

Patients (n=360) who relapsed entered Phase 2, were randomized again to SMM or EMM and received 3 months of buprenorphine stabilization, and then had treatment tapered for 1 month, with a 2-month follow-up.

At the end of stabilization (Week 12), substantial improvement (abstinence for  $\geq 3$  of the final 4 weeks of buprenorphine stabilization by urine-confirmed self-report) was noted for 52% of the EMM group and 47% of the SMM group, though there was no additional benefit to enhanced management ( $p=0.3$ ).

“We went from an average success rate of 49% to 26% at Week 16,” Dr. Weiss reported. At Week 24 (8 weeks post-taper), only 9% of patients remained successfully treated. “At the end of the study, 7 of 8 patients doing well on buprenorphine maintenance had relapsed.”

The only predictor of outcome was lifetime use of heroin. At Week 12, improvement was noted for 37% of those who reported lifetime heroin use, compared with 54% of those without a history ( $p=0.003$ ); at Week 24, this was 5% and 10%, respectively ( $p=0.13$ ). The presence of chronic pain did not influence outcomes. Chronic pain patients were equally likely to have early treatment failure and equally likely to be substantially improved at Week 12 of phase 2 (53% vs 47% for those without chronic pain).

Over half of the subjects reported at least moderate reduction of pain from baseline ( $\geq 30\%$ ), and one-third had a substantial improvement ( $\geq 50\%$ ).

## Milnacipran for the Treatment of Fatigue Associated with Fibromyalgia

Milnacipran may be an effective treatment for the fatigue that is associated with fibromyalgia (FM). FM is a chronic disorder with symptoms, including musculoskeletal pain and allodynia, as well as debilitating fatigue. Milnacipran is a dual reuptake inhibitor of serotonin and norepinephrine that is used for the treatment of FM. Allan Spera, MD, Forest Pharmaceuticals, Jersey City, NJ, and colleagues evaluated the effect of milnacipran on fatigue in patients with FM (as determined by American College of Rheumatology criteria) in a pooled analysis of three Phase III trials.

In these three trials, patients were randomized to receive milnacipran 100 mg daily (n=1139), milnacipran 200 mg daily (n=837), or placebo (n=1133) for 12 weeks following a dose escalation phase. The mean age was 49 years, and the majority of patients (~94%) was female. The three groups were well matched at baseline. Patients with severe psychiatric illness or medical condition or who

were experiencing a current major depressive episode (determined by Mini-International Neuropsychiatric Interview [MINI] and Beck Depression Inventory  $\geq 4$ ) were excluded from participation in the study. Efficacy measures were change from baseline on Multidimensional Fatigue Inventory (MFI) total and subscale scores and Fibromyalgia Impact Questionnaire (FIQ) fatigue-related questions 6 and 7 (question 6: “How tired have you been?” and question 7: “How have you felt when you get up in the morning?”) at 3 months.

Patients in both milnacipran treatment arms demonstrated significant improvement in MFI total score and FIQ items 6 and 7 compared with placebo at 3 months ( $p<0.01$ ). There was a significant reduction in fatigue at all study visits among patients who were taking milnacipran ( $p<0.01$  for both doses). Significant improvement in all MFI subscale scores was observed in those who were treated with milnacipran 200 mg daily compared with placebo ( $p<0.05$ ). Those who were treated with milnacipran 100 mg daily demonstrated significant improvement in the general fatigue, physical fatigue, and reduced motivation subscale categories compared with placebo ( $p<0.05$ ).

Overall, treatment with milnacipran resulted in favorable outcomes that were related to fatigue in patients with FM. This benefit was observed in the MFI total scores and FIQ (questions 6 and 7) scores, as well as several of the MFI fatigue-related subscale categories. A modest correlation was found between MFI total score and pain and Patient Global Impression of Change (PGIC) scores at endpoint. However, similar correlations were found among the placebo-treated patients. While milnacipran is currently being used for the treatment of pain that is associated with FM, it may also be an effective treatment for fatigue in patients with FM. Further studies that focus on the fatigue aspect of FM are needed to establish the efficacy of milnacipran for the treatment of fatigue symptoms in patients with FM.

## Risk of Low Bone Mineral Density with Psychotropic Drugs

The use of certain psychotropic medications may be enhancing an already high underlying risk for osteoporosis, according to several studies that were presented at the American Psychiatric Association 2010 Annual Meeting.

Psychotropic agents have been linked to fractures, and antidepressants have been associated with low bone mineral density (BMD). The studies that were presented validate these earlier findings and suggest that many patients may already be at high risk for bone disease.