# Healthcare Resource Utilization and Outcomes Among Patients with Intermediate-Risk Pulmonary Embolism Treated with Computer Assisted Vacuum Thrombectomy Versus Other Treatment Modalities

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# Objective

Retrospective analysis of resource use and health outcomes among patients with intermediate-risk pulmonary embolism (PE) treated with CAVT™ Computer Assisted Vacuum Thrombectomy with Lightning® 12 and Lightning Flash® 1.0 compared to anticoagulation (AC), catheter directed thrombolysis (CDL), or other mechanical thrombectomy (MT) in the United States.

# Methods

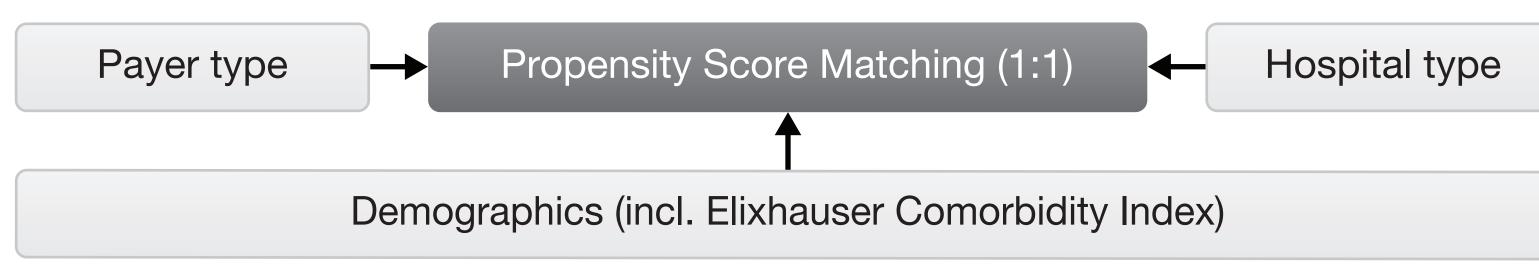
## Data source and study sample

Vizient Clinical Data Base<sup>a</sup> Adult inpatients with intermediate-risk PE discharged between 07/01/2020 and 09/30/2023

ICD-10 diagnosis codes used to identify intermediate-risk PE patients

ICD-10 procedure codes used to identify treatment group and exclude high-risk and low-risk PE patients.

# Statistical analysis



All data access, sample selection, processing, and statistical analyses were exclusively carried out by Sg2, a Vizient company specialized in analytics and consulting services.

# Study outcomes

#### Resource utilization

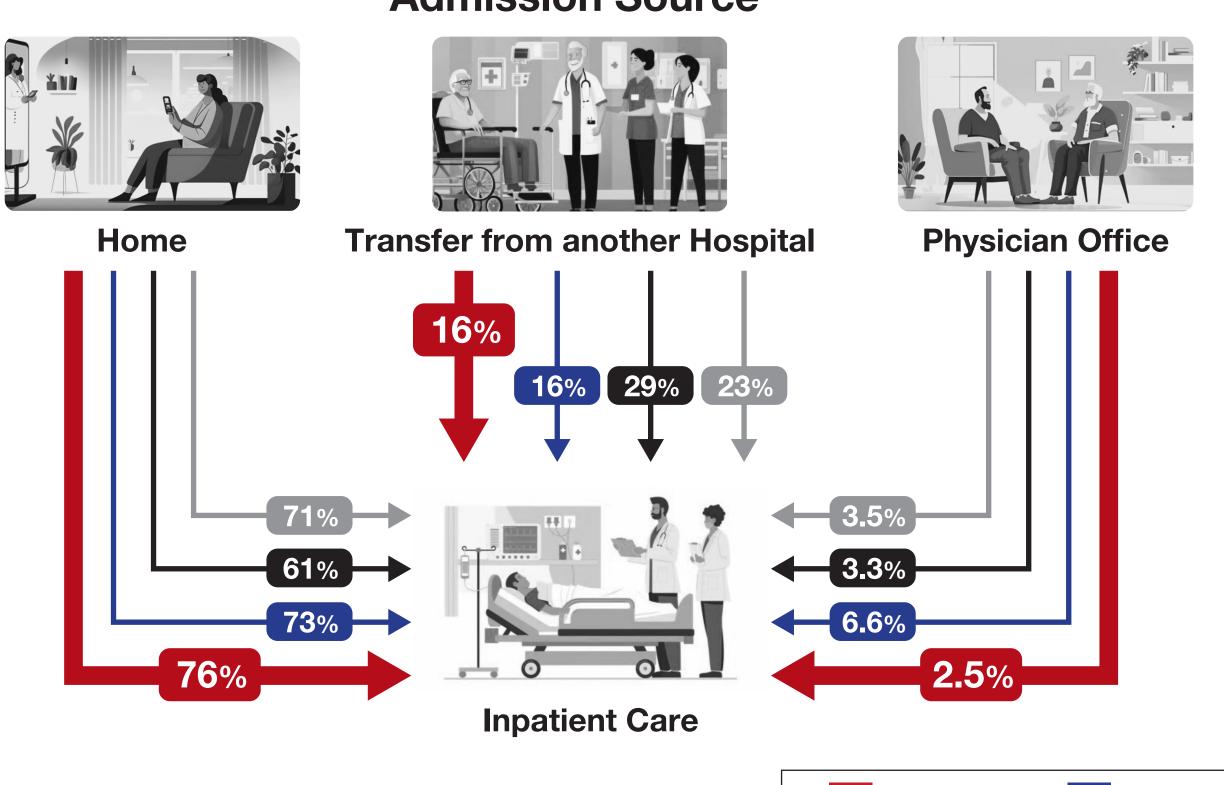
- Length of stay (LOS)
- Post-procedure LOS (PPLOS)
- Post-procedure intensive care unit days (PPICU)

