Achieving Diagnostic Equity in Cardiovascular Disease

Multilevel barriers related to racism, sexism, poverty, and systematic marginalization impede diagnostic excellence in acute cardiovascular conditions. Historically marginalized racial and ethnic populations, women, and individuals with low income have a higher risk of complications and higher death rates from heart disease than do White male populations. To achieve diagnostic excellence across populations, it is critical to recognize, assess, and counteract sources of disparities in diagnosis and outcomes from cardiovascular disease.

Acute cardiovascular conditions offer a prime opportunity for diagnostic excellence initiatives. Conditions such as acute myocardial infarction are common, with an annual incidence of 605,000 new events and 200,000 recurrent events. Timely and accurate diagnosis is a prerequisite for prompt treatment. In turn, the timeliness of treatment for acute myocardial infarction and stroke is critical to survival and function, with prompt revascularization leading to better outcomes.

Using the National Academy of Medicine framework for the diagnostic process, there are 4 broad types of inequity for acute cardiovascular conditions. At the outset of the diagnostic process, inequity in health care access is a structural determinant of diagnostic disparities. In parallel, individuals vary widely in their ability to recognize the need for immediate medical attention when experiencing symptoms of myocardial infarction or stroke. These differences in symptom recognition also impede diagnosis. Further along the diagnostic process, structural bias affects the provision of timely and accurate care for acute cardiovascular conditions, and implicit bias among clinicians and some marginalized patients' resulting lack of trust in clinicians can also introduce missed and delayed diagnosis. This Viewpoint delineates these 4 elements of racial, ethnic, and sex-related bias and provides recommendations to advance health equity in cardiovascular diagnosis.

Disparities in Symptom Recognition

Individuals from marginalized communities may have challenges with symptom recognition that lead to individual delays in seeking care for acute cardiovascular conditions compared with more advantaged populations. Challenges with health literacy, lack of familiarity with the health care system, or both can impede care seeking. Competing demands from circumstances such as caregiving, economic concerns from missed work, and concern about health care costs can also lead individuals to delay care for symptoms of acute cardiovascular conditions. Enhancing community assets that provide information, knowledge dissemination, and access points in trusted community venues like barbershops, churches, and community centers is one strategy to enhance timely cardiovascular diagnosis. Similarly, community and lay health workers can support timely care seeking for acute cardiovascular conditions.

Bias in the Provision of Timely and Optimal Care

Once the diagnostic process has been initiated, structural disparities exist in the provision of timely and optimal care. Black patients, Native American patients, and Hispanic patients are less likely than White patients to receive thrombolytic therapy for stroke even when they arrive to a health system within the time window for treatment. Low-income, rural, and racial and ethnic minority populations are less likely to have access to a certified stroke care center. Multiple studies have demonstrated lower rates of cardiac catheterization following acute myocardial infarction among Black patients than among White patients. Equity in diagnosis of acute cardiovascular conditions cannot be achieved without investment in access to optimal
treatment options for all people in the US, regardless of neighborhood and geographic location.

Implicit Bias Among Clinicians

During the diagnostic process of information gathering, integration and interpretation, and crafting a working diagnosis, individual clinicians’ implicit bias is a key barrier to equity in diagnosis. In a recent study, clinicians demonstrated a lower likelihood of choosing optimal, timely treatment for Black women than for White men, likely because implicit bias affects diagnostic reasoning. Compared with White populations, Black populations experience cardiovascular disease at a younger age. Compared with men, women present with a wider range of presenting symptoms. These differences may affect clinicians’ recognition of acute cardiovascular conditions among racial and sex minority groups and may lead clinicians toward alternative explanations triggered by bias, such as concerns for drug use in younger patients and anxiety in women. In turn, experiences of bias related to race or sex reduce trust among historically marginalized groups, which may further lead to delays in seeking care. Standardized workflows and decision support that prompt clinicians to consider acute cardiovascular presentations should be implemented to reduce the influence of implicit bias. In simulation studies, when physicians receive treatment recommendations from a peer network, diagnostic accuracy and equity improve markedly. Studies using peer networks to enhance diagnostic equity for cardiovascular conditions in clinical settings are needed. To improve the trustworthiness of health systems from the perspective of marginalized patients, health systems must invest in reducing bias among clinicians and diversifying the health care workforce.

Recommendations to Address Inequities in Cardiovascular Disease Diagnosis

Recommendations to address inequities in diagnosis of acute cardiovascular conditions mirror broader recommendations to reach health equity. Achieving equity in cardiovascular diagnosis requires a multilevel approach. Individual patient considerations like enhancing symptom recognition and lowering financial toxicity for health care are necessary but not sufficient. In parallel, reducing implicit bias among clinicians through training, decision support, and peer networks is imperative. Although much discussed, establishing trust remains paramount.

Addressing knowledge and access gaps among marginalized populations cannot overcome the lack of trust that still hampers communication and collaboration between patients and clinicians in an iterative diagnostic process. Clinicians may use these various prompts to streamline and reduce bias, but if the orientation is not toward establishing trustworthiness in the encounter, cardiovascular diagnostic disparities will persist. A more diverse health care workforce will enhance diagnostic equity for cardiovascular conditions. Individual trust may be enhanced by acknowledgment of and investment in those neighborhood-level health assets that are also essential for achieving equity in diagnostic excellence, such as access to ambulance and health care facilities.

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REFERENCES