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Non-drug therapies in early rheumatoid arthritis

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Non-pharmacological treatment modalities are often used as an adjunct to drug therapy in patients with rheumatoid arthritis (RA). The aim of this overview is to summarize the available evidence on the effectiveness of these modalities in early RA. The few available randomized controlled trials that have specifically investigated patients with early RA support the effectiveness of dynamic exercise and cognitive behavioural interventions, and to a lesser extent of joint protection programmes and foot orthoses. The effectiveness of multidisciplinary team-care programmes, specialist nurse care, electro-physical modalities (including passive hydrotherapy), wrist orthoses, and dietary interventions have not been studied in patients with early RA. Current recommendations on the usage of non-pharmacological treatment modalities in sets of guidelines on the management of early RA vary with respect to their scope, strength and level of detail. The results of this review indicate a need for further investigation into the most clinically effective and cost-effective strategies to deliver non-pharmacological treatment modalities as well as comprehensive arthritis care models in early RA.

The pharmacological treatment of rheumatoid arthritis (RA) has improved considerably over the past years, and a growing body of evidence has emphasized the consistent clinical and radiological benefits of early aggressive treatment [1,2]. Despite these advances, in the first 3 years of the disease

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about 75% of the patients do not achieve full remission, with 15% having a sustained high or moderate disease activity [3]. RA can therefore, even in its early stages, have a significant effect on a patient's physical, emotional and social functioning [1,4].

To support RA patients in coping with the consequences of the disease, non-drug therapies are often used as adjuncts to pharmacological treatment. Non-drug care includes a wide range of modalities, including exercise therapy, physical modalities, orthoses and assistive devices, self-management, and dietary interventions. These modalities have traditionally been provided by various health professionals, who are often designated as the 'multidisciplinary rheumatology team' [5].

In recent years a number of reviews covering a broad spectrum of non-pharmacological interventions in RA has been published [6–9]. As few studies have specifically investigated patients with early RA [7,8], a combination of published evidence and expert opinion was employed in the recent development of three sets of guidelines or recommendations for the multidisciplinary management of early RA (Table 1) [10–14]. So far, the impact and the extent of their implementation have not been evaluated.

Based on published systematic reviews, umbrella reviews, individual studies where appropriate, and sets of guidelines and recommendations, this review summarizes the available evidence on the effectiveness of non-pharmacological therapies in early RA.

Multidisciplinary team care

A rheumatology multidisciplinary team may include – apart from the rheumatologist – nurse specialists, physical therapists, occupational therapists, social workers, dieticians, podiatrists, psychologists and additional physicians such as orthopaedic surgeons or rehabilitation specialists. Until now, systematic reviews and individual studies on multidisciplinary team care focused on established RA. One systematic review [15] comprising 15 controlled clinical trials (nine randomized controlled trials, RCTs) concluded that inpatient multidisciplinary team-care programmes were more effective than regular outpatient care and equally effective as day-patient care with respect to disease activity and functional ability. The benefit of outpatient team-care programmes in comparison to regular outpatient care appeared to be small. Another systematic review [16] evaluated the effectiveness of multidisciplinary interventions including a patient education component. This review included 11 trials (eight RCTs) and concluded that there were limited data to support or refute the effectiveness of multidisciplinary team-care programmes with a patient education component. Two RCTs that were published later [17–20] showed similar effectiveness of inpatient and day-patient team-care programmes regarding disease activity and functional ability, with inpatient team care being more expensive than day-patient care.

Rapid access to a multidisciplinary team is recommended in one set of guidelines on the management of early RA [11–13].

Specialist nurse care

Clinical nurse specialists and nurse practitioners in rheumatology have, apart from their specific nursing skills employed in the context of the multidisciplinary team, extended their roles to incorporate various tasks of the rheumatologist or other professionals and to set up nurse-led clinics.

So far, studies on the effectiveness and safety of clinical nurse specialist care have only been performed in patients with established RA. With respect to specialist nurse care in addition to care provided by a rheumatologist, equivalent clinical outcomes were seen in comparison with care provided by a rheumatologist alone [21] as well as in comparison with inpatient and day-patient team care [18,19]. The safety, effectiveness and/or acceptability of nurse practitioner clinics in comparison with arthritis care provided by physicians have been established in two RCTs [22–24] and a controlled (non-randomized) study [25]. In a recent RCT, the added value of the expert clinical nurse specialist in comparison with an outpatient clinic nurse with respect to patients' perceived ability to cope with their arthritis and to control their perceptions was demonstrated [26].

Specialist nurse care is recommended in one set of guidelines on the management of early RA [11–13].