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CORR Insights®: Does Universal Insurance and Access to Care Influence Disparities in Outcomes for Pediatric Patients with Osteomyelitis?

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Where Are We Now?

Pediatric osteomyelitis is an apt diagnosis for study in the context of healthcare disparities because making the diagnosis can be challenging, and because there are so many treatment options. Since the Department of Defense TRICARE program—which manages healthcare coverage for all active-duty and retired military members and their dependents—is a closed system and all members at least in principle have coverage and access to care, it is a good setting in which to explore the important topic of treatment disparities.

The current study by Young and colleagues [10] found that in the civilian setting, even when patients had universal coverage under TRICARE—and even after controlling for a large number of relevant confounding variables—black children with osteomyelitis experienced important disparities in care, including a greater likelihood of undergoing surgery. The authors also found that patients in families of lower socioeconomic status (junior enlisted) were more likely to access to care through the emergency department even though they in principle had the same ability to access care through physicians' offices under TRICARE [10]. Each finding is important, although with different nuances.

It should make us uncomfortable to see that persistent racial disparities were identified in this study. Previous work documenting discrepancies in the delivery of health care for pediatric septic arthritis [3] and pediatric osteomyelitis [7] used combined national databases in which the patients did not all have the same healthcare insurance coverage. Young and colleagues [10] show us that even though the provision of universal TRICARE insurance made a difference, it did not eliminate the disparities altogether. We are forced to consider racism, be it overt, implicit, or unconscious, and whether the military is somehow a more egalitarian practice setting.

The question of whether there are ways to support less medically sophisticated families to decrease reliance on the emergency department for issues better served by regular outpatient care has been investigated by others [2]. Educators, economists, sociologists, and insurance actuaries may have insights that we as orthopaedic surgeons do not. This current study shows that, for pediatric osteomyelitis, provision of universal healthcare insurance is not the full answer [10].

Where Do We Need To Go?

The reasons for persistent discrepancies are complex and remain unclear. Some patient factors, such as culture, religion, language, health literacy, or basic trust in mainstream health care have been suggested [4]. From a system perspective, lack of healthcare

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insurance (and the resultant inability to pay for care) among our patients presents one obvious opportunity for study and improvement.

Evidence-based, cost-effective, and unbiased delivery of health care remains the ultimate goal. Young [10] found racial discrepancy in the civilian setting, which was not seen in military facilities. Several questions can be proposed: (1) Is there truly something different being done in the military that is effective in eliminating racial bias in health care? (2) If so, what is that "something"? (3) Can that "something" be adopted into our customary civilian systems?

The current study needs to be validated through another database confined to a universal-coverage setting. Large healthcare providers do enroll members for comprehensive "cradle-to-grave" coverage. Examples might be the Kaiser or Geisinger systems; others are available. The results of this study need to be validated by considering additional pediatric orthopaedic diagnoses beyond osteomyelitis (studied here) and fractures (studied by others) [2, 5]. Pediatric osteomyelitis presents in a variety of ways, can be challenging to diagnose, can be treated in a variety of ways, and involves both inpatient and outpatient care options. Other similarly complex conditions, such as Legg-Calvè–Perthes disorder, are not so frequent, and might require an even larger database for study.

It is also reasonable to wonder whether the findings of this study are unique to the military. Might a similar pattern of disparity occur in another system, whenever patients cannot access a designated facility or provider and must go "out of network" for care? Certainly there would be different referral patterns and opinions, and approval of requests for tests and procedures could be more problematic.

Diversity among military personnel reasonably mirrors the diversity of the US population overall, and military rank may serve as a surrogate for socioeconomic status in many ways. Some caution is required, however, as racial minorities are under-represented in the officer corps [6]. Comparing junior enlisted with senior enlisted or officers, readers will reasonably intuit differences such as younger age, less formal education, recent separation from customary family and social support systems, and less experience with raising children. Although the current study does not explore those issues, future researchers could examine whether military providers are more likely to agree on the use of care paths or other measures for standardization of management of a complex problem than are their civilian counterparts. Is there more of a "team" attitude within military medicine? Is communication among providers any easier or more effective?

How Do We Get There?

Healthcare coverage plans are not all created equal. Medical facilities and practices contract with various plans individually as suits the needs of their patients and as reflects financial realities. Reports have shown that coverage by some programs, especially government programs like Medicaid [2, 5], does not translate into equitable access for care of some pediatric orthopaedic diagnoses. Sometimes programs, including TRICARE, may be accepted for emergency care but not for subsequent or elective services. A retrospective study of disparities must, of course, include methodological allowances for co-morbidities such as sickle cell disease or thalassemia, which predominate in specific populations. All that being said, within any particular plan, the management of any particular diagnosis should ideally be independent of race, ethnic group, or socioeconomic status.

The massive number of eligible persons within the combined military services presents the opportunity for a "big data" review [8]. TRICARE includes both care accessed through the internal military healthcare delivery facilities, as well as care purchased through civilian systems. Claims data are available from both venues, making comparisons possible. As such, TRICARE becomes an attractive model for predicting the possible effects of universal health insurance. Prior studies, including those with some of the same co-authors as this current work, used the TRICARE database to focus on trauma care. These studies did not find any racial discrepancies in adult [1] or pediatric [9] patients.

Sensitivity training can be required and repeated in any facility. Whether there may be an additional effect of documenting adherence to equal opportunity policies when considering advancement in pay or professional designation is an area that might be explored. Obviously, this would be very problematic to study, and even more difficult to implement, outside of hospital or institutional employment.

Individual efforts must also continue. Every orthopaedic surgeon is the team leader; patients and families hold the orthopaedic surgeon responsible for the performance of his or her colleagues. Professionalism and attitude are on display every minute of every day.

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