



The Cost of Irrational Medicine Use

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Health Action International (HAI) is an independent, global network, working to increase access to essential medicines and improve their rational use through research excellence and evidence-based advocacy.

Irrational medicine use is widespread

WHO estimates over 50% of all medicines are prescribed, dispensed or sold inappropriately, and 50% of all patients fail to take them correctly

- Medicines not needed
- Choice of unnecessarily harmful or ineffective options
- Concomitant use of products that should not be combined
- Use by patients for whom there is no scientific evidence of benefit
- Excessive dosing
- Use of higher priced equivalent options
- Underuse
 - Inadequate dose or duration of use
 - Poor adherence or patient not provided with needed therapy

The Cost of Harmful Effects of Medicines

In Europe:

- 5% of all hospital admissions are due to ADRs
- 5% of all hospital patients suffer an ADR
- ADRs are the 5th most common cause of hospital death
- ADRs = 197,000 deaths/year & societal cost = € 79 billion/year

EU Commission, 2008

In Canada:

Cost of preventable drug-related morbidities in older adults in Canada estimated to be about €8.2 billion/year

McKinnon NJ. Early warning system. How vigilant pharmacists can prevent drug-related morbidity in seniors. *Pharmacy Practice* 2002;18(8):40-44

In USA: deaths from medicine use outnumber traffic fatalities
Prescription drug deaths doubled in last decade; traffic deaths dropping because of huge investments in auto safety

Los Angeles Times September 17, 2011 using CDC data

The Cost of Medicine Wastage

Study of primary and community care prescription medicine wastage in England in 2009:

- Unused prescription medicines costs the NHS at least £300 million / year (€ 344m/year)
- Some wastage is inevitable - patient recovers, therapies stopped or changed, condition progresses so new treatment needed etc.
- Estimated that £150m (€ 172m) of this wastage is avoidable

Focus on improving health outcomes rather than reducing wastage per se, for example through:

- Engaging people in decisions about their medicines
- Targeted support when starting new, costly or difficult to take treatments
- Regular medicine management reviews

Evaluation of the scale, causes and costs of medicine wastage
York Health Economics Consortium, School of Pharmacy University of London

The Cost of Drug Promotion

US \$57.5 bn in 2004 (average \$61,000 per doctor)

Systematic review found doctors with greater exposure to drug promotion had:

- Higher prescription volume and cost
- More rapid prescribing of new medicines (including those without added therapeutic value)
- More requests for formulary inclusion of medicines without therapeutic advantages

Wazana A. Physicians and the pharmaceutical industry: is a gift ever just a gift?
JAMA 2000 Jan 19;283(3):373-80

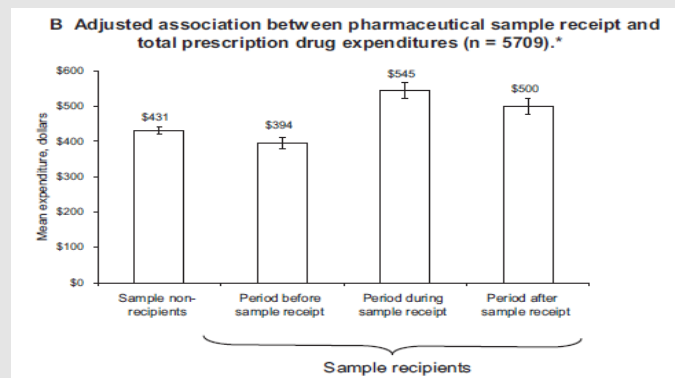
UK GPs initial prescriptions for new drugs:
doctors cited sales reps as the greatest influence on prescribing, more than other influences including patient-related factors

Prosser H, et al Influences on GPs' decision to prescribe new drugs-the importance of who says what.
Fam Pract. 2003 Feb;20(1):61-8

Manufacturer of Vioxx - doctors who attended sponsored presentations by another doctor wrote an additional \$624 worth of prescriptions than those who did not attend.

Mintzes B, Alves T. Medicines information and the regulation of pharmaceutical promotion (draft).

Free samples



- \$16 bn in 2004 (28% of total spend on promotion)
- Study shows impact is increased medicine expenditure
- Some countries have banned or restricted free samples

Alexander GC et al. Characteristics of patients receiving pharmaceutical samples and association between sample receipt and out-of-pocket prescription costs. *Medical Care* 2008

Disease-mongering

AndroGel (Abbott) advertising campaign in Canada 2011

Indicated for male hypogonadism; not male ageing or normal age-related falls in testosterone levels

Ads headline 'Has he lost that loving feeling?' 'lack of energy' and 'low sex drive'.

