Early referral recommendation for newly diagnosed rheumatoid arthritis: evidence based development of a clinical guide

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Background: Effective treatment of active rheumatoid arthritis (RA) requires early diagnosis and early disease modifying antirheumatic drug (DMARD) treatment to have an impact on long term morbidity and mortality. Clinical criteria would facilitate early referral of the patient with suspected RA to a rheumatologist for definitive diagnosis and initiation of DMARD treatment at that point in the disease most likely to have an impact on the long term outcome.

Objective: To develop a referral recommendation that may serve as a clinical guide for primary care doctors, enabling them to identify patients with suspected RA during the early inflammatory stages.

Methods: Key points of the referral criteria were formed based on a thorough literature review targeting early RA, early arthritis clinics, DMARD treatment for early RA, prognostic factors of disease progression, early RA clinical trials, and quality of life. Evidence was graded using the methods defined by Shekelle et al. A draft version of the criterion was circulated among the authors for critical evaluation. A consensus integrated these comments.

Results: Clinical evidence strongly supports the observations that structural damage occurs early in active RA and that early DMARD treatment improves the long term outcome of the disease. The observations indicate that rapid referral to a rheumatologist is advised when RA is suspected. This may be supported by the presence of any of the following: ≥3 swollen joints, metatarsophalangeal/metacarpophalangeal involvement, and morning stiffness of ≥30 minutes.

Conclusion: The proposed early referral recommendation is a viable tool for primary care doctors to identify potential patients with active RA early in the disease. Early referral to a rheumatologist for definitive diagnosis and early DMARD treatment should improve the long term outcome of RA.

Methods: Consensus development

The initial stage in the development of the early referral recommendation involved a literature search of the Medline and Current Contents databases. The key terms of the search were the phrase “early rheumatoid arthritis” AND, separately, the terms “disease progression”, “clinical trial”, “early arthritis clinics”, “mortality”, “quality of life”, and “early treatment”. Published clinical evidence was classified and graded.

Abbreviations: CRP, C reactive protein; DMARDs, disease modifying antirheumatic drugs; EACs, early arthritis clinics; ESR, erythrocyte sedimentation rate; HAQ, Health Assessment Questionnaire; MRI, magnetic resonance imaging; NSAIDs, non-steroidal anti-inflammatory drugs; RA, rheumatoid arthritis; RCTs, randomised controlled trials; RF, rheumatoid factor; US, ultrasound
**CLINICAL PROGRESSION OF RA: JOINT DAMAGE OCCURS EARLY**

Radiographically measured progression of RA remains the best method of assessing structural damage associated with the disease. An inherent problem in comparing clinical studies of radiographic progression is variability of the study designs. Three designs predominate: cross sectional studies, prospective studies of patients with disease of varying duration, and prospective follow up studies of a cohort of patients with early RA. Of the three designs, the prospective follow up studies of patient cohorts with early disease is the best design for assessing the risks of disease progression.

Summarising prospective studies of radiographic progression of patients with early RA, van der Heijde concludes that ~75% of patients with early RA have joint erosions and develop the initial erosions within the first two years of symptom onset. These early prospective investigations present strong evidence that joint damage occurs early in the course of RA (III).

A recent comprehensive evaluation of published reports which linked structural damage to disability concluded that joint damage progresses at a consistent rate over the course of the disease and that it accounts for ~25% of the disability. The statistical association between radiographic damage and disability is strongest with disease duration of >8 years; however, prevention of structural damage early in the disease is likely to preserve patient function (III). Bone density is also seen to decrease during the early stages of RA. Measures of the axial bone mineral density in patients with RA with a mean disease duration of 10.4 months showed a significant reduction of axial and appendicular bone mineral density by one year. Minimal loss was closely correlated with raised C reactive protein (CRP) levels and functional impairment. Reduced peripheral bone mineral density was also seen with persistent disease. Patients with early RA with a median disease duration of nine months (n = 42) as a group lost a significant amount of hand bone mineral density over a period of 12 months of the study period compared with the control population. There was a concomitant worsening of the radiographic Larsen score, indicating progression of structural damage. Both studies were prospective investigations and constitute category III evidence.

