

Risk of General Anesthesia for Cesarean Delivery by Race:

Results from Multicenter Perioperative Outcomes Group (MPOG) Registry

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Background:

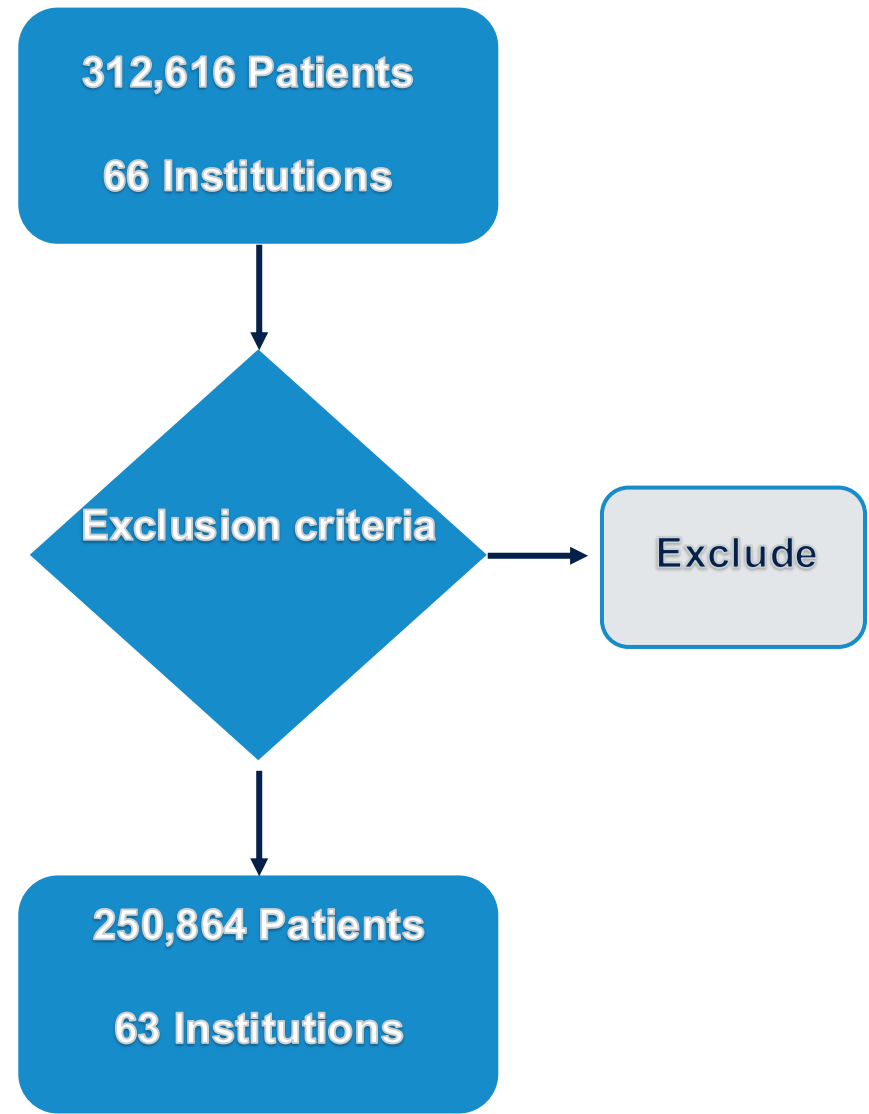
- Disparities Exist
 - GA for cesarean delivery is used more often in minoritized patients
- Limited Contemporary Data
 - Large population-based studies with clinical detail to contextualize the use of GA are limited

Research Aim:

- To investigate if a patient's race/ethnicity is associated with use of general anesthesia for cesarean birth from 2018-2023
- In emergency CDs?
- And in cases with pre-existing epidural catheters?

