authorization for coverage of COX-2 inhibitors. Evidence-based coverage criteria limit these drugs to members who are at moderate to high-risk of NSAID-induced GI events. Regence was interested in the economic impact of the COX-2s. However, cost-effectiveness data were not available from the manufacturers. OBJECTIVES: 1) To evaluate the cost impact of COX-2 inhibitors on a managed care population. 2) To determine the appropriateness (in economic terms) of the prior authorization criteria. METHODS: The VIGOR trial assessed the development of clinically important ulcer events and complicated upper GI events, including perforation, obstruction, and bleeding (POBs), in patients using either rofecoxib or naproxen. Using the same DRGs and ICD9 codes in the VIGOR study, Regence obtained their own patient data for these events in the year 2000. The number needed to treat (NNT), cost to prevent one clinically significant upper GI event, and the cost to prevent one complicated upper GI event (needing hospitalization) were calculated from the data presented in the VIGOR trial. RESULTS: The average COX-2 drug cost per patient per year is $1,100. The cost to prevent one clinically significant NSAID-induced upper GI event is $46,000, and the cost to prevent one NSAID-induced complicated upper GI event requiring hospitalization, is $137,500. In the year 2000, 443 Regence members were hospitalized for an upper GI POB with a total cost of nearly $4 million (average $9030 per hospitalization). CONCLUSIONS: In the absence of complete cost-effectiveness data, a large health plan conducted a simple, yet very useful cost impact analysis to support and inform drug policy for COX-2 inhibitors. The cost per hospitalization avoided is much higher than the actual hospitalization costs. This supported the Regence decision to limit coverage of COX-2 inhibitors to a moderate to high-risk population. Risedronate Therapy (VERT). NNT, mean age, baseline Bone Mineral Density (BMD) at spine, baseline vertebral fracture rate, vertebral fracture rates in the placebo and treatment groups, and relative risk reductions were abstracted. RESULTS: The Number Needed to Treat not only varied among different agents but also in different populations where the same treatment was used. The MORE trial reported two NNTs. The “MORE 1” trial, where few participants had a prevalent vertebral fracture (11%), found an NNT of 46 while “MORE 2”, where most participants had a prevalent vertebral fracture (88%), found an NNT of 16. FIT1, where all participants had prevalent vertebral fractures, reported an NNT of 15 while FIT2, no participants had a prevalent fracture, reported an NNT of 60. The VERT trial’s NNT was calculated to be 20 using the above method. VERT had an 80% prevalent vertebral fracture rate. CONCLUSION: Variation in NNT is due to the different characteristics like placebo fracture rates as well as treatment efficacy. If one compares the trials with the most similar placebo group fracture rates, “MORE2”, FIT1, and VERT, the Number Needed to Treat is quite similar. Dissimilar population characteristics as opposed to differences in treatment efficacy can be responsible for differences in NNT.

PERFORMANCE ASSESSMENT OF TWO FATIGUE INSTRUMENTS IN AN EARLY RHEUMATOID ARTHRITIS COHORT
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OBJECTIVE: The importance of assessing fatigue in rheumatoid arthritis (RA) has been confirmed in numerous studies. Several instruments are available to assess fatigue, however, the psychometric properties of most have been determined in various populations other than RA and the instruments tend to measure different aspects of fatigue. The objective of this study was to assess the performance of two fatigue instruments, one was developed in the RA population and the other in a nondisease-specific population. METHODS: This study is an ongoing prospective, multi-center, observational study conducted to document long-term functional, clinical, humanistic and economic outcomes, and treatment patterns in patients with new onset rheumatoid arthritis. Two fatigue instruments were used to assess RA patients: The Functional Assessment of Chronic Illness Therapy-Fatigue Subscale (FACIT-F), an instrument used primarily in oncology populations, and the Multidimensional Assessment of Fatigue (MAF), developed in an RA population. MAF measures four dimensions of fatigue (severity, distress, degree of interference in daily activities, and timing). At baseline, patients were requested to complete both the 16-item, MAF and the 13-item, FACT-F via telephone interview. Using baseline data only, the correlation between the MAF and the FACT-F was tested in 133 patients with early RA (signs and symptoms >3 months and
A REVIEW OF FUNCTIONAL STATUS MEASURES FOR WORKERS WITH UPPER EXTREMITY DISORDERS

