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NEWSLETTER
THE OFFICIAL JOURNAL OF THE ANESTHESIA PATIENT SAFETY FOUNDATION

CITATION: Toledo P, Adams J. Why a focus on diversity, equity, and inclusion is a perioperative patient quality and safety imperative. *APSF Newsletter.* 2022;37:43,45–46.

Why a Focus On Diversity, Equity, and Inclusion is a Perioperative Patient Quality and Safety Imperative

by Paloma Toledo, MD, MPH, and Jerome Adams, MD, MPH

In *Crossing the Quality Chasm*, the Institute of Medicine defined six domains for improving the health care system. Health care should be safe, effective, patient-centered, timely, efficient, and equitable.[1] Anesthesia professionals have long been acknowledged as leaders in patient safety,[2] and they have worked to achieve the quadruple aim of promoting better patient outcomes, improving patient satisfaction, lowering clinician burnout, and lowering costs.[3] While the safety of medicine and anesthesiology has significantly improved over the last century,[4] we have not seen equivalent gains in equitable care, which is defined as care does not vary in quality based on personal characteristics such as gender, ethnicity, geographic location, or socioeconomic status.[1]

The United States Centers for Disease Control and Prevention defines disparities as preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.[5] A large share of negative health outcomes occurs within a small subset of our patient population.[6] Far too often, whether it is infant or maternal mortality, cardiovascular disease and its complications, or unmanaged acute and chronic pain, this population subset disproportionately consists of people of diverse backgrounds.[6] Furthermore, racial and ethnic disparities have been identified in anesthesiology.

Several studies have focused on the racial and ethnic differences in the management of pain for surgical procedures or during labor and delivery.[7-10] Neuraxial labor analgesia is the most effective treatment modality in the management of labor pain.[7] Both the American Congress of Obstetricians and Gynecologists and the American Society of Anesthesiologists promote the use of neuraxial analgesia due to its efficacy and safety, both for the mother and her neonate.[8] Yet, despite 60% of delivering women using neuraxial labor analgesia for pain control in the US,[9] Black and Hispanic women are less likely to use neuraxial labor analgesia for pain control in labor when compared to non-Hispanic White women (62%, 48% and 69%, respectively).[10-12] Among Hispanic women, there is an additional difference in the use of neuraxial labor analgesia based on primary spoken language, with primarily Spanish-speaking women being less likely to both anticipate (adjusted odds ratio

0.70 [97.5% CI: 0.53-0.92]) and use (adjusted odds ratio 0.88 [97.5% CI: 0.78-0.99]) neuraxial analgesia compared to English-speaking Hispanic women.[13] These differences in neuraxial labor analgesia use may have safety implications at the time of cesarean delivery. Neuraxial anesthesia is the preferred mode of anesthesia for cesarean deliveries because of the multiple maternal and neonatal benefits of neuraxial anesthesia compared to general anesthesia.[14-16] Yet, racial and ethnic disparities exist in the rates of neuraxial anesthesia for cesarean delivery,[7,8] with the rate of general anesthesia use being almost double for black women compared to non-Hispanic White women (11.3% versus 5.2%).[7,8] Little information exists about why this discrepancy exists (e.g., differences in risk factors for general anesthesia by race/ethnicity, etc.) as most studies on racial and ethnic discrepancies between modes of anesthesia for cesarean delivery have been population-level studies. These are a few examples of the many studies which have documented racial and ethnic disparities in health care.

Understanding the root causes of the disparities is fundamental to building effective interventions. Disparities can arise at the patient-, provider-, or health care system-level.[17] At the patient-level, considerations such as health literacy, patient's understanding of their medical condition and treatment choices, and primary spoken language can all contribute to disparities. At the provider level, knowledge of treatment options and provider bias may also contribute to disparities. At the health care systems level, there may be differences based on the hospitals' resources.

Given the multiple levels from which disparities can arise, it is important to measure the differences by race/ethnicity, and track changes as interventions are implemented. The gold standard is to have patients self-identify their race and ethnicity. Other strategies, such as staff identification or use of patient surnames have been proven to be inaccurate.[18,19] In one study, which compared hospital staff's accuracy with identification of patient's race and ethnicity, compared to patient self-reported race and ethnicity, which were collected for a different purpose, the range of agreement was imperfect for all racial and ethnic groups.[18] The hospital staff could select race and ethnicity from six categories (Hispanic, American Indian, Black/African American, Asian, White, and unknown/missing). The agreement was best for White patients (76%), but decreased with the other racial and ethnic groups 68% for Black/African American, 57% for Hispanics, 33% for Asians, and 1% for American Indians.[18] Ensuring accurate race/ethnicity and language data is critical for building dashboards to evaluate disparities in local care. While anesthesia professionals may not be directly collecting this information, it is imperative that they work with hospital leadership to ensure that this data is being accurately collected.

Clinicians should also be trained in the use of shared decision-making (SDM). Shared decision-making allows active discussion between patients and providers. In SDM, providers share relevant risks, benefits, and alternatives of treatments with the patient. In addition, the patient also shares personal information and beliefs that would make a treatment more or less desirable.[20,21] Given that anesthesia professionals often do not have the luxury of pre-existing relationships with a patient, this may be a way to garner trust and understand any fears or misconceptions held by the patient. Some groups have long-standing historical distrust of the medical establishment. One of the most glaring examples underlying this distrust is the infamous Tuskegee Study, where Black men were

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denied treatment for syphilis and deceived by clinicians and the US government.[22] Consequently many Black patients come into the medical system with trust deficit. Therefore an "equal" amount of time and level of engagement from a physician—especially one of a different racial background—may not engender an equivalent degree of trust in all patients. Strategies to enhance trust and communication between patients and their providers are important for achieving equity. Incorporating opportunities to build rapport and discuss treatment options with patients preoperatively, such as through a preoperative clinic, may be one way to begin to build trust and engage patients prior to the day of surgery.

Additional solutions to reduce disparities can be identified at the patient-, provider-, and health care systems-level. In addition to using shared decision-making, it is important that providers counsel patients in their preferred spoken language, and use professional interpreters for communication with patients of limited-English proficiency.[23] Also, ensuring patient educational material is both readable, and meets patient's health literacy needs, will improve patient-provider communication.[24,25] At the provider-level, raising awareness of disparities and creating a culture of equity can be achieved through education, departmental surveys, needs assessments, and creating forums for open dialogue.[26] Furthermore, anesthesiology departments incorporate best practices for workforce diversity and engage in mentorship programs, such as the Doctors Back to School Program,[27] that will help expose premedical students, as well as medical students to our field. In addition, the Diversity in Nurse Anesthesia Program focuses on educating, empowering, and mentoring underserved populations with information to enhance a career in anesthesia.[28] This list is not comprehensive, but meant to illustrate several of the tangible ways that anesthesia professionals can engage in reducing disparities.

Anesthesia professionals are leaders in improving patient safety by identifying problems and potential solutions, testing them, and scaling effective interventions. Our field has expanded its scope beyond the operating room into the preoperative and postoperative setting. Addressing disparities should be the next horizon for our specialty. Whether our patients have language barriers, or are differently abled, or come from communities who have long experienced discrimination within the health care systems, ample evidence exists that a focus on diversity, equity, and inclusion will improve patient safety, quality, and outcomes.

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The authors have no conflicts of interest.

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