Website quiz (www.lowT.ca) : see a doctor and get a testosterone test if you are 'falling asleep after dinner' or have 'deteriorating work performance'

Misleading and inaccurate information

Likely to lead to unjustified increases in health costs (testing men unlikely to suffer hypogonadism)




Lust for Life Website Bayer, Ireland 2009

Browser address bar: [p://lustforlife.ie/](http://lustforlife.ie/)

Browser tabs: G... Deficiency, UBC Card - ...cation Card, http://eur-1...3:FIN:EN:PDF, Newcastle Ot...iteria scale, Internationa... Advertising, Pharmacr... Pharma M

Search bar: Loading... X Google

**OVER 40?
HAVE YOU LOST
YOUR LUST
FOR LIFE?**



Introduction

What is Testosterone Deficiency (TD)?

What is Testosterone?

What causes Testosterone Deficiency?

Treatment of Testosterone Deficiency

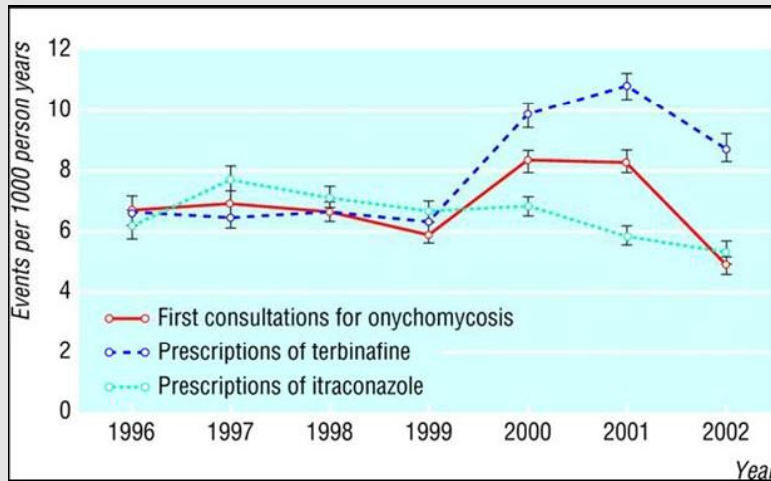
Conclusion

Could it be low testosterone?

Introduction

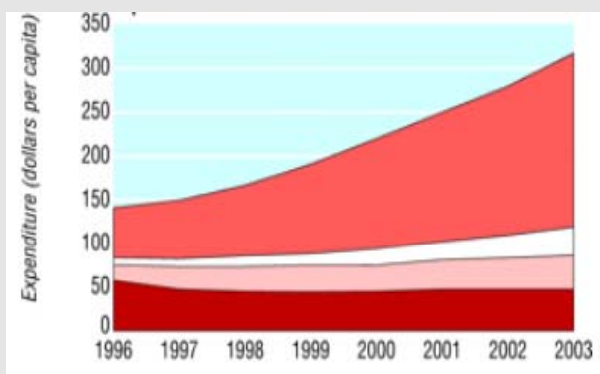
If you are aged 40 or more, you may have become aware of some changes in your physical appearance and general health such as increased weight gain, feeling depressed, disturbed sleep, loss of interest in sex. While most men will experience some of these symptoms during their life, if they are having a significant impact on you, then discuss these with your doctor. Testosterone Deficiency is one cause which may be considered.

Toenail Fungus TV Campaign Novartis, The Netherlands



't Jong GW et al. *British Medical Journal* 2004;328:931

The cost of 'me-too' medicines



British Columbia
1996-2003, 1147 new
patented products:

Patented Medicines
Pricing Review Board

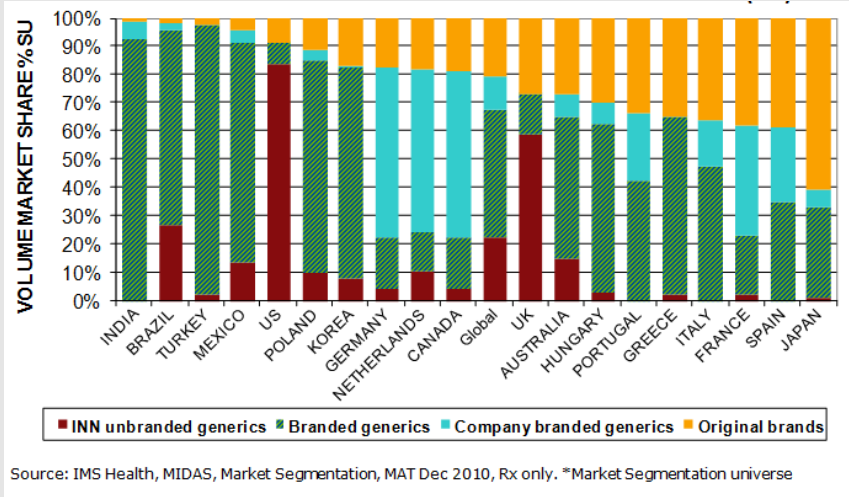
- only 5.9% 'breakthrough'
- 'me-too' drugs provide moderate, little or no improvement compared to older products

YET they were responsible for 80% of increased spending. On average, me-too drugs cost 2.5x per Rx as older drugs.