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OBJECTIVES: This review identifies instruments for measuring functional status among workers with mild-to-moderate disorders of the upper extremity. Functional status measures correlate pain and discomfort to performance, with direct, practical relevance to employers and workers. While many functional status measures exist for patients with severe or degenerative illness, few measures were designed for relatively healthy active workers. In fact, the impact of mild-to-moderate disorders on the workforce is largely unknown. The recently released OSHA Ergonomics Program Standard has given this issue a new sense of urgency. The intent is to give investigators a tool for choosing appropriate functional status measures in a specific research or clinical context.

METHODS: To identify self-reported functional status instruments for upper extremity disorders among workers, a Medline literature search was conducted for English-language publications between the years 1966 and 2000. Keywords included: carpal tunnel syndrome, functional status, health surveys, musculoskeletal, occupational health, outcome measures, questionnaire, neck, upper extremity, and worker. In selecting functional status instruments for review, three criteria were used: 1) Relevance to neck and upper extremity conditions (indicated by question content); 2) Assessment among workers; and 3) Relevance to mild-to-moderate disorders (indicated by level of severity). Parameters of interest were validity, reliability, and responsiveness to change.

RESULTS: Among 13 functional status instruments reviewed, six measures were tested among workers, including three measures relevant for mild-to-moderate disorders: the Nordic Musculoskeletal Questionnaire, Upper Extremity Questionnaire, and Neck and Upper Limb Instrument.

CONCLUSIONS: The identification of three functional status measures should encourage their use in studies, to improve communication among investigators. Further research is needed to address neglected aspects of measurement—specifically, for mild-to-moderate upper extremity disorders among workers—and to standardize valid and reliable instruments.

COST-EFFECTIVENESS OF ACETYLCISTEINE AND DIMETHYLSULPHOXIDE (DMSO) 50% FOR THE TREATMENT OF PATIENTS WITH REFLEX SYMPATHIC DYSTROPHY

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OBJECTIVE: The aim of this study was to determine the cost-effectiveness of Acetylcysteine and DMSO in the treatment of patients with reflex sympathetic dystrophy (RSD). METHODS: The study was a prospective, double-dummy, double blind, controlled trial. Patients were followed for one year. The primary outcome measure was the Impairment-level Sum Score (ISS). Cost data were prospectively collected using cost-diaries. Utilities were determined using the EuroQol. Both cost-effectiveness and cost-utility analyses were performed. Differences in mean direct, indirect and total costs between groups were estimated with corresponding 95% Confidence Intervals (CI). Also cost-effectiveness and cost-utility ratios with corresponding 95% CI were calculated using bootstrapping techniques.

RESULTS: There was a statistically significant difference in effect (ISS). DMSO generated more reduction than Acetylcysteine (diff: 1.82 CI: -4.90; -1.27). This significant difference appeared also in the subgroup of patients with warm RSD. The total costs were statistically significant lower in the DMSO compared to the Acetylcysteine group (diff: 2866 CI: 666; 5179). This significant difference was also found in the subgroup of patients with warm RSD. The cost-effectiveness and cost-utility ratios showed that DMSO is dominant over Acetylcysteine.

CONCLUSION: In general, DMSO is the preferred method of treatment for patients with RSD. There are some indications that Acetylcysteine may be more cost-effective for cold RSD, but this was found in a small subgroup only and should be confirmed in a larger trial.

MANUAL THERAPY IS MORE COST-EFFECTIVE THAN PHYSICAL THERAPY AND GP CARE FOR PATIENTS WITH NECK PAIN

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OBJECTIVES: This paper presents the results of an economic evaluation in conjunction with a randomized controlled trial to evaluate the cost-effectiveness of manual therapy, physical therapy and GP care for patients with