ISSN Print: 2664-8733
ISSN Online: 2664-8741
IJRMS 2024; 6(2): 30-35
www.medicalpaper.net
Received: 15-06-2024
Accepted: 19-07-2024

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Management of rheumatoid arthritis patients among general practitioners

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DOI: https://doi.org/10.33545/26648733.2024.v6.i2a.69

Abstract
Introduction: Rheumatoid arthritis (RA) is an autoimmune disorder that causes inflammatory arthritis as well as extra-articular manifestations and mostly affects synovial joints. It often begins in small peripheral joints, and it is commonly symmetric. If left untreated, it continues to affect proximal joints. Over time, joint inflammation causes cartilage and bone degradation, resulting in joint degeneration.
Objective: To assess the Management of Rheumatoid Arthritis Patients among General Practitioners.
Methods: We conducted a questionnaire survey targeting the community of GPs patients, operating both in the public and in the private sectors in Netrokona City of the Bangladesh. The questionnaire was sent between January to June 2023. Confidentiality of participants was strictly maintained. The questionnaire included multiple choices questions and one clinical case closely related to good practice guidelines. With this goal in mind, a survey was conducted among GPs operating both in the public and in the private sectors in Bangladesh.
Results: Out of 950 GPs patients selected, 130 GPs responded, representing a participation rate of 13.68%. Returned questions were analyzed, results were expressed as a percentage. Incomplete responses were excluded from the study. 55.3% of GPs worked in the public sector and 46.7% in the private. Mean number of RA patients seen monthly by GPs was 5.75 patients per month. Of all the surveyed GPs, 66.1% had a rheumatologist as a point of contact. With regard to diagnosing RA, half of the GPs were not familiar with the deadline for early diagnosis. Finally, with regard to the role of GPs and within the process of RA collaborative management in tandem with the rheumatologist, 59.2% systematically referred any patient with RA to a rheumatologist, 46.1% felt that they had to make the diagnosis of RA themselves, 77.6% relieved the pain of the patient and left the responsibility for initiating DMARD treatment to the rheumatologist, 79.2% ensured the tolerance monitoring of medication prescribed by a rheumatologist, 68.5% managed the eventual flare-ups of the disease while waiting for the patient to consult with the rheumatologist, 53.8% managed associated co- morbidities associated with RA, and 6.2% thought they could administer a bDMARD themselves.
Conclusion: General practitioners' practices regarding RA management seemed to be poorly consistent with the recommendations on best practices in most of the studied items. As a matter of fact, the gap was more marked on items in connection with synovitis diagnosis, on the deadline for early RA diagnosis, and on collaborative management modalities with the rheumatologist.

Keywords: Rheumatoid arthritis, patient perspective, qualitative research

Introduction
Rheumatoid arthritis (RA) is an autoimmune disorder that causes inflammatory arthritis as well as extra-articular manifestations and mostly affects synovial joints. It often begins in small peripheral joints, and it is commonly symmetric. If left untreated, it continues to affect proximal joints. Over time, joint inflammation causes cartilage and bone degradation, resulting in joint degeneration. Early RA is described as having symptoms for less than six months, while established RA is defined as having symptoms for more than 6 months [1]. Most clinical signs of RA show that the wrists, metacarpophalangeal joints, proximal interphalangeal joints and metatarsophalangeal joints in the foot are always painful and swollen [2]. Treatment guidelines provide a framework to inform management decisions, and emphasize the importance of shared decision-making between patients and their healthcare professionals [3].

