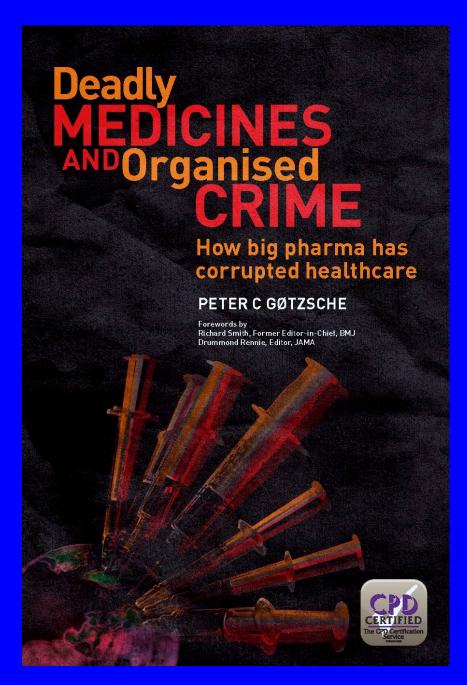
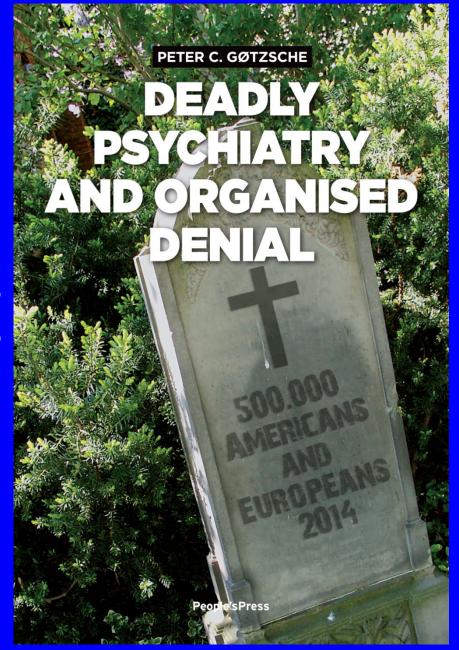
Our lethal and highly costly drug epidemic Talk to Dutch Parliament 29 March 2016

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> I have no conflicts of interest The views presented are mine





Deadly medicines

In the United States and Europe, our drugs are the third leading cause of death after heart disease and cancer.

Psychiatric drugs alone are the third leading cause of death after heart disease and cancer: 500,000 deaths each year in the United States and Europe.

Gøtzsche PC. Deadly medicines and organised crime. London: Radcliffe Publishing, 2013. Gøtzsche PC. Deadly psychiatry and organised denial. Copenhagen: People's Press; 2015.

Our drug epidemic

8 mio daily doses in Denmark; 5.5 mio inhabitants

One of eight get at least 5 drugs every day

39% of those at least 65 years old

NSAIDs (arthritis drugs): one of eight get one every year

SSRIs (antidepressants): 6 years of our lives

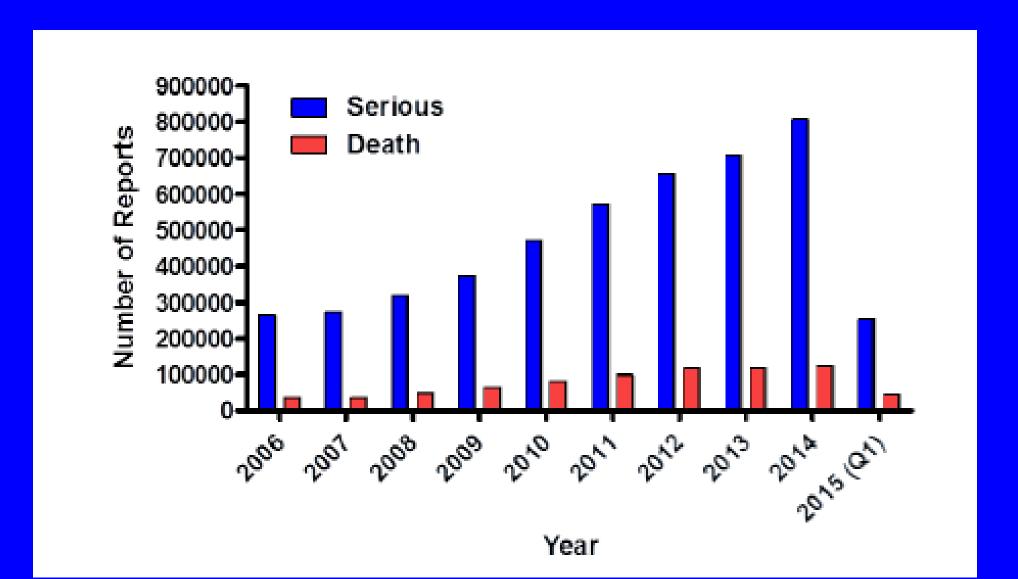
SSRIs: sales 1992-2007 reflected number of drugs (r = 0.97)

Gøtzsche PC. Deadly medicines and organised crime. London: Radcliffe Publishing, 2013. Kantor et al. *JAMA*. 2015;314(17):1818

New drugs available to patients fast at an acceptable cost.

