OBJECTIVES: Lumbar spinal stenosis (LSS) occurs as a degeneration of the spine in aging populations. Treatment options comprise surgical and non-surgical treatment. The aim of this study was to compare annual costs between LSS patients treated with instrumental spinal surgery (ISS) and those non-surgically treated. METHODS: A retrospective claims data analysis was conducted using anonymized claims data from the Health Risk Institute research database. The study period comprised 12 months from January 2009 to December 2010. ISS patients receiving an ISS were compared to an age and gender matched non-operated control group with comparable disease state. Patients were identified by ICD-10-GM code M48.0 in the inpatient setting and procedure codes (OPS) were used to identify ISS. Comparable disease state was achieved by matching total costs in an individual period of 12 months before the first ISS caused hospitalization. Annual costs after surgical treatment were compared for ISS patients receiving ISS and those with no treatment. RESULTS: 561 LSS patients treated with ISS surgery and 569 patients matched with non-operated controls were identified. Annual costs after surgery were comparable; €9,464 in the non-operated group and €9,458 in the ISS-treated group, clearly due to average ISS-cost of €1,339 to €5,475 per y. In contrast, costs for outpatient care and pharmaceuticals decrease after the surgery. CONCLUSIONS: Surgical treatment for LSS surgery is a cost-effective intervention in the first year after surgery. A cost offset is not achievable in this period due to the high cost of the surgical intervention. Nevertheless, cost savings were already observed in pharmaceuticals decrease after the surgery.

OBJECTIVES: Complications in instrumental spinal surgeries (ISS) pose a considerable burden on patients. Necessary reoperations are associated with significant resource consumption and costs. METHODS: A retrospective claims data analysis using anonymized claims data from the Health Risk Institute research database, which contains anonymized claims data and covers approximately 42% of the German population. The study period comprised 12 months after the primary ISS. Reoperation rates were calculated for an individual period of 12 months after the primary ISS in 2010. RESULTS: Primary ISS patients treated with ISS surgery and those without reoperation were compared. Differences in costs in levels in the year before the primary ISS were adjusted by the difference in differences approach. RESULTS: A total of 5,316 individuals had a primary ISS in 2010. The reoperation rate was 9.89% (95% CI = 8.98% to 11.02%). Mean cost per ISS was €11,331 for all patients (€13,358 reoperation group, €11,106 control group). The mean adjusted annual cost for a reoperation was €11,370, with 90% of primary ISS patients requiring a reoperation in 2010, their associated annual costs are relevant from the SHI perspective. As demonstrated elsewhere, these cost might be partly avoidable by using intra-operative 3-D imaging with navigation.

OBJECTIVES: The purpose of this study was to estimate the annual costs and the cost per responder for psoriatic arthritis (PsA) patients treated with apremilast, etanercept, and adalimumab. METHODS: Comparative efficacy data were obtained from a Bayesian network meta-analysis of biologic and non-biologic disease-modifying antirheumatic drugs as of October 2013. The primary outcome was ACR20 response at Week 24. Response rate difference in each trial was associated with incremental costs, as derived from a US wholesale acquisition cost of as of June 2014 and approved labeled dosing were used to derive drug treatment costs. RESULTS: At Week 24, the adjusted ACR20 response rate was 40.3% for apremilast, 53.4% for etanercept, and 57.8% for adalimumab. The cost per responder at Week 24 was €23,562 for apremilast, €30,346 for etanercept, and €25,978 for adalimumab. By Week 52, the cost per responder for apremilast was €53,704 for apremilast, €65,750 for etanercept, and €56,273 for adalimumab. CONCLUSIONS: Apremilast had the lowest increase in mean direct medical costs per ACR20 responder and the lowest annual cost to achieve 100 responders, as compared with etanercept and adalimumab through 52 weeks in PsA patients.

OBJECTIVES: Direct medical costs are positively associated with disease activity. Estimated costs have a non-negligible magnitude and are entirely due to average ISS-cost of €1,339 to €5,475 per y. That figure was then used in order to assess the value of unpaid travel expenses; expenditures related to adaptations made to their homes and the environment and indirectly to society. Average costs were associated with disease state, 393 patients in each group were available for analysis. Comparable disease state was achieved by matching total costs in an individual period of 12 months before the first ISS caused hospitalization. Annual costs after surgical treatment were compared for ISS patients receiving ISS and those with no treatment. RESULTS: 561 LSS patients receiving an ISS were compared to an age and gender matched non-operated control group with comparable disease state. Patients were identified by ICD-10-GM code M48.0 in the inpatient setting and procedure codes (OPS) were used to identify ISS. Comparable disease state was achieved by matching total costs in an individual period of 12 months before the first ISS caused hospitalization. Annual costs after surgical treatment were compared for ISS patients receiving ISS and those with no treatment. RESULTS: 561 LSS patients treated with ISS surgery and 569 patients matched with non-operated controls were identified. Annual costs after surgery were comparable; €9,464 in the non-operated group and €9,458 in the ISS-treated group, clearly due to average ISS-cost of €1,339 to €5,475 per y. In contrast, costs for outpatient care and pharmaceuticals decrease after the surgery. CONCLUSIONS: Surgical treatment for LSS surgery is a cost-effective intervention in the first year after surgery. A cost offset is not achievable in this period due to the high cost of the surgical intervention. Nevertheless, cost savings were already observed in pharmaceuticals decrease after the surgery.