Physicians and patients may place a different emphasis on the key goals of RA management. While physicians aim for their patients to achieve clinical remission or low disease activity [3, 4], this may contrast with the priorities of patients; eg, in an international survey, patients most commonly defined successful treatment as a reduction of pain and/or swelling/inflammation of joints, and improvements in quality of life [5]. Of survey respondents who were under the care of a healthcare professional, almost half agreed that dialogue with their healthcare professional would optimize management of their RA, yet 62% of the patients surveyed said that they felt uncomfortable raising treatment or disease concerns with their healthcare professional [5]. Most patients' top choice was oral administration, followed by self-injection, infusion, and then clinic-injection. Patients often preferred the speed and ease of oral treatments. Others wanted to avoid taking more pills, or were worried about forgetting to take a pill every day. The speed of self-injection was a common reason for preferring this treatment type. Patients who preferred to avoid self-injection often wanted to avoid pain from needles. The few patients who did prefer this treatment type felt that it worked better/faster and they felt safer and more comfortable with an expert administering their treatment. Although laboratory testing and imaging studies can help confirm the diagnosis and track disease progress, rheumatoid arthritis primarily is a clinical diagnosis and no single laboratory test is diagnostic. Complications of rheumatoid arthritis may begin to develop within months of presentation; therefore, early referral to or consultation with a rheumatologist for initiation of treatment with disease-modifying antirheumatic drugs is recommended. Several promising new disease-modifying drugs recently have become available, including leflunomide, tumor necrosis factor inhibitors, and anakinra. Nonsteroidal anti-inflammatory drugs, corticosteroids, and nonpharmacologic modalities also are useful. Patients who do not respond well to a single disease-modifying drug may be candidates for combination therapy. Rheumatoid arthritis is a lifelong disease, although patients can go into remission. The importance of this is highlighted by several studies reporting that there are racial and ethnic disparities in the disease status of patients with RA [6-10]. Given that, even within the same country, physicians are likely to see patients from a range of cultural heritages, informed and appropriate dialogue between patients and physicians is key [11]. As the treatment landscape for RA evolves, understanding patients' knowledge, beliefs, and perceptions about modes of administration can inform and improve patient-physician collaboration in making treatment decisions, and can identify patient education needs regarding RA treatments and modes of administration.

Materials & Methods

We conducted a questionnaire survey targeting the community of GPs patients, operating both in the public and in the private sectors in Netrokona City of the Bangladesh. The questionnaire was sent between January to June 2023. Confidentiality of participants was strictly maintained. The questionnaire included multiple choices questions and one clinical case closely related to good practice guidelines. It contained four parts:

1. The first part aimed at gathering information on GPs (Sector of practice, number of patients with RA under supervision, seen in consultation per month and cooperation between the GP and the rheumatologist).
2. The second and third parts contained items on differential RA diagnoses, additional exams warranted to support the diagnosis, early RA warning signs and therapeutic patient-centered and care approach.
3. The fourth part contained multiple choices questions that emphasized RA diagnostic criteria,
4. Indices for RA monitoring, conventional disease anti-rheumatic drugs (csDMARD) and biological agent biotherapies (bDMARD), and finally the GP's role in the framework of collaborative management with the rheumatologist.

We made it possible for GPs to add comments to find out the needs and wishes they sought to upgrade their skills as part and parcel of their on- going medical education.
The design of this study was not intended for statistical comparisons. However, t-tests of differences in means, and z-scores in differences of rates, were conducted for select sample characteristics, outcome variables, and subgroup comparisons. The z-scores used the normal approximation to the binomial, and both t-tests and z-scores were applied in pairwise testing between two independent samples. P values were considered to be descriptive, and p values <0.05 are noted for the reader; as there was no hypothesis testing, there were no adjustments for multiple comparisons in the p values.

Results

Out of 950 GPs patients selected, 130 GPs responded, representing a participation rate of 13.68%. Returned questions were analyzed, results were expressed as a percentage. Incomplete responses were excluded from the study. 55.3% of GPs worked in the public sector and 46.7% in the private. Mean number of RA patients seen monthly by GPs was 5.75 patients per month. Of all the surveyed GPs, 66.1% had a rheumatologist as a point of contact.

Table 1: Public and private sector GPs.

