demographics and clinical characteristic among the groups.

At week 52, patients receiving APR 20 mg BID had ACR20/50/70 responses of 55.4%, 28.3%, and 12.0%, respectively. Patients receiving APR 30 mg BID had ACR20/50/70 responses of 58.0%, 29.8%, and 15.5%, respectively. The modified ACR20/50/70 responses were sustained through week 104.

Mean reductions from baseline in swollen tender joint count at week 104 for APR 20 mg and APR 30 mg were –8.7 and –9.5, respectively, and for tender joint count for APR 20 mg and APR 30 mg, –12.4 and –13.0, respectively. HAQ-DI scores improved for both doses of APR and at week 52 and week 104. The mean change from baseline to week 104 was –0.33 for APR 20 mg and –0.38 for APR 30 mg. The manifestations of PsA, including enthesitis, dactylitis, and psoriasis, were improved with both APR doses.

Most AEs were mild or moderate in severity in both APR doses and exposure periods. Diarrhea and nausea were the most often reported AEs. Discontinuations due to AEs were low. Marked laboratory abnormalities were similar in both APR and exposure periods, were generally infrequent, and returned to baseline with discontinued treatment. APR continued to demonstrate an acceptable safety profile and was generally well tolerated for up to week 104.

Triple Therapy More Cost-effective Than Biologic First in Patients Who Fail MTX

Written by Mary Beth Nierengarten

For patients with rheumatoid arthritis (RA) who fail methotrexate (MTX), using a biologic instead of triple therapy first is not a cost-effective use of health care resources due to the large additional costs for very small benefits.

Nick Bansback, PhD, University of British Columbia, Vancouver, British Columbia, Canada, presented the results of a randomized noninferiority trial that compared the cost-effectiveness of treating patients who fail MTX with a biologic first or adding triple therapy followed by a biologic.

The analysis was based on the Rheumatoid Arthritis: Comparison of Active Therapies in Patients With Active Disease Despite Methotrexate Therapy study [RACAT; O'Dell JR et al. *N Engl J Med*. 2013], a 48-week double-blind noninferiority trial that randomized 353 patients with active RA despite MTX therapy to either a triple regimen of disease-modifying antirheumatic drugs (MTX, sulfasalazine, and hydroxychloroquine) or etanercept (ETN) plus MTX. The trial showed that triple therapy was noninferior to ETN plus MTX in these patients.

In the current study, Bansback and colleagues first conducted a within-trial incremental cost-effectiveness ratio (ICER) analysis that considered all the incremental costs between the 2 strategies, including drugs, visits, tests, surgical procedures, other hospitalizations, and work absences, as well as the benefits in terms of quality-adjusted life years (QALYs). This ratio indicated the value for money of an intervention.

Based on the assumption that we do not pay >$100 000.00 for an additional QALY in the current health care system, the study considered any number below that of reasonable value.

The results of this analysis at 24 weeks showed that the cost of ETN plus MTX was substantially higher than triple therapy, largely because of the higher cost of ETN. The ICER at 24 weeks for ETN was $2.67 million per QALY, substantially higher than the $100 000.00 cutoff benchmark (Figure 1).

In a second analysis at 48 weeks, the ICER was $0.98 million per QALY for the ETN strategy, which was also found not to be very cost-effective.

Using a lifetime model based on a previous analysis to examine the cost-effectiveness of these 2 strategies over the longer term, the study also found that the strategy of using ETN was not cost-effective even when considering the potential impact of changes in radiographic progression [Finckh A et al. *Ann Intern Med.* 2009].

A sensitivity analysis provided data as well to provide confidence that using ETN first would not be cost-effective, said Dr Bansback. As shown in Figure 2, no lines cross the green line that would indicate good value with ETN as first therapy after MTX failure.

Interpreting the data, Dr Bansback noted that the use of biologics over the past 10 years has increased health care expenditures by tens of billions of dollars and that a considerable amount of money has been wasted by using biologics first instead of triple therapy. Biologics only appear to be cost-effective, he emphasized, after failure of triple therapy.

Figure 1. Within-Trial Analysis at 24 Weeks: ICER for Etanercept

$$\text{ICER} = 24\ \text{wk}\ \frac{\$12\ 002 - \$1225}{0.358 - 0.353} = \$2.67\ \text{M/QALY}$$

ICER, incremental cost-effectiveness ratio; M, million; QALY, quality-adjusted life year.

