

Audit on the management of early rheumatoid arthritis in Nairobi

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Abstract

Background: Clinical audit for rheumatoid arthritis on patients over the age of 18 years in Nairobi, Kenya within the first three months of referral to a specialist.

Objective: The audit gives detailed information on the following; access to care, quality of treatment and care received by patients from their rheumatology team in these first 3 months and the early impact of arthritis on the patient's life.

Design: This was a cross-sectional survey.

Results: The audit included 100 patients referred to the Nairobi Arthritis Clinic between January and April 2018. A majority (54%) had symptoms for more than 6 months before being referred to a rheumatologist. Most of the patients (83%) were seen within 3 weeks of referral. Disease Modifying Antirheumatic Drugs (DMARDs) were commenced in 90% within 6 weeks of being seen at the clinic. Treatment to target was done in 98% of the patients with a further 60% able to access the clinic within a day of flare of symptoms.

Conclusion: The audit revealed the need to improve on referral time to the rheumatologist. It was encouraging to note that once they saw the rheumatologists the patients were commenced on the proper treatment with the treat to target strategy. An area that needs improvement is the time to access the rheumatologist in case of side effect from the treatment or flare of the disease.

Key words: Rheumatoid arthritis, Audit, Management, Nairobi

Introduction

Rheumatic diseases in Kenya is still a neglected field and overshadowed by infectious diseases. The number of rheumatologists is less than ten, serving a population of about 40 million Kenyans. This still is below the WHO recommendations that there should be one rheumatologist per 100 000 people¹. This has impacted adversely on the management of rheumatic diseases. This is evidenced by the late presentations of these patients. In the absence of the required population studies, the prevalence of rheumatoid arthritis in Kenya is still unknown though. The available data on the presentation of the disease largely mirrors the presentation and the clinical course of rheumatoid arthritis as observed in the West apart from management and outcome of the disease. Delayed diagnosis impacts heavily on the degree of joint damage and overall quality of life. This has necessitated the drive for the prompt referral to a rheumatologist of patients suspected to have rheumatoid arthritis to ensure early diagnosis and treatment. Olago-Rakuomi *et al*² found that only 3% of her study subjects with rheumatoid arthritis in Kenyatta National Hospital, were in remission. This was despite the majority (60%) of these patients being on DMARDs. There is the hope that with the introduction of rheumatoid arthritis guidelines in Kenya by the Arthrheuma Society of Kenya (ARSK), these outcomes will improve³. There is no existing data on time to referral of suspected rheumatoid arthritis patients, access to rheumatology specialists and commencement of DMARDs in Kenya, or indeed for most of Africa. This is the first clinical audit for rheumatoid arthritis on patients over the age of 18 years in Nairobi, Kenya with suspected rheumatoid arthritis to determine their quality of care within the first important three months of referral to a rheumatology specialist.

Objective of the audit

The aim of the audit was to determine the time to access and quality of care within the first 3 months of referral. The objectives were as follows:

- (i) To determine the proportion of patients seen by the rheumatologists within 3 days of presentation to a healthcare professional with clinical features suggestive of an inflammatory arthropathy
- (ii) To document the time taken by the patient to see a rheumatologist after referral by a primary health physician
- (iii) To assess the standard of treatment offered to newly diagnosed rheumatoid arthritis patients

The study objectives were derived from the National Institute for Health and Care on the management of rheumatoid arthritis in adults (NICE) standards of care⁴. The standards are as below:

Standard 1

People with suspected persistent synovitis affecting the small joints of the hands or feet, or more than one joint, should be referred to a rheumatology service within 3 working days of presentation.

Standard 2

People with suspected persistent synovitis should be assessed in a rheumatology service within 3 weeks of referral.

Standard 3

People with newly diagnosed rheumatoid arthritis should be offered short-term glucocorticoids and a combination of disease-modifying anti-rheumatic drugs by a rheumatology service within 6 weeks of referral.

Standard 4

People with rheumatoid arthritis should be offered educational and self-management activities within 1 month of diagnosis.

Standard 5

People who have active rheumatoid arthritis should be offered monthly treatment escalation until the disease is controlled to an agreed low disease activity target.

Standard 6

People with rheumatoid arthritis and disease flares or possible drug related side effects should receive advice within 1 working day of contacting the rheumatology service.

