

Racial and Regional Disparities in Parathyroidectomy: A National Analysis of Ambulatory Surgery Centers

Ben Palatnik, B.S.; Sean Nguyen, M.D.; Maria Evasovich Swenson, M.D.; Ashok Jethwa, M.D.

BACKGROUND

- Parathyroidectomy (PTx) is indicated most commonly for patients with primary and tertiary hyperparathyroidism.
- White patients receive PTx at disproportionately high rates despite higher disease incidence in Black patients.
- We aimed to assess PTx utilization and predictors of White vs non-White PTx using a nationally-representative ambulatory surgery database.

MATERIALS & METHODS

~65% stratified sample of hospital-owned facilities performing ambulatory surgeries (NASS Database)

PTx identified via ICD-10 coding

Hospital and Patient characteristics identified (e.g., hospital ownership, patient comorbidities)

Descriptive analysis for utilization of PTx based in White vs Non-White patients

Logistic regression modelling for predictors of PTx disparities

RESULTS

Characteristics	White (n=89,628)	Non-White (n=31,316)	P-value
Age, median (IOR)	71 (62–78)	72 (63–79)	<0.004
Sex			
Male	21374 (24%)	6883 (22%)	<0.0001
Female	68254 (76%)	24433 (78%)	
Race			
White	89,628		0.0002
Black		14011 (45%)	
Hispanic		9858 (31%)	
Asian/Pacific Islander		3240 (10%)	
Native American		402 (1.3%)	
Other		3805 (12%)	
Hospital teaching status and location			
Rural	2629 (2.9%)	377 (2.6%)	<0.001
Urban nonteaching	11813 (13%)	3609 (12%)	
Urban teaching	75186 (84%)	27329 (87%)	
Region			
Northeast	16127 (18%)	5795 (19%)	<0.0001
Midwest	22506 (25%)	4140 (13%)	
South	33555 (37%)	14274 (46%)	
West	17740 (19%)	7107 (23%)	
Total Charge	33,223.94	36,954.99	<0.0001
Elixhauser Comorbidity Score (continuous)	1.55	1.71	<0.0001

Table 1. Descriptive information for various demographic aspects of patients receiving parathyroidectomy, stratified by White vs. Non-White groupings. P-values are reported for all possible comparisons.

Dependent Variable	Odds Ratio (95% CI)	p-value
Sex (vs. Male)	1.14 (1.09 – 1.19)	<0.001
Location (vs. Urban))	0.259 (0.229 – 0.293)	<0.001
Income percentile (<50 th vs >50 th)	0.508 (0.477 – 0.540)	<0.001
Payer (vs. Government)	0.820 (0.774 – 0.868)	<0.001
Hospital Region (vs. South)		
Northeast	0.900 (0.609 – 1.22)	0.411
Midwest	0.461 (0.371 – 0.573)	<0.001
West	1.09 (0.847 – 1.51)	0.431

Table 2. Odds ratios calculated using multivariate logistic regression modeling. 95% confidence intervals are reported in parentheses.

CONCLUSIONS

- National disparities persist in ambulatory parathyroidectomy across race and income.
- In this cohort, three times as many surgeries were performed in white patients than non-white patients.
- Income disparities persist, with <50th percentile individuals being half as likely to receive Ptx (OR 0.508).

REFERENCES

