TOO MUCH OR TOO LITTLE MEDICINE?

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If we do not eat we do not survive

If we eat too much or we eat too little we may have health problems or even die
Obesity and overweight: 5th leading risk of global deaths
44% of diabetes burden
23% of ischaemic heart disease burden
7% - 41% of certain burdens
Malnutrition: difficulty doing normal things (growing and resisting disease).
Physical work problematic
Learning abilities diminished.
Pregnancy risky
Not sure of producing nourishing breast milk.
Finally do we eat too much or too little?

Depends on what we mean by *We*.
Is it also true for Medicine?
Do we need an Aristotelean mean for Medicine?
Is it possible for Medicine to be either too little or too much?
Aim of Medicine: To defend Health or reestablish Health if disturbed and postpone death.

Health: a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity

WHO 1945

It is understandable for Medicine to be inadequate. But is it possible for it to be too much?
Too little medicine
Change in life expectancy

John Zarocostas, BMJ 2011; 342:d3061
WHO: The top 10 causes of death, 2008
Some countries suffer from too little medicine both in mortality and morbidity
Too much medicine
Hypertherapy
Polypharmacia
Hyperdiagnosis
HYPERTHERAPY

ΩΦΕΛΕΕΙΝ Ἡ ΜΗ ΒΛΑΠΤΕΙΝ (to do good or to do no harm)
ΙΠΠΟΚΡΑΤΗΣ

Or, at least, to do more good than harm. Close supervision.
If mortality of a condition is 20%
And if with some treatment it is reduced to 10%
Then we have “good” in 10%.

However, out of the 10% who died even with the treatment, 9% may have died because of the disease and treatment failure, and 1% because of the treatment, while they were not going to die because or the disease itself. (e.g. anticoagulants)

Very important in primary prevention!
Some treatment may be beneficial on one aspect of our existence but harmful on another, like extending life at the cost of an intolerable quality of life (e.g. strong chemotherapy in cancer) or improving symptoms at the cost of increasing mortality (e.g. antiarrhythmics in extrasystolic arrhythmia post myocardial infarction)
POLYPHARMACY

Longevity

Accumulation of multiple diseases

Polypharmacia

Drug-disease interaction

Drug-drug interaction
GUIDELINES

Deal with diseases rather than with sick people

Very often, however, especially in old people, there is comorbidity

The guidelines may suggest a treatment which is beneficial for one condition but not for another

Or may suggest for one condition a drug that is incompatible with a drug suggested for another condition

They are guidelines, not directives
HYPERDIAGNOSIS

If interventional, may have complications (e.g. coronary angiography)

Even non interventional, may lead to unnecessary treatment with potential undesired effects (e.g. application of echo screening for thyroid cancer tripled the diagnosis of cancer in 30 years from 3.6/100 000 to 11.6/100 000 diagnosing cancers down to 2 mm and leading to surgery but without reducing mortality)

Costly
Defensive medicine may be a rational physician response to the current malpractice environment, and underscores the patient safety rationale for malpractice reform.

BMJ 2015;351:h5516
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<tr>
<th>Ego</th>
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<tr>
<td>Biology Sensed Ego</td>
<td>Conception</td>
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<tr>
<td>Psychology Mental Ego</td>
<td>Birth</td>
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<td>Society Social Ego</td>
<td>Ceremony (e.g. Baptism)</td>
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<td>W. James</td>
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The social Ego may remain “immortal” in the memory of the society being a kind of social cast for each one of its members. “In memoriam” means immortality of social Ego. In the memory of the society there is no pain, no sorrow, no sigh.
### Ego

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Health: a state of complete physical, mental, and social [well-being](#) and not merely the absence of disease or infirmity

WHO 1948
Health: a state of complete physical, mental, and social **well-being** and not merely the absence of disease or infirmity

**WHO 1948**
Beautiful Eos (Dawn), sister of Apollo (Sun) and Artemis (Moon) fell in love with a young man, named Tithonos. She loved him so much that she prayed Zeus to make him immortal, so as to live together for ever. Zeus was moved and made her lover immortal. Eos, however, forgot to ask eternal youth for Tithonos. Thus, while she was kept young and beautiful, her lover was becoming older and older. Finally she transformed him into a cicada.
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<td>Birth</td>
<td>Symptoms Quality of life</td>
<td>Psychological death</td>
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<td>Family, Friends, Work Pay when failing to work- earn money</td>
<td>Funeral</td>
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It is a paradox that if somebody cannot work and earn money because of a disease he has to pay in order to reestablish his health and his ability to work.
Without the sensed Ego, there can be no mental or social Ego.

What is the value of life if not associated with a tolerable quality?

Current globalisation emphasizes social Ego. Demography changes so that the number of old people increases. But old, invalid and incurable people are socially useless and costly.

Euthanasia and assisted suicide
The differences between poor and rich countries in terms of health are obviously connected with economic factors in both a direct and indirect way.

Sanitary conditions are bad in poor countries. Climatic changes worsen these conditions. Drought creates deserts and causes massive population movements leading to war and bad hygienic conditions. Extreme weather phenomena lead to floods destroying sewage works resulting in epidemics.
Health and Social Problems are Worse in More Unequal Countries

Index of:
- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

Help from rich countries is shortsighted
A 50 year scope would be much more effective and economically advantageous than a 5 year scope
Resistant microbes would not develop and be transferred to other countries
The evidence based “quality mark” has been misappropriated by vested interests.

The volume of evidence, especially clinical guidelines, has become unmanageable.

Statistically significant benefits may be marginal in clinical practice.

Inflexible rules and technology driven prompts may produce care that is management driven rather than patient centered.

Evidence based guidelines often map poorly to complex multimorbidity.
Reported reductions in systolic blood pressure according to whether there was randomisation, blood pressure was documented automatically or by a doctor, or there was blinding. As the quality of the trial design increased, the reported effect size decreased.

1. Non-randomized, Unblinded. Doctor aware of allocation
2. Randomized, Doctor aware of allocation, Unblinded
3. Non-randomized, Automatic storage, Doctor unaware of allocation, Unblinded
4. Randomized, Automatic storage, Unblinded
5. Randomized, Doctor unaware of allocation, Blinded

*BMJ 2014;348:g1937*
What is real evidence based medicine?

Makes the ethical care of the patient its top priority

Demands individualized evidence in a format that clinicians and patients can understand

Is characterized by expert judgment rather than mechanical rule following

Shares decisions with patients through meaningful conversations

Builds on a strong clinician-patient relationship and the human aspects of care

Applies these principles at community level for evidence based public health
Thank you