multidisciplinary team members of the largest adult rheumatology group practice in British Columbia were invited to participate: 4 physicians and respective clinical administrators, 2 nurses and 1 physiotherapist. A 5-question topic guide was developed following comprehensive literature review of reports of other interdisciplinary assessments (either quantitative or qualitative). The devised framework sought to explore consenting participant experiences, opinions, attitudes and perceptions towards pharmacists' roles in rheumatology patient care (Table 1). At the end of each discussion, participants were given the opportunity to ask additional questions or make further contributions. The audiotaped focus group and semistructured interviews were conducted and transcribed by the primary investigator and subsequently verified independently by 2 separate research assistants.

Qualitative analysis of interviews was supported by NVivo10 (QSR International, Doncaster, Victoria, Australia) software. Transcripts were read through several times by primary investigators to obtain the sense of the whole and then subjected to latent content analysis. The text was divided into words, sentences or paragraphs

KNOWLEDGE INTO PRACTICE



- Pharmacists have assumed medication management roles in both inpatient hospital and outpatient primary health care settings; however, proliferation of pharmacists in specialty practices is not yet pervasive.
- Seeking views of established multidisciplinary teams prior to pharmacists joining these settings can identify and address potential barriers to integration and patient care.
- Our study explored the attitudes and perceptions among multidisciplinary members of a rheumatology clinic towards the skills and responsibilities of a pharmacist using focus group discussion, interview and a medication use processes inventory instrument.
- Findings from these mixed methods informed the development of a job description for a pharmacist joining this specialty ambulatory rheumatology practice.

TABLE 1 Participant demographics

Participant	Health profession	Years in practice
1	Medical assistant	7
2	Nurse	4
3	Physiotherapist	>15
4	Rheumatologist	7
5	Rheumatologist	>15

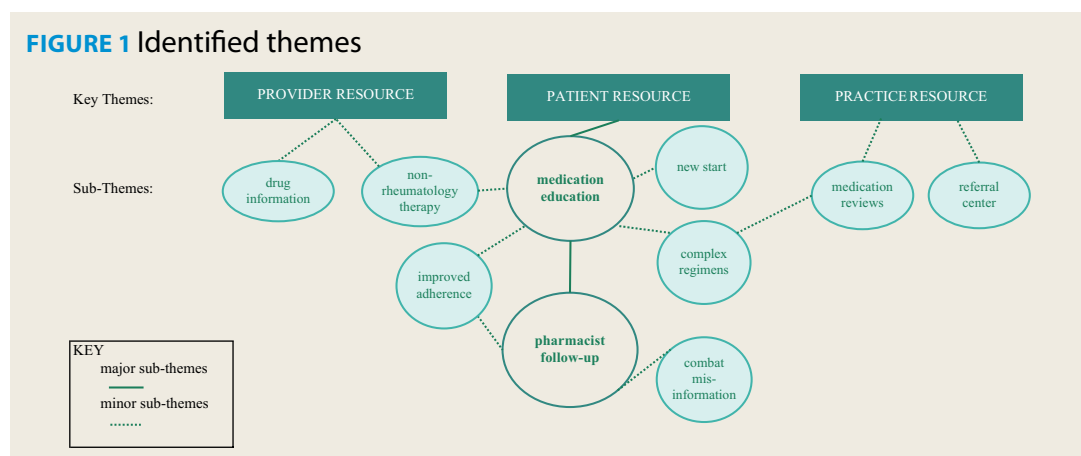
related to each other through their content and context as units of meaning. The data were then coded and organized around interpreted sub-themes and themes based on comparisons of their similarities and differences. Working theories were drawn by the investigators arising from relevant topic characteristics such as expressed roles, purpose, benefits and concerns of pharmacist care to develop explanatory constructs for the findings and identify patterns in the data.^{14,15}

In addition to these qualitative methods, we conducted a practice inventory of perceived current contributions to medication-related processes. Copyright permission was obtained to administer the Medication Use Processes Matrix (MUPM), a validated 22-item self-completed questionnaire. Multidisciplinary members were asked to indicate, according to a 5-point scale, their perception of their own contributions and contributions of the other health professionals in this rheumatology care setting to each process

TABLE 2 Interview topic guide

Engagement questions:
1. What do you think are roles of pharmacists in patient care (not necessarily for rheumatology specifically)?
2. Is anyone familiar with other models of pharmacists in office practices?
Exploration questions:
3. What instances, if any, in your practice have you encountered where you wished you could have interacted with a pharmacist?
Prompts:
<ul style="list-style-type: none"> • Taking medication histories • Answering drug information questions (staff and patients) • Guiding nonrheumatology care • Monitoring safety of therapy • Monitoring effectiveness of therapy • Facilitating drug payment • Facilitating interactions with community pharmacies • Medication administration • Medication counselling
4. What concerns would you have about a pharmacist joining the practice?
Exit questions
5. Is there anything else you would like to say about a pharmacist joining your practice?

