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BACKGROUND

- ~20-25% of patients who undergo a primary lumpectomy for the treatment of breast cancer require a reoperation due to adverse outcomes like positive surgical margins or cancer recurrence

OBJECTIVE

- To analyze the economic impact of patients who require repeat breast tissue resection as part of their treatment.
- Describe the uptake of intraoperative risk mitigation techniques (e.g. tumor localization, frozen section pathology review) and their association with avoidance of repeat procedures

RESULTS

- 25% of patients required an additional breast surgery after their index lumpectomy, which far outpaces the society-recommended 10% threshold
- Lower age and smoking, but not high BMI, were associated with increased risk of reoperation
- Median time to second procedure was 3 weeks (IQR: 1.3-7.7 weeks)

METHODS

Study Design

- Merative MarketScan Research Database®
- Patients diagnosed with breast cancer, undergoing an index lumpectomy w/ at least 3 years of continuous insurance enrollment (n = 9,433)
- Jan 2016 - Dec 2021

Outcomes

- Reoperation rates (i.e. subsequent lumpectomy or mastectomy)
- Rates of intraoperative risk mitigation techniques (e.g. localization or frozen sections) within 30 days before the procedure
- All healthcare costs & out-of-pocket costs

Analysis

- Comparison Groups: Patients receiving one, definitive lumpectomy vs those requiring more than one surgery
- Comparison Time: 1-year post-index lumpectomy

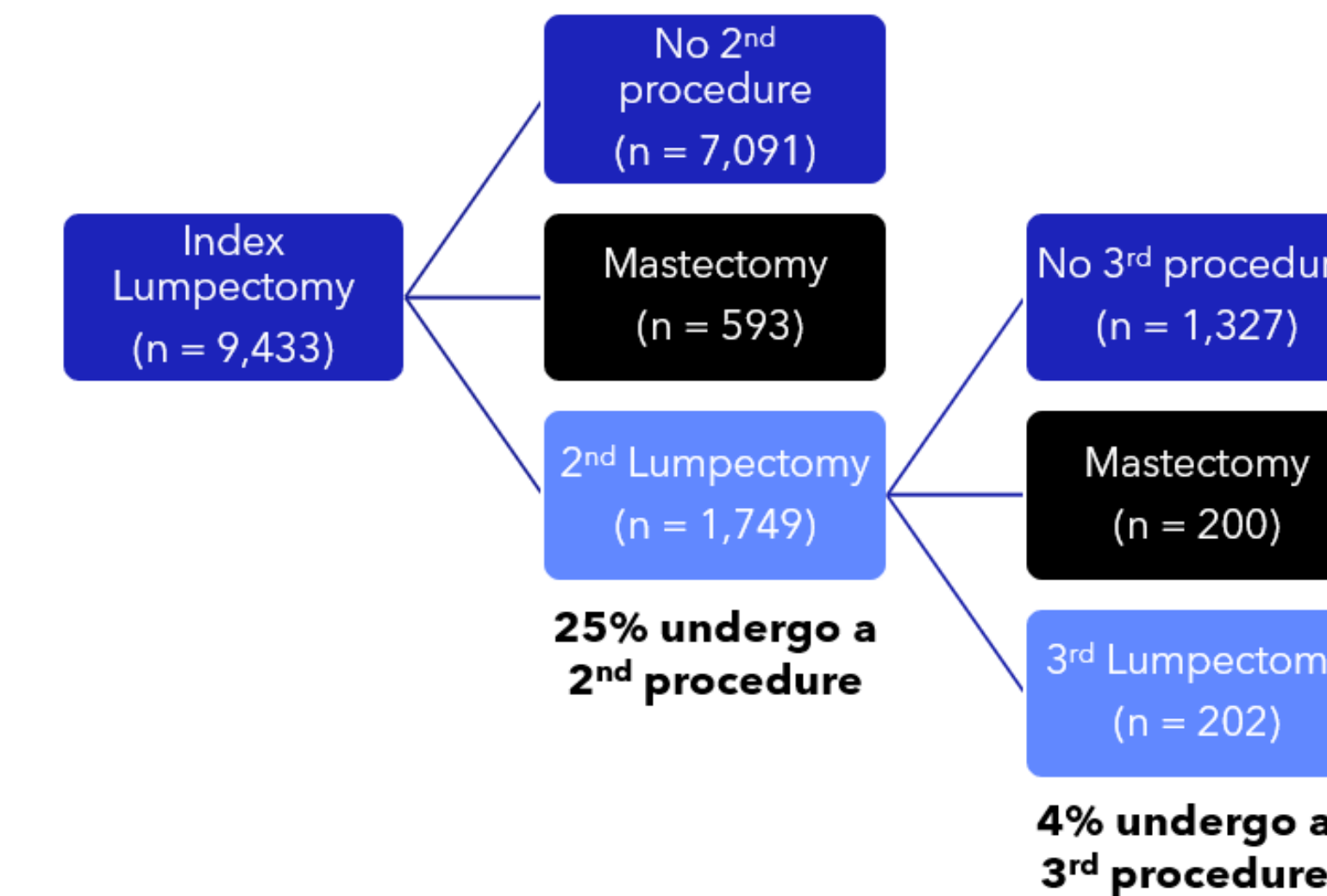
CONCLUSION

- Intraoperative radiology/pathology utilization was more prevalent in the definitive lumpectomy group compared to the group requiring more than one breast resection (22.2% vs 20.9%, Chi Square p value = 0.009)
- Improved patient risk stratification and increased uptake of intraoperative adjuncts are needed to minimize risk of reoperation and the associated excess costs

