

# The Use of Guidelines for Managing and Treating Osteoarthritis

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## Summary

Guidelines represent a tool for guiding and, more importantly, helping clinical practice. However, their goals, importance and practical usefulness are debated. Clinical guidelines express expert opinion, mixed with evidence-based practice, but the relative contribution of each are often difficult to discuss.

Practice guidelines for osteoarthritis deal with classification and diagnosis of this heterogeneous condition using clinical and imaging criteria, and describe methodology for clinical outcome measurements. Therapeutic guidelines for osteoarthritis of the hip and knee may help the clinical decision-making process, integrating suggestions for pharmacological and nonpharmacological forms of treatment.

In future, the construct and content validity of the rheumatology guidelines, as well as their practicability and clinical utility should be analytically considered and assessed by randomised, controlled trials in general medical practice.

While it is true that each patient presents a unique clinical problem, some systematic presentation of the options for treatment in the patients' general circumstances is helpful in making the appropriate judgement about clinical management. Properly constructed practice guidelines provide one such aid to clinical judgement.

### 1. Definition of Practice Guidelines

By definition, clinical practice guidelines are 'systematically developed statements to assist practitioners and patients about appropriate health-care for specific clinical circumstances'.<sup>[1]</sup> Thus, guidelines provide explicit recommendations and seek to influence practice using a formal process to disseminate advice on the most effective management in the light of scientific evidence.<sup>[2,3]</sup> They provide a framework for the evaluation and treatment of common clinical problems, but are not intended to replace clinical judgement.<sup>[4-6]</sup> As scientific evidence about efficacy, adverse events and economic implications of treatment grows and accumulates, so management guidelines will change and evolve.<sup>[7]</sup> Sometimes fundamental changes in the understanding of the pathophysiology of disease will necessitate a radical rethinking of previously accepted guidelines.<sup>[8]</sup>

### 2. Types of Guidelines

Guidelines may deal in broad terms with diagnosis, assessment or management of one disease, or a group of diseases, or be more specific about one aspect of a disease.<sup>[9]</sup> Guidelines have also been developed for designing and conducting clinical trials.<sup>[10]</sup> While such guidelines do not strictly fulfil the above definitions, they are important because properly designed and completed clinical trials will provide the hard evidence on which future guidelines for clinical practice should be based.<sup>[11]</sup>

The target audience for some published guidelines is difficult to identify. Some seem to codify broadly held specialist consensus about common conditions and may simply be a way of educating nonspecialists about clinical care they will not be expected to undertake. Others seem to be directed

towards general practitioners (GPs), other health professionals, decision-makers, clinical trialists or their sponsors.<sup>[4,6,8]</sup> Guidelines may also be designed to help patients themselves make treatment decisions.<sup>[2,3]</sup> Within rheumatology, such guidelines exist for the prevention and treatment of steroid-induced osteoporosis<sup>[12]</sup> or the indications for total hip replacement.<sup>[13]</sup> These are accessible for patients through libraries and the Internet and are also available in various patient-information leaflets.

### 3. What are the Goals of Guidelines?

Audet and colleagues<sup>[3]</sup> surveyed a variety of people who had a senior role in guideline development about the aim of guidelines. The participants came from 8 organisations including medical societies, healthcare delivering organisations, insurers and a for-profit health benefit management company. In their opinion, the 2 important goals of guidelines are to improve the quality of care and to control costs. We would also add that pressure from healthcare systems for evidence of rational therapy and reduction of variation between practitioners has encouraged professional groups to be more explicit about treatment practices by defining and publishing guidelines.<sup>[4,7]</sup>

While improved quality and reduced costs were the 2 main goals that emerged from the critical review of the American College of Rheumatologists guidelines policy by Liang, he also stated that guidelines are viewed differently by patients and managers.<sup>[4,7,9]</sup>

From these different viewpoints, guidelines may also be seen as a way of:

- providing a guarantee of minimum essential services
- reducing the wide variation in medical resource utilisation
- simplifying clinical decision-making
- disciplining physicians
- ensuring accountability.

