

from an interviewer. SF-36, as provided by Ware et al. (3) by and Ritvo et al. (4), is reproduced below. SF-36 occurs in various revised forms.

SF-36 is composed of eight multi-item scales (Physical Functioning, Role-Physical, Bodily Pain, General Health, Vitality, Social Functioning, Role-Emotional, Mental Health), with scores for each of these scales (or dimensions) ranging from 0 to 100. Higher scores indicate higher HRQoL. SF-36 scores range from 0 (worst) to 100 (best) (5).

This instrument addresses health concepts from the patient's perspective. There is no single overall score for the SF-36. The SF-36 form generates eight subscales and two summary scores. The eight subscales are: physical functioning, role limitations due to physical problems, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems, and mental health. The two summary scores are the Physical Component Summary (PCS) score and the Mental Component Summary (MCS) score (6). PCS and MCS are derived by aggregating individual scores. The PCS and MCS scores for the general population in the United States are each 50 (7).

Shown below are short accounts on the use of SF-36 for various immune disorders, followed by a more detailed analysis of the use of SF-36 for multiple sclerosis.

### a. Arthritis

In a study of arthritis, the SF-36 form showed that administering infliximab followed by sulfasalazine gives better outcome than drugs given in the reverse order, sulfasalazine followed by infliximab (8).

### b. Psoriasis

When the SF-36 form was used by subjects in a clinical trial on psoriasis, data from SF-36 demonstrated that the *placebo* had little or no effect on HRQoL, whereas the *study drug* (infliximab) resulted in dramatic improvements in response to questions relating to general feelings of accomplishments at work, or to general feelings about doing work carefully (9).

<sup>3</sup>Ware JE, Kosinski M, Bjorner JB, et al. SF-36v2® Health Survey: administrative guide for clinical trial investigators. Lincoln, RI: QualityMetric, Inc.

<sup>4</sup>Ritvo PG, Fischer JS, Miller DM, Andrews H, Paty DW, LaRocca NG. Multiple sclerosis quality of life inventory: a user's manual. New York: National Multiple Sclerosis Society; 1997.

<sup>5</sup>van der Kooij SM, de Vries-Bouwstra JK, Goekoop-Ruiterman YP, et al. Patient-reported outcomes in a randomized trial comparing four different treatment strategies in recent-onset rheumatoid arthritis. *Arthritis Rheum.* 2009;61:4–12.

<sup>6</sup>Rudick RA, Miller D, Hass S, et al. Health-related quality of life in multiple sclerosis: effects of natalizumab. *Ann. Neurol.* 2007;62:335–46.

<sup>7</sup>Reich K, Nestle FO, Wu Y, et al. Infliximab treatment improves productivity among patients with moderate-to-severe psoriasis. *Eur. J. Dermatol.* 2007;17:381–6.

<sup>8</sup>van der Kooij SM, de Vries-Bouwstra JK, Goekoop-Ruiterman YP, et al. Patient-reported outcomes in a randomized trial comparing four different treatment strategies in recent-onset rheumatoid arthritis. *Arthritis Rheum.* 2009;61:4–12.

<sup>9</sup>Reich K, Nestle FO, Wu Y, et al. Infliximab treatment improves productivity among patients with moderate-to-severe psoriasis. *Eur. J. Dermatol.* 2007;17:381–6.