



# Choosing wisely

Workshop 1 – ESIM 2017 Riga

Young Internists – Mikko Parry, Helsinki Finland



# What do you mean – Choosing wisely?



Initially an iniative of Abim Now spreading all the world ...even reaching remote locations such as Finland

Aim: to reduce costs and harm and rationally focus limited resources

#### 5 QUESTIONS to Ask Your Doctor Before You Get Any Test, Treatment, or Procedure

- **Do I really need this test or procedure?** Medical tests help you and your doctor or other health provider decide how to treat a problem. And medical procedures help to actually treat it.
- What are the risks? Will there be side effects? What are the chances of getting results that aren't accurate? Could that lead to more testing or another procedure?
- Are there simpler, safer options? Sometimes all you need to do is make lifestyle changes, such as eating healthier food or exercising more.
- What happens if I don't do anything? Ask if your condition might get worse — or better — if you don't have the test or procedure right away.
- How much does it cost? Ask if there are less-expensive tests, treatments or procedures, what your insurance may cover, and about generic drugs instead of brand-name drugs.

## From guidelines to "avoidlines"



Short statements of what not to do with a short motivation and references to high quality papers

Understandable for both professionals as well as patients

#### Examples...



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#### Don't perform population based screening for 25-OH-Vitamin D deficiency.

Vitamin D deficiency is common in many populations, particularly in patients at higher latitudes, during winter months and in those with limited sun exposure. Over the counter Vitamin D supplements and increased summer sun exposure are sufficient for most otherwise healthy patients. Laboratory testing is appropriate in higher risk patients when results will be used to institute more aggressive therapy (e.g., osteoporosis, chronic kidney disease, malabsorption, some infections, obese individuals).

#### Don't perform low risk HPV testing.

National guidelines provide for HPV testing in patients with certain abnormal Pap smears and in other select clinical indications. The presence of high risk HPV leads to more frequent examination or more aggressive investigation (e.g., colposcopy and biopsy). There is no medical indication for low risk HPV testing (HPV types that cause genital warts or very minor cell changes on the cervix) because the infection is not associated with disease progression and there is no treatment or therapy change indicated when low risk HPV is identified.

#### Avoid routine preoperative testing for low risk surgeries without a clinical indication.

Most preoperative tests (typically a complete blood count, Prothrombin Time and Partial Prothomboplastin Time, basic metabolic panel and urinalysis) performed on elective surgical patients are normal. Findings influence management in under 3% of patients tested. In almost all cases, no adverse outcomes are observed when clinically stable patients undergo elective surgery, irrespective of whether an abnormal test is identified. Preoperative testing is appropriate in symptomatic patients and those with risks factors for which diagnostic testing can provide clarification of patient surgical risk.

#### Only order Methylated Septin 9 (SEPT9) to screen for colon cancer on patients for whom conventional diagnostics are not possible.

Methylated Septin 9 (SEPT9) is a plasma test to screen patients for colorectal cancer. Its sensitivity and specificity are similar to commonly ordered stool gualac or fecal immune tests. It offers an advantage over no testing in patients that refuse these tests or who, despite aggressive counseling, decline to have recommended colonoscopy. The test should not be considered as an alternative to standard diagnostic procedures when those procedures are possible.



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#### Don't use bleeding time test to guide patient care.

The bleeding time test is an older assay that has been replaced by alternative coagulation tests. The relationship between the bleeding time test and the risk of a patient's actually bleeding has not been established. Further, the test leaves a scar on the forearm. There are other reliable tests of coagulation available to evaluate the risks of bleeding in appropriate patient populations.



Involve the patient in making decision about their health Providing patients with the necessary background information aids communication

#### Avoid

Unnecessary screening Useless or even harmful treatments

### Is this a real problem?

Figure 1: Do you think the frequency of unnecessary tests and procedures in the health care system is a...



Figure 2: In your own practice, how often do patients ask for a test or procedure that you think is unnecessary?





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### Is this a real problem?

Figure 1: Do you th unnecessary tests a health care Not a problem at all Dk 5% Not too serious May 1, 2014 problem 21% Conducted for The ABIM Foundation So By р 44%

#### Unnecessary Tests and Procedures In the Health Care System

What Physicians Say About The Problem, the Causes, and the Solutions Results from a National Survey of Physicians

PerryUndem Research/Communication



actice, how often st or procedure necessary?