These goals need not be incompatible. In good medical practice, patients should be offered the best available therapy for their condition.<sup>[11]</sup> Im-

**Table I.** Some criteria for grading the validity of guidelines

| Validation measure                               | Traditional guidelines                 | Proposed guidelines  |
|--|--|--|
| Construct validity                               | Consensus between acknowledged experts | Standardised and explicit data acquisition methods   |
| Content validity                                 | Expert opinions                        | Meta-analyses and systematic reviews of the literature, particularly of randomised controlled trials |
| Practicability                                   | Sometimes field tested                 | Field testing in routine clinical practice   |
| Clinical utility (improvement of patients' care) | Assertion                              | Randomised controlled trials of the use of guidelines  |

provement in quality of care does not inevitably conflict with cost control. The best care is probably the most economic care in the long term.<sup>[14-16]</sup> However, while it is clearly important to contain the enormous growth in medical costs,<sup>[17,18]</sup> professionally correct guidelines defend good medical practice against unjustified cost cuttings pursued by health providers and insurance companies.<sup>[1,2,7,8]</sup>

#### 4. Are Guidelines Really Useful?

Definitive evidence for the usefulness of guidelines in improving patient care would best be provided by randomised controlled trials of their use in routine clinical practice. Such evidence is sparse<sup>[8,14,16]</sup> and, as far as we know, there is not much evidence within rheumatology and none for osteoarthritis.<sup>[11]</sup> The apparent benefits of making clear-cut statements about 'best practice' should be balanced against the possibility that guidelines oversimplify medical practice.<sup>[19]</sup> Criticism of 'cookbook medicine' may, however, fail to appreciate that the basics of cooking can be learned from a cookbook, with the mastery to vary the dish to different tastes being developed later.<sup>[1,4]</sup> The 'art of medicine' is not included in guidelines for the individual patient.<sup>[20]</sup> Despite these weaknesses, good practice guidelines seem *a priori* to be useful. The design and construction of guidelines might therefore be a useful exercise. However, the foundation upon which any guideline is based may seriously influence its validity.<sup>[1,4,21]</sup>

Traditionally, groups of experts who are often supported by a professional body, issue and publish guidelines. The 'consensus conference' method has been discredited yet remains widely used.<sup>[22]</sup> Such deliberation should be replaced by systematic review, coupled with explicitly stated extrapolation or explicitly described common practice.

The contribution of evidence-based knowledge, extrapolated expert opinion and consensus practice should be unambiguously stated in the content of guidelines.<sup>[23,24]</sup> We believe that very important measures, such as methods of physiotherapy in the treatment of osteoarthritis, are better than placebo, even though they may not be evidence-based.<sup>[11,25]</sup>

Thus, guidelines are partly evidence-based, partly express expert opinions and partly state expert consensus practice.<sup>[20]</sup> Because they include expert opinion they are related to particular cultures, healthcare systems and socioeconomic structures. The American College of Rheumatology guidelines may not be valid for Afghanistan, Turkey or even for Hungary.<sup>[26]</sup>

We propose that guidelines should be more evidence-based in the future, than they are today.<sup>[1,4,6,11,27]</sup> In addition, their construct and content validity, as well as their practicability and clinical utility should also be analytically considered (table I). None of the guidelines discussed below have been shown to meet our proposed validity criteria.

#### 5. Guidelines in Rheumatology

There are 3 types of guidelines in rheumatology: classification and diagnostic guidelines; position papers; and guidelines for therapy in rheumatic diseases. Some of them are listed in table II.

The American College of Rheumatology deals with almost all of them, both in construction and validation, and provides these guidelines for the use of the medical community through guideline articles.<sup>[9,28]</sup> Most recently, they are accessible through the Internet (<http://www.rheumatology.org/papers.html>).

