near-remission (remission for all criteria except patient global), and fatigue remission (≤1/10 on a visual analog scale). Kappa agreement statistics were used to compare the definitions of remission. Multiple linear regression was used for prediction by remission definitions. Multiple linear regression and stepwise selection were used for prediction of radiographic score by remission components. Analyses were restricted to patients with all relevant data, with no imputation of missing data.

Remission data were available for 776 patients, and complete data were available for 520 patients. Among the patients with complete data, after 3 years, DAS28 decreased from 5.2±1.3 to 2.9±1.4, HAQ score decreased from 1.0±0.7 to 0.5±0.6, global assessment (0 to 10) decreased from 6.0±2.5 to 2.9±2.6, fatigue rating (0 to 10) decreased from 4.8±2.8 to 3.4±2.0, and SHS radiographic total score increased from 5.4±7.7 to 13.6±14.7. At 3 years, 57% of the patients were receiving methotrexate, and 16% were receiving biologic therapies.

Of the 776 patients, 7.4% achieved ACR/EULAR remission, 18.7% achieved no-PRO near remission, and 3.1% achieved fatigue remission (ie, with a fatigue score lower than 1/10). Of the 520 patients, 6.7% achieved ACR/EULAR remission, 18.7% achieved no-PRO near remission, and 3.1% achieved fatigue remission. Agreement between ACR/EULAR and the other remission definitions was moderate: ACR/EULAR versus no-PRO near remission – kappa, 0.48 (95% CI, 0.37 to 0.58); ACR/EULAR versus fatigue remission – kappa, 0.41 (95% CI, 0.23 to 0.58).

In the comparison of the remission models for the prediction of radiographic score, only swollen joint count and CRP were predictive of radiographic score. The PROs were not significant. Additional analysis of global cutoff in patients in no-PRO near remission (n=97) demonstrated no correlation between patient global and radiographic progression (Spearman correlation 0.025; p=0.575).

This analysis had several limitations. The comparison of models was not straightforward. There was a potential lack of power because of the low number of patients in remission. Fatigue remission is not a feasible outcome with a cutoff of 1/10.

No-PRO near remission was more frequent than ACR/EULAR Boolean remission in patients with early arthritis (18.7% vs 6.7%). Fatigue remission was rare (3.1%). Swollen joint count and acute-phase reactants were strong drivers of radiographic progression. Patients' global assessments had limited additional predictive value for radiographic progression. Further research is warranted.

2-Year Results from the GO-RAISE Trial

Written by Toni Rizzo

The Multicenter Randomized, Double-blind, Placebo-controlled Trial of Golimumab, a Fully Human Anti-TNFα Monoclonal Antibody, Administered Subcutaneously, in Subjects with Active Ankylosing Spondylitis trial [GO RAISE] evaluated the efficacy and safety of golimumab in patients with active ankylosing spondylitis (AS). Objectives of this analysis, presented by D. van der Heijde, MD, Leiden University Medical Center, Leiden, The Netherlands, were to assess AS Disease Activity Score (ASDAS) major improvement and inactive disease and their association with improvements in Health Related Quality of Life (HRQoL), and work productivity in patients with AS after 2 years of treatment with golimumab.

A total of 356 patients with AS according to the modified New York criteria were randomized to golimumab 50 mg or 100 mg or placebo every 4 weeks. Patients with <20% improvement in total back pain and morning stiffness at Week 16 entered early escape (EE), with placebo-treated patients receiving golimumab 50 mg, and golimumab 50 mg patients switching to golimumab 100 mg. Improvement in HRQoL, work productivity, and employability were analyzed by ASDAS major improvement (≥2.0) and inactive disease (<1.3) status at Weeks 14, 24, 52, and 104. HRQoL was assessed using the Physical Component Summary Score (PCS) and Mental Component Summary Score (MCS) of the SF-36. Productivity was assessed by a visual analog score (VAS; 0=no impact, 10=high impact).

Median improvements in ASDAS scores were significantly greater in the combined golimumab arms compared with the placebo arm at Weeks 14 (1.6 vs 0.4; p<0.001) and 24 (1.7 vs 0.3; p<0.001). The mean ASDAS score was improved (range 1.9 to 2.3) in all arms at Weeks 52 and 104, after the placebo crossover (all patients receiving golimumab). At Weeks 52 and 104, ASDAS inactive disease was achieved by 33.9% and 41.6% and ASDAS major improvement was achieved by 49.1% and 52.9% of all patients, respectively. Among patients who achieved ASDAS inactive disease, 57.1% and 65.5% had PCS ≥50 and 64.8% and 74.4% had MCS ≥50 at Weeks 52 and 104, respectively. Among patients who achieved ASDAS major improvement, 37.9% and 48.3% had PCS ≥50 and 62.1% and 65.31% had MCS ≥50 at Weeks 52 and 104, respectively.