Sector GPs	N	%
Public Sector GPs	72	55.3
Private Sector GPs	58	46.7

Only 16.7% of GPs received feedback from specialists For the second part, the items to assess were the following: How to precisely recognize a recent RA and make an early synovitis diagnosis, delay recorded in RA diagnosis, and diagnosis of a beginning RA attack. The majority of GPs recognized synovitis by swelling, stiffness, and joint pain (Table-1). Delay in Ra diagnosis was mentioned by 40.8% of GPs to be more than 6 months, 1 year for 28.4%, 3 months for 20.8% and 2 years for 10.0% of GPs (Table-2). 75.3% of them suggested morning stiffness lasting for more than 30 min, 68.4% distal interphalangeal synovitis, 46.9% arthritis of at least 3 joints, 43.1% mentioned a positive squeez test at metacarpo-phalangeal and metatarso- phalangeal sites and 33.8% damage in the hands and feet.

Table 2: Proportion of GPs who highlight sinusitis (N=130)

Highlight Sinusitis	N	%
Joint swelling	68	52.3%
Joint stiffness	89	68.4%
Joint pain	94	72.3%
Joint distorsion	33	25.4%

Table 3: Ra diagnosis was mentioned (N=130)

Diagnosis	N	%
More than 6 months	53	40.8%
3 months	27	20.8%
1 year	37	28.4%
2 year	13	10.0%

In the third part, the following items were evaluated; i.e. diagnosis orientation with chronic polyarthritis; the paraclinical tests needed to help piece together a diagnosis of RA; the pathway to recognize an RA in state phase, as well as currently used diagnostic criteria of RA.

Table 4: Situation of chronic advanced rheumatoid arthritis (N=130)

Rheumatoid Arthritis	N	%
Systemic Lupus Erythematosus	70	53.8%
Polyarthrosis	60	46.2%
Sjorgen's Syndrome	25	19.2%

When clearly facing a situation of chronic advanced rheumatoid arthritis, 94.1% of GPs reported that the most likely scenario was one of RA, 53.8% thought of systemic lupus erythematosus, 486.2% of polyarthrosis, and 19.2% of Sjorgen's syndrome. The GPs were also asked about paraclinical exams needed to support RA diagnosis. More than half of them required erythrocyte sedimentation rates (ESR), Serum C- reactive protein (CRP) levels, the rheumatoid factor antibody, anti- cyclical citrullinated peptide (Anti-CCP) antibodies, antinuclear antibodies (ANA), and hands and forefeet X-rays.

Table 5: Breakdown of GPs according to patients seen in consultation/monthly.

	N	%
I don't see anyone	77	59.2
1 to 2	67	51.5
3 to 4	56	43.1
5 to 6	64	49.2

Through a clinical case, we shared with GPs complementary examination findings as supporting evidence for a RA. The proportion of GPs who made the correct diagnosis totaled 96.1%. As for the erosive nature of rheumatoid arthritis, the proportion of GPs who knew that the presence of joint erosion should be systematically sought, that erosion was a poor prognosis factor, that it usually appeared during the first two years of RA, and that the search for erosion might require joint ultrasonography was 58.6%, 50.5%, 41.8% and 48.2%, respectively. For the currently used diagnosis criteria of RA, 41.5% of GPs opted for the ACR / EULAR 2010 criteria, 26.9% for AMOR criteria, 21.5% for Jones' modified criteria and 16.9% for the 1987 ACR criteria. Once the RA diagnosis is made, 74.6% of the physicians referred the patient to the rheumatologist after initiating treatment, 39.2% without initiating treatment, 25.3% referred the patient to an internist, 14.6% to an orthopedist, and 13.1% took care of patients with RA, themselves.

The fourth part focused on evaluating the following items: RA monitoring and evaluation tools, overall knowledge of symptomatic treatments and DMARD, the dose of corticosteroid therapy prescribed in the event of RA, first-line used DMARD, as well as the concept of window of opportunity. Awareness of the key roles that a GP must play within the framework of RA collaborative management with the rheumatologist is of paramount importance.