**Table II.** American College of Rheumatology classification, diagnostic and therapeutic guidelines<sup>a</sup>

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**Classification and diagnostic criteria for rheumatic diseases**

Churg-Strauss syndrome  
 Fibromyalgia  
 Giant cell (temporal) arteritis  
 Gout  
 Henoch-Schoenlein purpura  
 Hypersensitivity vasculitis  
 Osteoarthritis of the hand  
 Polyarteritis  
 Rheumatoid arthritis  
 Reiters syndrome  
 Systemic lupus erythematosus  
 Systemic sclerosis  
 Takayasu arteritis  
 Wegener's granulomatosis

**Approved position papers**

Access to care (1997)  
 Access to rehabilitation for people with rheumatic disease (1996)  
 Ambulatory teaching (1993)  
 Bone density measurement (1993)  
 Clinical laboratory testing (1991)  
 Diet and arthritis (1990)  
 Direction of physical and occupational therapy services for patients under the care of a rheumatologist (1996)  
 Fetal tissue research (1991)  
 Guidelines for obtaining a rheumatology consultation (1989)  
 Guidelines for the practice of arthroscopy by rheumatologists (1989)  
 Indirect costs (1991)  
 Long term care insurance (1989)  
 Methotrexate (1991)  
 Rheumatic disease care in managed health care systems (1993)  
 The rheumatologist's role in providing second opinions for reconstructive orthopaedic and neurological surgery (1993)  
 Therapeutic substitution (1991)  
 Use of animals in biomedical research (6/8/91)  
 Safety guidelines for performing arthrocentesis  
 Silicone breast implant position paper (1996)  
 Medicare restructuring/the voucher system  
 Osteoporosis (1996)

**Guidelines for therapy in rheumatology**

Steroid-induced osteoporosis  
 Guidelines for referral  
 Guidelines for management of knee osteoarthritis  
 Guidelines for management of hip osteoarthritis  
 Guidelines for the initial evaluation of the adult patient with acute musculoskeletal symptoms  
 Guidelines for the management of rheumatoid arthritis  
 Guidelines for monitoring drug therapy in rheumatoid arthritis

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<sup>a</sup> Source: <http://www.rheumatology.org.html>.

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## 6. Osteoarthritis Guidelines

Osteoarthritis is the most common articular disease affecting probably hundreds of millions of people, causing a huge socioeconomic burden for those affected and for society.<sup>[29-31]</sup>

This review examines the guidelines developed for better clinical practice in diagnosing and treating osteoarthritis. This is difficult because there are no specific clinical criteria for the diagnosis of osteoarthritis and the pathological (and imaging) characteristics are very inconsistently related to symptoms. The signs of osteoarthritis which are visible by imaging methods may appear long after the first clinical symptoms. In contrast, a high proportion of people with pathologically or radiologically detectable osteoarthritis are symptom-free, although there are no longitudinal observations of the duration of the symptomless stage, or how long many of those with asymptomatic osteoarthritis remain asymptomatic during all of their lifetime.<sup>[32-34]</sup>

## 7. Classification and Diagnostic Criteria

Criteria for classification and reporting of osteoarthritis have been developed by the American Rheumatism Association, later the American College of Rheumatology. Guidelines for the classification and reporting of osteoarthritis of the knee were published in 1986,<sup>[35]</sup> followed by similar guidelines for the hand<sup>[36]</sup> and hip.<sup>[37]</sup> In these guidelines, an attempt was made to differentiate primary and secondary osteoarthritis and provide the possibility of making a diagnosis of osteoarthritis *without* any radiological features, at least for the knee and the hand.

This attempt is compatible with the need to provide clues for early diagnosis, *before* the appearance of any radiological alterations. The criteria provided high specificity and sensitivity against expert clinical diagnosis, but the clinical features selected (with the exception of pain) were rather ill-defined or arbitrary, and their prevalence was not established in the general population. It may be necessary to review the different criteria when adapting them to population studies.<sup>[38-40]</sup> Even

though all these guidelines do not have the evidence base we would wish, they will at least allow the standardisation of patients entered into clinical treatment protocols or clinical trials,<sup>[41,42]</sup> in a similar way to the classification of rheumatoid arthritis.<sup>[43]</sup> The presently available summarising reports about the classification and diagnosis of osteoarthritis provide a strong basis on which to compile a comprehensive and updated set of such guidelines in the near future.<sup>[32-34,44,45]</sup>

