Too much medicine;

*about overdiagnosis and overtreatment in clinical practice*

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Disclosures

- Research grants from the National Research Council (ZON), Ministry of Health, Dutch Cancer Foundation (KWF), Danone, ACHMEA health care
- Member Quality of Care board of the Dutch Ministry of Health

Membership:
- Guideline committee on IBS, dyspepsia, diverticulitis Dutch College of General Practice,
- Steering committee European Society for Primary Care Gastroenterology
- Primary care committee Rome Foundation for functional GI disease
- Overdiagnosis committee Dutch Health Council
Too much medicine

• Facts and figures
• Definition and examples
• Causes and actors
Question:

In current medical practice in your country, how many patients are ‘overdiagnosed’ or ‘overtreated’?

A. 0-10%

B. 60-80%

C. 30-50%
Overuse of medical services

Defined as:

‘the use of specific medical interventions in clinical situations where they do not bring or are not expected to bring any additional health benefits to the patient, or could even contribute to deterioration of the health of the patient’.
Preventing overdiagnosis: how to stop harming the healthy

Box 1: Problems of overdiagnosis

**Asthma**—Canadian study suggests 30% of people with diagnosis may not have asthma, and 66% of those may not require medications.

**Attention deficit hyperactivity disorder**—widened definitions have led to concerns about overdiagnosis; boys born at the end of the school year have 30% higher chance of diagnosis and 40% higher chance of medication than those born at the beginning of the year.

**Breast cancer**—Systematic review suggests up to a third of screening detected cancers may be overdiagnosed.

**Chronic kidney disease**—Controversial definition classifies 1 in 10 as having disease; concerns about overdiagnosis of many elderly people.

**Gestational diabetes**—Expanded definition classifies almost 1 in 5 pregnant women.

**High blood pressure**—Systematic review suggests possibility of substantial overdiagnosis.

**High cholesterol**—Estimates that up to 80% of people with near normal cholesterol treated for life may be overdiagnosed.

**Lung cancer**—25% or more of screening detected lung cancers may be overdiagnosed.

**Osteoporosis**—Expanded definitions may mean many treated low risk women experience net harm.

**Prostate cancer**—Risk that a cancer detected by prostate specific antigen testing is overdiagnosed may be over 60%.

**Pulmonary embolism**—Increased diagnostic sensitivity leads to detection of small emboli. Many may not require anticoagulant treatment.

**Thyroid cancer**—Much of the observed increase in incidence may be overdiagnosis.
Evidence for overuse of medical services around the world. Lancet 2017
Defining new disease (*disease mongering*)
Extending indications for treatment
Overtesting
Overdiagnosing
Overtreatment
Disease mongoring

Defining new diseases based on symptoms or behaviour that were previously considered as normal and acceptable

If this new disease definition does not result in better health comes for the patient this process is considered as ‘too much medicine’
TWO MUCH MEDICINE

Medicalising unhappiness: new classification of depression risks more patients being put on drug treatment from which they will not benefit

Christopher Dowrick professor of primary medical care¹, Allen Frances emeritus professor of psychiatry ²

¹University of Liverpool, Liverpool L69 3GL, UK; ²Duke University Medical Center, Durham, North Carolina, USA
Lowering thresholds for treatment

Changing cutt-off points for treatment, such as age, testresult or other, usually resulting in larger groups of patients qualifying for treatment.

*If this does not result in demonstrated health gain for the new ‘patients’ this is considered as overtreatment*
Analysis
Too Much Medicine

Chronic kidney disease unnecessarily labelling

Perspective

FOCUS ON RESEARCH

Time to Reassess Blood-Pressure Goals

Aram V. Chobanian, M.D.
Point prevalence of individuals aged 20-79 (men and women combined) with unfavourably high blood pressure or cholesterol concentrations, as defined by the 2003 European guidelines on cardiovascular disease prevention in clinical practice.
Expanding Disease Definitions in Guidelines and Expert Panel Ties to Industry: A Cross-sectional Study of Common Conditions in the United States

Raymond N. Moynihan, Georgia P. E. Cooke, Jenny A. Doust, Lisa Bero, Suzanne Hill, Paul P. Glasziou

Published: August 13, 2013 • http://dx.doi.org/10.1371/journal.pmed.1001500
Overtesting

Clinical indications for diagnostic testing in which the diagnostic value for the indicated disease is overestimated.


Figure 2

Overdiagnosis

Thyroid-Cancer Incidence and Related Mortality in South Korea, 1993–2011.