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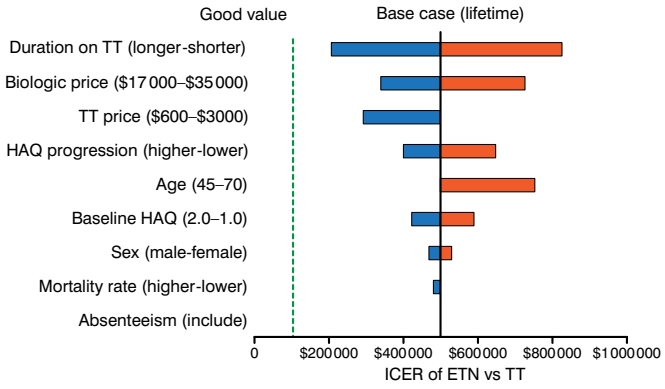
Figure 2. Sensitivity Analysis Showing No Cost-effectiveness With Etanercept



ETN, etanercept; HAQ, Health Assessment Questionnaire; ICER, incremental cost-effectiveness ratio; TT, triple therapy.

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The consequence, concluded Dr Bansback, is that money from taxes, copays, deductibles, and premiums could have been saved or spent elsewhere to produce additional health on more interventions that are cost-effective.

Efficacy of Secukinumab Sustained Over Time for Treatment of Active PsA

Written by Mary Beth Nierengarten

For patients with active psoriatic arthritis (PsA), treatment with secukinumab confers rapid clinical improvements in signs, symptoms, physical function, quality of life, and inhibition of radiographic disease progression.

Philip Mease, MD, Swedish Medical Center and University of Washington, Seattle, Washington, USA, presented the results of the Efficacy at 24 Weeks and Long-Term Safety, Tolerability, and Efficacy up to 2 Years of Secukinumab (AIN457) in Patients With Active Psoriatic Arthritis (PsA) study [FUTURE 1; NCT01392326].

FUTURE 1 is a multicenter, placebo-controlled phase 3 study in which 606 patients with PsA received an intravenous loading dose of secukinumab at 10 mg/kg every 2 weeks for the first 4 weeks, followed by subcutaneous doses of 75 mg (n = 202) or 150 mg (n = 202) monthly, compared with placebo (n = 202).

The primary end point of the study was the American College of Rheumatology 20% improvement response criteria (ACR20), indicating ≥ 20% improvement in signs and symptoms of PsA, at week 24.

Secondary end points included 75% and 90% improvement in Psoriasis Area and Severity Index score (PASI 75 and PASI 90), change from baseline in 28-joint Disease Activity Score (DAS28) using C-reactive protein (CRP), physical function assessed by SF-36 Health Survey physical component summary scores and by the Health Assessment Questionnaire Disability Index (HAQ-DI), ACR 50%/70% improvement response criteria (ACR50/70) response, proportion of patients with dactylitis and enthesitis, and overall safety and tolerability.

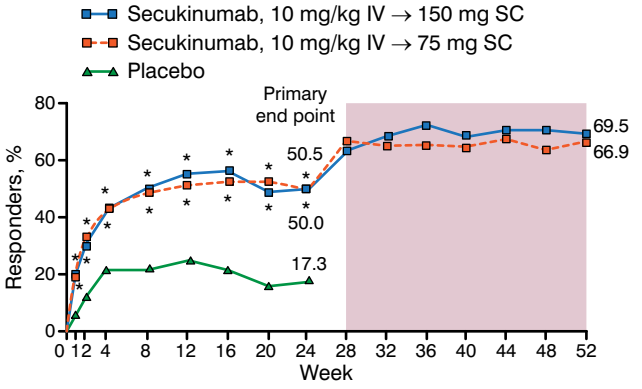
Of 606 patients, more than half were women, and the average age was 49 years. The mean weight was about 84 kg, and about 80% of patients were white.

The study found that significantly more patients achieved ACR20 response at week 24 than placebo (50.5% and 50.0% for secukinumab 75- and 150-mg treatment arms vs 17.3% for placebo; $P < .0001$). In addition, patients treated with secukinumab had improved clinical benefit as measured by the secondary end points.

Dr Mease focused some of his presentation on an exploratory analysis of FUTURE 1 that looked at the extended outcomes beyond week 24 to week 52. The study found that most of the patients treated with secukinumab at 75 mg and 150 mg who achieved ACR20 responses at week 24 also maintained the response at week 52 with continuation of treatment (66.9% and 69.5%, respectively; Figure 1).

The clinical benefits of secukinumab also extended to week 52 when looking at secondary end points,

Figure 1. Sustained Response to Secukinumab at Week 52



Missing values were imputed as nonresponse (nonresponder imputation) up to week 24. Observed data from week 28 to 52.

IV, intravenous; SC, subcutaneous.

*$P < .0001$ vs placebo (P values at week 24 adjusted for multiplicity of testing).

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