## 8. Imaging Guidelines

As with the clinical classification of osteoarthritis, the promulgation of guidelines for imaging techniques in osteoarthritis will help to standardise comparisons between groups.<sup>[32,33,46,47]</sup> The first comprehensive description of radiographic methods for the different sites of osteoarthritis was published by Kellgren and Lawrence 40 years ago.<sup>[48]</sup> It remained for many years a 'golden standard' both for the radiological diagnosis and the estimation of the progression, as its grading scales (0 to 4) are easy to perform and seem to be sufficiently sensitive for osteoarthritis of the knee, hip and hands.<sup>[49,50]</sup> However, having serious limitations in certain joint sites (e.g. the lack of lateral imaging in osteoarthritis of the knee)<sup>[51,52]</sup> it may now be superseded by several recent guidelines. These are partly technical descriptions of the available most accurate positioning methods in order to improve diagnostic sensitivity and also to reduce the 'noise' in diagnostic algorithms.<sup>[46,53-58]</sup>

Plain x-ray imaging still represents the simplest and most cost-effective way of detecting disease progression in osteoarthritis.<sup>[58-61]</sup> Several excellent publications exist both for description of the precise methodology,<sup>[55,62,63]</sup> and for estimation of the different radiological features with the aid of standardised atlases.<sup>[64-66]</sup>

All the other 'high tech' imaging methods, such as microfocal radiography,<sup>[67]</sup> magnetic resonance imaging,<sup>[68]</sup> diagnostic and quantitative arthroscopy,<sup>[69]</sup> dual-energy x-ray absorptiometry,<sup>[70]</sup> isotope imaging<sup>[71]</sup> and ultrasound<sup>[72]</sup> are important, but not vital, in the diagnosis and monitoring of the

condition. In addition, their costs are sometimes high and they can not always be easily accessed and used in everyday practice. There are, however, some possible exceptions.

The newly developed method of arthroscopy (chondroscopy) can be performed under local anaesthesia and exhibits as a highly predictive visually controlled imaging method.<sup>[73]</sup> Diagnostic ultrasound can be easily used by the bedside in everyday clinical practice in hospitals and even in outpatient clinics.<sup>[74]</sup> Night pain is highly correlated with intra-articular effusion of the hip joint in osteoarthritis.<sup>[75]</sup> Simple ultrasound examination, followed by an ultrasound-guided aspiration of the inflammatory fluid – with or without the use of intra-articular steroid injection – may decrease the pain at rest for a long time.<sup>[75]</sup> Additionally, in some specific situations, such as the clinical suspicion of loosening of hip joint prosthesis, ultrasound can be the only imaging method for diagnosing intra-articular effusion in the hip, as metal parts are not suitable for computerised tomography and magnetic resonance imaging investigation.<sup>[76]</sup>

Specific laboratory ('biochemical') markers are still missing in osteoarthritis,<sup>[77]</sup> although several promising trials showed recently that a direct correlation seems to be existing between inflammatory activity, cartilage destruction and disease progression.<sup>[78-80]</sup>

## 9. Guidelines for Clinical Trials in Osteoarthritis

The recent development of broad guidelines for clinical trials in osteoarthritis has had more direct reference to the evidence base in the literature.<sup>[11]</sup> One consequence of this will be the clinical parameters, used originally for clinical trials [e.g. Ritchie's Index or visual analogue scale (VAS)], will later become part of clinical documentation.<sup>[34,62]</sup>

The need for clinical trial protocols in osteoarthritis is not new: the European League Against Rheumatism (EULAR) developed a guideline system for the evaluation of drugs used in rheumatic diseases, in which they gave a detailed description of osteoarthritic measures in the EULAR Bulletin

in 1985.<sup>[81]</sup> This was followed by the US Food and Drug Administration (FDA) guidelines<sup>[82]</sup> and later the guidelines for testing slow-acting drugs in osteoarthritis (SADOA).<sup>[83]</sup> These guidelines are neither up to date, such as the EULAR and the FDA guidelines, nor theoretically and practically correct, like the SADOA 'criteria'.<sup>[84]</sup> To evaluate the real progression of the condition both clinically and morphologically, we need a set of specific and sensitive measures as well as a standardised methodology.<sup>[85,86]</sup>

