Outcome Measures for Psoriasis Severity: A Report from the GRAPPA 2012 Annual Meeting

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ABSTRACT. At the 2012 annual meeting of the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA) in Stockholm, Sweden, dermatology members provided summaries of ongoing work with outcome measures for psoriasis severity. Controversies around the physician global assessment (PGA) were summarized, including discussions of variations and limitations of the static PGA instruments in use. The Psoriasis Outcome Measures project was introduced, with a goal of developing measures for use in clinical trials and practice. This project will follow the Outcome Measures in Rheumatology (OMERACT) process and may become a model for outcome measures of other dermatologic diseases. (J Rheumatol 2013;40:1423–4; doi:10.3899/jrheum.130454)

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At the 2012 annual meeting of the Group for Research and Assessment of Psoriasis and Psoriatic Arthritis (GRAPPA), 2 primary dermatology issues were discussed: the status and utility of screening tools for psoriatic arthritis (PsA); and the status and proposals for instruments to measure psoriasis severity. Gladman, *et al* presented comparisons of the utility of several tools to screen patients for PsA in different clinics from those in which they were developed[1]. Gottlieb, *et al* reviewed the need to develop uniform, validated, standardized outcome measures that are useful to patients, physicians, regulators, and payers[2]. This article summarizes specific discussions at the GRAPPA meeting regarding the static physician global assessment (sPGA), including the variations and limitations of the instruments in use; and the Psoriasis Outcome Measures (POM), with a goal of developing psoriasis-specific measures for clinical trials and practice.

Many instruments have been used in clinical trials to measure psoriasis severity[3]. The most commonly used measure is the Psoriasis Area and Severity Index (PASI), which assesses both area of involvement and plaque qualities of erythema, induration, and scale, and mathematically arrives at a score ranging from 0–72[4]. Although it is considered the gold standard and is the most-used physician-derived psoriasis severity measure in trials[5], it has many limitations[6]. As a result, in 1998 the Dermatologic and Ophthalmic Drugs Advisory Committee recommended to the US Food and Drug Administration that the PASI not be used as the sole efficacy endpoint in clinical trials and that a global dichotomous score of nearly clear or all clear be used as the standard marker of therapeutic efficacy[7]. This prompted the development and use of what is now known as the sPGA as a primary or coprimary endpoint for industry-sponsored psoriasis clinical trials.

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The static physician global assessment(s)

Kristina Callis Duffin (Salt Lake City, UT, USA) presented an overview of the sPGA and the limitations and controversies surrounding its development and use. The sPGA was originally envisioned as an instrument that measured psoriasis disease severity at a single and present point in time — in contrast to a dynamic PGA, which would compare the current severity of disease to its severity at a past timepoint, such as a baseline visit. It was also intended to be more intuitive to clinicians and patients, in contrast to other instruments such as the PASI.

Although many refer to the sPGA as a specific instrument, there is no single sPGA that has been universally adopted or recommended for use in clinical trials. In fact, there are dozens of different sPGA instruments that have been developed and utilized in clinical trials of psoriasis therapies, yet none are considered ideal outcome measures[3,8]. Further, the sPGA instruments used in clinical trials are modified continually by industry or by regulatory bodies.

The most common forms of sPGA in use in dermatology are 5- and 6-point instruments that typically measure erythema, induration, and scale, and mathematically average the scores to a single final sPGA score[3]. Erythema, induration, and scale are typically averaged over the entire body and scored according to a prior set of definitions of

each measure. Almost none of the measures incorporate body surface area (BSA) involvement, with the exception of instruments such as the Lattice System–Physician Global Assessment[8]. As a result, these instruments may not be true global assessments. For example, most sPGA instruments ask that only the existing psoriasis be scored on the plaque qualities of erythema, induration, and scale. Thus, a patient with a small area of involvement on the knee (e.g., < 1% BSA) that is very thick and scaling (denoted as "very severe") would have a much higher sPGA score than a patient with 20% BSA but very thin, minimally scaling plaques, because the area is not included in determining the score.

At the GRAPPA 2012 meeting, several recommendations were suggested to remedy this problem. First, the sPGA should not be called a global score unless it incorporates area and possibly other domains of psoriasis. The current sPGA instruments that measure only erythema, induration, and scale should be called "plaque quality" sPGA instruments. Plaque quality sPGA instruments could be weighted by multiplying by the BSA, but such an instrument needs to be validated. Second, a true global PGA should be developed and psychometrically validated prior to its use in large clinical trial programs. Last, the regulatory agencies should be aware of this issue and support efforts to develop a valid global instrument for psoriasis.

Psoriasis outcome measures project

It is evident from the above discussion of the sPGA that validated outcome measures for psoriasis and PsA are needed for clinical trials and clinical practice. Alice Gottlieb (Boston, MA, USA) introduced the Psoriasis Outcome Measures (POM), an effort modeled after OMERACT (Outcome Measures in Rheumatology), an international network aimed at improving outcome measurement in rheumatology[9,10]. OMERACT was started in 1992 when it was noted that European and North American clinical trials used different endpoint measures, making it difficult to compare outcomes and do metaanalyses. Since that time, the OMERACT process has evolved and has been successfully applied to develop consensus on outcome measures for rheumatoid arthritis, osteoarthritis, PsA, fibromyalgia, and other rheumatic diseases.

The process, as outlined by Peter Tugwell in 2007[9], starts as an initiative in a Special Interest Group. The research agenda is typically set by this small group of experts, who conduct literature reviews and validation studies. The agenda is then prioritized at a conference, using a Nominal Group Process method, where participants generate ideas, eliminate duplicates, and vote to prioritize. Next, a Workshop is held, where studies are presented to facilitate the formulation and selection of the domains, and agreement is reached on which research should be done. The last step is the Module, in which evidence from the literature and from targeted studies is presented, and final selection of measures takes place. The plenary presentations are complemented by small-group sessions during both Workshops and Modules, where participants can express their views and preferences. These views are then brought to the final plenary session, where consensus is formulated with electronic voting.

OMERACT's activities have led to the successful identification, validation, and standardization of outcome measures for several diseases. Dr. Gottlieb proposed that a similar initiative be started in the dermatology community, with the development and standardization of psoriasis outcome measures as the first priority. The GRAPPA membership, the National Psoriasis Foundation, and other stakeholders were invited to a planning conference to be held in early 2013.

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