The drugs regarded as substantive therapy of RA were methotrexate by 90% of GPs, prednisone by 58.5%, salazopyrine by 50%, bDMARD by 31.5%, NSAIDs by 16.9%, and paracetamol by 9.5%. The proportion of GPs who knew that methotrexate was the most commonly used DMARD was 57.6%. The dose of corticosteroid therapy initially prescribed varied from 5 to 30 mg / day. When treatment with prednisone10 mg/day and methotrexate 15 mg/week was initiated, the GPs recommended monitoring of blood pressure, C- reactive protein, creatinine, liver transaminases, and full blood count (FBC). In case of failure of csDMARD, a bDMARD may be proposed. Finally, with regard to the role of GPs and within the process of RA collaborative management in tandem with the rheumatologist, 59.2% systematically referred any patient with RA to a rheumatologist, 46.1% felt that they had to make the diagnosis of RA themselves, 77.6% relieved the pain of the patient and left the responsibility for initiating DMARD treatment to the rheumatologist, 79.2% ensured the tolerance monitoring of medication prescribed by a rheumatologist, 68.5% managed the eventual flare-ups of the disease while waiting for the patient to consult with the rheumatologist, 53.8% managed associated co- morbidities associated with RA, and 6.2% thought they could administer a bDMARD themselves.

Discussion

RA is a chronic inflammatory and heterogeneous rheumatism [12], whose management requires a multidisciplinary approach [13]. The GP has a key role to play in, inter alia, early diagnosis of the disease, close monitoring and patient education, especially since the number of patients with RA on average seen monthly by the GP amounted to 5.75 patients in our survey. The major findings arising from the survey objectively highlight an overall average degree of consistency with the recommendations on best practices in RA management [14]. It is necessary to stress the importance of recognizing the clinical symptoms of the onset of a recent RA. As a matter of fact, the GP should not rule out synovitis when a patient display swelling of the affected joints, stiffness and joint pain. But it is also worth emphasizing the interest of diagnosing a beginning RA attack from the arthritis of at least 3 joints, a morning stiffness lasting more than 30mn, and pain with transverse pressure over the MCP and MTP joints. Over 50% of diagnoses made by GPs were altered by the rheumatologists [15-17]. Recognizing the first clinical symptoms of a beginning RA attack must be given due consideration in all the training programs of a GP. The collected data show the difficulties encountered by GPs for early synovitis detection. In our survey, the degree of adherence to these items remains medium to low. We found that two thirds of the GPs consider synovitis of the distal interphalangeal (DIP) joint an element to support the diagnosis of a beginning RA attack. Only one third of the GPs

