Benefits of Pre-Referral Preparation for Rheumatology Clinics

Abstract:

Appropriate allocation of rheumatology clinic appointments depends on the information contained in referral letters. Such letters are analysed for the presence of pertinent information and a scoring system is devised to assess the quality of enclosed data. In a smaller cohort, relevant basic tests were carried out prior to the appointment. 122 referral letters were received over a 1-month period. Symptom duration was documented in 39/323, while 64/52.5 listed medications. Only 23/17.2% indicated the urgency of the problem. Approximately 31/25% of referrals performed relevant routine investigations. Mean score out of 10 was 5.1 (range 1.5-9). Of the 40 (33%) patients with pre-appointment investigations, the clinic attendance rate and subsequent discharge rate were significantly higher than those without these tests. This study shows that comprehensive referral letters and basic investigations significantly help to prioritize appointments and facilitate earlier diagnosis and treatment for patients with rheumatic disease.

Introduction

Early diagnosis and intervention are central premises in the management of patients with rheumatic disease. For those with inflammatory arthritis, the benefits of early and adequate reduction in inflammation have been well-demonstrated both from an individual and a socio-economic perspective. Timely and effective treatment increases the likelihood of disease remission and reduces reducing the chances of co-morbid conditions commonly associated with chronic inflammation. For patients with mechanical joint disease or soft tissue rheumatism, there are multiple therapeutic strategies that greatly improve quality of life when instituted at an early stage in the disease course. If the evidence regarding early treatment is irrefutable, it seems surprising that many patients with rheumatic disease endure significant delays before first review by a rheumatologist. In Ireland, a shortage of rheumatologists and large numbers of symptomatic patients have contributed to long waiting lists. Given the demand for rheumatology expertise, it is essential that each review is used as efficiently as possible and that all relevant information is available during the initial appointment to facilitate timely diagnosis and treatment.

This study was undertaken to evaluate the quality of referral letters to a single rheumatology unit in Dublin. The information was used to guide decisions regarding urgency of appointments and to assess the outcome of a cohort of patients for whom additional pertinent investigations were ordered in advance of their first clinic appointment.

Methods

All referral letters to the Rheumatology service at St James’s Hospital over a 1-month period were included in this study. A scoring system for assessing the quality of each referral was devised using key criteria (Table 1). Comprehensive patient contact details included full name, date of birth, complete address and phone number. Letters were considered succinct if the information was contained on one page. Availability of recent relevant radiographs scored 1 point. Other criteria, such as inclusion of symptom duration, appropriate lab tests (e.g. inflammatory markers), medications, urgency and tentative diagnosis, also received one mark each. If the information allowed the rheumatologist to form a clinical impression of the problem, an additional mark was given. The highest possible score for a completely comprehensive referral letter was 10.

Statistical analysis was performed using SPSS 16.0 for Windows. Student t test, analysis of variance (ANOVA) and Pearson’s test for correlation were applied to parametric data and Mann Whitney U, Kruskal Wallis and Spearman’s rank correlation tests were used for non-parametric data. Statistical significance was attached to p values <0.05. Approval for this study was granted by the St James’s Hospital Ethics Committee.

Results

Quality of referral letters

122 referral letters were analysed, 63% from General Practitioners (GPs) and 37% from hospital consultants (Table 2). Full contact details were included 54 (44.3%). Hand-written letters were submitted in 21.5% with almost half of those illegible. In 97 letters (79.5%), the information was contained on 1 page. However, in one-fifth, several pages of non-specific data were included (e.g. multiple order-numbers for lab tests). Symptom duration was documented in 39 (32%), while 64 (52.5%) listed the patients medications. Only 21 (17.2%) indicated the urgency of the problem. Appropriateness of x-rays and routine lab tests. Relevant investigations were requested in 14 (12%). Areas mentioned in the referral letter and on retrospective review were considered appropriate. A tentative diagnosis was documented in 67 (54.9%), but with other information contained in the letter, a clinical impression of the patients problem could be inferred in 83 (66.4%) and included a possible diagnosis of inflammatory arthritis in 44 (36.1%). Osteoarthritis (OA) in 22 (18%) and soft tissue rheumatism in 15 (12.3%). Mean score for all referrals letters was 5.1 out of 10 (range 1.5-9). GP referrals scored higher than those from hospital-based teams (5.4 (2-9) versus 4.6 (1.5-7.5), p<0.01) (Figure 1). No letter contained all the desired information.