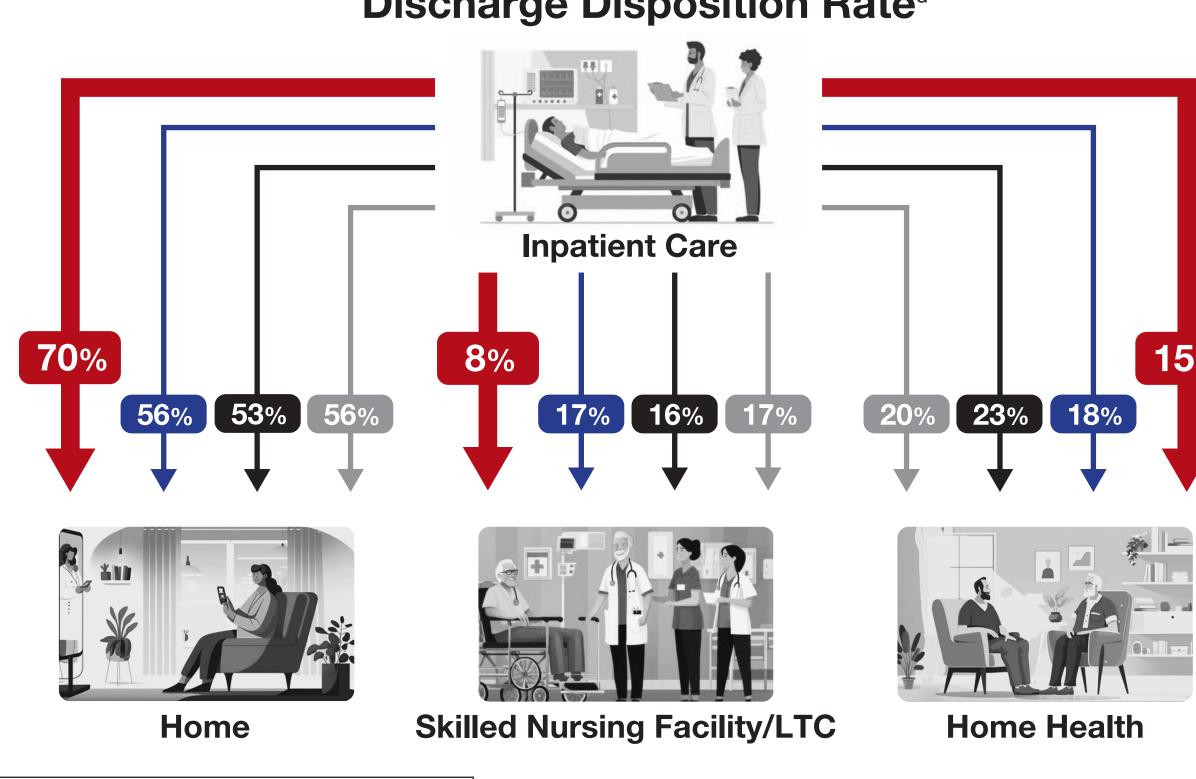
### Health outcomes

- In-hospital mortality
- Composite complications
- 30-day all cause
- 30-day PE related readmissions

#### Results Composite Complication (%) **Acute Kidney Injury Development (%)** Post-Procedure Length of Stay (Days) p<0.0001 p = 0.0099p<0.0001 p = 0.0214p = 0.00346.2 2.7 3.8 CDL Anticoagulation **CAVT** Other MT **CAVT** Other MT **CAVT** CDL Other MT **Anticoagulation**

# **Discharge Disposition Rate**d **Admission Source**°





# Conclusion

Other MT

Anticoagulation

The study suggests that in intermediate-risk PE patients, treatment with CAVT was associated with significantly shorter post-procedure length of stay, lower rates of complications and acute kidney injury, and a higher likelihood of discharge to home.

b. Vizient Composite Complications include: in-hospital stroke, GI hemorrhage prevention, post-operative infection, hospital acquired acute myocardial infarction, readmit for infection due to previous care, readmit for other complications of internal device/implant/graft, readmit for other surgical wound complications, infection/inflammation due to internal device/implant/graft, post-operative shock, aspiration pneumonia, C-diff.

c. Admission source distributions were significantly different vs CAVT. d. CAVT is significant when compared to all modalities except Anticoagulation cohort in Home Health