Joint erosions that are evident radiographically represent permanent structural damage and have prompted the investigation of alternative imaging techniques to identify synovial changes before permanent deterioration has occurred. Both ultrasound (US) and magnetic resonance imaging (MRI) techniques have been applied to the evaluation of synovitis in patients with early RA. A controlled clinical investigation (IIa) of the interrelationship between synovitis and bone in early RA concluded that metacarpophalangeal joint bone oedema is present in the majority of patients with RA at presentation and that joint structural changes are secondary to synovitis. A prospective study employing blinded observers (IIb) evaluated the effectiveness of three phase bone scintigraphy, US, MRI, and contrast enhanced MRI to determine the optimal imaging method for identification of both early erosions and acute phase inflammation compared with conventional radiography. The early RA cohort had a mean disease duration of 19 months, and the results indicated that scintigraphy, US, and MRI were significantly more sensitive than conventional radiography at detecting early inflammatory soft tissue and destructive joint processes before radiographic damage becomes evident.

In support of the evidence of early synovitis preceding structural damage in RA, Kraan et al examined histological synovial biopsy specimens of the unaffected joints of patients with established RA for signs of inflammation. The synovial tissue of asymptomatic joints was characterised by infiltrating macrophages and macrophage derived cytokine expression indicative of active inflammation.

The combined clinical evidence indicates that the physiological changes induced by RA within the synovial environment are evident during the early asymptomatic phase of the disease and, when left untreated, chronic inflammation leads to structural damage in RA. The bulk of the clinical evidence for early structural damage is derived from prospective studies and composed of category III evidence; therefore, the observation that damage occurs early is assigned evidence grade C.

Table 2 and 3 summarise selected prospective investigations dealing with the prognostic factors for radiographic progression and disability in early RA; table 4 isolates predictive factors evaluated in early arthritis clinics (EAC). Despite the heterogeneous results from these studies, common elements in the baseline risk factors exist for both radiographic progression and disability, including involvement of large joints, disease duration of ≥3 months, involvement of hand joints, ≥2 swollen joints, high disease activity at baseline, rheumatoid factor (RF) positivity, and raised CRP levels.
Prognostic factors for radiographic progression and disability constitute category III evidence.

**EARLY DMARD TREATMENT IMPROVES RA OUTCOME**

Table 5 shows the results of placebo controlled trials of early DMARD treatment for patients with early RA and disease duration <2 years. Treatment with sulfasalazine, oral gold, and hydroxychloroquine significantly reduced the clinical signs and symptoms of early RA, and hydroxychloroquine improved patient function as assessed by the Health Assessment Questionnaire (HAQ) after 11 months of treatment.

Analysis of delayed treatment trials (extensions of placebo controlled investigations in which the placebo group is switched to active treatment at the end point of the initial study) shows the efficacy of early DMARD treatment for early RA (table 6). In each trial the group treated at presentation with DMARDs showed significantly more improvement in efficacy parameters than the groups whose treatment was delayed. Early intervention improved patient function (reduced HAQ score in three of the four presented trials) and reduced or slowed radiographic disease progression, as well as decreasing swollen joint counts in ~50% of the trials.

Recent evaluation of primary trial data from 14 RCTs of DMARD treatments in RA indicates that patients with a longer disease duration did not have such a good response as patients treated at earlier stages of the disease. The study also noted that prior DMARD use, RA functional classification, and disease activity also had an impact on the potential outcome of treatment (1a).