FIGURES

Patient Pathway

Figure 1. Repeat procedure volumes



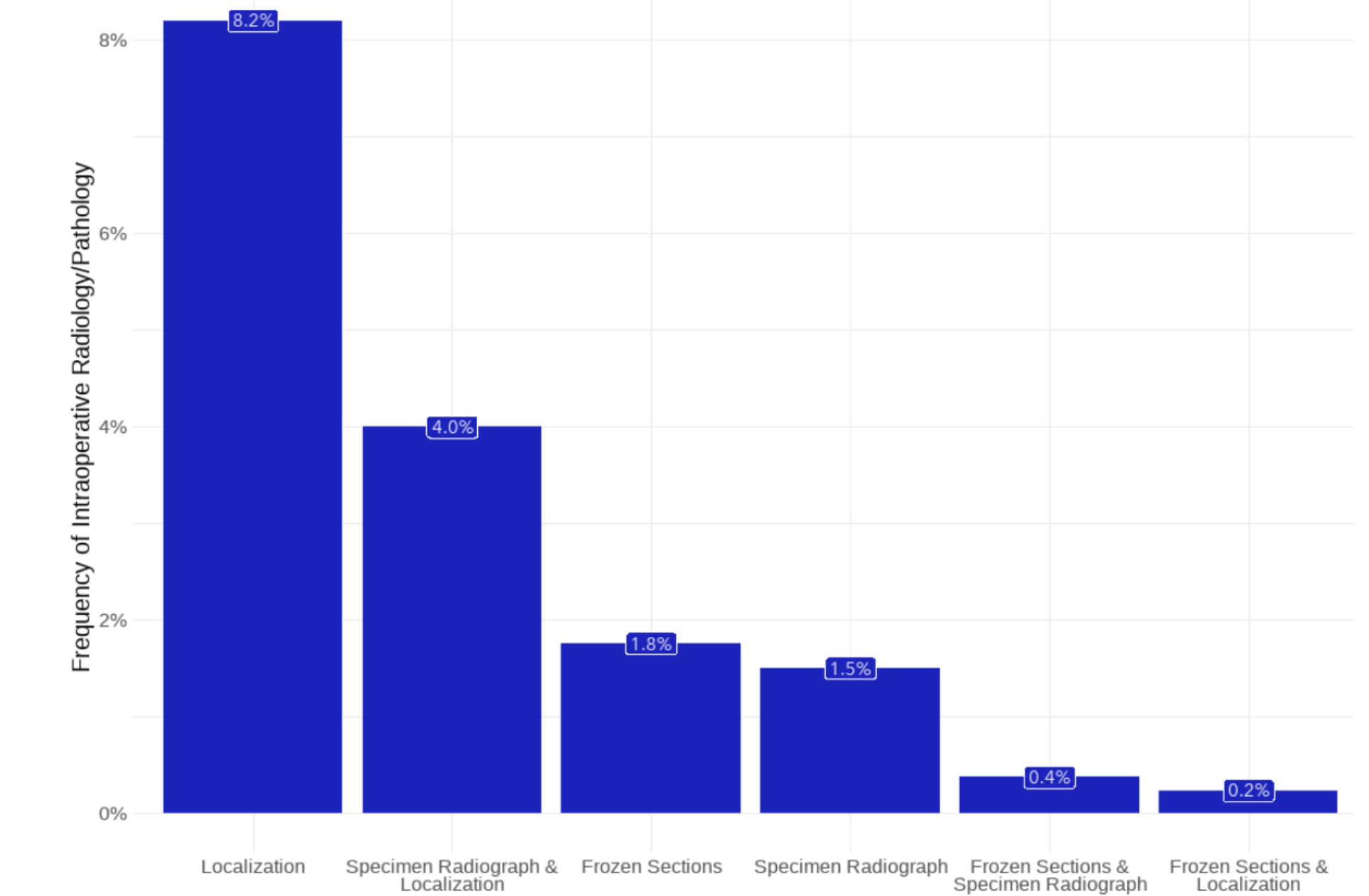
Costs

Figure 2. 1-Year Costs by Repeat Procedure by Procedure County



Utilization

Figure 3. Utilization of Risk Mitigation Techniques



Reoperation

Figure 4. Risk Mitigation Technique Utilization by Total Number of Breast Procedures