FDA adverse events reports

http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Surveillance/AdverseDrugEffects/ucm070461.htm



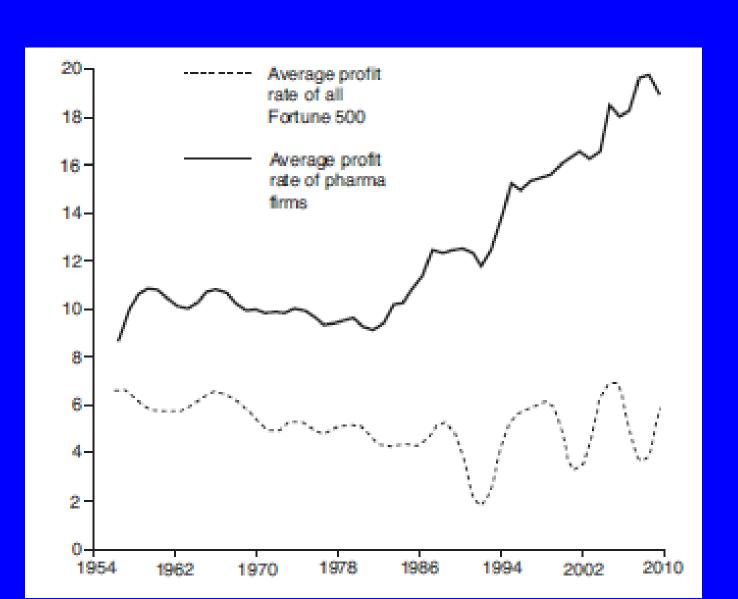
We want our system to offer sufficient room for new developments and innovations.

Obscene profits (but innovation has dried out)

Per cent

Fortune 500 companies include drug companies

Gøtzsche PC.
Deadly medicines and organised crime



To be an equal partner in the global pharmaceutical industry ... cooperate wherever possible.

Industry crimes

Compared to other industries, the pharmaceutical industry is the biggest defrauder of the US federal government under the False Claims Act.

In the United States, drug companies have more than three times as many serious or moderately serious law violations as other companies, and this record holds after adjustment for company size. Big pharma has a worse record than other companies for international bribery and corruption.

The crimes are increasing.

Pfizer fraud

In 2009, Pfizer entered a Corporate Integrity Agreement with the US Department of Health and Human Services, which means that good behaviour is required for the next 5 years.

Pfizer had previously entered into three such agreements, and when Pfizer promised the federal prosecutors not to market drugs illegally again in 2004, Pfizer was busily doing exactly this while they signed the agreement.

Pfizer fraud

In 2004, Pfizer agreed to plead guilty to two felonies and pay \$430 million to settle charges that it fraudulently promoted Neurontin for unapproved uses.

The fine was small considering that the sales of Neurontin were \$2700 million in 2003 alone, and as about 90% of the sales was for off-label use.

Industry behaviour

Organised crime

Racketeering is the act of engaging in a certain type of offence more than once, e.g. extortion, fraud, federal drug offences, bribery, embezzlement, obstruction of justice, obstruction of law enforcement, tampering with witnesses, and political corruption.

Pfizer convicted of organised crime and a conspiracy in 2010 for Neurontin (gabapentin) fraud.

COX-2 inhibitors

Merck concealed cases of myocardial infarction and deaths with rofecoxib, which were missing in reports of the pivotal trials.

Pfizer denied that celecoxib causes heart attacks at an FDA hearing in 2005, despite having unpublished evidence to the contrary, and still called the evidence "inconclusive" in 2009 in information to patients invited to take part in a trial.

By 2004, rofecoxib had likely killed 120,000 people worldwide and celecoxib 75,000.

(Gøtzsche PC. Deadly Medicines and Organised Crime, 2013)

FDA's approach to safety

The way FDA approaches safety is to virtually disregard it. FDA believes there is no risk that cannot be managed in the post-marketing setting.

What FDA says is: We can't be 95 percent certain this drug will kill you, therefore we will assume it doesn't – and they let it on the market.

David Graham, Associate Director, FDA's Office of Drug Safety

FDA approved Vioxx because it lacked 'complete certainty' that the drug increased cardiovascular risk, although this was expected based on the drug's mode of action.



"I'm going to prescribe something that works like aspirin but costs much, much more."