A recently published study of an inception cohort of 622 patients with newly diagnosed RA followed up for up to 10 years, evaluated patient mortality, functional ability, and prognostic factors for mortality. The cohort of patients with early RA treated aggressively with DMARDs showed no excess mortality within the first 10 years when compared with the normal population, and functional ability remained constant after an initial improvement from baseline. Age at onset and male sex were the only significant prognostic factors for mortality. The results of this investigation highlight the efficacy of an early, aggressive therapeutic strategy, indicating that treatment with conventional DMARDs improves the disease course and gives long term patient benefit.

To date there have been no long term investigations of the newer biological treatments on patient mortality and functional ability; this will be critical in determining the role of these treatments in the aggressive treatment of early RA.

Randomisation and placebo controls in the summarised trials of early treatment (presented above) represent category Ia and Ib evidence and constitute grade A support for early intervention with DMARDs in early RA.

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**Table 2** Risk factors indicative of radiographic damage in early RA

<table>
<thead>
<tr>
<th>Author (reference)</th>
<th>Study design</th>
<th>Risk factors at baseline</th>
<th>Evidence category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brennan et al50</td>
<td>Prospective study of 157 patients with RA for 1 year</td>
<td>RF &gt;1/80, involvement of &gt;2 large joints and &gt;3 months’ disease duration</td>
<td>III</td>
</tr>
<tr>
<td>Combe et al61</td>
<td>Prospective study of 191 patients with RA for 3 years</td>
<td>RF positive, ESR, D881*04 gene, and erosion score</td>
<td>III</td>
</tr>
<tr>
<td>Feigenbaum et al52</td>
<td>Prospective study of 50 patients for &gt;3 years</td>
<td>Involvement of &gt;2 swollen joints, white female, Raynaud’s symptoms, presence of malaise or weakness</td>
<td>III</td>
</tr>
<tr>
<td>Gough et al53</td>
<td>Prospective study of 120 patients with RA for 1 year</td>
<td>RF positive and HLA-Dw4 or HLA-Dw14 positive</td>
<td>III</td>
</tr>
<tr>
<td>Möttönen et al54</td>
<td>Prospective study of 142 patients with RA for 6 years</td>
<td>High disease activity at baseline, RF positive especially at 1 year</td>
<td>III</td>
</tr>
<tr>
<td>van der Heide et al55</td>
<td>Prospective study of 128 patients with RA for 1 year</td>
<td>RF positive, with radiographic damage evident at 1 year</td>
<td>III</td>
</tr>
<tr>
<td>van der Heijde et al56</td>
<td>Prospective study of 147 patients with RA for &gt;2 years</td>
<td>High disease activity at presentation or CRP levels, ESR or DAS, DR4+ or DR2-, RF positive</td>
<td>III</td>
</tr>
<tr>
<td>van der Horst-Bruinsma et al57</td>
<td>Prospective study of 139 patients with RA for 1 year</td>
<td>RF positive and arthritis of hands and feet</td>
<td>III</td>
</tr>
<tr>
<td>van Leeuwen et al58</td>
<td>Prospective study of 147 patients with RA for 3 years</td>
<td>Raised CRP and ESR and swollen joints</td>
<td>III</td>
</tr>
<tr>
<td>van Zeiben et al59</td>
<td>Prospective study of 132 patients with RA for 6 years</td>
<td>RF positive, number of swollen joints, and erosion score</td>
<td>III</td>
</tr>
</tbody>
</table>

