THE WESTERN NEUROSURGICAL SOCIETY

2024 ANNUAL MEETING

Fairmont Grand Del Mar

San Diego, CA

September 5-8, 2024 www.westnsurg.org

*Jointly Provided by the AANS*

President: Marco Lee, MD, PhD

Scientific Program Chair: Melanie Hayden Gephart, MD, MAS

**Abstract Deadline: June 30, 2024**

**Abstract Submission Instructions**

To submit an abstract for presentation at the 2024 Western Neurosurgical Society Annual Meeting, please complete the below **Abstract Submission** and **Abstract Text Forms by June 30, 2024.**

Email your completed Abstract Submission Form and the Abstract Text Form (in Microsoft Word format) as attachments to **Ms. Julie Huang (juliehuang@stanford.edu)**. If you have questions, please contact Secretary-Treasurer Dr. Justin Dye (wnssecr.treas@gmail.com) or Scientific Program Chair Dr. Melanie Hayden Gephart (mghayden@stanford.edu). The Scientific Program Committee will review all abstracts and notify authors of its decision via email by the middle of August, 2024.

**Resident Awards**

All neurosurgery resident abstracts will be considered for the resident awards. The Society will be selecting one resident abstract each for the Basic Science Award and the Clinical Science Award. The awards cover resident and companion meeting registration, resident travel expenses, and lodging.

**Abstract Submission Form**

(email completed form to **juliehuang@stanford.edu**)

**What is your level of training?**

☐ Resident (**all resident abstracts will be considered for the resident awards**)

☐Fellow

☐X XAttending/Faculty

☐ Scientist

☐ Other. Please specify:

**Presenter email address:**

Andrew.little@barrowbrainandspine.com

**Presenter phone number:**

602 625 9068

**Are you a member or guest of the Western Neurosurgical Society?**

☐XX Member

☐ Guest. Who is your member sponsor? (Residents, list your faculty sponsor.)

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*Please complete the abstract information below. Written abstracts should include a brief description for the reason of the study; the method(s) used to obtain the data; a summary of the results and a conclusion. Numbers and statistical data should be included when pertinent.*

*Authors may provide one supplementary figure or table to accompany the abstract text. Save the document in Microsoft Word format prior to sending.*

**Western Neurosurgical Society Abstract Text for 2024 Meeting**

(email completed form to **juliehuang@stanford.edu**)

**Abstract Title:**

Outcome Benchmarks for Primary Endoscopic Endonasal Surgery for Low-Risk Patient’s with Cushing’s Disease: An Evidence-Based Position Statement of the Registry of Adenomas of the Pituitary and Related Disorders (RAPID) Consortium

**Presenting author name, degree, and affiliation:**

Andrew S. Little, MD, MBA, Barrow Neurological Institute, Phoenix, AZ

**Co-author names, degrees, and affiliations if different from above:**

For the RAPID Consortium

**Abstract Text**

(limit 300 words, single-spaced; Format: *Introduction, Methods, Results, Conclusions)*

**Introduction**

Reports for surgical outcomes for Cushing’s disease (CD) are mostly limited to single center experiences by expert surgeons. Therefore, there are no surgical outcomes benchmarks for endoscopic Cushing’s disease surgery that practitioners may use to guide their quality improvement efforts despite the high morbidity and excess mortality observed in patients not achieving remission. We propose a bundle of evidence-based benchmarks that focus on *cost efficiency of care*, *disease outcomes*, and *gland recovery* in low-risk patients (age <70, BMI <50, microadenoma, Knosp grade 0-2) using a unique multicenter dataset from US pituitary centers.

**Methods**

The RAPID steering committee proposed the benchmarks. Patient characteristics and outcomes were aggregated and analyzed by the data coordinating center. Because there is no industry standard, benchmarks were reported using two approaches.

**Results**

431 patients from 12 centers who underwent primary endoscopic transsphenoidal surgery from 2006-2022 were included. There were 227 patients in the low-risk cohort. For the *cost efficiency* benchmarks length of stay (LOS) and 90-day unplanned readmission, the mean LOS was 3.8 midnights and the proportion of patients readmitted was 11.1%. For the *outcomes* benchmarks disposition to SNF, CSF leak, and 1-year sustained remission, the rates were 2.2%, 1.3%, and 81.2%, respectively. For the *gland function* benchmarks, the rates of permanent and temporary diabetes insipidus were 1.8% and 11.9%, respectively. The 25th percentile performance by center for LOS and 90-day unplanned readmission were 3.0 midnights and 6.3%, respectively, and disposition to SNF, CSF leak, and 1-year sustained remission were <1%, <1%, and 92.2%, respectively. The 25th percentile for permanent and temporary diabetes insipidus were <1% and <1%.

**Conclusions**

We propose evidence-based benchmarks in a low-risk Cushing’s disease population undergoing first-time endoscopic pituitary surgery from a multi-institutional collaboration. Surgeons may use these benchmarks to assess and improve the quality of their clinical pathways.