
Quality indicators in psoriatic arthritis

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ABSTRACT

Psoriatic arthritis (PsA) is an autoimmune, chronic, systemic inflammatory disorder characterized by the association of arthritis with psoriasis. Patients with PsA may have a heterogeneous and variable clinical course. The condition is complex and multifaceted, with the possibility for prominent involvement in the peripheral and axial diarthrodial joints, the skin and nails, and periarticular structures such as the entheses. Recently, members of the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) completed a systematic literature review on psoriatic arthritis. In conjunction with expert opinion and appropriate input from stakeholders, the information from the literature review will serve as the basis for the development of recommendations for the optimal treatment of patients with PsA. As such, these guidelines will form the basis for identifying what constitutes quality medical care for patients with PsA.

Introduction

Psoriatic arthritis (PsA) is an autoimmune chronic systemic inflammatory disorder characterized by the association of arthritis and psoriasis. Among affected patients, PsA may be quite heterogeneous with a variable clinical course. For example, some patients have mild disease that is adequately responsive to mild therapeutic intervention, whereas others may exhibit severe erosive arthropathy that is often refractory to several treatments and may be associated with functional disability and even accelerated mortality. Although research has identified certain characteristics that are associated with poorer outcomes, such as polyarticular involvement, genetic associations, and the presence of radiographic damage, additional data are required so that patients can be stratified individually for optimum therapy.

PsA is a complex, multi-faceted disease with prominent involvement of the peripheral diarthrodial joints, axial joints, periarticular structures (e.g., entheses and other soft tissues, resulting in dactylitis), and the skin and nails. Recognizing the diversity of its clinical characteristics, classification criteria for PsA have been developed and updated (1, 2). For a particular patient, treatment decisions may be driven by the extent and severity of the involvement in one or more of these areas; however, all sites should be closely monitored for manifestations of active inflammation.

A number of different therapies have been employed for the treatment of the various manifestations of PsA. Most of these treatments were “borrowed” from conditions that have a pathophysiologic and/or clinical resemblance to particular facets of PsA, such as the peripheral arthritis of rheumatoid arthritis (RA), the axial involvement of ankylosing spondylitis (AS), and the skin and nail involvement of psoriasis (with no arthritis). The extent to which some therapeutic strategies can be extrapolated to PsA from other systemic inflammatory diseases remains to be fully described. Similarly, outcome measures have been validated or are in the process of being validated for these other conditions. The potential applicability of outcomes initially derived for patients with RA, psoriasis, and AS in the assessment of PsA patients remains under investigation.

Recent progress in the delineation of the immunopathophysiologic characteristics of PsA, in conjunction with advances in biotechnology, have driven the development of novel therapeutic agents – including inhibitors of TNF – for PsA. Issues such as cost, toxicities, and other considerations surrounding these newer treatments have stimulated considerable interest in the development of treatment guidelines for PsA. It is widely agreed that guidelines

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should be based upon the best available scientific evidence. For PsA, however, this raises several concerns. On the one hand, because study in this area is dynamic and rapidly progressing, the “state of the art” often exceeds what has been published in the peer-reviewed medical literature. For example, the results of well-designed studies may be publicly presented at scientific meetings and become widely known for a considerable period of time before they are actually published. On the other hand, guidelines that adhere to strict scientific evidence may not address all of the practical issues necessary for physicians caring for patients in the clinic. Thus, in the absence of head-to-head studies or even comparable trials, it is difficult to state that one class of therapy should be tried prior to another.

It also should be recognized that study designs have evolved rapidly, with the inclusion of more homogeneous subsets and a greater number of study subjects. Moreover, it is now expected that trials should be adequately powered to assess compounds that are dosed in the therapeutic range of efficacy with properly validated outcome measures. Thus, from a methodologic standpoint many older studies were much less rigorous, and potential bias against older therapies may arise because the study designs are considered to be inadequate by today’s standards. It should be remembered, however, that the absence of evidence of an effect is not equivalent to evidence of the absence of an effect. Finally, a major limiting factor in all systematic reviews of PsA is the lack of standardized, validated outcome measures for specific manifestations of the disease.

The Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) was founded in 2003 and includes rheumatologists, dermatologists, and other investigators. Among the key missions of GRAPPA are: 1) to identify and study key domains of inquiry in PsA and psoriasis, 2) to develop updated classification criteria for PsA (through the Classification of Psoriatic Arthritis [CASPAR] group), 3) to validate and standardize outcome assessment tools in PsA and psoriasis

for basic clinical and therapeutic studies, and 4) to develop treatment recommendations. These goals will allow us to define what might constitute quality care for patients with PsA. The foundation for this process was a systematic literature review using established recommendations (3, 4). Individual facets of PsA were reviewed and evidence supporting the diagnosis, stratification and treatment of PsA patients with such involvement were critically reviewed (5-12). These data provide the basis for quality indicators.

Quality indicators for PsA

The quality indicators below, which were derived from the systematic literature review, are presented in a series of IF / THEN statements.

1. IF *a person is suspected of having PsA*, THEN the diagnosis should be confirmed using the CASPAR (Classification criteria for Psoriatic Arthritis) criteria (2). PsA is an inflammatory musculoskeletal disease defined by features such as erythema, warmth, and swelling; prominent morning and rest stiffness; and pain involving the joints, spine, and/or enthesium with at least 3 points from the following features: current psoriasis (assigned a score of 2; all other features are assigned a score of 1), a history of psoriasis (unless psoriasis is currently present), a family history of psoriasis (unless psoriasis is currently present or there is a history of psoriasis), nail changes, dactylitis, juxta-articular new bone formation on radiographs, and rheumatoid factor negativity. The diagnosis of psoriasis should preferably be made and/or confirmed by a dermatologist or appropriately qualified health professional. The diagnosis of inflammatory musculoskeletal disease should preferably be made and/or confirmed by a rheumatologist or appropriately qualified health professional.

2. IF *a person has PsA*, THEN the health care provider caring for this person should consider all of the following individual aspects of disease: 1) peripheral arthritis, 2) psoriasis, including nail involvement, 3) axial disease, 4) dactylitis, and 5) enthesitis (see Fig. 1).

3. IF *a person with PsA has peripheral arthritis*, THEN baseline evaluation should include the following domains (consensus on a core set of domains for psoriatic arthritis assessment established at OMERACT 8): 1) peripheral joint assessment, including 68 joints for tenderness and 66 joints for swelling; 2) pain; 3) patient global assessment of disease activity; 4) physical function, measured by an instrument such as one of the versions of the Health Assessment Questionnaire (HAQ); 5) health-related quality of life as assessed by a general measure such as the Short Form 36 (SF-36) or a PsA-specific measure such as the Psoriatic Arthritis Quality of Life measure (PsAQOL); 6) fatigue, as measured by patient self report or use of a measure such as the Functional Assessment of Chronic Illness Therapy (FACIT) instrument; 7) acute phase reactants such as C-reactive protein (CRP) or the erythrocyte sedimentation rate (ESR); and 8) radiographic assessment, which is encouraged based on the clinical manifestations and the physician’s discretionary judgment. It is appropriate that these same measures then be monitored over time, and any changes form the basis for an assessment of both the progression of disease activity and response to therapy. Incorporation of the individual measures into an index, for example using the disease activity score (DAS), may be of benefit.

4. IF *a person with PsA has peripheral arthritis*, THEN he or she should be stratified to help determine the anticipated prognosis of the disease. Factors associated with a poor prognosis in terms of progression of peripheral joint disease and damage in PsA include: 1) an increased number of involved joints (*i.e.*, polyarticular as opposed to monoarticular disease); 2) elevated ESR; 3) failure of previous medication trials; 4) the presence of damage on x-rays; 5) loss of function as assessed by HAQ; and 6) diminished quality of life as assessed by SF-36 or PsAQOL.

