Inequality in Cardiology

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Population Demographics: diversity

UK South Asians: some stats

- Highest overall and premature CHD deaths than any other UK ethnic group
- 50% of MI occur under 55yrs and 25% under 40yrs of age
  
  *not seen in any other population*

<table>
<thead>
<tr>
<th>UK: 2001 census</th>
<th>% change</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>per 1,000 pop</td>
<td>2001-2010</td>
</tr>
<tr>
<td>White</td>
<td>54118</td>
<td>+2</td>
</tr>
<tr>
<td>Mixed</td>
<td>674</td>
<td>+41</td>
</tr>
<tr>
<td>Asian</td>
<td>2336</td>
<td>+25</td>
</tr>
<tr>
<td>Black</td>
<td>1148</td>
<td>+22</td>
</tr>
<tr>
<td>Chinese</td>
<td>471</td>
<td>+68</td>
</tr>
</tbody>
</table>

% of UK population who are Asian
CV Risk Factors: InterHeart Study

- Case-controlled study: n ~30,000
- 52 Countries: every inhabited continent
- MI patients: linkage to risk factors

Salim Yusuf et al Lancet 2004;364:937

>90% of the attributable risk for MI: 9 potentially modifiable risk factors

- Associations present in all genders, all ages, and all ethnicities
CV Risk Factors: Hypertension

No difference in incidence

- Sikhs > Muslims (=whites) > Hindus
- Indians > Pakistani > Bangladeshi (+whites)
- Afro-Caribbean’s:
  - More LVH (loss of nocturnal dip)
  - High stroke, heart failure and renal complications

ACE genotype: ?genetic resistance to ACE-I
CV Risk Factors: Lipids

No difference in prevalence

‘BAD’ CHOLESTEROL BY RACE
By American Heart Association News
Cholesterol levels vary by race and ethnicity, with higher levels of “bad” LDL cholesterol even more often among Hispanic men and white women. Although the American Heart Association does not recommend specific cholesterol targets, the guidelines recognize “lower is better.” Research suggests the optimal LDL level is less than 100 mg/dL for otherwise healthy people.

WHAT PERCENTAGE OF U.S. ADULTS HAVE LDL LEVELS OF 130 OR HIGHER?

Statins equally effective

Who gets treated?

Framingham
White affluent US community
No socio-economic adjustment
> risk scores in low-risk/affluent

QRISK-II
Adjusts for ethnicity/deprivation
Recommended by NICE (2010)

SABRE Study

• Framingham/QRISK-II predictions compared to actual CV outcomes (10yrs)
• Primary care setting (n=3,821)
  ➢ Neither model performed consistently well
  ➢ South Asian men & women remain at risk

Lancet 2022
Heart 2014
CV Risk Factors: Exercise

% of adults achieving >1 physical activity score
(>30min brisk walk/cycling/swimming >x5/week)

- 10% of South Asian women meet recommended physical activity levels
- <20% of South Asian men meet recommended physical activity levels

Reasons for not exercising (South Asian women): despite knowing that it is beneficial
- looking after young children (29%)
- insufficient time (26%)
- won’t go to mixed-sex facilities (20%)
- won’t go to places where people show parts of their bodies (19%)
- fear of going out alone (17%)

Language and culture rarely mentioned
CV Risk: equality v equity
CV Care Disparities: patient journey

Patient factors:
- Socio-economic deprivation
- Genetic factors
- Low expectations & demands
- Unhealthy diet
- Smoking cessation
- Atypical presentation & histories
- Lack of time
- Absence of support
- Transport issues
- Language barriers
- Lack of same sex HCPs

Health Care factors:
- Unbalanced patient access & flow targets
- Under-estimation of risk
- Less likely to receive diagnostic and intervention studies
- Chest pain syndromes in primary care more likely to be treated as gastric pain
- Chest pain syndromes in hospital more likely to be diagnosed as “atypical” and less likely to undergo angiography
- Paucity of evidence-based data to guide medical/interventional/surgical treatments

South Asian Health Foundation
The true measure of any society can be found in how it treats its most vulnerable members

— Mahatma Gandhi —

questions?

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