Table adapted from Kim JM and Weisman MH.18

**Table 3** Risk factors indicative of disability in early RA

<table>
<thead>
<tr>
<th>Author (reference)</th>
<th>Study design</th>
<th>Risk factors at baseline</th>
<th>Evidence category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eberhardt and Fex50</td>
<td>Prospective study of 67 patients with RA; functional assessment – HAQ, 1 year study</td>
<td>Raised HAQ score at baseline, female, low education</td>
<td>III</td>
</tr>
<tr>
<td>Harrison et al50</td>
<td>Prospective study of 200 patients with RA and 181 with inflammatory polyarthritids; functional assessment – HAQ, 1 year study</td>
<td>Raised HAQ score at baseline, large joint involvement</td>
<td>III</td>
</tr>
<tr>
<td>Möttönen et al53</td>
<td>Prospective study of 142 patients with RA; functional assessment – HAQ; 6 year study</td>
<td>RF positive at 1 year, age &gt;60, &gt;4 swollen joints</td>
<td>III</td>
</tr>
<tr>
<td>van Leeuwen et al54</td>
<td>Prospective study of 149 patients, functional assessment – HAQ, 3 year study</td>
<td>Increased tender joint</td>
<td>III</td>
</tr>
<tr>
<td>van Zeiben et al55</td>
<td>Prospective study of 132 patients with RA; functional assessment – HAQ; 6 year study</td>
<td>RF positive, number of swollen joints, and erosion score</td>
<td>III</td>
</tr>
<tr>
<td>Young et al56</td>
<td>Prospective study of 151 patients with RA; functional assessment – HAQ; 3 year study</td>
<td>RF positive</td>
<td>III</td>
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</table>

Table adapted from Kim JM and Weisman MH.18
EARLY DMARD TREATMENT IMPROVES LONG TERM OUTCOME AND PATIENT QUALITY OF LIFE

In 1998, Symmons et al examined the long term mortality outcome of a cohort of 489 patients with RA. The cohort was divided into three groups: early presenters (disease duration ≤5 years); late presenters (disease duration >5 years); and the inception cohort with disease onset after 1 January 1964. With increased disease duration, the incidence of deaths due to infection, renal failure, and non-Hodgkin's lymphoma increased beyond that of the control population; patients with RA who presented and were treated early in the disease did better than late presenters. The study concluded that early treatment improves prognosis and that as a result the patients may have milder disease.

Radiographic and clinical comparisons of patients with RA, treated or not treated with DMARDs, indicate that patients not treated with DMARDs had a significantly higher number of deformed and damaged joints. Clinical evidence indicated that long term use of DMARDs did not necessarily prevent radiographic progression of joint damage, but it significantly slowed the rate of progression compared with non-steroidal anti-inflammatory drug (NSAID) treatment alone.

A large prospective follow up study of 2888 patients over 20 years assessed long term disability in patients treated with DMARDs. Increased DMARD use was associated with a better long term HAQ disability index, showing that consistent DMARD use resulted in a conservatively estimated 30% reduction in disability over the duration of RA.

Each of the three trials represents category III evidence, supporting the statement that DMARD use improves the long term outcome and quality of life over the lifetime of patients with RA.

COMPARATIVE TOXICITY OF NSAIDS AND DMARDS

DMARD treatment in the past was initiated when “NSAIDs no longer worked,” and to a certain extent, this philosophy also served as a referral guideline when considering the aid of a rheumatologist in the treatment of patients with RA. This was based on the assumption that NSAIDs are a benign treatment for the early inflammatory stages of RA and that the potential toxicity of DMARDs precluded their use until the benefits outweighed the risks.

In recent years, it has been recognised that long term treatment with NSAIDs is associated with increased morbidity and mortality among patients with RA owing to the adverse effects of these drugs on the gastro-intestinal mucosa. The more serious side effects of chronic NSAID use include peptic ulceration and upper gastrointestinal bleeding. Admissions to hospital and deaths in the American population related to gastro-intestinal effects are estimated to be 26 000–47 000 and 4400–

![Table 4](http://annrheumdis.com)

