Objective: Racial disparities in pain management have been documented in health care settings. We sought to evaluate associations between patient race and ethnicity and pain management following cesarean birth.

Study Design: We conducted a retrospective cohort study of mothers following cesarean birth at North Carolina Women’s Hospital between 7/1/2014 and 6/30/2016. Maternal pain scores (0-10) and medication administration were documented in Epic Electronic Medical Record (EMR) as part of routine clinical care. We used these data to determine frequency of pain assessment, pain scores, and administration of opiate analgesia from 0 to 48 hours postpartum (PP). Opiates administered were converted to 5 mg oxycodone tablet equivalents (OTE). They excluded from our sample women who received general anesthesia, were in the intensive care unit after delivery, were currently treated with methadone or buprenorphine, or received ≥2 opiates prescriptions during antenatal care. We used chi square tests to compare prevalence of severe pain, indexed by pain scores ≥7, and linear regression models to compare OTE administered by maternal race/ethnicity, adjusting for insurance status, primary language, age, and primiparity. P values <0.05 were considered statistically significant.

Results: 1,970 women underwent cesarean section during the study period, of whom 1,776 met inclusion criteria. EMR records included 32,361 pain assessments and 13,989 opiate doses administered from 0-48 hours after c-section. The number of pain assessments differed by race-ethnicity, with the highest number documented in the first 48 hours following cesarean birth. We found racial/ethnic disparities in assessment, pain scores and opiate medication administration varied by patient race and ethnicity.

Methods

- We conducted a retrospective cohort study of mothers who underwent cesarean section of ≥1 liveborn infant at North Carolina Women’s Hospital between July 1, 2014 and June 30, 2016.
- We excluded women who:
  - Underwent general anesthesia
  - Were admitted to the intensive care unit
  - Received ≥2 opiate prescriptions during prenatal care
  - Were receiving opiate replacement therapy
- Birth data were ascertained from the UNC Perinatal Database. Patient race/ethnicity, maternal pain scores and opiates administered were retrieved from the Carolina Data Warehouse for Health, which houses data from the Epic@UNC electronic medical record.
- Opiate pain medications administered were converted to oxycodone tablet equivalents (OTE) for analysis to allow comparability of doses between patients.
- Severe pain was quantified as ≥7 pain score in the first 24 hours postpartum. We used chi square tests to compare frequency of severe pain, and we used linear regression to compare OTE administered, adjusting for insurance, age, language, and primiparity.
- Conclusion: We found racial differences in pain scores and administration of opiates. EMR data can be leveraged to identify differences in care delivery that may contribute to health disparities.

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