



Travel distance and demographics for brachial plexus surgery at an academic referral center

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INTRODUCTION

- Due to the subspecialized nature of management of brachial plexus injuries (BPI), many patients travel substantial distances for evaluation and treatment.
- The extent of this travel and its potential impact on delivery of care for BPI are unclear.
- We reviewed the travel distances and demographics associated with BPI surgery over a 15 year period at our academic referral center in the United States.

METHODS

Institutional database

- Records from Jan 2000-May 2015
- Administrative/billing data only

Study population (n=464)

- Adult patients: surgery for traumatic BPI (ICD9 diagnosis codes and CPT codes)
- Excluded: post-radiation neuropathy, thoracic outlet

Study variables

- Complication during index hospitalization
- Demographic information (including zip code, payer status, BMI, race, and gender)
- Travel distance

RESULTS

Travel distance

- Median distance: 192.4 miles
- Min: 1.4, Max 6232.6
- Predictors for travel > 200 miles: women, private insurance

Complication

- Overall rate: 5.8%
 - Hospital readmission: 80% of complications.
- Neither travel distance >200 miles nor >500 miles was associated with increased risk of complications.

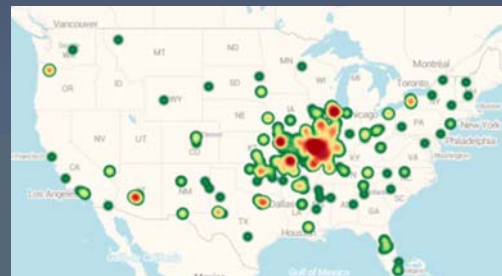


Figure. National heat map demonstrating patient travel for BPI

CONCLUSIONS

Based on these data, the catchment area for BPI referral at our center is relatively large. Although our study demonstrates that patients at our center who traveled greater distances are not at increased risk for complications, further investigation at other centers in the United States is needed to determine the generalizability of these findings.

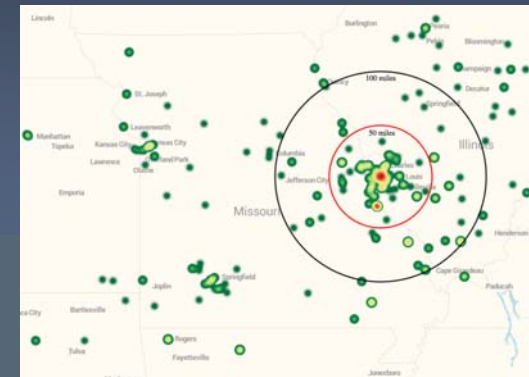


Figure. Regional heat map with 50 mi (red) and 100 mi (black) thresholds