Introduction

- Yearly incidence of lateral epicondylitis ("LE"), also referred as "Tennis Elbow", has been estimated in relatively small or geographically confined studies to range between 1 and 4.5 patients per 1000.1,2
- Recent estimates have also suggested a decline in incidence from 2000 to 2012; however, these were observed in only one US county only.3
- Treatment options include rest, anti-inflammatory medication, use of orthotic devices and surgery for extreme cases.
- Most existing treatments, however, have been described by the Cochrane Collaboration as having insufficient evidence to confirm efficacy.4,5
- Therefore, there is still a significant number of unanswered questions regarding LE: overall prevalence, real-world treatment approaches, and economic burden of disease.

Study Objectives

- Evaluate the prevalence and demographics of patients with LE from 2011 to 2013 in a commercially insured population.
- Analyze real-world treatment options for patients suffering from the condition.
- Estimate burden of disease from the perspective of the payer.

Methods

Disease Prevalence

- **Study Design:** Cross-sectional analysis
- **Data Source:** MarketScan® Medicare and Commercial Claims and Encounters
- **Study Population:** All patients with outpatient diagnosis of LE (ICD-9: 726.32) between 2011 and 2013 and 12 months continuous enrollment during the year of the index diagnosis
- **Outcomes:** Prevalence of disease in the commercially insured population

- **Projection Methodology:**
  - Age and gender standardization methods using the Medical Expenditure Database Survey (MEPS) as standard population
  - Population within MarketScan subdivided in 129 "cells", each corresponding to a MEPS cell
  - Cells unique based on age, gender, geographic location and individual relationship to policyholder

Treatment Modalities and Burden of Disease

- **Study Design:** Longitudinal study
- **Data Source:** Same as above
- **Study population:** Same as above. In addition, all patients had ≥ 12 months enrollment from the time of the index LE diagnosis
- **Outcomes:** Healthcare utilization associated with events with a primary diagnosis of LE. Frequency and type of care and total cost from a payer perspective

Results

Disease Prevalence

- **Prevalence of LE ranged from 2.3 to 4.6 patients per 1000 enrollees per year.**
- **The majority of patients were in the 36-65 age range (49:1).**

Treatment Modalities and Burden of Disease

- A total 81,759 patients were included in the analysis
- **Average frequency of outpatient events was 3.9 (SD: 5.2) for the 12 months post-index.**
- Nearly 40% of all patients received therapeutic injections.
- Nearly 1 in 5 underwent PT/OT or similar services.
- Patients that eventually underwent surgery used significantly more care than patients that did not (average number of visits: 9.5 (SD 8.9) vs 3.7 (SD 4.9); p < 0.001)
- Cost of care for surgical patients was 9.8-fold greater than that of other LE patients.

Conclusion

- LE affects 0.4% of the population, with the majority of patients between 36 and 65 years of age.
- Patients with LE have *4* visits per year, and nearly 40% patients receive injections.
- Patients requiring surgery incur ~ $6,000 in outpatient costs ~10x more than other LE patients.