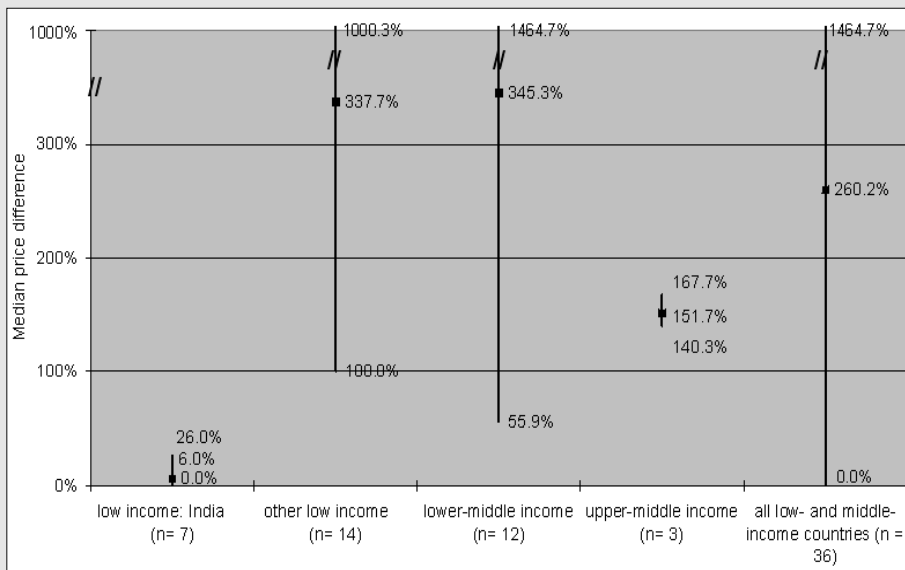
Do perceived or real differences justify the increased costs?

Morgan S G et al. Breakthrough drugs and growth in expenditure on prescription drugs in Canada
BMJ 2005;331:815-816

The Cost of Originator Brands



Differences between originator brands & lowest priced generics, matched pairs, private sector



Potential savings from switching to lowest priced generics in private sector

Country (n= number of medicines)	Total potential cost savings (2008 USD)	Average percentage savings across individual medicines
China, public hosps (n=4)	\$86,492,276	65.1%
Colombia (n=9)	\$3,229,092	88.7%
Ecuador (n=12)	\$3,066,407	63.2%
Indonesia (n=9)	\$6,405,597	84.2%
Jordan (n=11)	\$887,262	55.9%
Kuwait (n=6)	\$64,261	9.3%
Lebanon (n=8)	\$4,397,432	67.5%
Malaysia, private hosps & retail sectors (n=10)	\$7,419,942	67.2%

WHO World Health Report 2010, Chapter 4

Financial impact of generic substitution

Finland

- Average saving per substitution of medicinal products: EUR 15.80 (2005).
- Total savings of generic substitution alone were EUR 25.7 million in 2005:
 - EUR 12.0 million for the patient
 - EUR 13.8 million for drug reimbursement payments

Sweden

In the 3 years following the introduction of generic substitution:

- Pharmaceutical prices decreased by 15% overall
- Largest price decrease for statins (-71%), reducing treatment costs by 2/3
- Market prices for generic drugs fell by about 40%.
- Accumulated savings in the pharmaceutical budget: €760 million

Spain – mandatory generic substitution recently announced

Espin, J. & Rovira, J. (2007). Analysis of differences and commonalities in pricing and reimbursement systems in Europe

**I DON'T TAKE CHANCES
I ONLY USE ORIGINALS**

"Tengo **diabetes**,
si mi medicamento falla
podría sufrir **un coma diabético.**"

YO NO ME LA JUEGO
uso sólo **ORIGINALES.**
Los medicamentos originales
cuentan con estudios que respaldan su calidad, eficacia y seguridad

**EXIJA CALIDAD
PREGUNTE EL ORIGINAL**

Respete la receta médica. Pregunte a su médico o regente farmacéutico cuál es el medicamento original.

ABBOTT AstraZeneca Bristol-Myers Squibb Boehringer Ingelheim GlaxoSmithKline JANSSEN-CILAG Lilly
MENARINI MERCK/SANOFI-SINTELABORATORIOS Pfiizer Roche sanofi-sintelabo SCHERING Schering-Plough Wyeth
Laboratorios asociados a Fedofarma

Guatemala 2008 and 2010

Dr Margaret Chan
Director-General, World Health Organization
February 2011

"WHO not only supports generic products. We aggressively promote them....."

Generic products serve public health in multiple ways. In terms of improving access to medicines, price and quality go hand in hand.

Generic products are considerably less expensive than originator products, and competition among generic manufacturers reduces prices even further.

Generics serve the logic of the pocket. An affordable price encourages good patient compliance, which improves treatment outcome and also protects against the emergence of drug resistance."