This was a cross-sectional survey of 158 consecutive patients referred with suspected rheumatoid arthritis to the Nairobi Arthritis Clinic between January 2018 and June 2018. One hundred patients were recruited after seven declined consent to participate in the study. Fifty-one were excluded from the study as they did not meet the 2010 ACR/EULAR classification criteria for rheumatoid arthritis. Those excluded had alternative diagnoses such as osteoarthritis (36), gout (9), fibromyalgia (4) and reactive arthritis (2). The study site is situated in Nairobi, the capital city of Kenya and serves as a tertiary referral center. It not only serves the two million inhabitants of Nairobi but also patients from all over Kenya and the greater East and Central African Region.

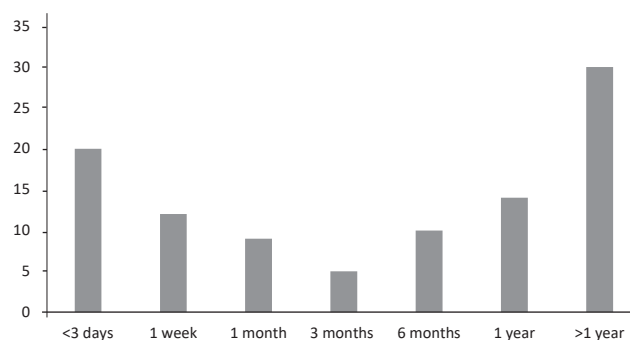
The diagnosis of rheumatoid arthritis was made using the 2010 ACR/EULAR classification criteria. These patients were on regular follow-up at the Nairobi Arthritis Clinic. Once consent was obtained, data on the 6 NICE standards were collected through a study proforma. The study proforma was administered by the primary investigator (EKG). The final data for each of the six standards were presented as proportions, for example, standard one had numerator as the number of people in the denominator who are referred to a rheumatology clinic within 3 working days of presentation. The denominator was the total number of people with suspected persistent synovitis affecting the small joints of the hands or feet or more than 1 joint referred to the clinic.

Results

Standard 1

People with suspected persistent synovitis affecting the small joints of the hands or feet, or more than one joint, should be referred to a rheumatology service within 3 working days of presentation.

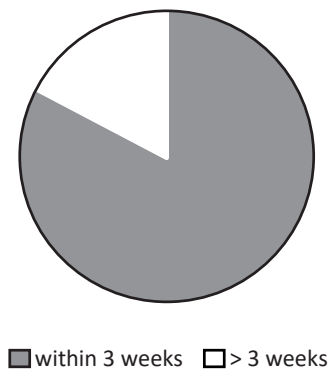
Figure 1: Time for referral from symptom onset to doctor



Standard 2

People with suspected persistent synovitis should be assessed in a rheumatology service within 3 weeks of referral.

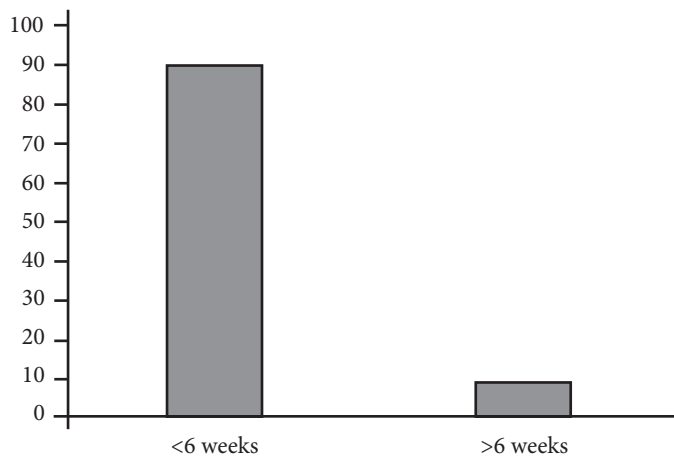
Figure 2: Time before review by a rheumatologist



Standard 3

People with newly diagnosed rheumatoid arthritis should be offered short-term glucocorticoids and a combination of disease-modifying anti-rheumatic drugs by a rheumatology service within 6 weeks of referral.

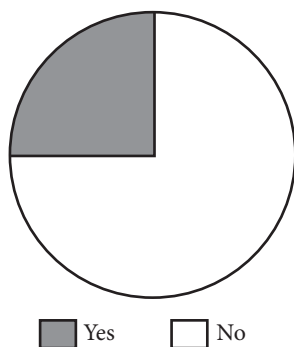
Figure 3: Time to initiate DMARDS



Standard 4

People with rheumatoid arthritis should be offered educational and self-management activities within 1 month of diagnosis.

