

Background

- In the United States, about 27% of births are through induction of labor (IOL), which may be medically indicated or elective per patient preference.
- Prolonged IOL carries increased risk for hemorrhage and infection.
- Racial disparities is a leading issue in obstetrics, with negative health outcomes disproportionately affecting racial/ethnic minority groups.¹
- Care standardization targets implicit bias: implementation of an induction protocol reduced cesarean delivery rates in Black women with no difference in non-Black women.²

Objective

- To assess baseline maternal morbidity rates stratified by race and ethnicity after induction of labor at a tertiary academic medical center (UCLA Ronald Reagan Medical Center)

Methods

- Design:** retrospective cohort analysis of patients undergoing induction of labor from June 2020 through February 2021 at UCLA Ronald Reagan Medical Center (n=324)
- Inclusion Criteria:** induced labor, 18 years or older, full term (>37 weeks gestation), singleton, admission cervical dilation ≤ 3cm, intact membranes
- Outcomes:** length of labor (minutes), cesarean delivery, postpartum hemorrhage (estimated blood loss ≥1000 ml), and suspected intra-amniotic infection. These outcomes were compared between self-reported White vs. non-White racial/ethnic groups (Non-Hispanic White vs. Black, Asian, Hispanic, Other, Unknown).
- Statistics:** Data was analyzed using Wilcoxon rank sum for continuous variables and Fisher’s exact tests and Chi-square for categorical variables as appropriate.

Results

Table 1. White vs. non-White maternal morbidity outcomes and rates after induction of labor

	White (n= 111)	Non-White (n=213)	P-value White vs. non-White
Median Length of Labor in Minutes (Quartile)	1373 (889, 1966)	1460 (929, 1995)	0.743*
Cesarean Delivery	17/111 (15.3%)	30/213 (14.1%)	0.479**
Postpartum Hemorrhage	6/110 (5.5%)	12/213 (5.6%)	0.947**
Chorioamnionitis	11/111 (9.9%)	29/213 (13.6%)	0.336**

- Of 324 induced patients who meet criteria, 111 (34%) identified as exclusively White vs 213 (66%) identified as one or more not mutually exclusive non-White races
- Non-White Race Breakdown:
 - 30.9% Hispanic (n=66)
 - 26.7% Asian (n=57)
 - 10.3% Black (n=22)
 - 40.8% Other (n=87)
 - 7.0% Unknown (n=15)
- No statistically significant difference in length of labor or rates of cesarean delivery, postpartum hemorrhage, and chorioamnionitis between White vs. non-White groups

Discussion & Conclusion

- From June 2020 through February 2021, there was no statistically significant difference in maternal morbidity after IOL between White vs. Non-White patients
- Knowledge obtained from this study helps establish a baseline understanding of maternal outcomes by race at UCLA RR for comparison post-implementation of a standardized IOL protocol to determine its efficacy in reducing maternal health disparities

Limitations

- Limited sample size over the 9 month interval
- Non-white category includes diverse spectrum of multiple races
- Confounding factors not incorporated into baseline results

Future Directions

- Current implementation of induction guidelines to standardize care for patients undergoing IOL from June 2020 through May 2021
- Will compare maternal outcomes pre- and post- implementation
- Will compare maternal outcomes to other similarly qualified tertiary academic medical centers and other UCLA Health locations
- If significant, protocol could be utilized at other UCLA-affiliated locations to combat implicit bias through greater care standardization

References

- Teal EN, Lewkowitz A, Koser S, et al. Racial Disparities in Labor Induction Outcomes [36Q]. *Obstetrics & Gynecology*. May 2019;133:190S. doi: 10.1097/01.AOG.0000559193.27955.42
- Hamm RF, Srinivas SK, Levine LD. A standardized labor induction protocol: impact on racial disparities in obstetrical outcomes. *Am J Obstet Gynecol MFM*. 2020;2(3):100148. doi:10.1016/j.ajogmf.2020.100148