Comparison of prepared and unprepared patient cohorts

Of the 122 referrals, 4 letters were returned and these were not included in the final analysis. Forty patients were randomly selected to have basic investigations (routine lab tests and plain x-rays) performed prior to their first rheumatology visit. For the 78 other patients, there was no additional contact from the hospital. Comparisons of these cohorts are illustrated in Table 3. Most patients were female (n=81, 66.4%). Mean age was 53 years (range 1989). The majority (n=94, 77.1%) lived within 20 miles of the hospital. There were no significant differences in these demographic details between patients who had extra investigations done prior to their clinic visit and those who did not.
DIAGNOSTIC ACCURACY OF THE CLINICAL IMPRESSION DEDUCED FROM THE REFERRAL LETTER

Of the 89 patients who attended their appointment, a tentative diagnosis (either written or implied) was available from the referral letter in 70 (76.7%). Fifty (56.2%) of these retained this diagnosis after rheumatology review. Thus, in nearly half the cohort (43.8%), the actual diagnosis was not possible to ascertain from the referral letter alone and in those letters where the diagnosis was inferred, almost one third (28.6%) were erroneous. The greatest discrepancies were observed in patients whose final diagnosis was osteoarthritis, rheumatoid/inflammatory arthritis and Raynaud phenomenon whereas good diagnostic correlation was noted for spondyloarthropy, crystal arthritis and shoulder tendinopathies. Four patients (4.5%) were accurately referred with a rotator cuff problem that could have been treated directly by physiotherapy. In 2 cases, inflammatory arthritis was not suggested by the referral letters but later diagnosed on clinic review. Those patients waited 4 months and 7 months respectively for their appointments, considerably outside the recommended time-frame of 6 weeks for assessment of early synovitis.

Discussion

The presence of comprehensive and easily accessible information in referrals letters has a major impact on the decision making process for patient appointments. Although the numbers studied were small, they were, nevertheless, felt to be representative of the referral process in our hospital. It was surprising to find that >20% of correspondences were hand-written as such data, if lost, cannot be readily reproduced. 10% of letters were illegible causing further delay with issuing of clinic dates. Many letters contained several pages of non-specific data, making it difficult to pick out relevant facts. Omission of a medication list places patients at considerable disadvantage, particularly if the patient intends to seek a second opinion. For example, a patient with a history of malignancy who is not known to be taking low-dose corticosteroids may lead to the incorrect assumption that the diagnosis is non-inflammatory. Furthermore, there is considerable potential for adverse drug interactions if new prescriptions are issued without knowledge of the patients complete medication list. Indicating the perceived urgency of symptoms is also extremely helpful in determining priority of appointment and this can be impossible to judge when other vital pieces of information, such as baseline routine investigations, are also missing.

The absence of pertinent data means that, frequently, the first clinic visit is spent simply gathering data, with treatment decisions deferred to follow-up appointments. Thus, because of demands on clinic space, may be weeks or months away. This situation adds unnecessarily to patients anxieties and may delay initiation of treatment. Similar findings have been noted in other studies that have evaluated referrals to hospital-based rheumatology services. However, Roberts et al found that when adequate support and ongoing education in musculoskeletal diseases were provided for GPs, their confidence in diagnosing and treating these conditions was higher. Greater integration between primary and secondary care in addition to events facilitating communication between colleagues are likely to result in enhanced quality of referrals and better understanding of the challenges encountered by all providers in caring for patients with rheumatic disease.

Pre-appointment management of new patient referrals has many potential benefits, particularly regarding efficient use of specialist time and reducing the number of clinic visits. It also frees up appointment slots for other patients, thereby reducing waiting time and improving access and reducing waiting lists. Harrington et al also reported a 34% reduction in the non-attendance rate of the ‘prepared’ cohort was also of interest and may have been due to the additional contact from the hospital.

The diagnostic accuracy of the clinical impression deduced from the referral letter was low when subsequently compared with the resultant diagnosis after consultant review of the patient. In nearly one-third, the presumed diagnosis was eventually found to be incorrect or at best a considerably prolonged waiting time for some patients. Previous studies have differed in the diagnostic correlation between the referral letter and the clinical review. Sathi et al noted good agreement between GP letters and the rheumatologist opinion. However, Gamez-Nava et al reported marked discrepancies between the two. It is possible that the information contained in the letter was not accurate. Possible reasons include the assumption that the relevant information would be available in the patients records and the fact that patients were seen by relatively inexperienced junior doctors. Our study highlights the importance of providing essential information, including up to date investigations, at the time of referral.

An obvious way to ensure that referral letters reach the consultant in a timely manner and contain all the necessary information is to create a predetermined one that is universally accepted amongst local hospitals and community medical practices, is easy to use and incorporates clinical photos if relevant. Efforts in this regard are currently underway at a national level in Ireland and will make an enormous difference to the prioritization of appointments. An early and comprehensive clinical review by a rheumatologist is essential to the current and future health of patients with rheumatic disease. The ability to achieve this relatively simply and in a cost-effective manner is increasingly attractive.

References


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