Management of rheumatoid arthritis in primary care—an educational need?

Treatments of rheumatoid arthritis (RA) with disease-modifying anti-rheumatic drugs (DMARDs) has proven to be effective at controlling disease activity, reducing joint erosions, reducing cardiovascular mortality and improving quality of life. It is important that patients with RA are reviewed early and considered for treatment with these drugs [1, 2]. The paper by Edwards et al. [3] looks at the use of DMARDs in RA using information from the General Practice Research Database (GPRD). This is a database that currently contains the primary care records of approximately 9 million individuals from almost 400 practices throughout the UK [4]. The practices who contribute data to the GPRD have to meet certain standards for coding/data quality. This paper provides an interesting epidemiological review of the use of DMARDs in primary care using data from the GPRD. It concludes that only 50% of patients coded as having a diagnosis of RA had been prescribed at least one DMARD between June 1987 and June 2002. Prednisolone was prescribed by primary care physicians in up to 50% of RA patients in any one year and 28.7% of those patients who did not receive a DMARD did receive one or more course of oral prednisolone.

How should we interpret these data? At face value it would appear that patients with RA captured in this survey are not receiving adequate treatment with DMARDs. In secondary care in Newcastle, for example, between 1984 and 2000 the proportion of RA patients receiving DMARDs rose from approximately 40% to 80% (Dr D. Walker, personal communication). The reliability of the diagnosis of RA in the database may be of concern despite the GPRD having already been validated in a number of other areas. The paper comments that the ‘diagnosis of RA was recorded in a pragmatic way by general practitioners (GPs) in the patients’ notes’. How many of these patients actually meet the 1987 American College of Rheumatology criteria for the diagnosis of RA is unknown, and if patients have not been assessed by a consultant rheumatologist at some stage there is scope for misdiagnosis. For example, patients who have non-inflammatory arthritis but a positive rheumatoid factor may be coded incorrectly as RA. The incidence and prevalence of RA, however, are similar to the statistics for many populations, and DMARD usage trends mirror those in secondary-care prescribing, both points suggesting that the information from the database could be accurate.

If the diagnosis of RA is correct, then are there other reasons that could explain why only 50% of patients have been prescribed DMARDs? One reason is that the disease in some patients may be in remission. Evidence from the Norfolk Arthritis Register, a well-validated inception cohort, shows that roughly 18% of patients diagnosed with RA (according to the ACR criteria) are in drug-free disease remission after 3 yr [5]. They define remission as no soft-tissue joint swelling and no recent treatment with DMARDs/steroids. When they looked at patients with undifferentiated polyarthritis, 32% were found to be in remission.

Evidence shows that general practice trainees (now called registrars) in the UK do not receive much formal musculoskeletal training. They also rate what they do receive as inadequate [8, 9]. Few registrars (around 16% in one study [8, 9]) have a rheumatology post as part of their vocational training scheme and, unfortunately, with regards to hospital training posts, there is evidence to show that GPs are well aware of the importance of early referral to secondary care for consideration of DMARD treatment, although there is a significant amount of literature in the rheumatological journals highlighting musculoskeletal medicine as an area of educational need for GPs.

It is important, though, that primary care education does not just focus on the management and treatment of RA, as it needs to be focused on and relevant to the conditions seen in the community. Schön, in his work The Reflective Practitioner [7], describes the difference in professional working environments as being that ‘there is a high, hard ground where practitioners can make effective use of research-based theory and technique, and there is a swampy lowland where situations are confusing ‘messes’ incapable of technical solution’. The high, hard ground is comparable to secondary care and the swampy lowland to primary care. Schön goes on to say that the practitioner who works on the high, hard ground can ‘practice rigorously’ but is ‘constrained to deal with problems of relatively little social importance’ and that those who work in the swampy lowlands deal with the ‘problems of greatest human concern’ and ‘describe their methods of inquiry’ as using ‘experience, trial and error, intuition, and muddling through’. This nicely describes the difference between the work of primary and secondary care and highlights the importance that not only should GP education cover all areas of musculoskeletal medicine but that the focus should be relevant to primary care and also recognize the complexity of problems that present.

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is often a failure to identify and teach the skills required for general practice [10]. Registrars also receive, on average, only 2 h of formal teaching from their trainer on musculoskeletal conditions [8]. Most learning is done ‘on the job’, particularly from interested colleagues. As GPs see so few patients with active inflammatory joint disease it is unsurprising that they may have difficulty appropriately managing arthritis due to this limited exposure. There is discussion within the general practice literature about extending the general practice element of training [11, 12] and there is now a set 2 yr of ‘higher professional education available to newly qualified GPs, both improving the available learning opportunities for trainees.

Continuing medical education may also not be ideal, as topics taught often focus on those more important to the educator than to those being educated—especially as very few hospital consultants have any experience of primary care and the ways in which GPs work. For example a survey of rheumatologists in 1987 showed that of the education sessions they had provided, 44% were focused on arthritis whereas only 13% focused on back pain [13]. In contrast, recent data from the GPRD looking at the musculoskeletal diagnoses of patients presenting to GPs show that arthritis is significantly less common than back pain/osteoarthritis/soft tissue disorders (Table 1) [14].

Studies have also shown that not only do GPs prefer their education to be relevant to what they see but that they prefer to learn about conditions relating to the way in which their patients present, i.e. by region/joint [15]. They are also more accepting of and prefer educational activities arising from within primary care, probably for the above reasons.

If it is true that RA is either being misdiagnosed or undertreated in primary care, despite educational opportunities, then how can we improve upon GPs’ knowledge of musculoskeletal disorders? There are now a significant number of interested and experienced GPs with a special interest (GPsIs) in musculoskeletal medicine, who are the ideal people to be advising on the content of educational packages for primary care and to be involved in the delivery of the education. Secondary-care involvement remains important, however, and perhaps it is time for there to be a shift in the focus of continuing medical education of GPs and a more formal educational partnership between primary and secondary care. There should also be an opportunity for GPs to receive feedback on their musculoskeletal referrals to secondary care. The Royal College of General Practitioners is currently in the process of developing a curriculum for general practice. The musculoskeletal section of the curriculum is based on the Arthritis Research Campaign learning guide which was developed by both GPs and secondary-care consultants. It will be interesting to see what the effects of this will be on primary-care education and the management of musculoskeletal disorders.

**Table 1.** Musculoskeletal disease prevalence rates (per 100000 person yr at risk), GPRD 2001 (adapted from [14])

<table>
<thead>
<tr>
<th>Disease</th>
<th>All ages (&gt;16 yr) (95% CI)</th>
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<tr>
<td>All musculoskeletal events</td>
<td>13275 (13215, 13336)</td>
</tr>
<tr>
<td>Soft tissue rheumatism and CWP</td>
<td>4068 (4034, 4104)</td>
</tr>
<tr>
<td>Back pain</td>
<td>3747 (3715, 3779)</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>1724 (1702, 1746)</td>
</tr>
<tr>
<td>Polyarticular arthritis</td>
<td>165 (159, 172)</td>
</tr>
<tr>
<td>Osteoporosis</td>
<td>135 (129, 141)</td>
</tr>
<tr>
<td>Ankylosing spondylitis</td>
<td>37 (34, 40)</td>
</tr>
<tr>
<td>Systemic lupus erythematosus</td>
<td>13 (12, 15)</td>
</tr>
<tr>
<td>Scleroderma</td>
<td>6 (5, 7)</td>
</tr>
<tr>
<td>Gout</td>
<td>6 (4, 7)</td>
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CWP, chronic widespread pain.

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References