Original Article

Referrals from General Practice to an Outpatient Rheumatology Clinic: Disease Spectrum and Analysis of Referral Letters

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Abstract: Our objective was to study the demographic characteristics of patients referred from general practitioners to a rheumatology outpatient clinic and to analyse the content and quality of the referral letters. During a 12-month period 346 randomly chosen referral letters of new patients from GPs to a rheumatology outpatient clinic were evaluated. The mean age of the 346 referred patients (73.1% females and 26.9% males) was 45.5 years and 17.8% were 60 or older. Mean disease duration at the time of referral was 50.9 months (1–432 months). Only about 10% of the patients referred had a disease duration of 1 month or less. The current clinical problem was appropriately presented in 95% of the referral letters. In only 0.9% of referrals had there been a prior phone consultation. Altogether, 95.1% of the referrals were as a result of diagnosis or treatment, and in nearly half the cases a diagnosis of inflammatory rheumatic disease was suggested. In 23% of the letters the result of clinical examinations were missing.

Laboratory tests such as serum rheumatoid factor, antinuclear antibodies and HLA-B27 were used by GPs to screen for rheumatic disease in general. A lack of correlation between clinical manifestations and subsequently requested laboratory examinations was frequently found in the referral letters, exemplified by the use of HLA-B27 in rheumatoid arthritis and serum rheumatoid factors in ankylosing spondylitis. These results show that among GPs the threshold for referring patients to a rheumatology outpatient clinic appears rather high, and that patients are subjected to long observation periods before referral. A more frequent use of phone consultations and an improvement in the diagnostic skills of GPs may positively influence the selection of patients for referral and shorten the long waiting lists in rheumatology. This need for improvement was further strengthened by GPs’ inappropriate use of laboratory tests.

Keywords: General practitioners; Referrals; Rheumatology

Introduction

The increasing prevalence of chronic conditions and heightened public demand for specialist services are the major causes of the long waiting lists in many rheumatology departments. In addition to the general inconvenience of waiting for a specialist opinion, the high number of referrals from general practitioners (GPs) and the long waiting lists may delay correct diagnosis and the initiation of appropriate therapy in patients with inflammatory rheumatic diseases. One way to overcome this problem is to promote the diagnostic skills of GPs and improve the quality of their referral letters. This and better communications between GPs and rheumatology specialists would probably influence both the frequency of referrals and the selection of patients for referral.

Surprisingly little effort has been made to analyse the content and quality of referrals from GPs to specialist services. Therefore, the present study was conducted to analyse some aspects of referrals in rheumatology. The investigation deals with 346 randomly selected referrals...
of new patients from GPs to an outpatient rheumatology clinic. The main aims were to study the demographic characteristics of the patients referred, and to delineate the content and quality of the referral letters.

**Materials and Methods**

During a 12-month period ending in February 1997, 796 new patients were referred from GPs to the outpatient rheumatology clinic at the Regional Hospital of Tromsø, northern Norway. Of these, 346 randomly chosen referrals were prospectively selected for study. They were equally distributed throughout the year. Patients referred from hospital-affiliated physicians or privately practising rheumatologists were not included. Similarly, cases that had previously been seen at the outpatient clinic for the same clinical problem, and cases referred by phone and examined within 2 days, were not studied. The GPs were not aware of the ongoing investigation.

The referral letters were studied in detail and a standard protocol was used to evaluate their content. All were evaluated by the same rheumatologist (JTG).

The University Hospital of Tromsø is both a local hospital and a secondary and tertiary referral centre in the county of Troms. By 1996 the county had 151,160 inhabitants, of whom the majority (52.7%) were living in the cities of Tromsø and Harstad. In January 1996 the county of Finnmark had 76,461 inhabitants. The Department of Rheumatology is the only referral centre for rheumatology in both counties, but in Finnmark there is at present one privately practising rheumatologist. The department thus covers a population of 227,621 persons. The hospital is also a tertiary referral centre for the county of Nordland, but patients referred from this county are preferentially hospitalised. The hospital also employs two specialists in physical medicine and rehabilitation, but their outpatient clinic was not used during the study period.

Troms and Finnmark are the two northernmost counties in Norway, being north of the Arctic Circle (latitude 70°N), and cover 25,984 and 48,637 km², respectively. The counties are further characterised by scattered populations and long distances between the various towns and settlements. The population comprises three main ethnic groups, Samis (Lapps), Finns and Norsemen.

**Results**

**Demographics**

There were 346 referrals, 253 females (73.1%) and 93 males (26.9%). Mean age was 45.5 yrs (median 45 yrs), 46.0 yrs in females (range 9–87 yrs) and 44.2 yrs (14–86 yrs) in males. The difference between males and females was not statistically significant (p>0.05). Of the 346 patients, 341 (95.3%) were older than 15 years and 64 (17.8%) were 60 or older. Mean disease duration at the time of referral was 50.9 months (1–432 months), 52.9 months in females and 45.6 months in males. Only 9.9% of the referred patients had a disease duration of 1 month or less; 57% had suffered rheumatic symptoms for more than 12 months.

**Characteristics of Referral Letters**

The mean length of the referral letters was 23.8 lines (median 21 lines, range 2–109). The current clinical problem was appropriately presented in 95%. A high priority was requested in 17.3% of the letters. Information regarding current use of drugs was provided in 46.2% of the letters. In 0.9% of the cases there had been a prior phone discussion of the current clinical problem between a rheumatologist and the GP.

**Causes of Referral**

The causes of referral are listed in Table 1. Altogether, 95.1% of the referrals were as a result of diagnosis or treatment or both. Only 5.8% of the letters contained too few data to allow the cause of referral to be defined. The reason for referral was similar in both males and females.

**Diagnoses**

The diagnostic groups and relevant diagnoses as presented in the referral letters are given in Table 2. The durations of the various complaints are also provided. Inflammatory rheumatic diseases constituted 49.5% of all referrals, compared to 0.6% for degenerative joint disease and 19.1% for soft tissue rheumatism. The diagnostic groups did not differ between males and females.

**Table 1. Causes of referral to an outpatient rheumatology clinic**

<table>
<thead>
<tr>
<th>Cause</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>261</td>
<td>75.4</td>
</tr>
<tr>
<td>Therapy</td>
<td>68</td>
<td>19.7</td>
</tr>
<tr>
<td>Wish of patient or family</td>
<td>20</td>
<td>5.8</td>
</tr>
<tr>
<td>Second opinion</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Sick leave</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Lacking</td>
<td>20</td>
<td>5.8</td>
</tr>
</tbody>
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