<table>
<thead>
<tr>
<th>Author (reference)</th>
<th>Study design</th>
<th>Risk factors at baseline</th>
<th>Evidence category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green et al²²</td>
<td>Prospective study of 63 patients with early RA; 6 months</td>
<td>Disease duration of &gt;12 weeks</td>
<td>III</td>
</tr>
<tr>
<td>Gough et al²³</td>
<td>Prospective study of 120 patients with early RA; 1 year study</td>
<td>RF positive, Dw4/Dw14 genotype high risk group for erosive disease</td>
<td>III</td>
</tr>
<tr>
<td>Harrison et al²³</td>
<td>Prospective study of 258 patients with early RA; 1–2 year study</td>
<td>Female and swollen/tender joints</td>
<td>III</td>
</tr>
<tr>
<td>Masi et al²⁴</td>
<td>Prospective study of 50 patients with early RA; mean study interval 5.7 years</td>
<td>RF positive, female, and swollen/tender joints</td>
<td>III</td>
</tr>
<tr>
<td>Prevoo et al²²</td>
<td>Prospective study of 227 patients with early RA; median follow up 3.9 years</td>
<td>Swollen/tender joints and ESR as component of DAS score</td>
<td>III</td>
</tr>
<tr>
<td>Tunn and Bacon²⁵</td>
<td>Prospective study of 65 patients with early RA; 1 year study</td>
<td>RF positive, ESR, 30 mm/1st h</td>
<td>III</td>
</tr>
<tr>
<td>Wolfe²⁶</td>
<td>Prospective study of 503 patients with early RA; RF positive and 638 with undifferentiated polyarthritids; mean study interval 6.9 years</td>
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</tbody>
</table>

Table adapted from Kim JM and Weisman MH.²²

![Table 5](http://annrheumdis.com)

<table>
<thead>
<tr>
<th>Author (reference)</th>
<th>Study design</th>
<th>Mean disease duration (months)</th>
<th>Treatment</th>
<th>Outcome</th>
<th>Evidence category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Multicentre Clinical Trial Group²⁶</td>
<td>Randomised, placebo controlled trial; 105 &lt;12 non-erosive, DMARD-naive patients; 6 month study</td>
<td>Sulfasalazine</td>
<td>Significantly reduced swollen and tender joints, ESR/CRP, RF, RI, and EMS</td>
<td>Ib</td>
<td></td>
</tr>
<tr>
<td>Borg et al²⁷</td>
<td>Double blind, randomised, placebo controlled trial; 138 DMARD naive patients; 12 month study</td>
<td>Oral gold</td>
<td>Significantly reduced swollen joint counts, x ray progression, and HAQ functional score</td>
<td>Ib</td>
<td></td>
</tr>
<tr>
<td>Davis et al²⁶</td>
<td>Double blind, randomised, placebo controlled trial; 104 mild RA, DMARD naive patients; 12 month study</td>
<td>Hydroxychloroquine</td>
<td>Significantly reduced RI synovial score, ESR, EMS, and improved GS</td>
<td>Ib</td>
<td></td>
</tr>
<tr>
<td>Hannomen²⁷</td>
<td>Double blind, randomised, placebo controlled trial; 80 DMARD naive patients; 12 month study</td>
<td>Sulfasalazine</td>
<td>Significantly reduced swollen joint counts, RI, PGA, pain, and improved GS</td>
<td>Ib</td>
<td></td>
</tr>
<tr>
<td>HERA²⁷</td>
<td>Double blind, randomised, placebo controlled trial; 120 DMARD naive patients; 8 month study</td>
<td>Hydroxychloroquine</td>
<td>Reduced swollen and tender joint counts, HAQ, EMS, pain, and improved GS</td>
<td>Ib</td>
<td></td>
</tr>
</tbody>
</table>

DMARD, disease modifying antirheumatic drug; EMS, early morning stiffness; GS, grip strength; HAQ, Health Assessment Questionnaire; PGA, patient global assessment of disease activity; RF, rheumatoid factor; RI, Ritchie Index.

*Mild RA defined as disease affecting hands and feet only, CRP <20 mg/l, ESR <30 mm/1st h. All patients satisfied either the 1987 revised ACR diagnostic criteria, or the pre-1987 ARA diagnostic criteria.