Patients with inactive disease versus those without inactive disease had greater improvements in productivity

at Weeks 52 (5.8 vs 2.9; p<0.001) and 104 (5.8 vs 3.1; p<0.001). ASDAS responders versus nonresponders also had greater improvements in productivity at Weeks 52 (5.4 vs 2.4; p<0.001) and 104 (5.8 vs 2.6; p<0.001). At Week 52, 37.5% of patients who achieved inactive disease and 73.3% of patients who achieved major improvement regained employability. At Week 104, 38.9% of patients who achieved inactive disease and 72.2% of patients who achieved major improvement regained employability.

Patients who were treated with golimumab versus placebo had significantly improved mean change in PCS (8.8 vs 3.0; p≤0.001) and MCS (3.7 vs –0.4; p≤0.001) at Week 14, productivity at Week 16 (2.8 vs 0.4, p≤0.001), and mean change in PCS (9.4 vs 2.8; p≤0.001) and MCS (4.0 vs 0.7; p<0.05) and productivity (2.8 vs 0.4; p≤0.001) at Week 24.

Achievement of ASDAS major improvement or inactive disease in patients with AS after treatment with golimumab is associated with improved HRQoL and productivity.

Clinical and Radiological Outcomes of Four DAS ≤2.4 Targeted Treatment Strategies: Eight-Year Results From the BeSt Study

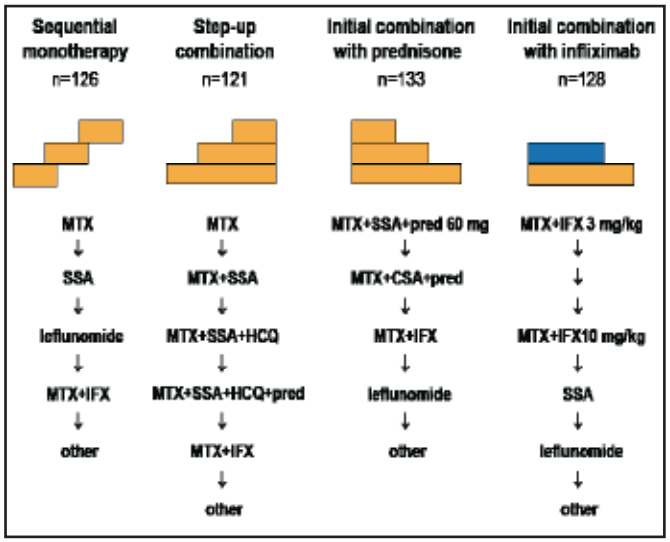
Written by Maria Vinall

Treating to target is the mainstay of EULAR recommendations for the management of patients with rheumatoid arthritis (RA), but is it associated with meaningful clinical outcomes? Eight-year results from the Clinical and Radiographic Outcomes of Four Different Treatment Strategies in Patients with Early Rheumatoid Arthritis study [BeST] suggest that the answer is yes. Marianne van den Broek, MD, Leiden University Medical Center, Leiden, The Netherlands, reported that after 8 years of targeted treatment, radiological damage was still very low, and functional ability had been maintained in all groups. Remission percentages were stable at about 52%, and drug-free remission was achieved in 15% to 19% of subjects.

The objectives of the BeSt trial were to compare clinical and radiological outcomes after 8 years of targeted treatment with 4 treatment strategies in patients with recent onset RA. The study comprised 508 patients who had a mean age of 54 years; were mostly women; and had a mean DAS44 of 4.4, mean Health Assessment Questionnaire (HAQ) score of 1.4, and median Sharp-van der Heijde score (SHS) of 4. About two-thirds of the subjects were rheumatoid factor-positive; 62% were anticitrullinated protein antibody-positive. Participants were randomized to 1 of 4 treatment strategies: 1) sequential monotherapy, 2) step-up combination therapy, 3) initial combination with prednisone, and 4) initial combination with infliximab (Figure 1). The treatment target was DAS ≤2.4. Treatment was adjusted every 3 months, based on individual DAS using the following algorithm:

- DAS >2.4: proceed to the next step in the treatment
- DAS ≤2.4 for at least 6 months: taper to maintenance dose
- DAS <1.6 for at least 6 months: stop antirheumatic treatment

Figure 1. Treatment Strategies.



MTX=methotrexate; IFX=infliximab; HCQ=hydroxychloroquine; CSA=cyclosporine; SSA=sulfasalazine. Reproduced with permission from M. van den Broek, MD.

Functional ability, measured with the HAQ, was analyzed with a linear mixed model, with time, treatment, and time*treatment as independent variables. Radiographs of baseline and Years 1 through 8 were scored with the SHS, blinded for the patient's identity and in random order, to assess radiological damage progression.

After 8 years, 347 (68.3%) patients were still in follow-up. A DAS ≤2.4 was achieved in 79% of these subjects, and 52% were in remission (DAS <1.6). The differences between the treatment groups were not significant (Table 1). Among those who achieved remission, 18%, 19%, 17%, and 15% of the patients in Groups 1 through 4, respectively, were in drug-free remission, with a median (mean) duration of 45 (39) months. Six patients were lost to follow-up, and 12 patients achieved drug-free remission in Year 8, while 8