Study Population

- **Inclusion Criteria:**
 - Cesarean delivery (first time)
 - Jan 1, 2018 to Dec 31, 2023
- **Exclusion Criteria:**
 - “missing” or duplicates
 - Placenta accreta
 - Hysterectomy
 - Platelet <70
 - INR >1.4
- **Exposure:** Patient’s race
- **Outcome:** GA Risk



General Anesthesia Use by Race and Ethnicity

Race	Observed Rate	Missing	Unadjusted RR (95% CI) ^{1,2}	Adjusted RR (95% CI) ^{1,3}
Overall	15,483/248,936 (6.2%)	1,928	–	–
NH White	7339 / 127380 (5.8%)	952	Reference	Reference
NH Black	4048 / 47781 (8.5%)	396	1.47 (1.42, 1.53)*	1.11 (1.06, 1.15)*
NH Asian	573 / 15375 (3.7%)	125	0.65 (0.59, 0.70)*	0.84 (0.81, 0.87)*
Hispanic	596 / 10945 (5.4%)	64	0.95 (0.87, 1.02)	0.95 (0.91, 0.99)*
Other	348 / 6820 (5.1%)	42	0.89 (0.80, 0.98)*	1.08 (1.05, 1.10)*
Unknown	2579 / 40635 (6.3%)	349	1.10 (1.05, 1.15)*	0.95 (0.91, 0.98)*

Conversion to General Anesthesia by Emergency Status

	Emergency Cesarean Delivery				Nonemergency Cesarean Delivery			
Race	Observed Rate (%)	Missing	Unadjusted RR (95% CI) ^{1,2}	Adjusted RR (95% CI) ^{1,3}	Observed Rate (%)	Missing	Unadjusted RR (95% CI) ^{1,2}	Adjusted RR (95% CI) ^{1,3}
NH White	3157 / 16479 (19.3%)	137	Reference	Reference	3973 / 105873 (3.8%)	776	Reference	Reference
NH Black	1863 / 7301 (25.7%)	66	1.33 (1.27, 1.40)*	1.15 (1.09, 1.21)*	2101 / 39344 (5.4%)	318	1.42 (1.35, 1.50)*	1.05 (1.00, 1.11)
NH Asian	228 / 1529 (15.0%)	12	0.78 (0.68, 0.87)*	0.92 (0.88, 0.97)*	336 / 13772 (2.5%)	111	0.65 (0.58, 0.72)*	0.75 (0.72, 0.79)*
Hispanic	223 / 1423 (15.8%)	14	0.82 (0.72, 0.92)*	0.90 (0.84, 0.97)*	363 / 9322 (3.9%)	50	1.04 (0.93, 1.15)	0.94 (0.89, 0.99)*
Other	140 / 668 (21.1%)	4	1.09 (0.93, 1.26)	1.34 (1.30, 1.38)*	205 / 6133 (3.4%)	38	0.89 (0.77, 1.01)	0.94 (0.91, 0.97)*
Unknown	931 / 4289 (22.0%)	49	1.14 (1.06, 1.21)*	0.95 (0.90, 1.01)	1630 / 35895 (4.6%)	291	1.21 (1.14, 1.28)*	0.96 (0.91, 1.01)

Conversion to General Anesthesia with Pre-existing Epidural

Patients with Pre-existing Epidural (>1h prior to CD)			
Race	Observed Rate (%)	Unadjusted RR (95% CI) ^{1,2}	Adjusted RR (95% CI) ^{1,3}
NH White	2254 / 38765 (5.8%)	Reference	Reference
NH Black	1017 / 16328 (6.2%)	1.07 (1.00, 1.15)	0.90 (0.84, 0.96)*
NH Asian	211 / 6076 (3.5%)	0.60 (0.52, 0.68)*	0.70 (0.67, 0.74)*
Hispanic	220 / 3779 (5.8%)	1.00 (0.87, 1.14)	0.98 (0.92, 1.05)
Other	140 / 3080 (4.5%)	0.78 (0.66, 0.91)*	1.15 (1.11, 1.19)*
Unknown	960 / 14036 (6.8%)	1.18 (1.09, 1.27)*	0.91 (0.85, 0.96)*

Conclusions & Clinical Implications

- ❑ NH Black patients remained at increased overall risk of GA for CD
- ❑ Rates of GA for emergency CD were high across all groups, with NH Black and Other race patients being at increased risk
- ❑ Differences in GA risk was less pronounced among all groups with pre-existing labor epidural catheters.
- ❑ These findings highlight the need to better understand perioperative decision-making and institutional practices that contribute to persistent disparities in GA use.