months retrospectively rated as $> = 3$ on a 0–10 point verbal response scale were randomized with equal probability to SI+UC versus UC alone. Data on pain, disability, overall health, satisfaction with care, and adverse events were collected at baseline and a 20 week endpoint.

**Results:** Differences in change scores across treatment groups for the primary and secondary outcomes were in favor of SI+UC. The primary outcome, a Wilcoxon rank sum comparison of intention-to-treat (ITT) changes in disturbingness of pain over the past week, patient rated on a visual analogue scale (0–100 mm), gave a difference of $-25$, $p=0.070$. The same comparison per protocol ($n=29$) gave a $-29$ difference, $p=0.035$. The secondary outcome was the same test applied to the Roland Disability Questionnaire scores (0–24), where the ITT difference was $-2$, $p=0.007$, and the per protocol difference was also $-2$, $p=0.032$. The same test per protocol gave differences in median change scores in favor of SI+UC for Global Satisfaction with Care ($p=0.004$) and the Bodily Pain sub-scale of SF-36 health status inventory ($p=0.022$). Study related adverse events in both groups were predominantly mild to moderate with none severe, and self-limiting.

**Conclusion:** SI+UC might have a significantly greater therapeutic impact on cLBP than UC alone, with a low burden of associated discomfort. However, the observed superiority of SI+UC might be due to larger placebo and time and attention effects versus UC alone.

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**OA11.03**
Cost-Analysis Related to Dose-Response for Spinal Manipulative Therapy for Chronic Low Back Pain: Outcomes from a Randomized Controlled Trial

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**Purpose:** This is the first full-scale trial to evaluate both dose-response and cost of treatment and lost productivity of spinal manipulative therapy (SMT) for any condition.

**Methods:** We randomized 400 patients with chronic low back pain to receive a dose of 0, 6, 12, or 18 sessions of SMT. All participants were scheduled for 18 visits over six-weeks and received SMT or light massage control. Societal costs in the year following study enrollment were estimated using patient reports of healthcare utilization and the number of days that patients were kept from usual activities including employment. The main health outcome was the number of disability free days that patients experienced. Multiple regression was performed on log-transformed cost data.

**Results:** Lost productivity accounts for a majority of societal costs of chronic LBP which ranged from $3398 for SMT 12 to $3815 for SMT 0. Differences in costs between treatment groups were not statistically significant. Baseline patient characteristics related to increase in costs were greater age ($P=0.03$), greater disability ($P=0.01$), lower QALY scores ($P=0.01$), and higher costs in the period preceding enrollment ($P<0.01$). While the adjusted model for DFDs showed benefit from all three SMT doses when compared to control, only SMT 12 yielded a statistically significant incremental benefit of $19.8\text{DFDs (95\% CI 0.8 to 38.8, } P=0.04)$. No statistically significant changes in QALY were noted.

**Conclusion:** SMT showed a modicum of benefit in LBP-related disability without increasing societal or treatment costs.

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**OA11.04**
Association Between Integrative Care Therapies and Physiological and Therapist-Reported Pain and Presentation Outcomes Among Hospitalized Neonates

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