

Using Race to Sell Drugs: Pharmaceutical Marketing and Challenges to Medical Professionalism

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Overview

- Critical elements of medical professionalism
- Aspects of pharmaceutical marketing that challenge professionalism today
- The BiDil story
- Lessons for the future

Professionalism

- An aspect of *ethics*
- Specifically, *virtue ethics* as applied to medicine and other health professions
 - What *sort of person* ought the *good* physician to be?
 - What sort of *character* ought the good physician possess?

Professionalism (II)

- Considerable definitional inconsistency within today's literature
- Nevertheless, appear to agree on a few key elements
 - Physicians must maintain competence
 - Physicians must serve patients' interests primarily (fiduciary relation)
 - Physicians must view practice as public trust
 - McCullough, *Am J Bioeth* 4(2):13, 2004
 - Rhodes et al, *Am J Bioeth* 4(2):20, 2004

Professionalism (III)

- A shorthand approach to medical professionalism: Physicians must view medical practice as *more than a mere* business
 - Professionalism: public trust, fiduciary relation
 - Business: "Let the buyer beware"
 - J. Cohen

Medicine and Pharma

- Today's relationship between medicine and the pharmaceutical industry challenges *all three core aspects* of professionalism
- This is *not* "industry-bashing"
 - Each party can have *different* concerns without either one being bad...
 - So long as neither party confuses its own core agenda with the other's
 - Pharma: overriding goal is to make a profit for shareholders

Competence

- The competent physician uses reliable sources of information to keep current
- Sources of information in turn must rely on scientific accuracy of published medical literature

Competence: Challenges

- Information obtained from drug sales reps is biased so as to sell drugs (marketing, not education)
 - Cooper & Hoffman, Br J Gen Pract 52:168, 2002
- Clinical trials funded by industry ~4X more likely to favor company's drug than neutrally-funded study
 - Lexchin et al., 326:1167, 2003

Fiduciary: Challenges

- Physicians who rely on reps and industry for information are prone to prescribe the latest, most expensive drugs
- *At least* a good portion of the time, the better treatment is really:
 - An older, generic drug
 - Lifestyle change, not drugs
- Recent track record: newer often = unanticipated safety problems (e.g., Vioxx)

Public Trust: Challenges

- Public trust relies on *lack of conflicts of interest*
- Medicine, virtually alone among professions, has rationalized routine acceptance of gifts and payments of large value from those who have commercial interest in altering outcomes
 - Cf. law
- Recent press exposés, calls for new legislation suggest public won't tolerate

Race-Based Pharmaceuticals?

- Challenges are problematic enough with "ordinary" drugs
- Add issues of race, health disparities, and the new genomics, and issues become greatly complicated
- *The BiDil story*
 - Kahn, *Yale J Health Policy Law Ethics* 4:1, 2004
 - Bloche, *NEJM* 351:2035, 2004
 - Brody & Hunt, *Ann Fam Med* 4:556, 2006
 - Bibbins-Domingo, *Ann Intern Med* 146:52, 2007

CHF in African-Americans

- African-American patients more likely to die, and at younger ages, from CHF
- Multiple potential explanations
- One focuses on bioavailability of nitric oxide and its effect on restructuring of L ventricle
- Isosorbide dinitrate = nitric oxide donor
- Hydralazine = antioxidant
- Therefore, hypothesize possible role in therapy

V-HeFT 2

- Isosorbide/hydralazine vs. enalapril
- After 2 years, lower mortality in enalapril arm
 - Cohn et al. *NEJM* 325:303, 1991
- Later subgroup analysis: whites disproportionately benefited from ACEI; black subgroup had more benefit from vasodilators
 - Carson et al., *J Card Fail* 5:178, 1999

A-HeFT

- Sponsored by NitroMed, owner of patent for use of combination vasodilator for CHF
- Enrolled only African-Americans
- ~1000 Ss
- Randomized to isosorbide/hydralazine tid vs. placebo added to baseline meds
 - 69% on ACEIs
- 18 mo f/u planned

A-HeFT (II)

- Study stopped at 10 mo
- 43% relative risk reduction for mortality in active vs. placebo groups (NNT = 25)
- Overall outcomes (hospitalizations, quality of life) better in active drug group
 - Taylor et al., *NEJM* 351:2049, 2004
- Is vasodilator combo helpful for any or all white patients?
 - Unknown because not tested

From A-HeFT to FDA

- NitroMed patented BiDil as drug “for blacks only”
 - Extended patent life by 13 years
- NitroMed sought FDA approval to market BiDil for CHF “for blacks only”
- A-HeFT was designed to use a dose of drugs different from that commonly available generically
- *Accident, science, or marketing ploy?*

Subsequent Marketing (6/05)

- BiDil marketed at \$1.80/pill, approximately 4X cost of generic equivalent
- Some publicity made veiled threats against generic substitution as off-label and hence risking legal liability
- Anecdotal evidence: NitroMed recruited African-American historians as consultants to stress parallels with Tuskegee Study

What Happened?

- By all accounts, sales of BiDil have been disappointing
 - Despite promise from NitroMed of financial assistance for indigent patients
- Not known if this is due to generic drugs being used, or simply physicians not using this combination
- Given its potential according to A-HeFT, non-use would be unfortunate

Race and Medicine

- Obviously, racial differences:
 - Exist
 - Have a biological basis
 - Are inherited
- The remaining question: do racial differences “*go down deep enough*” to explain very much of true medical interest?

Racial Medicine: Con

- “...There is no basis in the genetic code for race.”
 - Craig Venter (quoted in Kahn 2004)
- Racial (geographic) differences in genome occur mostly in “junk” DNA, not in active genes
 - Lee, *Hastings Cent Rep* 35(4), 2005

Genes vs. Environment

- Conceptual trap: assuming that if we find a difference in disease incidence or characteristics among racial groups, this *must* be due to genes and *cannot* represent social or environmental influences
- Also wrong to assume that *larger* effects *must* be biological
 - Sankar et al., *JAMA* 291:2985, 2004

Addressing Health Disparities

- Seems clear that African-Americans have a serious problem with CHF at younger ages
 - Probably related to HTN
- Precise cause may not be clear
- Any treatment that appears to narrow this gap a cause for celebration

Association of Black Cardiologists

- Between rock and hard place
 - Trying to get adequate funding to study CHF in blacks
 - Trying to avoid endorsing inappropriate uses of “race” in therapeutics
- In general, statements made were cautious and scientifically valid

Lessons

- Racial and ethnic health disparities deserve aggressive attention
- Should be very cautious regarding claims of:
 - Race-specific medications
 - Race-specific genes
- Medical professionalism is threatened when ‘race’ and ‘health disparities’ are hijacked by corporate marketing