Prevalence of Aortic Surgeries in Illinois by Specialty

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Background

- Aortic surgeries are performed by different specialties, both surgical (vascular, cardiothoracic) and interventional (radiology, cardiology)
- Regional distributions of aortic surgeries are unclear in Illinois

Research Objectives

- To quantify the prevalence of open aneurysm repair (OAR), endovascular aneurysm repair (EVAR), and thoracic endovascular aortic repair (TEVAR) in Illinois
- To assess variations in practice patterns between geographic regions across the state

Methods

- Data were obtained from the Illinois Hospital Association Comparative Health Care and Hospital Data Reporting Services for 2018
- Procedures were identified using International Classification of Diseases, 10th ed, Procedure Coding System
- Operating clinician specialty was determined by manual lookup by National Provider Identifier

Results

- Total study population n = 1,574 inpatient visits
- 214 clinicians performed aortic surgery in Illinois in 2018, with significantly more vascular surgeons in Cook County when compared to adjacent counties (Dupage, Kane, Lake, McHenry, Will)
- Most aortic surgeries were endovascular, and were distributed similarly across Cook County, collar counties, and the remainder of Illinois (Table 1)
- Patients treated by interventional cardiologists were less likely to require postoperative ICU stay and were more likely to discharge home (Table 2)

Limitations

- Retrospective analysis of billing data with limited clinical variables
- Patient demographics vary across Illinois, confounding relationships between specialty and outcome

Conclusions

- Although vascular surgeons perform the majority of endovascular procedures in Illinois, non-vascular surgeons do perform aortic surgery, especially outside of Cook County
- Further work to evaluate distribution of surgeons and interventionalists may identify a need for vascular surgeons in certain geographic areas.