tend to look for damages that affect the small joints of the hands and feet to give rise to a RA diagnosis. However, some studies have compared the degree of concordance between RA diagnosis made by GPs and rheumatologists in routine clinical practice. It is, therefore, incumbent upon learned societies to ensure and promote early RA diagnosis by GPs as part of their continuing medical education program because they are the ones who see the patient first. With regard to the delay in diagnosis, the period before six months is referred to as "the window of therapeutic opportunity", beyond which there is a risk of the emergence of joint erosions in the short term [16]. The degree of adherence to this item was medium. However, early diagnosis and proper treatment is key to RA management [17]. According to a retrospective study, the median time from onset of symptoms to the initial visit to a rheumatologist was 3 months for 23.1% of patients and over 3months for 39.2% [2]. In another study, only 31.5% of patients with RA visited a rheumatologist within the 12 weeks following the onset of symptoms. This is primarily a result of the delay recorded to consult a GP [18-20]. In our survey, fast access to a rheumatologist is important to avoid delays in diagnosis. We must question the real motives behind delays in diagnosis, behind asking for an expert opinion from a specialist as well as the difficulties in gaining access to rheumatology consultations. Growing awareness of the need to ask for early and appropriate expert opinion must be a central and important objective in GPs' continuing education. Once a RA diagnosis has been made on the basis of some clinical signs, it must be confirmed by paraclinical exams. It is, therefore quite important that the RA initial assessment should encompass ACPAs testing, with regard to their sensitivity in diagnosing RA. Not only should this, but radiographic evidence of the hands and the forefeet be provided, which allow for assessment of joint damage correlated with poor clinical prognosis. The study found that half of the GPS did not request these exams in order to support their medical diagnosis. It is so easy to make the diagnosis of rheumatoid polyarthritis but to carry out an etiological survey is far from straightforward. The presence of atypical and mono symptomatic forms makes the task more difficult. That is why the GP should immediately refer any recent polyarthritis to the rheumatologist. It is important to recognize RA in its state phase by specifying the notion of erosions, the distortions as well as the timeline of the initial onset of the symptoms. In our study, half of the GPs were aware that the presence of joint erosion needed to be sought systematically, that erosion was a poor prognosis element, that the erosions tended to usually appear during the first two years of the onset of the disease and the search for erosion might require a joint ultrasound. Several studies have focused on the search for RA erosions in the x-rays of the front side of the feet. According to a recent survey carried out with a population with beginning inflammatory rheumatic disorders, feet erosions were found in 43.1% of patients [21]. The majority of the currently published papers highlight its relevance for improving diagnosis, specifying the activity and tracking disease status. In our survey, only 40.7%of GPs are aware of these criteria. This unfamiliarity with diagnostic criteria may be due to the absence of good dissemination of information or lack of research and self-education. It is important to underline that the objective of RA early treatment depends almost completely on the timeliness of requests for expert advice. A medical consultation with a rheumatology physician should be undertaken as appropriate to confirm diagnosis and therefore initiate first-line treatment without delay. This quick and specialized care is only possible when GPs consider the diagnosis and refer the patient to see a specialist more quickly. In our survey, the degree of concordance with this item is medium. It is around 56.1%. Awareness of the urgent need to request early specialized expert advice continues to be an important focus for the ongoing training of GPs. Introduction of DMARDs background therapy must be carried out as soon as diagnosis has been confirmed. The main predictive factor underlying response to beginning RA background therapy has been the duration of the disease evolution at the time disease-modifying drug treatment is initiated. In our study, the rate of adherence remains low. The optimal dose must be reached within a maximum of 4 to 8 weeks [22]. Other CsDMARDs may be used in conjunction with this one, due to contraindications or side effects due to methotrexate intake. In our study, even if most GPs know Methotrexate, initiating this therapy for RA treatment is at the discretion of the specialist physician. To the same end, a survey, conducted among rheumatologists operating in France, the lag time for RA diagnosis was six months on average. A background regimen was quickly initiated in 95% of the cases and Methotrexate- based in 76.1% of the cases [23, 24]. Another very important bullet point to rise is that half of the GPs regarded prednisone as background therapy when we know that short term corticosteroids should be viewed as a liaison or add-on therapy for a maximum duration of up to six months and should be stopped as soon as possible. According to best practice recommendations, the correct dosage of steroids is $\leq$7.5mg/day. In our survey, the degree of adherence to this item is very low. Overall, 18.4% of our survey respondents stated that they proposed corticosteroid therapy at doses of 5 to 10mg/day. But it is necessary to affirm that one quarter of the GPs proposed corticosteroids at doses of 20 to 30mg/day, together with the inherent complications arising from a dosage taken on a long term basis. But it seems to us that the discrepancy we have been able to notice can be accounted for by the therapeutic bang in patients who are on short-term corticosteroids, especially on high doses for the control of chronic inflammatory rheumatism, inadequate guidelines dissemination outside the framework of learned societies and a lack of awareness of the guidelines due to the absence of conducting research and engaging in self-education. With regard to the biotherapies, they should primarily be introduced when patients fail to achieve the set therapeutic goal from conventional background treatment of 6 months, or if they record no improvement in their health status occurring subsequent to a 3 month- treatment period. Our study has limitations. The participation rate stood only at 24.6%. The study is an opinion poll conducted on the basis of a questionnaire and it, therefore, reflects only a management intention. An analysis questionnaire of clinical practices by practitioners is not always an accurate reflection of the actual practices. And it has been shown that practitioners will reflect different attitudes toward a written or a simulated case. Consequently, more awareness-raising is needed by GPs so that they can ensure their roles optimally in collaboration with the specialists. Currently, there is talk about coordinated care pathways where GPs can play a key role. The new reform of medical studies makes it possible to define the new GP's prerogatives in the context of family- based medicine.