"Take one of these tablets tonight, Mr Tate, and one more if you wake up tomorrow morning"

FDA's fake fixes

Warnings, precautions, contraindications, etc.

Warfarin is used when contraindicated.

We cannot trust industry sponsored drug trials

Head-to-head statin trials

Often no blinding, no concealment of allocation, poor follow-up and no intention-to-treat analysis.

Funding from the test drug company associated with:

- results, OR = 20; 95% CI 4-93
- conclusions, OR = 35; 95% CI 7-168

(PLoS Medicine 2007;4:e184)

Missing deaths in published papers

Trials of olanzapine, aripiprazole, ziprasidone, atomoxetine, duloxetine and sertraline.

Online trial registries compared with first associated standalone journal articles (N = 142). No clear or consistent pattern on serious adverse events reporting criteria.

62% of deaths and 53% of suicides were not reported in journal articles.

Hughes, BMJ Open 2014;4:e005535.

Doctors on industry payroll

About 20,000 doctors in Denmark

Table 8.1 Roles of Danish doctors with permission to work for the drug industry. Data from 2010

Investigator	1626
Advisory Board member or consultant	1160
Lecturer	950
Stock ownership	175
Author	36
Other	89
Total	4036

Marcia Angell, former Editor-in-Chief, NEJM

"It is simply no longer possible to believe much of the clinical research that is published, or to rely on the judgment of trusted physicians or authoritative medical guidelines. I take no pleasure in this conclusion, which I reached slowly and reluctantly over my two decades as an editor of The New England Journal of Medicine"

(Marcovitch, PLoS Med 2010, e1000355)

The system needs radical changes

I find it hard to imagine that a system this corrupt can be a good thing, or that it is worth the vast amounts of money spent on it.

(Angel)

Something is very wrong with a system that leads patients to demand, and doctors to prescribe, a drug that provides no better relief and causes signifiantly more serious side effects.

(Abramson)

A price can be determined based on:

- the costs of developing and producing a drug (development costs, developments that fail, etc.)
- based on the added value of the drug in the treatment of the patient, which the industry often uses to legitimize prices of innovative drugs
- or based on the estimate of what society is prepared to pay.

- the costs of developing and producing a drug we will never get honest estimates
- based on the added value of the drug in the treatment of the patient
 this is a euphemism for extortion
- or based on the estimate of what society is prepared to pay
- as there is no free market, this equals extortion, and we pay twice for our drugs

- denying patients access to certain new drugs by not reimbursing them by studying them first in publicly sponsored trials by not reimbursing preventive medicines, e.g. cholesterol lowering in healthy people
- availability of venture capital investment forget about capitalism, healthcare is about altruism
- new business models
 non-profit public drug companies

- antibiotics: we argue for offering sufficient impetus for companies to keep developing these essential medicines in addition to producing existing drugs. no, this should be a public enterprise, otherwise we could not afford the new antibiotics
- socially acceptable price. We are eager to discuss this with the pharmaceutical industry.
- this will never work, previous promises of affordability have been broken, even for publicly discovered drugs

Current hot topics

- adaptive licencing
- forget it; it will lead to more deaths and higher costs
- patents
- are incredibly harmful in healthcare, increased costs without added value; drop them, and use compulsive licencing
- delinkage (WHO is working with this)
 give innovative companies a price and make it free for
 everyone to produce and sell the drug

Conclusions

We need:

- Truly independent evaluation of drugs.
 - Don't use new drugs, but test them first.
 - Don't trust surrogates, but use patient relevant outcomes
- Blinding during data analysis and writing of papers.
- Large, long-term trials before marketing approval that can capture rare but devastating harms.
- To get the industry out of medical education
- A major culture change in health research (the data are generated by patients and belong to us all). If we cannot get the data, don't trust the research
- Access to trial protocols, clinical study reports and raw data.

Suggestions

Doctors with financial ties to drug companies should not serve on drug and devices committees, whether in drug agencies or in hospitals.

The standard excuse that "we cannot find qualified people who do not have conflicts of interest" is not true, as many independent researchers know how to read scientific papers critically, and if it were, it would only reflect a totally corrupt system in need of radical changes.

Krimsky noted that "we would not permit a judge ... to have equity in a for profit prison, even if the judge disclosed it".

<u>Suggestions</u>

It should be a crime for companies and doctors to participate in "studies" of no scientific value, as it is in essence a form of bribery. Drug agencies should disapprove of these studies.

In Germany, one-quarter of the general practitioners were paid for starting patients on esomeprazole (Nexium) and making a note of how it went (Grill M. Kranke Geschäfte)

General practitioners rely on the drug industry as their main information source, and most doctors believe that the information is helpful. Don't see drug reps.

Suggestions for patients

Read the package insert on the Internet

Use drugs as little as possible

When you think you are getting old, it could be side effects