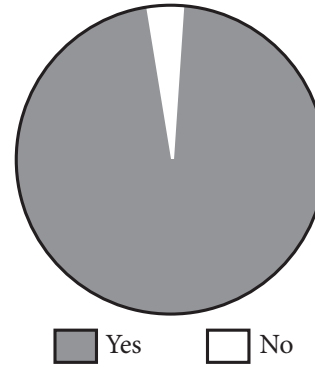
Figure 4: Offered education on RA



Standard 5

People who have active rheumatoid arthritis should be offered monthly treatment escalation until the disease is controlled to an agreed low disease activity target.

Figure 5: Dose escalation until control



Standard 6

People with rheumatoid arthritis and disease flares or possible drug related side effects should receive advice within 1 working day of contacting the rheumatology service.

Figure 6: Access time to rheumatologist following a flare

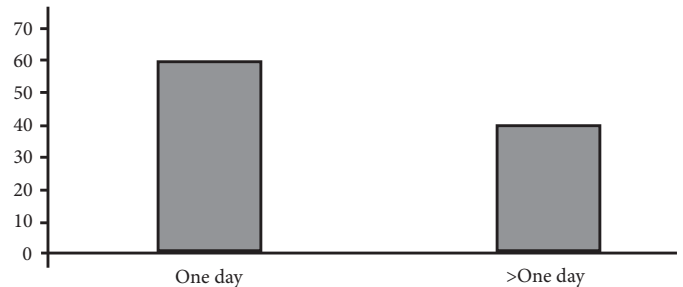


Table 1: Summary of audit results

NICE standard	NAC results
NICE Quality Standard 1 suspected synovitis referred within 3 working days of seeing a GP	20%
NICE Quality Standard 2 - suspected persistent synovitis are assessed within 3 weeks	83%
NICE Quality Standard 3- Commencement of DMARDS	90%
NICE Quality Standard 4 - offered educational and self-management activities 1 month	75%
NICE Quality Standard 5 - Treatment target set for RA	98%
NICE Quality Standard 6 - receive advice within 1 working day from rheumatology service	60%

Conclusions

There is a need to improve on the referral system of patients to a rheumatologist. Rapid referral of patients with suspected inflammatory arthritis will help improve time to diagnosis and initiation of treatment.

This will help target the 'window of opportunity' within which effective treatment can improve long-term outcomes such as joint damage, joint function and quality of life⁵.

Delay in diagnosis and treating rheumatoid arthritis is associated with joint damage and adversely affects the quality of life. We hope with the introduction of local guidelines that this standard will improve³. The audit revealed that once these patients were seen by a rheumatologist, the treatment was started promptly according to ACR/EULAR guidelines which was encouraging⁶. Emphasis should be on physicians working closely with rheumatologists in offering disease-modifying treatment within three months of diagnosis of rheumatoid arthritis. It was also encouraging to note that adherence to the guidelines of the treat to target was done in almost all the patients⁴. Apart from dose escalation, there is a need to confirm tolerance to the drug regimen by assessing adverse effects as this will also improve adherence. Access to a rheumatologist following disease flare or possible drug-related side effects will need to improve. This will help prevent further joint damage and loss of function which results from the flare. Disease progression can lead to significant functional disability for patients, therefore rapid access to a rheumatologist is essential.

The majority of these patients also received adequate education about rheumatoid arthritis. There should be an emphasis on improving the patients' knowledge of the disease and its management through educational activities and self-management programmes. This should be done within one month of diagnosis. This will enable them to get the best from their medication, learn how to better manage disease flares, pain and fatigue, and improve their overall quality of life. The numbers are still low probably as the rheumatologist at the clinic is tasked with doing these two standards. There is a need to examine the capacity at service level for specialist nurses and allied health professionals to provide patient education which supports self-care, in addition to facilitating shared decision making in relation to treating to target and extended scope practice. Furthermore, there is evidence that access to a specialist nurse for education improves knowledge of RA and its management and nurse led care has been shown to improve patient –preferred outcomes, symptom control; communication; continuity of care and satisfaction with care⁷. Ndosi *et al*⁸ reported that a nurse led care to be both non-inferior and cost effective in comparison with rheumatologist care in providing follow up in a large multi-center study. Currently there are no training opportunities for rheumatology nurses in Kenya and the greater East Africa area.

Recommendations

- (i) Quicker referrals of patients suspected to have rheumatoid arthritis to rheumatologists

- (ii) The need to emphasize the treat to target approach according to the guidelines
- (iii) The access time to rheumatology services following a disease flare or side effect from the treatment needs to improve
- (iv) Access of rheumatoid arthritis education to patients should be encouraged
- (v) There is a need to improve the capacity at service level for specialist nurses and allied health professionals to provide patient education which supports self-care, in addition to facilitating shared decision making in relation to treating to target and extended scope practice.

Conflict of interest

No potential conflict of interest relevant to this article was reported.

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