FIGURE 1 Identified themes



(1 = no contribution and 5 = major contribution). Scores within the 5 theoretical groupings of processes contained in the MUPM tool (Diagnosis & Prescribing, Monitoring, Administrative/Documentation, Education, Medication Review) were summarized using means and standard deviation.^{16,17}

Ethics approval was obtained from Qatar University Institutional Review Board.

Results

Focus Group Findings

Two facilitated discussions were held in July 2013 (Table 2). Only the nurse described prior ambulatory care work experiences with a pharmacist in rheumatology.

Concepts and connections to 3 main themes were identified, describing pharmacists as patient, provider and practice resources (Figure 1).

Patient resource. All members supported the value of pharmacist-augmented education for all rheumatology therapies, ranging from traditional disease-modifying arthritis drugs to contemporary immunomodulators and parenteral biologic therapy. Pharmacist counselling was considered to improve patient understanding and adherence to their regimen.

Physician 1: The level of complexity of our medications has changed so much over the past 15 years. It used to be DMARDs [disease-modifying antirheumatic drugs] and it was fairly easy to explain those to a patient. Now with the complexity level so much higher . . . I think a pharmacist could really provide added value for a patient.

Physician 2: Methotrexate is probably one of our drugs that really needs more counselling than others—we're talking the whole range, everything from financial to education to [administration].

It was believed that pharmacists could mitigate inappropriate self-management decisions and advice obtained from other parties, such as the Internet, fellow patients or even community pharmacists. Information from the practice's pharmacist member would be more reliable and consistent with that of the rheumatologist.

Nurse: A patient who had Imuran . . . had called . . . and she wasn't doing well so he [physician] said to raise the Imuran. Now, she is having GI [gastrointestinal] upset and she is talking to her friends and she is reading about Cellcept. So she is like, "I'm gonna go off it [Imuran]. Do you think a prescription for Cellcept needs Pharmacare approval?" And so I said, "Don't go off it! You know, wait until he [physician] comes back and this is how you can deal with it to help your upset stomach." But it would have been a great opportunity for a pharmacist to talk to her.

Staff: I think the pharmacist can be very informative and can answer a lot of questions that they [patients] don't even ask the doctor or anybody else. I think that a lot of people are hesitant about going on different drugs and I think a pharmacist could answer a lot more questions and particularly if the nurse is busy, I think that would be a lot better for

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- Les pharmaciens effectuent la gestion des médicaments tant en milieu hospitalier qu'en milieu de soins primaires ambulatoires, mais ils sont peu présents dans les cliniques spécialisées.
- Obtenir l'opinion des équipes multidisciplinaires établies avant l'intégration des pharmaciens peut aider à déterminer et à éliminer les obstacles nuisant à cette intégration et à la prestation de soins aux patients.
- Pour notre étude, nous avons examiné les attitudes et les perceptions des membres d'une clinique de rhumatologie concernant les compétences et les responsabilités d'un pharmacien, au moyen d'une discussion de groupe, d'une entrevue et d'un outil d'évaluation des processus d'utilisation des médicaments.
- Les observations tirées de ces diverses méthodes ont servi de base à l'élaboration d'une description de poste pour un pharmacien intégrant cette clinique spécialisée en rhumatologie ambulatoire.

them. I would appreciate talking, if it was me, to a pharmacist.

However, while there was approval of pharmacists' employment of judgment to evaluate and facilitate optimal medication management for patients, most members did not endorse pharmacist physical assessment tasks for determination of drug benefits and safety.

Physiotherapist: I think it is an encroachment of territory in that and while there may be some hidden virtue, I think [there is] potential for conflict.

Physician 1: Physical exam skills in rheumatology are not the easiest thing to teach . . . we were even having that debate with nursing in terms of what are the components of the physicians' exam that should fall within nursing and which ones shouldn't. We have a multidisciplinary team who provides those things already so I don't think they are needed.

