Insurance Status as a significant contributor of disparities in outcomes among young breast cancer patients- A retrospective analysis from National Inpatient Sample

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Background

- Young women with breast cancer (BC) often experience more aggressive disease and worse outcomes.
- This study compares clinical characteristics and outcomes of young breast cancer patients with **private insurance** (PVT) versus **Medicaid (MD)**.

Methods

- Retrospective cohort study using National Inpatient Sample (2016-2020)
- Young female patients (age 18-50) admitted with BC diagnosis and stratified by insurance status
- Primary outcome: inpatient mortality
- Secondary outcomes: length of stay (LOS), hospital charges, clinical complications

Future Directions for Research

These findings underscore the need for **targeted interventions and equitable access to** mitigate disparities.

Results

- Total patients: 144,080; 81,025 (66.4%) had PVT and 40,930 (33.6%) had MD.
- MD patients were younger (41 vs 42.2years), more likely to be African American (30.1 vs 16.1%) or Hispanic (22.9 vs 11.3%) and from lower income zip codes. (al p<,0.001).
- Higher comorbidity burden in MD including anemia (37.2% vs 30.6%), diabetes (11.6% vs 6.8%), and smoking (31.7% vs 20.2%) (*P*<0.001 for all).
- No difference in Mortality
- MD patients had higher LOS(4.92 vs 3.74 days; aOR 1.21, *P*<0.001) and lower Hospital charges ($64,150 vs $71,780; aOR 0.87, *P*<0.001) than PVT.

Conclusions

- those with Medicaid experienced significantly more complications, longer LOS.
- The paradox of lower hospitalization charges despite longer hospital stay and increased complications may reflect systemic inequities in care delivery and resource allocation.

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Effect of insurance status on clinical & healthcare outcomes among young hospitalized patients with BC

Outcomes	BC- Private insurance	BC- Medicaid	AOR	P Value
Mortality	3.31%	4.33%	1.04	0.955
LOS in days	3.74	4.92	1.21	<0.001
THC in %	71,780	64,150	0.87	<0.001
Secondary Outcomes				
Intubation	1.61	2.52	1.23	0.073
Pressors	0.83	0.87	0.92	0.645
AKI	4.81	7.27	1.26	<0.001
ARF	4.20	5.96	1.17	0.026
Pulmonary embolism	1.19	1.87	1.33	0.024
Sepsis	4.65	6.36	1.15	0.041
Blood Transfusion	6.47	7.96	1.09	0.137