# Evidence of Health Care Disparities in the Perioperative Setting

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**In the last 10 years, the American health care system has been criticized because of its excessive cost, high levels of uninsured citizens and evidence of health care disparities.** Even though the Affordable Care Act has reduced the number of uninsured Americans, there has been little change in the quality of care for minorities. Health care disparities have been documented in several areas of medicine, such as diabetes care, cardiovascular screening and kidney transplant management.[1-3] In this context, it has been shown that these disparities have resulted in increased levels of morbidity and mortality among minority groups.[2,3] Several reports from the Agency for Healthcare Research and Quality (AHRQ) have shown that socioeconomic status, education and insurance type impact the use of health services and the quality of care a patient receives. For example, individuals with lower income received poorer quality of care than those with high incomes for 85 percent of core measures as determined by the AHRQ.[4] Patients of low socioeconomic status who had a coronary bypass surgery had higher mortality rates than high-income individuals.[5] The National Healthcare Disparities Report continues to provide an overview of racial, ethnic and socioeconomic disparities, and has tracked health conditions where there has been a successful reduction.[6] The federal government has displayed interest in and support for research that identifies health care disparities and seeks ways to improve them.

To date, there has been a paucity of research on a possible relationship between health care disparities due to socioeconomic status and perioperative adverse outcomes. However, a number of researchers have started to address this issue in the field of anesthesiology. In an abstract presented by our research team (Vilma Joseph, M.D., Associate Professor of Clinical Anesthesiology at Montefiore Medical Center and Iyabo O. Muse, M.D.) at last year's ASA annual meeting, we found evidence of the presence of differences in perioperative care. Using the National Anesthesia Clinical Outcomes Registry (NACOR) as our primary database, we discovered that patients in lower socioeconomic groups were statistically more likely to suffer a cardiac arrest not resulting in death, unplanned ICU admission and mortality than the upper-income group in elective, non-obstetrical cases.[7] In addition, there is now evidence that disparities exist in the type of anesthetic care given to orthopedic surgical patients. According to a study performed by Stavros Memtsoudis, M.D., Ph.D. et al., race and insurance type affect the type of anesthesia care received by orthopedic patients. Even though there is an increased trend of regional anesthesia being used for total knee and hip arthroplasty across the country, this study shows significant disparities among blacks, Hispanics versus whites and Medicaid versus commercial insurance patients. The authors found lower odds for black (versus white) and Medicaid (versus commercial insurance) patients to receive neuraxial anesthesia for total joint cases. Further, Hispanic patients were less likely to receive a peripheral nerve block as compared to whites.[8] This is an important finding that further suggests that disparities do exist in the perioperative setting. Various studies have shown that the choice of anesthesia type for orthopedic surgery plays an important role on perioperative outcomes. Patients who underwent their procedure under neuraxial anesthesia compared to general anesthesia for orthopedic surgery had better outcomes as they relate to postoperative infection risk, intraoperative bleeding risk and time to rehabilitation.[9,10]

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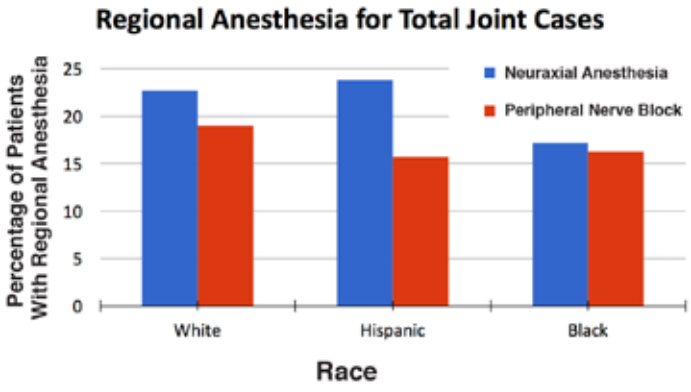


**Figure 1**

Thus, with blacks and Medicaid patients receiving fewer neuraxial anesthetics than whites, it must be assumed this may lead to an increase in morbidity and mortality in this group of patients. As these findings raise the possibility of the existence of disparities in care within the field of anesthesiology, the logical question follows as to its etiology(ies). Possible reasons put forth include the idea of "unconscious bias," leading physicians to choose an approach based on preconceived notions of the patient populations, for example, in respect to their ability to comply with instructions. Further, inexperience with regional anesthesia techniques may also deter some anesthesia providers from using this skill set. According to Dr. Memtsoudis, "there will likely be a number of reasons that will vary by location and practice. It is possible that patient choice is one reason, but we would need to make sure that this is a well informed choice and not just due to lack of information secondary to communication issues like language and cultural barriers." However, he also believes that unconscious bias may play a role: "The more serious problem is conscious or unconscious bias by providers, which has been described in other fields. The first step there is to

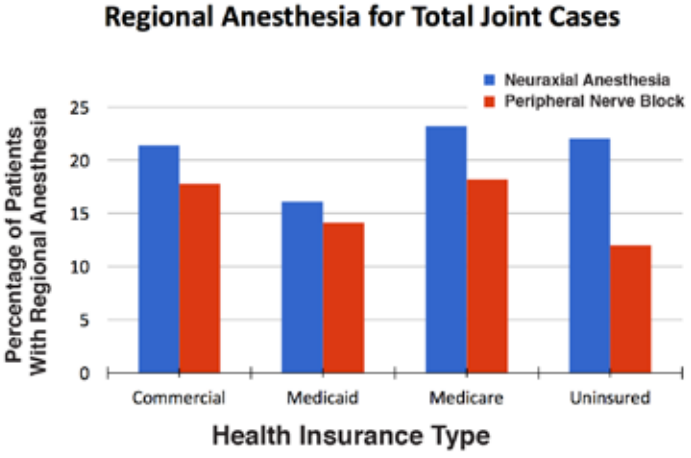


**Figure 2**

reveal that it exists and work toward acceptance of that fact. The second is to find ways that eliminate such bias through education and institution of objective decision pathways." Most recently, Dr. Augustus White III, a renowned orthopedic surgeon and Professor of Medical Education and Orthopedic Surgery at Harvard Medical School, wrote a book titled *Seeing Patients: Unconscious Bias in Health Care*. He looked at how patient care is affected by the unconscious prejudice of health care providers, and he strongly believes education is key to addressing these biases and finding ways to minimize if not eliminate them.

Now that evidence is mounting that health disparities in the perioperative setting may indeed exist, as they do in other medical fields, we as a specialty need to strive for a solution to reduce unethical and unjust variation in perioperative care. As leaders in patient safety and quality, we owe it to all Americans, and indeed all patients worldwide, to provide the best and safest perioperative care irrespective of gender, racial and economic background.

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