### Does your patient believe what you say?

You are the trained professional!

Motivate and discuss your decicions with your patient!

Do not make decisions that you can't stand behind!

Figure 3: How often do patients follow your advice and avoid the test or procedure? Not too 3% DK/ often/ REF rarely/ never 6% Half the Always/ time almost 21% always 37%

> Often 33%

### Why don't we choose wisely?

Figure 4: Let's say a patient came to you convinced he or she needed a specific test. You knew the test was unnecessary, but the patient was quite insistent. Would you: Figure 5: In your own practice, is this a reason you sometimes end up ordering an unnecessary test or procedure? IF YES: Is this a major reason or minor reason? Total n = 600





### What factors affect your decisions?

Time of day Situation at home Stress Patient related factors Is the patient annoying? How are the symptoms presented?

Have you had a similar case with a dismal outcome?

Unrealisitic expectations

### Human behaviour is irrational

Know the limitations of your thinking

We tend to overestimate the possibility of the unlikely but potentially serious events

The way data is presented affects the way it is interpreted

We tend to oversimplify complex problems and rush into conclusions



# How can you improve your thinking and habits?

Educate yourself, your staff and your patients

Peer comparison diminished unnecessary antibiotic prescriptions for flu from 19.9% to 3.7%

Effect of Behavioral Interventions on Inappropriate Antibiotic Prescribing Among Primary Care Practices A Randomized Clinical Trial

Daniella Meeker, PhD; Jeffrey A. Linder, MD, MPH; Craig R. Fox, PhD; Mark W. Friedberg, MD, MPP; Stephen D. Persell, MD, MPH; Noah J. Goldstein, PhD; Tara K. Knight, PhD; Joel W. Hay, PhD; Jason N. Doctor, PhD

JAMA February 9, 2016 Volume 315, Number 6

In the future computer based thinking aids?



What do you currently know about the topic?

What would you like to know better?

How could you use these concepts in your daily profession?

How could you involve your patients in deciding on their treatment Making together, the patient still is 99.95% of the time alone with his disease and in charge of the treatment

# Group work



Apply the concepts of choosing wisely Try to justify the decisions made. Would you do something differently? Why?

Present the case to the other groups for discussion 5+5 min/case



## Case 1 – Atrial fibrillation

Jonathan Smith is 64 years old. He has been previously well and doesn't take any medication on regular basis. He has been actively practicing endurance sports, such as finishing 20 full length marathons in the past years. He now presents to the emergency room with newly onset atrial fibrillation with a ventricular rate of 110-127. His BP is 160/90 mmHg. He has minor chest discomfort, no dyspnea. His laboratory tests are as follows:

Hb	142 g/l (134-167	′ g/l)
Na	140 mmol/l	(137-145mmol/l
К	3.6 mmol/l	(3.3-4.9 mmol/l)
Creatinine	87 mmol/l	(60-100 umol/l)
Troponin T	27ng/l	(<15ng/l)
NT-BNP 500ng/l	(<194ng/l)	



Jasmin Anoschkir

#### **Questions for discussion:**

How should we treat Mr Smith?

What kind of advice should we give him for the next occasion of AF? Think about how to improve the overall workflow with such patients

Does the patient have NSTEMI? Should we routinely assess troponin or BNP levels of patients with newly onset AF?

### Key points Case 1 – AF

History: onset of AF? 48hours Less 48: ?rate or rhythm ECHO? Anticoagulation: CHADVASc 1

?comorbidities that we are not aware of No heart defect fleicaide Advice: anything that induced AF ?ethanol abuse, hyperthyroidism No indication for troponin or BNP

### Case 2 – UTI and antibiotics

Mrs Theresa Smith is 84 years old. She lives at home with regular visits of home care nurses 3 times a day. She has a medical history of arterial hypertension, hypercholesterolemia, hypothyroidism, osteoarthritis and osteoporosis. She's on a regular medication including losartan 100 mg x1, Bisoprolol 2.5 mg x1, Furosemide 20 mg x 2, Atorvastatin 20 mg x 1, Thyroid hormone replacement 0.1 mg x1, Acetosalicylic acid 100 mg x 1, Zopiclone 7.5 mg x 1, Paracetamol 1000 mg x 2-3 and Alendronate 70 mg a week.

