Black-White Disparities in Cardiovascular Care

Quinn Capers, IV, MD, FACC, FSCAI
Assistant Professor of Medicine
Division of Cardiovascular Medicine
“Do Clinically Similar Patients Receive Different Levels of Quality of Care Based on Race/Ethnicity in . . .”

Survey of 344 cardiologists
Lurie et al. Circulation 2005; 111; 1264-1269
Life-prolonging Therapies Available in Cardiovascular Medicine

- AICD therapy in pts at risk for Cardiac Arrest
- Emergent Treatment of Heart Attacks
- Treatment of Poor Circulation
Life-prolonging Therapies Available in Cardiovascular Medicine

• **AICD therapy in pts at risk for Cardiac Arrest**
  • *Blacks less likely than Whites to receive AICDs when indicated*

• **Emergent Treatment of Heart Attacks**
  • *Blacks suffering from a heart attack less likely than Whites to have cath or be treated with therapeutic coronary procedures (CABG or PCI)*

• **Treatment of Poor Circulation**
  • *Compared to Whites with severe PAD, Blacks with severe PAD less likely to have revascularization, more likely to have amputation*
I. AICD therapy in pts at risk for SCD
AICD Therapy in Patients at Risk for Cardiac Arrest

- **Circ 2003 Jul 22; 108 (3):286-291**
  - 6,000 Medicare patients after cardiac arrest
  - OR for Blacks (vs Whites) to receive AICD: 0.5

- **Am Heart J. 2007 Feb; 153(2): 320-7**
  - 50,000 VA pts at risk for cardiac arrest
  - OR for Blacks (vs Whites) to receive AICD: 0.54

- **JAMA 2007 Oct 3; 298 (13), 528-532**
  - 13,000 pts with severely weakened heart muscle
  - OR for BW (compared to WM) to receive AICD: 0.56
II. Rapid Treatment of Blocked Heart Arteries in Heart Attack Victims

Before stent, artery closed, no blood flow to heart

After stent, artery open, blood flow to heart restored
Rapid Treatment of Heart Attacks

- **Am Heart J 2001;142: 604-10**
  - 10,469 Black patients with massive heart attacks from 1994 to 1998 (NRMI database)
  - 53% received thrombolytic therapy

- **JAMA 1994 Apr 20;271 (15): 1175-80**
  - 33,641 pts in VAMCs with dx of AMI
  - Compared to Whites, Blacks:
    - 33% less likely to undergo cath
    - 42% less likely to undergo PCI
    - 54% less likely to undergo CABG
III. Restoring Blood Flow to Blocked Leg Arteries

Arteries become narrowed and blood flow decreases in atherosclerosis.

Build up of fatty substances in the wall of the artery.

Femoral Popliteal Bypass

- Femoral Artery
- Graft
- Plaque
- Popliteal Artery

Image of a man in a wheelchair.

Treating Poor Circulation

- *Arch Surg* 1995 Apr; 130 (4): 381-6
  - 19,236 Medicare pts with LE ischemia
  - African Americans compared to Whites:
    - More likely to undergo amputation
    - Less likely to undergo revascularization

  - 691,833 pts with LE ischemia
  - 66% underwent revasc. or amputation
  - Risk factors for amputation:
    - Black race (1.9x more likely than Whites)
    - Low income (1.4x more likely than high income)
Disparities in Cardiovascular Care: What are the Potential Culprits?
Disparities in Cardiovascular Care: Potential Culprits

1. Physician bias?
2. Black pts may decline treatment because of mistrust based on historical mistreatment
3. Are Blacks overrepresented at hospitals that are underperforming?
4. Inadequate resources/treatment at hospitals frequented by Blacks?
5. Are Blacks less informed about heart disease symptoms, treatment, and medications?
6. Racism?
7. There are not enough African American CV specialists
Lest We Forget:  
The Tuskegee Experiment of Untreated Syphilis in Negro Males  
1932-1972, Funded by US PHS
The Tuskegee Experiment of Untreated Syphilis in Negro Males

“Special Free Treatment”
Conclusions
These results underscore the magnitude of cocaine abuse among black, inner-city men. Patient self-report of illicit drug use is highly inaccurate.
(JAMA. 1992;267;1106-1108)
Methods.

“Of the patients who were asked to participate in the study, 82% agreed. The study subjects were significantly older and had a lower rate of insurance coverage than did those who refused to participate (P<.01). Subjects were paid $10 for participation and informed consent for the STD study was obtained. Both the STD study and the study anony-
mously testing urine for cocaine me-
tabolites were approved by the Emory University School of Medicine Human Investigations Committee. Patients were told that their urine would be tested for STDs. Patients were not told 
that their urine would be analyzed for 
cocaine metabolites; however, patients were never told that their urine would 
not be tested for drugs.”

(JAMA. 1992;267;1106-1108)
Summary

- Heart disease is the leading cause of death among African Americans

- Historical atrocities have set the stage for a lingering mistrust of the health care system by minority patients

- Shocking disparities exist in the delivery of cardiovascular care in the US

- The problem is truly multifactorial, with many potential culprits, many potential solutions