The first steps towards an evidence- and expert-based collection of recommendations for the registration of drugs used in osteoarthritis had been taken by the osteoarthritis section of the European Working Group for the Respect of Ethics and Excellence in Science (GREES),<sup>[87]</sup> which divides anti-rheumatic drugs for symptom – and structure – modifying categories. A core set of recommendations for the trial methodology has also been recently published as a consensus statement at the third Outcome Measures in Rheumatology Clinical Trials (OMERACT) in 1997, where the consensus was based on a review of the best available evidence of the usefulness of specific measures.<sup>[88]</sup> An

expert-based collection of current methodology was also summarised by the Steering Committee of the Osteoarthritis Research Society.<sup>[10,89]</sup> In addition to all these recommendations, a set of methodological trials for osteoarthritis of the hand was recently published.<sup>[90]</sup> The value of these guidelines and recommendations should be tested not only by the few available meta-analytical studies,<sup>[91]</sup> but also in the everyday practice (table I).<sup>[11]</sup>

## 10. General Management Guidelines

Table III lists some therapeutic guidelines for the pharmacological, nonpharmacological and surgical therapy of osteoarthritis. Two important published guidelines about the management of patients with osteoarthritis of the hip<sup>[92]</sup> and the knee<sup>[93]</sup> have come from the US and one from the UK.<sup>[94]</sup> All are aimed primarily at GPs. The US guidelines deal separately with 2 disease localisations. This is consistent with differences in the epidemiology, prognosis and management of the 2 localisations of osteoarthritis.<sup>[95]</sup> Both guidelines include differential diagnostic hints, especially the diagnosis of pain arising from periarticular pathologies, enthesopathies, bursae or referred in nature.<sup>[96]</sup>

**Table III.** Some therapeutic guidelines for the pharmacological, nonpharmacological and surgical therapy of osteoarthritis

| Authors                                 | Organisation   | Topic  | Date of issue |
|---|--|--|---------------|
| Hochberg et al. <sup>[92]</sup>         | ARC  | OA of the hip                                  | 1995          |
| Hochberg et al. <sup>[93]</sup>         | ARC  | OA of the knee                                 | 1995          |
| Scott <sup>[94]</sup>                   | BSR + Royal College of Physicians of London                  | OA as a whole                                  | 1993          |
| Anonymous <sup>[98]</sup>               | Independent  | OA as a whole                                  | 1996          |
| Russel et al. <sup>[105]</sup>          | NA   | NSAIDs treatment in general                    | 1994          |
| Wollheim <sup>[106]</sup>               | NA   | Pharmacological treatment of OA                | 1996          |
| Brandt <sup>[122]</sup>                 | NA   | Nonpharmacological treatment of OA             | 1995          |
| Anonymous <sup>[125]</sup>              | Rheumatic Care Association of the Chartered Physiotherapists | Good clinical practice in physiotherapy        | 1996          |
| Law et al. <sup>[126]</sup>             | Canadian Association of Occupational Therapists              | Good clinical practice in occupational therapy | 1994          |
| Burckhardt <sup>[127]</sup>             | Arthritis Foundation   | Patient education standards in general         | 1994          |
| Buckwalter & Lohmander <sup>[130]</sup> | NA   | Surgical management of OA in general           | 1994          |
| Crawford & Murray <sup>[13]</sup>       | NA   | Surgical treatment of hip OA                   | 1997          |
| Williams <sup>[132]</sup>               | NA   | Surgical treatment of knee OA                  | 1996          |
| Mahomed & Katz <sup>[133]</sup>         | NA   | Revision arthropathy                           | 1996          |

*Abbreviation:* ARC = Arthritis and Rheumatism Council; BSR = British Society for Rheumatology; NA = not approved; NSAIDs = nonsteroidal anti-inflammatory drugs; OA = osteoarthritis.

The guidelines emphasise the use of nonpharmacological forms of management:

- patient education
- patient contact
- physiotherapy and occupational therapy
- the use of different aids or devices.

They agree also in the principles of drug treatment:

- priority for simple analgesics
- limited use of nonsteroidal anti-inflammatory drugs
- the necessity of using opioids in some patients.