Patients may be roughly stratified in the categories of “mild”, “moderate” or “severe” peripheral arthritis according to presence of increasing numbers of these criteria.

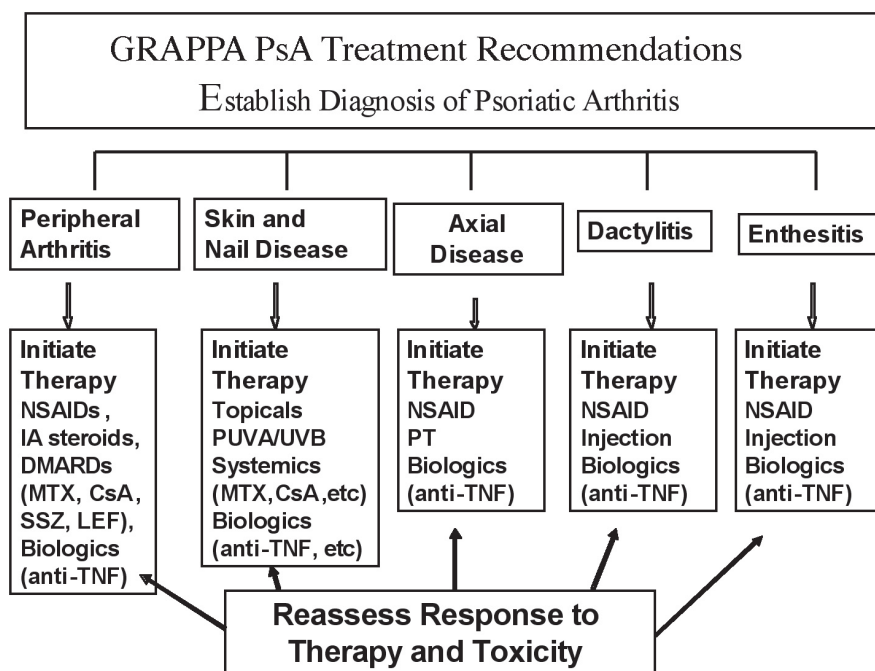


Fig. 1. GRAPPA psoriatic arthritis (PsA) treatment recommendations (reproduced with permission from the *Journal of Rheumatology* 2006; 33: 1417-21).

5. IF a person with PsA has peripheral arthritis, THEN treatment should be instituted, based on their disease activity and prognosis. Non-steroidal anti-inflammatory drugs (NSAIDs) may be considered for the control of symptoms. Systemic corticosteroids are not typically recommended for the treatment of psoriasis and are advisable only in discrete circumstances, not for chronic use as they may cause post-steroid psoriasis flare and other adverse effects. Intra-articular glucocorticoid injections may be given judiciously to treat persistent mono- or oligoarthritis, if care is taken to avoid injection through psoriatic plaques.

All patients with severe or moderate peripheral arthritis should be started on DMARDs. Patients with mild disease should be considered for DMARDs if they do not respond to NSAIDs or intra-articular steroids. DMARDs have the potential to reduce or prevent joint damage, and to preserve joint integrity and function. Many factors influence the choice of DMARD for the individual patient. Patients and their physicians must select the initial DMARD based on its relative efficacy, convenience of administration, requirements of the monitoring program, costs of the medication

and monitoring (including physician visits and laboratory costs), time until expected benefit, and the frequency and potential seriousness of adverse reactions. The physician should also assess patient factors such as the likelihood of compliance, co-morbid diseases, the severity and prognosis of the patient's disease, and the physician's own confidence in administering and monitoring the drug. Because of these many considerations, input from a rheumatologist is often essential when initiating DMARD therapy. According to the evidence, the DMARDs recommended as first line therapy are sulfasalazine, leflunomide, methotrexate and cyclosporine. Gold salts, chloroquine and hydroxychloroquine are not recommended for use in PsA. Patients who fail to respond to at least one standard DMARD therapy should be considered for anti-TNF α therapy. Patients with a poor prognosis could be considered for anti TNF α therapy even if they have not failed a standard DMARD.

