STRENGTHS AND LIMITATIONS OF FUNCTIONAL HEALTH STATUS INSTRUMENTS FOR OSTEOARTHRITIS
Kelleher JK1, Stephens JM2, Haider S3, Pashos CL1
1 Abt Associates Clinical Trials, Cambridge, MA, USA; 2 Abt Associates Clinical Trials, Bethesda, MD, USA; 3 Pfizer, Inc., Groton, CT, USA

The number of people with arthritis in the US was 43 million in 1998, and is projected to reach 60 million by 2020. The burden of arthritis is substantial and is responsible for $65 billion annually in direct medical costs and lost productivity. The most common form of arthritis, osteoarthritis (OA), currently affects over 20 million adults in the US. Because OA has no known cure, the goals of therapy are symptom relief and improvement in patient-reported outcomes.

OBJECTIVES: Our objective was to systematically review disease-specific functional health status instruments recommended in consensus guidelines for clinical research in OA (as established by Outcome Measures in Rheumatoid Arthritis Clinical Trials (OMERACT) and OsteoArthritis Research Society International (OARSI)) and to assess their ability to predict economic outcomes.

METHODS: Computerized literature searches were conducted in the following databases from 1978–2002: EMBASE, HealthSTAR, MEDLINE, and PSYCHINFO. Manual searches were also conducted. The six disease-specific instruments recommended by the OMERACT/OARSI guidelines were reviewed with regard to their domains, psychometric properties, and usefulness in clinical research: the Health Assessment Questionnaire, Arthritis Impact Measurement Scales, Western Ontario and McMaster Universities Arthritis Index, Indices of Clinical Severity, Australian/Canadian Osteoarthritis Hand Index, and the Algodonfunctional Index.

RESULTS: Substantial variation in the psychometric properties and domains covered by the instruments was found. Physical function and pain were the domains which were most frequently emphasized and which seemed to have the most value in predicting economic burden of disease. Underrepresented areas included the mental, social and emotional aspects of OA.

CONCLUSIONS: Additional research should evaluate the usefulness of various instruments in assessing the impact of OA treatments through change in physical and psychological health status over the long term. Further evaluation of instruments’ predictability of economic outcomes is needed.

ARTHITIS & OSTEOPOROSIS—Health Policy Presentations

CALCIUM SUPPLEMENTATION AND REDUCTION IN ASSOCIATED FRACTURES IN MEDICAID OSTEOPOROSIS PATIENTS
Dodd MA, Shah BM, Gucup GV, Anderson JR
The University of New Mexico, Albuquerque, NM, USA

OBJECTIVES: To increase calcium supplementation in Medicaid patients diagnosed with or at high risk for osteoporosis. To reduce the number of osteoporosis associated bone fractures. To determine if mailing to the patient only or the patient and their health care provider is more effective in changing calcium prescribing.

METHODS: New Mexico Medicaid fee-for-service patients with prescription claims for osteoporosis or chronic oral steroid therapy without prescription claims for calcium supplementation from October 2000 through February 2001 were identified. The state was divided into four geographical regions. These regions were randomly assigned to the following intervention groups: 1) patient only, 2) patient and prescriber, 3) patient and community pharmacy, 4) patient, prescriber, and community pharmacy. The patients and their health care providers were mailed osteoporosis and calcium educational materials according to their group. The prescription claims database was reviewed 3 months following the mailing for new calcium prescription claims. Based on a previous epidemiologic study and Medicare reimbursement for hip fractures, a cost analysis was performed.

RESULTS: A total of 1,094 patients, 239 prescribers, and 108 community pharmacies were included in the intervention. Three months following the mailing 10.6% (n = 109) of the remaining eligible patients had calcium prescription claims. Calcium prescription claims were present for 6.9%, 8.4%, 10.2%, and 16.6% of the patients in groups 1, 2, 3, and 4, respectively. Hip fracture associated hospital costs of $10,780 will potentially be saved by avoiding 1.33 hip fractures per year. Net savings of $4357 will potentially be achieved.

CONCLUSIONS: Educational materials mailed to the patient, prescriber, and community pharmacy resulted in the highest change in therapy. The addition of calcium supplementation to osteoporosis patients’ drug therapy can potentially result in significant cost savings and avoid hospitalizations.