Provider resource. There was particular enthusiasm at the prospect of local referral to the pharmacist to counsel patients or address circumstances arising from nonrheumatologic conditions and their associated medications.

Nurse: Sometimes we just get off track about the arthritis because other stuff comes up, you know, like sleeping issues because they

are on this sleeping pill and others, you know they are taking a couple of sleeping pills and they are wondering why they are dizzy during the day. So, yeah, I think there is so much room for pharmacists to be able to talk about all these meds and interactions because I really don't know them.

Physiotherapist: I see some unique people who come in the postsurgical environment . . . and have been put on hydromorphone or Oxycotin. And there is a percentage of those people who finish up with drug problems more than knee problems . . . so it's a fine line between enough medication to help their knee along and not too much to become a problem itself. Obviously a pharmacist would be an excellent person to counsel them along that path.

Physician 1: You don't often have the time to . . . counsel them on their hypertension or some of the other things that they are doing.

Practice resource. Welcomed pharmacist responsibilities included acquisition and maintenance of medication histories and related medication reconciliation.

Physician 2: To make our lives easier, I would like it that there's a current up-to-date record of medications in one place. I would like somewhere in the clinical chart where there's current medication and then we have what we prescribe.

Physician 1: The other area I would find really helpful would be in our chronic patients: reconciling and actually documenting in our health records the medications they are on.

Nurse: So many of them have their little cards . . . but, "oh, I haven't taken this one in 10 years!" or "this one is an add-on" . . . and I go, "Why isn't it written on your card?" So that would be really good to have it all up to date like that.

A number of participants recognized the potential to capitalize on the addition of a pharmacist to further develop the practice reputation as a multidisciplinary rheumatology resource for patients and other health professionals locally.

Physiotherapist: If you have a good person here who becomes a confident and well known and respected by the group as a rheumatology expert, I could foresee . . . other people around town saying, "You know, you should go contact that pharmacist over at. . ." So they could expand their sphere of influence beyond just for people here.

Nurse: I just have one more thing to say about having a pharmacist here. I think it would be amazing for the biologics, honestly. Everything would be centred here . . . it would just take so much stress off people to actually have the drug here when they come for their appointment.

Positively viewed pharmacist roles were contrasted with discordant views regarding sufficient patient volume and care responsibility to sustain a full-time position.

Physiotherapist: It's going to take a lot of rheumatologists to support a 40 hours/week pharmacist. I can see with the number of people who are involved here that the pharmacist would be twiddling their thumbs around here a lot of times.

Staff: I honestly think a pharmacist would be great. I mean even for the RN, because you know . . . sometimes when I go round there, she is so inundated at the moment and there are people wanting to talk to her about drugs and sometimes you don't have the time and I think if we did have a pharmacist I do think it would be helpful.

Physician 2: Having someone daily really doesn't work. I think that they [the pharmacist] could do a shortened day, but we want someone here 5 times a week—we can't just have them come here on the Wednesday—that's not what I would call "full service."

Nurse: I actually see a lot of work for a pharmacist to do here.

Participants were unanimous in their emphasis on the importance of hiring an individual with complementary interpersonal skills and ability to adapt to different team members' approach towards clinical work.

TABLE 3 Mean \pm SD scores of multidisciplinary team member perceptions of specific health professional contributions to medication use processes ($n = 7$)

	Physician	Pharmacist	Nurse	Receptionist	Community pharmacist
Diagnosis and prescribing	4.94 \pm 0.11	3.10 \pm 1.1	2.92 \pm 0.6	1.07 \pm 0.08	2.62 \pm 0.99
Monitoring	4.61 \pm 0.32	4.14 \pm 0.2	3.96 \pm 0.8	1.57 \pm 0.95	2.32 \pm 0.41
Administrative documentation	4.42 \pm 0.57	4.23 \pm 0.7	3.95 \pm 0.6	2.04 \pm 0.54	1.65 \pm 0.47
Education	4.00 \pm 0.94	4.75 \pm 0.3	3.04 \pm 1.1	1.04 \pm 0.07	2.46 \pm 0.61
Medication review	4.24 \pm 0.33	4.76 \pm 0.3	3.43 \pm 0.4	1.29 \pm 0.29	3.38 \pm 1.3

Nurse: We all have to balance each other. I mean, we kind of almost have to have the same mind-set. I am just blown away that these pharmacists are out there. I mean, there is good and bad in any, but . . . we have to be on the same path.