6. IF a person with PsA is suspected of having axial involvement, THEN 2 out of 3 of the following criteria should be satisfied: 1) inflammatory back pain (with features including onset age < 45

years, symptoms > 3 months, > 30 minutes morning stiffness, insidious onset, improvement with exercise, alternating buttock pain); 2) limitation of motion of the cervical, thoracic, or lumbar spine in both the sagittal and frontal planes; and 3) radiological criteria (unilateral sacroiliitis Grade 2 or more, or non-marginal and symmetric syndesmophytes on plain x-ray, or MRI changes indicating bone marrow edema, erosions, or joint space narrowing).

7. IF a person with PsA has axial involvement, THEN disease activity should be measured using the Bath Ankylosing Spondylitis Disease Activity Index (BASDAI).

8. IF a person with PsA has axial involvement, THEN treatment modalities that can be employed include: NSAIDs, physiotherapy, education, analgesia, injection of the sacroiliac joint, and TNF inhibitor therapy.

9. IF a person with PsA is suspected of having enthesitis, THEN the diagnosis can be established on the basis of a clinical examination, ultrasound with power Doppler, or magnetic resonance imaging (MRI).

10. IF a person with PsA has enthesitis, THEN treatment modalities include: NSAIDs, physical therapy, injections (mild disease), DMARDs (moderate disease), TNF inhibitors (severe disease).

11. IF a person with PsA has active skin psoriasis, THEN the severity of the disease should be assessed, using the following definitions of severity: (i) mild (generally asymptomatic, and minimal impact on the quality of life, and amenable and responsive to localized therapy, and less than 5% body surface area (BSA) involvement for plaque psoriasis, and no incapacity and/or disability); (ii) moderate (inadequate response to localized therapy, or more than minimal impact on quality of life, or symptomatic, or body surface area involved generally greater than 5% for plaque psoriasis, or moderate degree of disability or incapacity); and (iii) severe (severe impact on quality of life, or symptomatic, or

body surface area involvement generally greater than 10% for plaque psoriasis, or patients with erythrodermic or pustular psoriasis, or severe degree of incapacity or disability).

In Europe, moderate-to-severe psoriasis is frequently defined using the "rule of 10's." Thus, to be called moderate-to-severe, the body surface area (BSA) involved with psoriasis, the impact of psoriasis on quality of life (assessed using the dermatology life quality index [DLQI]), or the psoriasis area and severity index (PASI) must exceed a score of 10.

12. IF a person with PsA has active skin psoriasis, THEN treatment options include: 1) first line (phototherapy, methotrexate, fumaric acid esters, TNF inhibitors, efalizumab, cyclosporine); 2) second line (acitretin, alefacept); 3) third line (sulfasalazine, hydroxyurea, leflunomide, mycophenolate mofetil, thioguanine).

13. IF a person with PsA has dactylitis, THEN the treatment options include: 1) for mild disease: NSAIDs, physiotherapy, corticosteroid injection; 2) for moderate disease unresponsive to these treatments: DMARDs, including

sulfasalazine, leflunomide, methotrexate, cyclosporine; 3) for moderate to severe disease, and in cases of failure to respond to the above regimens: TNF inhibitors.

Conclusion

The quality indicators suggested herein are based on the best currently available scientific evidence. The decision to choose a particular treatment, however, should be based on a variety of factors: the diagnosis, disease activity, prognosis, co-morbid conditions, and individual preferences of each patient; the anticipated benefits and risks of treatment; quality of life issues; and political and social considerations. GRAPPA will continue to encourage research aimed at validating outcome measures and developing specific treatment recommendations for patients with PsA, in order to help optimize the quality of care for patients with PsA.

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