EDITORIAL

Prostate cancer screening algorithms and the Affordable Care Act updates

Algorithms are tools used in medicine to assist in clinical decision-making. These algorithms can take many shapes and forms such as clinical guidelines from professional groups, flowcharts, and sophisticated computer algorithms and decision support tools.

The Patient Protection and Affordable Care Act (ACA), often called "Obamacare", contains language that prohibits discrimination on the basis of race, color, national origin, sex, age, or disability in health programs.[1] With the increasing reliance on clinical algorithms to inform decision-making, concerns have recently been raised that these tools may result in discrimination against certain groups of patients.

In response to these concerns, a new 2022 provision to the ACA, defined in Section 92.210 of the Act, expands the existing non-discrimination requirement in health care to weigh in on the use of clinical algorithms as nicely summarized by Grünebaum et al.[2] This new ACA section prohibits discrimination in the use of algorithms for decision-making in health programs, stating that race and ethnicity are often used as algorithm input variables. This has been called "race correction" or "race norming", a practice that adjusts an algorithm's output on the basis of a patient's race or ethnicity. The implication is that a clinically used algorithm may negatively impact the care of certain populations. ACA Section 92.210 states: "Covered entities should take steps to ensure that the use of clinical algorithms does not result in discrimination on the basis of race, color, national origin, sex, age, or disability."

As an example of the potential impact of this new ACA provision, pediatricians are debating if the use of the APGAR score is potentially discriminatory.[2] The APGAR score is an algorithm used to assess the health status of a newborn immediately after birth. The APGAR clinical algorithm includes assessment of skin color, a proxy for race, as part of the scoring with concerns that these types of algorithms may produce racial disparities. Lower APGAR scores are more frequent in infants of color compared to white infants, without any biologic explanation. With lower APGAR scores, more newborns of color require unnecessary interventions, such as neonatal ICU admissions, compared to white newborns. The potential negative impact of the APGAR algorithm score has come into focus with the new provisions of the ACA.

Are there any implications of these newer ACA mandates in terms of urology algorithms such as those used for prostate cancer screening? The good news is that all of our screening algorithms acknowledge the higher burden of prostate cancer in African American men or those with a suggestive family history. Screening starts at an earlier age in these at-risk men, typically age 40-45.[3] This is clearly an appropriate use of algorithm "race correction". Concerns might arise from algorithms "discriminating" by stopping prostate cancer screening above a certain age. The NCCN guidelines are least restrictive, including screening guidelines for men over age 75. However, most other professional organization's algorithms end screening at age 70.

Prostate cancer screening has long been controversial for many reasons such as the detection and unnecessary treatment of non-life threatening tumors, treatment side effects and the unclear impact on life expectancy. Aligning professional recommendations for prostate cancer screening is already a difficult task.[4] If these new mandates as defined by ACA Section 92.210 are fully enacted, using age as a metric for ending prostate cancer screening could be interpreted as "age discrimination". While this is unlikely to happen, it could add unnecessary complexity to the already complex prostate cancer screening controversies in urology.

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References

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