They also list experimental treatments, such as joint lavage for the knee, and indications for surgery. Differences between the UK and US guidelines are minor. The diagnostics in the US guidelines are more detailed and the practice of nonpharmacological treatment is better formulated and more specific. The UK guideline includes patients' needs and expectations with more detailed reasons for specialist referral and for surgery. They also provide a list of suggested measures for audit, detail recommended standards of service, provide a check-list and memo for diagnostic and management measures, and emphasise collaboration between GPs and specialists. Both these sets of guidelines are presented as the result of consensus development between expert clinicians, but neither is adequately explicit in the extent to which data, extrapolation and current expert practice are used as the basis for the guidelines.<sup>[96]</sup>

There is a need for a clear description of what an education programme should contain and what exercise programmes may include in different types of localisation and stages of osteoarthritis.<sup>[97,98]</sup> However, we need more clear-cut evidence in these fields.<sup>[11]</sup>

Guidelines are works in progress, because medical care is constantly changing.<sup>[1-4]</sup> Ideally, the evidence-based parts will grow and the part of expert-opinions decrease.<sup>[6,8,28]</sup> It seems to us that the present practice guidelines will eventually be refined regarding the different compartments of knee osteoarthritis (patellofemoral, medial and lateral tibiofemoral) as well as the different (superior and medial) types of hip osteoarthritis,<sup>[25,95]</sup> and

they will also consider the different needs of the various target-groups of physicians, for whom the guidelines will be produced.<sup>[99]</sup> Measures to prevent disease progression such as weight reduction, muscle strengthening and advice for joint protection for people at risk might be included.<sup>[100-103]</sup>

## 11. Guidelines for Drug Therapy in Osteoarthritis

Guidelines for pharmacological therapy in osteoarthritis have shown a dramatic change in the recent decade.<sup>[100,104-106]</sup> While both pain and inflammation represent important targets for adequate drug therapy, there is now evidence that osteoarthritis is a condition of phasic nature. Therapy should be matched to the particular phase of the disease and osteoarthritis probably does not require continuous drug treatment.<sup>[11,107]</sup> There are some persuasive studies showing that simple analgesics can deal with pain in patients with osteoarthritis and doctors should not need to take the risk of prescribing nonsteroidal anti-inflammatory drug treatment for longer periods.<sup>[108-110]</sup> Using recent studies<sup>[111,112]</sup> about the ability of GPs to change their prescribing habits, it should be possible to reduce the traditional dependence on anti-inflammatory treatment. Two recently published meta-analytical studies addressed the pharmacological therapy in osteoarthritis of the hip<sup>[113]</sup> and the knee.<sup>[114]</sup> Based on the analysis of the collected results of a wide range of clinical trials, this represents a useful tool for the rheumatologist to estimate the effectiveness of drug therapies in osteoarthritis.

Different forms of intra-articular therapy and their effectiveness in osteoarthritis have been a subject of debate for some time.<sup>[115]</sup> On the basis of a recent comparative trial of intra-articular triamcinolone and hyaluronic acid,<sup>[116]</sup> a recommendation about trial methodology<sup>[117]</sup> and a survey of the literature,<sup>[118]</sup> we draw the following conclusions. Joint aspiration in osteoarthritis of the knee seems to benefit patients for a month or two. The addition of intra-articular glucocorticoids may give additional benefits for a week or two only.

Some published data suggest that intra-articular viscosupplementation may reduce pain for several weeks or months, but there is an urgent need to compare the effects of placebo with high and low molecular weight hyaluronic acid. Clinical studies of intra-articular therapy should include a placebo-controlled arm at the earliest stage of treatment evaluation.<sup>[118]</sup>

## 12. Guidelines for Nonpharmacological Therapy in Osteoarthritis

Nonpharmacological therapies represent the oldest medical treatment, in the forms of hot bath, and warm and cold packs. In addition, the history and progress of medicine has been connected with spa resorts for centuries.<sup>[119]</sup> Nonpharmacological treatment methods can be divided into management with different physical energies (physiotherapy), or appliances (occupational therapy), and they also address the various psychosocial issues.<sup>[120]</sup> These therapies cover a wide range of medical specialities, such as rheumatology, nonoperative orthopaedics, physiotherapy, occupational therapy, psychology, experts in medical rehabilitation and healthcare workers of different backgrounds.<sup>[121-123]</sup>