UTILIZATION CHARACTERISTICS OF COX-2 INHIBITORS IN A LARGE MANAGED CARE HEALTH PLAN
Yu W1, Kiang G1, Etemad LR2
1 WellPoint Pharmacy Management, West Hills, CA, USA; 2 University of Southern California, Los Angeles, CA, USA

OBJECTIVES: Prevalence of COX-2 inhibitor (celecoxib and rofecoxib) use, with or without concurrent proton pump inhibitor (PPI) therapy, and rate of therapy switch were determined.

METHODS: Utilizing a pharmacy claim database from a managed care health plan of over 1.9 million commercial members, patients who had at least one paid claim for a COX-2 inhibitor during the year 2000 were identified. Rate of therapy switch was calculated as the frequency of change in COX-2 medication during the study period. Previous PPI users were defined as patients with a PPI claim during the 45 days prior to the initial COX-2 paid...
TRENDS OF ANTIRESORPTIVE THERAPIES USE AMONG WOMEN WITH PREVIOUS OSTEOPOROTIC FRACTURE

Perreault S1, Desgagné A1, Boucher JM1, Blais L2, Le Lorier J1, Ste-Marie LG1

1Montreal University, Montreal, QC, Canada; 2Montreal University, Montreal, QC, Canada; 3University of Montreal, Montreal, QC, Canada

Evidence for the efficacy of antiresorptive therapies (ART) is convincing for the most part in terms of risk reduction of osteoporotic fractures among high-risk postmenopausal women. Very little information has been published on the frequency of use of ART.

OBJECTIVE: To evaluate the probability (P) over time of ART use in women aged 70 years and older who had at least one diagnosed osteoporotic fracture to those without a fracture.

METHODS: A cohort design was used, and a random sample of women was collected from RAMQ database. Women were classified in four cohorts, of which two status were defined: those with a fracture and those without fracture in the 5 years prior to cohort entry. The cohort entry was defined as January 95, 96, 98 and 2000. These women were followed up for a year after cohort entry. Several exclusion criteria applied in the 5 years prior cohort entry were used. We stopped to follow women at their 85th birth date. The P of filling at least one prescription of ART during the year following cohort entry was determined using a logistic regression adjusting for age.

RESULTS: Mean age and CDS were 78 years old and 3.3. Prior use of ART ranged from 8.9% to 31.2%, and 8.7% to 17.2 for women with and without fracture, respectively. The P of filling at least one prescription of ART excluding HRT from 1995 to 2001 ranged from 1.6% to 28.3% and from 0.5% to 11.3% among women with and without fracture, respectively. The P of filling at least one prescription of HRT ranged from 7.2% to 9.3% for women with and without fracture.

CONCLUSIONS: Our results show an increase of ART use excluding HRT overtime. But, there is still an under-use of ART among women with fracture.

MISSING OPPORTUNITIES IN PHARMACEUTICAL TREATMENT OF OSTEOPOROSIS IN POST-FRACTURE WOMEN

Wall MJ1, Beilfuss CD1, Graff JS1, McBurney CR1, Fendrick AM2

1University of Michigan and Pfizer Inc, Ann Arbor, MI, USA; 2University of Michigan, Ann Arbor, MI, USA

OBJECTIVE: An estimated 9.4 million people in the United States have osteoporosis. The prevalence of vertebral fractures is estimated at between 10% and 25% in women aged 50 and over, with recent longitudinal studies stating that bone loss accelerates with age. The risk for a fracture is highly predictable by an initial fracture (OR = 2.1), leading to great opportunity for prevention of secondary fracture with pharmacotherapy. The purpose of this study is to assess the prevalence of failing to treat women, post-fracture, with pharmaceuticals.

METHODS: This is a retrospective database review of a Southeastern Michigan managed care organization's medical claims data from January 1, 1996, and pharmacy claims data from January 1, 1997, through March 21, 2001. Data include women > 45 years of age before January 1, 2001, with diagnosis of non-traumatic fracture via CPT and ICD-9 codes. Treatment is defined with pharmacy claims data of estrogens, bisphosphonates, raloxifene, or salmon calcitonin.

RESULTS: We identified 188 women (mean age at event = 68.0 years) with fracture eligible for treatment, 89 (47%) did not receive treatment before fracture, and 74 (39%) following fracture. The decrease from 89 patients pre-fracture to 74 patients post-fracture failing to receive treatment is the net effect of 6 patients stopping treatment and 21 patients beginning treatment.

CONCLUSIONS: The occurrence of a fracture represents an opportunity to prevent further osteoporotic fractures. There is an opportunity to increase patient outcomes to prevent secondary fracture in women 45 years and older. More than one-third of potentially eligible women were not being treated with available medications.