Physician 1: This conversation has changed some of my notions because my biggest worry was how does pharmacy interact with nursing, because there is so much overlap—they can do medication counselling, they can do immunizations now. . . . So I think it is really important that the role be fairly delineated. But it sounds like it would be such an added value that we could do it.

Medication Use Process Matrix

Seven multidisciplinary members of the rheumatology practice completed the MUPM questionnaire, including 3 rheumatologists, 2 nurses, 1 administrative assistant and 1 physiotherapist. Mean scores of team members' perceptions of medication use processes were highest for the rheumatologist in all roles, except education and medication review, whereby pharmacists scored highest (Table 3).

Discussion

In our mixed-methods study, we found the expected roles for pharmacists identified by the members of this rheumatology practice to be largely consistent with a number of those a primary care pharmacist would be anticipated to provide: obtaining and evaluating complete patient medication histories, assessing and reinforcing adherence managing patients with complex medication-related needs and providing education and counselling.¹⁸ Prior stakeholder evaluation of pharmacist integration into

existing general practices has also demonstrated such positively viewed roles. Medication-related reviews, information and education have been cited as benefits among family physicians in Australia, as well as offering feedback and reassurance to staff.^{19,20} Primary health care service delivery in Canada is undergoing expansion, and reform in provinces and territories encompasses development of team-based approaches to clinical care.¹¹ Such multidisciplinary models have already been adapted among many specialty referral services, and pharmacist membership on these teams has been gaining momentum in the past decade, converging at a time when greater emphasis of professional patient-centred roles over technical skills is maturing.²¹ Elsewhere in Canada, primary care physicians perceived that the benefits of working directly with a pharmacist included acquisition of "fresh perspectives" and increased clinical security.²² One element not explored in other research is related to patient examination. Physical assessment skills necessary for health professionals to conduct complete and accurate patient evaluations have largely remained in the domain of physicians, nurses and physiotherapists.²³ While pharmacists are assuming expanded roles to facilitate patient monitoring of medication outcomes (and receiving supportive training in this regard), physical assessment skills were not considered an appropriate or necessary care competency for a pharmacist in this rheumatology practice.

In addition to the rheumatologists' perspectives, our study benefited from input of 3 distinct practitioners (nurse, physiotherapist and clinical administrator). When multidisciplinary practices evolve in the absence of pharmacists, many medication-related roles are performed by the nurse. Patient assessments preceding and reinforcement following the physician visit include

drug history taking and education, respectively. In fact, in some non-physician-led rheumatology monitoring clinics, nurses and pharmacists perform the same protocol-driven care interchangeably.⁷ Under some circumstances, uncomfortable issues surrounding boundaries or “territories” of care can arise when pharmacists seek to assume these usual roles and scope of practice overlap. However, the principal nurse in this practice embraced the prospect of pharmacist integration, exhibiting good understanding and reasonable expectations of the medication-related services that could augment and complement her own patient care.

In contrast to the other health professionals, the physiotherapist expressed a more conservative estimate of a pharmacist’s potential contribution, specifically reservations about adequate volume of work available. This discipline’s perspective on pharmacy is actually one that is less well explored in the literature compared to perceptions of nurses or physicians, for example, and the physiotherapist’s view may be a consequence of the relative infrequency of professional exposure and interaction. In fact, physiotherapists and pharmacists have on occasion been “pitted” against one another in their delivery of care for rheumatology patients.²⁴ Such dissociation is changing, as many effective joint initiatives for management of musculoskeletal disorders by these paired health professionals have been developed.^{8,25} Indeed, the physiotherapist was the only member to identify that a pharmacist added to their team would have unique opportunity to develop a niche practice and the potential to become a trusted resource and referral point for those outside the practice.

Prior reports of the impact of pharmacist care in a family practice identified improved efficiency in care. As in this rheumatology practice, the clinical administrative staff felt a pharmacist to be a quick and reliable resource to answer patient questions and telephone calls, thus promoting patient trust with the overall care and practice.²⁶

It has been repeatedly identified that shifts into specialty ambulatory practices compel pharmacist “reskilling,” the reacquisition of knowledge and skills.¹⁰ One member in our discussion posed a follow-up question pertaining to the qualifications of pharmacists graduating now in Canada, while another insisted that only a post-baccalaureate-trained pharmacist (e.g., Doctor of Pharmacy) would be suitable for the practice.

