

Background

- Historically, implant-based IR has far exceeded autologous reconstruction (AR)
- AR is associated with improved long-term patient satisfaction
- Lack of population-based studies examining contemporary patterns in IR
- Our objective was to assess recent trends, outcomes, and predictors of IR techniques using a nationally representative cohort

Methods

- 2009-2014 National Inpatient Sample
- Women undergoing inpatient mastectomy + IR
- Type of reconstruction: implant-based vs autologous (AR)
- AR was classified as *microsurgical* or *pedicled* flaps
- Primary outcomes: Inpatient complications, resource utilization, and length of stay (LOS)
- Multivariable logistic regressions were used to identify predictors of AR and microsurgical flap procedures

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Results

- Of 194,073 women who underwent IR, 70.4% received implants
- Among AR: 54.6% received *microsurgical* flaps
- Utilization of deep inferior epigastric perforator flaps increased significantly (28.6 to 42.5% of AR, $P < 0.001$)

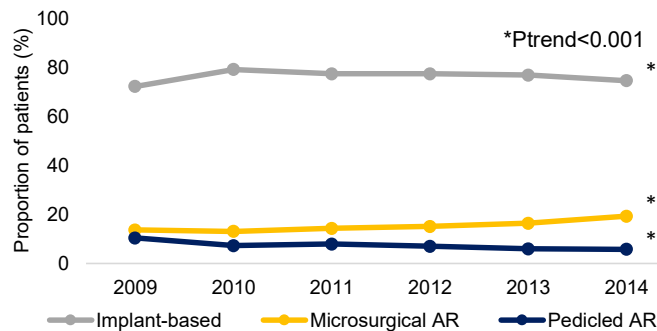


Figure 1. Temporal Trends in Implant-based, Microsurgical, and Pedicled AR over time

	Implant AR	Microsurgical	Pedicled	P-Value
Costs (\$1000)	17.6	25.7	18	<0.001
LOS (days)	1.9	4.3	3.3	<0.001
Complications (%)	7.1	14.5	11.9	<0.001

Table 1. Hospitalization Costs, LOS, and Inpatient Complication Rates

Results Cont'd

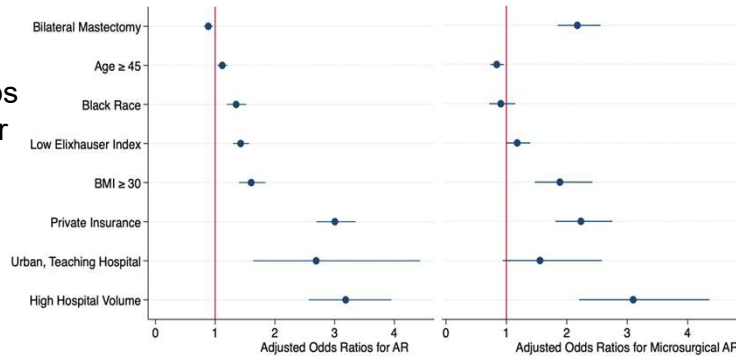


Figure 2. Multivariable Analysis of Independent Predictors of AR and Microsurgical AR

Conclusions

- Implant-based IR remains the most common reconstructive technique in the US
- Microsurgical AR has increased significantly.
- Several sociodemographic and hospital factors were associated with the use of AR and microsurgical flaps
- Despite more inpatient complications and increased costs associated with AR, the growing use of microsurgical flaps may reflect a shift driven by long-term patient outcomes