Conclusion

General practitioners' practices regarding RA management seemed to be poorly consistent with the recommendations on best practices in most of the studied items. As a matter of fact, the gap was more marked on items in connection with synovitis diagnosis, on the deadline for early RA diagnosis, and on collaborative management modalities with the rheumatologist. Differences were also observed in corticosteroid prescription when treatment was initiated. Finally, a top priority consists in finding the best ways to create a better synergy mechanism between the GP and the specialist physician.

Conflict of Interest

Not available.

Financial Support

Not available.

References

1. Combe B, Lukas C et Morel J. Polyarthrite rhumatoïde: clinique et diagnostic. EM-Consulte. 2015;10(3): 1-16.
2. Rat A-C, Henegariu V, Boissier M-C. Do primary care physicians have a place in the management of rheumatoid arthritis? Jt Bone Spine Rev Rhum. Mai 2004;71(3):190-197.
3. Singh JA, Saag KG, Bridges SL Jr, *et al*. 2015 American College of Rheumatology guideline for the treatment of rheumatoid arthritis. Arthritis Rheumatol. 2016;68(1):1-26. DOI: 10.1002/art.39480
4. Smolen JS, Landewé R, Bijlsma J, *et al*. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2016 update. Ann Rheum Dis. 2017;76(6):960-977. DOI: 10.1136/annrheumdis-2016-210715
5. Gibofsky A, Galloway J, Kekow J, *et al*. Comparison of patient and physician perspectives in the management of rheumatoid arthritis: results from global physician- and patient-based surveys. Health Qual Life Outcomes. 2018;16(1):211. DOI: 10.1186/s12955-018-1035-3
6. Barton JL, Trupin L, Schillinger D, *et al*. Racial and ethnic disparities in disease activity and function among persons with rheumatoid arthritis from university-affiliated clinics. Arthritis Care Res (Hoboken). 2011;63(9):1238-1246. DOI: 10.1002/acr.20525
7. Greenberg JD, Spruill TM, Shan Y, *et al*. Racial and ethnic disparities in disease activity in patients with rheumatoid arthritis. Am J Med. 2013;126(12):1089-1098. DOI: 10.1016/j.amjmed.2013.09.002
8. Bruce B, Fries JF, Murtagh KN. Health status disparities in ethnic minority patients with rheumatoid arthritis: A cross-sectional study. J Rheumatol. 2007;34(7):1475-1479.
9. Yazici Y, Kautiainen H, Sokka T. Differences in clinical status measures in different ethnic/racial groups with early rheumatoid arthritis: implications for interpretation of clinical trial data. J Rheumatol. 2007;34(2):311-315.
10. Tan BE, Lim AL, Kan SL, *et al*. Management of rheumatoid arthritis in clinical practice using treat-to-target strategy: where do we stand in the multi-ethnic Malaysia population? Rheumatol. Int. 2017;37(6):905-913. DOI: 10.1007/s00296-017-3705-6
11. Kumar K, Klocke R. Ethnicity in rheumatic disease. Clin Med (Lond). 2010;10(4):370-372. DOI: 10.7861/clinmedicine.10-4-370
12. Guillemin F, Saraux A, Guggenbuhl P, Roux CH, Fardellone P, Le Bihan E, *et al*. Prevalence of rheumatoid arthritis in France: 2001. Ann Rheum Dis. 2005 Oct;64(10):1427-1430.