Adapted from Quinn, Conaghan, and Emery. The therapeutic approach of early intervention for rheumatoid arthritis (submitted).
caused by the human immunodeficiency virus. The long term toxicity of DMARD use is at least no worse than the toxicity of chronic NSAID use, a fact supported by comparison of the quantitave toxicity estimates of NSAIDs and DMARDs that there are no substantial differences between drug categories. Ibuprofen, naproxen, and sulindac each had toxicity indices comparable with that of intramuscular gold. The long term toxicity of DMARD use is at least no worse than the toxicity of chronic NSAID use, a fact supported by category III and IV evidence. DMARD treatment is usually started within three years of diagnosis in 90% of patients with RA; therefore, most patients with RA eventually are subjected to the risks of DMARD toxicity, and it is pointless to delay treatment that may improve both long term outcome and patient function if started early.

### CLINICAL EXPERIENCE: EACS

Early arthritis clinics (EACs), located predominantly in Europe, have addressed the issue of early referral and treatment of patients with early RA, providing insight into the initial stages of RA. Table 4 summarises the risk factors identified by EACs, indicating potential baseline characteristics of patients with early RA (n=233) referred to an EAC with patients (n=241) from a routine outpatient clinic. The diagnosis was reliable and was rarely changed over the one year study period. The observation that erosions are often noted at presentation “justifies considerable effort to motivate both patients and primary care doctors to regard early RA as a medical emergency and thereby to reduce the lag time even more.”

Recent evidence from an open, prospective, dynamic cohort study compared early DMARD treatment with delayed DMARD treatment for patients with recent onset RA (<2 years). The early treatment group had median disease duration of 130 days and the conventional treatment group 166 days. The conventional treatment group with an ACR diagnosis of probable or definite RA received NSAIDs at the point of inclusion in the study, and after ~3 months the patients with active disease received hydroxychloroquine or sulfasalazine.
Rapid referral to a rheumatologist advised in the event of clinical suspicion of RA, which may be supported by the presence of any of the following [grade C evidence]:

- ≥3 swollen joints\textsuperscript{39,46}
- MTP/MCP involvement
  - Squeeze test positive\textsuperscript{46}
- Morning stiffness of ≥30 minutes\textsuperscript{47} (Lard et al, submitted)

Figure 1  Early referral algorithm for newly diagnosed RA.

Within two weeks of inclusion in the study, patients with definite and probable disease in the early treatment group were treated with either hydroxychloroquine or sulfasalazine, and the patients with less active RA were also treated with either hydroxychloroquine or sulfasalazine assigned at random.

Assessments included Health Assessment Questionnaire (HAQ) and radiographic joint damage, erythrocyte sedimentation rate (ESR) and CRP, morning stiffness, the number of swollen joints, and the Ritchie score. After only three months of treatment, the early treatment group showed significant reductions of ESR, CRP, and morning stiffness compared with the group receiving conventional treatment.\textsuperscript{9} Significant improvement in the duration of morning stiffness was sustained at one year with early treatment. Dramatic improvements were also shown by the Sharp score, which evaluates radiographic progression. After two years of treatment, the early treatment group had significantly less radiographic progression than the conventional treatment group, with no advancement of structural damage after the first year. Patient function, determined by the HAQ score showed clinically significant improvement at both one and two years. Conventional treatment showed a slight improvement in the HAQ score, which did not reach the clinically significant threshold.

The results of this study\textsuperscript{36} provide convincing evidence (III, C) of the crucial clinical benefit of early diagnosis and early DMARD treatment (>2 weeks after inclusion in the study) compared with conventional treatment. Early intervention resulted in a favourable outcome over the two years of the investigation; however, long term follow up is needed to confirm the distinct advantage of early DMARD treatment.

