**OBJECTIVES:** Proper diagnosis of Deep Vein Thrombosis (DVT) at the earliest time is very important as that appropriate therapy can be initiated. Ultrasonography is the most widely used diagnostic technique. Noninvasive magnetic resonance direct thrombus imaging (MRDVTI) is a new diagnostic technique that has higher sensitivity and specificity compared to Ultrasonography for deep vein thrombosis (DVT). The objective of this study is to determine the most cost-effective strategy for diagnosis of deep vein thrombosis.

**METHODS:** A decision-analysis model was created using TreeAge Pro software and analyzed using second-order Monte Carlo simulation technique. Diagnostic accuracy was calculated using Bayes’ revision method that utilized sensitivity and specificity of the diagnostic tests along with the pretest probability of developing the disease. Outcomes considered were costs, adverse events and quality of life. Quality-adjusted life years were calculated using life expectancy tables. Where applicable, costs in pounds were converted to US dollars and adjusted through use of Consumer Price Index data from Bureau of Labor Statistics. Net benefit of each strategy was analyzed at different willingness to pay (WTP) thresholds ($0 to $1,500,000) to determine the most cost-effective strategy. **RESULTS:** Noninvasive MRI is the optimal strategy for diagnosis of DVT at all WTP thresholds greater than $25,000. Sensitivity analysis showed that noninvasive MRI remains cost-effective even when all costs were varied by 25%. The model results were affected by the sensitivity of the diagnostic tests. **CONCLUSIONS:** For base-case scenario, noninvasive MRI is the most cost-effective strategy. Considering the cost-effectiveness and the higher mortality of deep vein thrombosis in pregnant women compared to non-pregnant women, the use of noninvasive MRI for deep vein thrombosis is justified.

**OBJECTIVES:** The aim of this research was to estimate from an institutional perspective the cost-effectiveness of celecoxib against other usual analgesics for the treatment of adult patients with low back pain. **METHODS:** A complete economic evaluation was conducted using a Markov model. Four health-states were used by the Markov model to assess the disease history within a 12-month time horizon. Treatments used in the evaluation were: Celecoxib 200 mg/day, naproxen 1 g/day (oral) for 14 days; diclofenac 150 mg/day (intramuscular) for two days followed by diclofenac 200 mg/day (oral) for 12 days; tramadol/acetaminophen 75 mg/500 mg (oral) for 14 days and acetaminophen 1500 mg/day for 14 days. Effectiveness was measured by mean reduction in pain >50% vs. baseline (through visual analog scale questionnaire) and mean reduction in days of hospitalization. Hospital records were collected in several institutional Mexico City hospitals (n = 15,723). Unit costs were obtained from clinical records and official databases from patients seen in the Social Security Mexican Institute. Probabilistic sensitivity analyses were performed employing bootstrapping techniques and acceptability curves were constructed. **RESULTS:** Celecoxib treatment showed the highest mean pain reduction with 57% [95% CI 55–58%] followed by tramadol/acetaminophen with 46% [44–48%], naproxen with 42% [40–43%]. The celecoxib-treated group also showed the lowest rate of hospitalization 0.17 [0.16–0.18] followed by tramadol/acetaminophen with 0.19 [0.19–0.20] and naproxen with 0.23 [0.23–0.24]. Celecoxib showed an ICER of US$47171.7 for the mean pain reduction and US$1,088.488 for the mean reduction of hospitalized days measurement against diclofenac (case base). The latter was confirmed by Monte Carlo first-order simulations and acceptability curves. **CONCLUSIONS:** Celecoxib was more cost-effective as a treatment for adult patients with low back-pain (higher effectiveness with lower annual costs) than other usual analgesics.