These views may reflect previous negative interactions with pharmacists. Most pharmacists in Canada usually first work in community pharmacy practices, where active collaboration with other health professionals is difficult by nature of the situational isolation. Participants in our discussions sometimes expressed frustration with community pharmacists, especially pertaining to delivery of medication information in conflict with the intended rheumatologic care. These irritations were also observed by community pharmacists who were themselves working to integrate into family medicine practices.¹⁰ Through such experiences, pharmacists gained greater interprofessional perspectives and began to see patients more holistically, in contrast to their prior dispensary-based primary care. This highlights another important role for the pharmacist working in a rheumatology practice—liaising with community-based pharmacists.

Although members of this rheumatology practice are on the whole enthusiastic about the potential for pharmacist integration, external factors could jeopardize successful implementation. Pharmacist mentorship has been identified as an important factor for integration; in other settings, pharmacists themselves have recognized the need to increase skills and proactively seek out mentors.²⁷ This poses a problem for this specialty practice in particular. In general, there are fewer specialty multidisciplinary team services in British Columbia compared to other provinces, and there is a dearth of pharmacists known to be serving rheumatology practices in the rest of the country.²⁸ Rheumatology is a relatively small medical subspecialty, and most such practices do not support an embedded pharmacist. Having said this, there are means to access other pharmacists and health professionals who have integrated into specialty practices through networks of professional societies and licensing bodies.^{29,30}

The need to select a purposefully skilled pharmacist is coupled with the importance of matching the right *person*. Pharmacists joining a practice need to build relationships with all clinical and administrative staff and patients, as well as form positive impressions outside the practice.²⁷ While pharmacists’ “approval-seeking” attitudes have been identified as a barrier to professional progress, we cannot discount the importance of team dynamics on the delivery of effective patient care in a small practice of fewer than 10 health professionals.^{31,32} It is important to recognize that

credibility is also established through informal discussions with team members. Pharmacists joining Ontario family health teams consistently chronicle that meaningful integration can take a number of months but can be accelerated by remaining visible, accessible and accountable. Ontario has the largest number of integrated practices, where pharmacists have been introduced in over 150 interdisciplinary practice groups or family health teams.³³ These experiences have borne out the value of a structured interview process, which excluded pharmacists less well suited to a multidisciplinary environment and emphasizes the importance of identifying criteria for successful integration *a priori*.³⁴ Such descriptions include clarifying roles and levels of responsibility in the medication use process of all practice members, terms for collaborative working relationships with the other clinicians and means to achieve a functioning office system.^{13,33} Medication use processes scores for pharmacists were higher in our group compared to responding physicians from these provincial health teams, who completed the same instrument over a 19-month time period, but such discrepant findings could be attributed to the mixed disciplines of our respondents in a group naive to a practice pharmacist.¹⁶ Focus group discussion and delineation of perceived roles in medication use processes among this existing multidisciplinary team have served as a useful job analysis, and our findings have informed the development of a pharmacist job description for this rheumatology practice (see Appendix 1 at cph.sagepub.com/supplemental).³⁵

Limitations

Our work reports the first exploration of the potential for pharmacist-integrated rheumatology care

among existing multidisciplinary practice members. Broader interpretation of our results is subject to the limitations of all small-scale qualitative work; generalizing findings rests on theoretical rather than statistical inferences. While our purpose was to explore attitudes and perceptions among these rheumatology multidisciplinary stakeholders to devise a job description, our participants are from a single geographical area and cannot be assumed to represent similar target populations regionally or otherwise. In addition, unlike other researchers, we did not evaluate potential patient perspectives; prior reports have identified how patients believed pharmacists involved in their general practice environment care could serve as health advocates.²⁰ Despite this, we feel that the concepts arising from our work reinforce the importance of prospectively seeking to understand the views and needs of existing care providers and will inform efforts to support successful integration of a pharmacist to this and other specialty practices in the future.

Conclusion

Overall, existing multidisciplinary rheumatology clinic staff exhibited favourable attitudes towards a pharmacist joining their practice setting and expressed anticipated benefits to patients, themselves and the practice. Our findings have served to inform the development of a model for pharmacist responsibilities and contributions to this rheumatology health care setting in the future. While such job descriptions may benefit pharmacists joining specialty practices elsewhere, the value of unique stakeholder consultation in pharmacist job analysis cannot be underestimated. ■

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