13. Dadoun S, Zeboulon-Ktorza N, Combescure C, Elhai M, Rozenberg S, Gossec L, *et al*. Mortality in rheumatoid arthritis over the last fifty years: systematic review and meta-analysis. Joint Bone Spine. 2013 Jan 1;80(1):29-33.
14. Niamane R, Bahiri R, El Bouchti I, Harzy T, Hmamouchi I, Ichchou L, *et al*. Recommandations de la Société Marocaine de Rhumatologie pour la prise en charge de la polyarthrite rhumatoïde: Mise à jour du référentiel de; c2011.
15. Jeunet-Mancy L, Augé B, Streit G, Wendling D. Évaluation d'une consultation multidisciplinaire de la polyarthrite rhumatoïde. Revue du rhumatisme. 2010;77:44-48.
16. Bolumar F, Ruiz MT, Hernandez I, Pascual E. Reliability of the diagnosis of rheumatic conditions at the primary health care level. J Rheumatol. 1994 Dec;21(12):2344-2348.
17. Stross JK. Rheumatologists as an endangered species: A proposal for change. Arthritis Rheum. juin 1992;35(6):609-610.
18. Hernández-García CÉ, Vargas EM, Abásolo LI, Lajas CR, Bellajdell BO, Morado IC, *et al*. Lag time between onset of symptoms and access to rheumatology care and DMARD therapy in a cohort of patients with rheumatoid arthritis. The Journal of rheumatology. 2000 Oct;27(10):2323-2328.
19. Combe B, Landewé R, Lukas C, Bolosiu HD, Breedveld F, Dougados M, *et al*. EULAR recommendations for the management of early arthritis: report of a task force of the European Standing Committee for International Clinical Studies Including Therapeutics (ESCISIT). Annals of the rheumatic diseases. 2007 Jan 1;66(1):34-45.
20. Van Nies JA, Brouwer E, Van Gaalen FA, Allaart CF, Huizinga TW, Posthumus MD, *et al*. Improved early identification of arthritis: evaluating the efficacy of Early Arthritis Recognition Clinics. Annals of the rheumatic diseases. 2012 Sep 1: annrheumdis-2012.
21. Saraux A, Maillefert JF, Fautrel B, Flipo RM, Guillemin F, Kaye O. Quels examens complémentaires sont proposés par les rhumatologues dans les rhumatismes inflammatoires débutants (RID) Résultats d'une enquête d'opinion. Rev Rhum Engl Ed. 2000;67:762.
22. Aletaha D, Neogi T, Silman AJ, Funovits J, Felson DT, Bingham CO, *et al*. 2010 rheumatoid arthritis classification criteria: An American College of Rheumatology/European League Against Rheumatism collaborative initiative. Arthritis & Rheumatology. 2010 Sep 1;62(9):2569-81.
23. Smolen JS, Landewé R, Breedveld FC, Buch M, Burmester G, Dougados M. EULAR recommendations for the management of rheumatoid arthritis with synthetic and biological disease-modifying antirheumatic drugs: 2013 update. Ann Rheum Dis. mars 2014;73(3):492-509.

24. Benhamou M, Rincheval N, Roy C, Foltz V, Rozenberg S, Sibilia J, *et al*. The gap between practice and guidelines in the choice of first-line disease modifying antirheumatic drug in early rheumatoid arthritis: Results from the ESPOIR cohort. The Journal of rheumatology. 2009 May 1;36(5):934-42.

How to Cite This Article
Khan MMKU, Shahidullah M, Talukder MLH, Islam ASMS, Mia MR, Khan MAU, et al. Management of rheumatoid arthritis patients among general practitioners. International Journal of Research in Medical Science. 2024;6(2):30-35.

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