Data on incidence are from the Cancer Incidence Database, Korean Central Cancer Registry; data on mortality are from the Cause of Death Database, Statistics Korea. All data are age-adjusted to the South Korean standard population.
Overtreatment

March 2017

Assessment of Overall Survival, Quality of Life, and Safety Benefits Associated With New Cancer Medicines

Sebastian Salas-Vega, MSc¹; Othon Iliopoulos, MD²,³; Elias Mossialos, MD, PhD¹,⁴

► Author Affiliations


- Between 2003-2013: 53 new cancer drugs
- Mean 3.4 extra months survival (range 0-8.5)
- 50% of new drugs no survival benefit
Causes of ‘Too much medicine’

Right Care 3

Drivers of poor medical care

Vikas Saini, Sandra Garcia-Armesto, David Klempner, Valerie Paris, A-

The global ubiquity of overuse and underuse of health-care is an investigation of drivers to inform potential solutions, care and suggest that it is driven by factors that fall in uncertainty; and power and human relationships. In each and individual level, and are modulated by the specific poor care in each domain.

Introduction

Papers 1 and 2 in this Series outline the scope of poor care from both overuse and underuse of medical services.

Drivers of poor care reside in three major domains: money and finance; knowledge, bias, and uncertainty; and power and human relationships. Drivers operate in specific contexts and contribute to the overall quality and quantity of care delivered. These contexts are best considered as different levels in an ecosystem of care delivery: global; national, legal, regulatory, and cultural; regional, institutional, and social; and the individual locus of the doctor-patient relationship.

Multiple drivers of poor care interact throughout the ecosystem. We also introduce a conceptual chart for
• Growing uncertainty
• Decreasing risk acceptance
• Irrational expectations of health care
• Misinformed by media

….more information doesn’t automatically result in better decisions…. 
Professionals

- Too much focus on treatment
- Trained in ‘intervening’, not in ‘watchful waiting’
- Treating risks instead of symptoms
- Defensive attitude
- Payment system doesn’t reward investment in conversation with the patient

….. *Not everything that is possible needs to be done …….*
Research and pharma

- Continuous expansion of the medical domain
- Focus on therapeutic interventions and technology
- Focus on positive research outcomes
- Off label prescription

…….product oriented marketing…….
Government and society

- Production based financing of healthcare
- Society and politics direct the reimbursement system
- Unrestricted health information policy
- Low threshold licencing of new diagnostic tests

….. Health care is no economic market ….
Demedicalisation on all levels
<table>
<thead>
<tr>
<th>Local practice</th>
<th>Do not do</th>
<th>Published</th>
<th>Impact Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do not offer acid-suppression drugs (proton pump inhibitors or H2-receptor antagonists) before endoscopy to patients with suspected non-variceal upper gastrointestinal bleeding.</td>
<td>Do not do</td>
<td>December 2016</td>
<td>Unclassified</td>
</tr>
<tr>
<td>Do not offer acid-suppression drugs (proton pump inhibitors or H2-receptor antagonists) before endoscopy to patients with suspected non-variceal upper gastrointestinal bleeding.</td>
<td>Do not recommendation</td>
<td>December 2016</td>
<td></td>
</tr>
<tr>
<td>Do not carry out upper or lower gastrointestinal (GI) endoscopy in patients with malignancy of undefined primary origin (MUO) unless the symptoms, histology or radiology suggest a GI primary tumour.</td>
<td>Do not recommendation</td>
<td>June 2015</td>
<td></td>
</tr>
<tr>
<td>Do not use gastrointestinal endoscopy to investigate Idiopathic constipation.</td>
<td>Do not recommendation</td>
<td>June 2015</td>
<td></td>
</tr>
<tr>
<td>Proton pump inhibitors Do not offer acid-suppression drugs (proton pump inhibitors or H2-receptor antagonists) before endoscopy to patients with suspected non-variceal upper gastrointestinal bleeding.</td>
<td>Do not recommendation</td>
<td>June 2015</td>
<td></td>
</tr>
</tbody>
</table>
Clinician Lists

Complete lists of recommendations by society can be found by clicking the society name or via individual recommendation pages.

<table>
<thead>
<tr>
<th>Society</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Academy of Nursing</td>
<td>Don’t order “formal” swallow evaluation in stroke patients unless they fail their initial swallow screen.</td>
</tr>
<tr>
<td>American Academy of Nursing</td>
<td>Don’t use lumbar puncture (LP) opening pressure as a reliable measure of intracranial pressure in children with severe chronic headache.</td>
</tr>
<tr>
<td>American Academy of Nursing</td>
<td>Don’t administer diazepam for muscle spasm following spine surgery in the elderly.</td>
</tr>
<tr>
<td>American Academy of Nursing</td>
<td>Don’t routinely order an EEG on neurologically healthy children who have a simple febrile seizure.</td>
</tr>
<tr>
<td>American Academy of Nursing</td>
<td>Don’t routinely order a head CT to assess for shunt failure in children with hydrocephalus.</td>
</tr>
</tbody>
</table>
Choosing wisely in the Netherlands

Program

- Professional organisations define ‘wise choices’
- Research on practice variation
- Evaluation of knowledge gaps
- Shared decision making

http://www.verstandigkiezen.nu
But it starts during the consultation

Optimal health care requires wise choices made by daring doctors