**DURATION OF MORNING STIFFNESS**

Morning stiffness, a common problem of patients with RA, affects quality of life and ability to function in the morning.\textsuperscript{17} The duration of morning stiffness correlates with disease activity\textsuperscript{11,15-19} and is a component of the revised American Rheumatism Association (ARA) criteria for RA.\textsuperscript{20} However, morning stiffness as a quantitative evaluation of disease activity or as an outcome assessment in clinical trial may have limited validity.\textsuperscript{21-35}

Regardless of the quantitative power of its duration, morning stiffness is a commonly recognised clinical characteristic of RA. Indeed, morning stiffness and fatigue are often the first symptoms.\textsuperscript{44} The duration of stiffness specific for RA as defined by the revised ARA criteria\textsuperscript{26} is at least 60 minutes and present for six weeks, whereas morning stiffness associated with non-inflammatory joint diseases almost always lasts for less than 30 minutes.\textsuperscript{45} In accord with this observation, the duration of morning stiffness in early RA may be ≥30 minutes (IV). An EAC study included a morning stiffness duration of >30 minutes as a predictor, among other indices, of active disease (Lard, unpublished data).\textsuperscript{18}

**EARLY REFERRAL RECOMMENDATION FOR EARLY RA**

The graded clinical evidence provides clear support for the observations that: (a) permanent structural damage occurs early in the course of active RA,\textsuperscript{18,20} and (b) early DMARD intervention slows the progression of structural joint damage\textsuperscript{10} and improves long term outcome, as well as overall patient quality of life.\textsuperscript{8} These points establish the need for a reliable and sensitive method of referral, enabling the rapid diagnosis of active RA and the subsequent initiation of DMARD treatment.

Figure 1 shows the referral recommendation and represents an evidence based tool summarising essential diagnostic criteria derived from prospective clinical investigations of prognostic factors, EACs, and the consensus of the expert panel. Referral is recommended when there is clinical suspicion of RA, with emphasis placed on suspicion, as delay induced by the desire for a confirming diagnosis often results in disease progression before effective treatment is started. This is supported by the observation that serological markers of RA are often negative during the early stages of RA.\textsuperscript{44} The evidence category supporting the referral tool is predominantly category III, and therefore the recommendation is given a grade C.

The composite compression test or “squeeze” test (fig 1), is a useful technique for clinical evaluation of a group of small, adjacent joints such as the metacarpophalangeal and metatarsophalangeal joints, and the use of this diagnostic test in the assessment of early RA has been recently validated.\textsuperscript{19} Tenderness in a single joint within the group can be isolated by gentle palpation of the individual joints.\textsuperscript{21} Summing the number of tender joints in this manner allows the clinician to determine the number of affected joints. The number of affected joints chosen for this referral recommendation is based on the revised ARA criteria\textsuperscript{26} and recent results from an
EAC in the Netherlands, which specify swelling of three or more joints.

The qualifying points included in the referral recommendation lend additional support to the criteria. There is clinical evidence (III) indicating that patients with RA tend to maintain functional ability and quality of life over the long term when their RA is managed by a rheumatologist compared with a non-specialist. Recent clinical evidence (Lard unpublished data) also shows that there may be only a brief opportunity during which early treatment may effectively stall the progression of RA.

The compiled trials evaluating prognostic factors indicate that disease progression is likely when patients are RF positive and have raised levels of ESR and CRP. However, because these factors are often negative in patients with active RA during the very early stages, their absence should not preclude referral.

NSAID use often obscures RA progression, significantly masking symptoms by reducing inflammation (III, D). Corticosteroids can also mask RA progression, and owing to their potential adverse effects, should not be given without a confirmed diagnosis of RA (IV, D).

CONCLUSION

The evidence based recommendation for early referral of patients presenting with early RA represents a valuable tool for the practising clinician, enabling the identification of the rheumatoid patient with potentially active disease. By recognizing the patients who are likely to have persistent disease and by starting DMARD treatment early, the debilitating effects of RA can be reduced, and long term outcome and patient quality of life can be improved.

References

Early referral recommendation for newly diagnosed RA