The provision of a unified guideline system for all these specific subspecialities seems to be an impossible idea.<sup>[25]</sup> The specific nature and heterogeneity of these therapeutic options sometimes make them difficult to compare with placebo treatment.<sup>[25,119,122]</sup> In addition, some treatments such as hydrotherapy, balneotherapy and pulsed electromagnetic fields, include the effects of a combination of different physical energies. Other options, such as treatment at a bath or a spa resort, are a mixture of various physical and psychological effects.<sup>[25]</sup> Despite these difficulties, in order to prove their efficacy, comparative experiments on nonpharmacological therapies should be undertaken as rigorously as those used in drug trials.<sup>[25]</sup>

The lack of standardised criteria for assessing response to nonpharmacological interventions is reflected in a recent meta-analysis.<sup>[124]</sup> The authors estimated the methodological quality of some published trials on physiotherapy. Their 100-point rat-

ing method was based on the study population, description of the therapeutic regimens, measurement of the therapeutic effect as well as data analysis and presentation of results. The median methodological score, reached by the analysed trials, was about 50 points in shoulder, 40 points in back and neck pain, and less than 30 points in knee disorders.<sup>[124]</sup>

The Rheumatic Care Association of Chartered Physiotherapists has recently published its guidelines of good practice for the management of people with rheumatic diseases.<sup>[125]</sup> This is a collected set of measurement requirements and therapeutic options, including methods for pain relief with different forms of exercise therapy, prevention of joint deformities, etc. Similar collections for occupational therapy<sup>[126]</sup> and for patient education standards<sup>[127]</sup> have also been published in recent years. The value of all these recommendations remains questionable until their clinical utility and applicability are proven in general practice.<sup>[11,98,123]</sup>

## 13. Guidelines for Surgical Treatment in Osteoarthritis

GPs and rheumatologists may benefit from recommendations or guidelines about the indications for surgical treatment of osteoarthritis. Two recent surveys clearly showed the huge range of variability in the perceptions of rheumatologists, GPs and even orthopaedic surgeons, of the indications and outcomes of knee surgery.<sup>[128,129]</sup>

A set of such ideas has been collected in a broad description of perceived current practice.<sup>[130]</sup> Apart from the useful evidence-based information provided in this article, we emphasise that total joint arthroplasty is not the only method of treatment in osteoarthritis. Well tried but almost forgotten methods, such as correction osteotomies, may need to be reconsidered. Because of the specificity of different joint sites, recommendations are generally published for osteoarthritis of the hip<sup>[131]</sup> and knee<sup>[131,132]</sup> separately.

All of these surgical interventions in osteoarthritis have a failure rate. Some studies deal with overall predictive risk factors for failure<sup>[13]</sup> as well

as for the signs of loosening and indications for revision arthroplasty.<sup>[133]</sup>

## 14. Guidelines for General Practitioners' Referral in Osteoarthritis

The majority of the patients with osteoarthritis are diagnosed and treated by their GPs. The guidelines for referrals to rheumatology therefore have a high 'importance factor' for our GP colleagues.

General recommendations for 'acute hot joints' both from the UK<sup>[134]</sup> and the US<sup>[135]</sup> are valid in the case of osteoarthritic disorders in their highly inflammatory phase. A recent, probably more 'consumer-friendly' set of recommendations is widespread as an Arthritis and Rheumatism Council (ARC) information leaflet, especially designed for GPs.<sup>[136]</sup>

## 15. Conclusion

The role of guidelines in the dissemination of evidence-based practice remains debatable, but we believe that they may have a role even in osteoarthritis, where the lesser part of management is strongly evidence-based and the greater part mirrors expert opinion. Guidelines in osteoarthritis should be developed further, tailoring them to the growing body of knowledge about osteoarthritis. Present guidelines will not dramatically change the behaviour of GPs in their management and education of osteoarthritic patients, but might slowly influence their habits. The content of present guidelines should be reviewed against the current best evidence. The guidelines should then undergo feasibility testing in routine care, followed by randomised controlled trials for efficacy.

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