Now she came to hospital in the night after alerting her nurses because she fell out of bed and couldn't get up. She was examined in bed. She was found to be afebrile with a BP of 160/90, pulse regular 82, no tenderness or palpable masses in the abdomen. A small bruise on her left thigh. A systolic murmur over the aortic arch and audible over her carotids already mentioned in 2014 during a regular follow up. Otherwise nothing remarkable.

#### Laboratory tests:

Hb	117 g/l	(117-155 g/l) ا
CRP	8 mg/l	(<10 mg/l)
WBC	8 x10 <sup>9</sup> /l	(3.4-8.2 x10 <sup>9</sup> /l)
Na	132 mma	ol/l (137-145 mmol/l)
К	3.2 mmo	ol/l (3.3-4.9 mmol/l)

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U-dipstick Leuc+,

Urinary analysis positive for g- coliform bacteria

#### **Questions for discussion:**

Should we routinely screen for urinary infection in this sort of patients?

Should she be treated urinary infection?

What are the risks and benefits? Does she need an echocardiogram? How could we improve the workflow of taking care of the increasing number of elderly people still living in their homes and in frequent need of medical consultation?

### Key points Case 2 – UTI

Do not routinely screen asymptomatic patients No ECHO necessary if the result doesn't affect treatment Avoid overdiagnostics in frail elderly

### Case 3 – DVT and PE

Mr James Smith (62 yo) from New Hampshire was lucky enough to win 30 000€ on EuroJackpot. He decided to fulfil his long-time dream of traveling around the world. This, however, is where he run out of luck and had to be taken into hospital in Helsinki on his way back from Japan because of shortness of breath and a swollen thigh.

Upon presentation, he had a respiratory rate of 34/min with an oxygen saturation of 88% breathing ambient air. On ECG he had sinustachycardia of 100 bpm, inverted T-waves on the precordial leads V1-V3, no widening of the QRS complex. His BP was 140/70 mmHg. Bedside echocardiography showed a mildly dilated right ventricle with a tricuspid valve gradient of 60 mmHg. No evident thrombus could be visualized in the heart chambers. The diagnosis of PE was supported by an elevated d-dimer of 13.4 mg/l (<0.5 mg/l) and confirmed by subsequent CT-angiography of the pulmonary vasculature.



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#### **Questions for discussion:**

Should he receive thrombolysis? Was the d-dimer test necessary in the diagnostics? What question does the test answer? Is it sensitive? Is it specific? When should we use it?

### Key points Case 3 – DVT and PE

No indication for thrombolysis

High risk patient

D-dimer not necessary in high risk cases -> CT needed irrespective of result

Anticoagulation 6 months

Repeat ECHO prior to discontinuation

# Case 4 – Victim Of Medical Imaging Technology



Mrs Emily Smith is 57 years old and has been taking Ramipril 5 mg x1 for mildly elevated blood pressure together with oestrogen replacement therapy for menopausal symptoms. Mrs Smith's brothers had not been too well lately and had to receive medical attention due to atrial fibrillation and pulmonary embolism. This made Mrs Smith quite anxious and soon after hearing about her brother's hospitalization in Finland, she started having palpitations, shortness of breath especially in the evenings when lying down, with no correlation to exercise. She presented to the emergency with a resting BP of 150/80, p 67 BPM, no signs of ischemia on ECG. Spo2 97% breathing ambient air.

#### Her blood tests were as follows:

Hb 137 g/l	(117-155 g/l)
WBC 8.2 x10 <sup>9</sup> /l	(3.4-8.2 x10 <sup>9</sup> /l)
Na 140 mmol/l	(137-145mmol/l)
K 4.2 mmol/l	(3.3-4.9 mmol/
Creatinine 87 um	ol/l (50-90 umol/l)
D-dimer 0.9	(<0.5 mg/l)

Because of the mildly elevated D-dimer a pulmonary CT angiography was performed. In the study, pulmonary embolism was ruled out. An expansion of 2.2x1.4 cm was however noted in her right adrenal gland. The application of contrast medium for the angiography prevented diagnosing this expansion benign based on the first study.

#### **Questions for discussion:**

What happens next? How could we have prevented this scenario? Should we have prevented this scenario?

### Key points Case 4 – VOMIT

No suspicion of pulmonary embolism; no D-dimer or CT scan

Incidentaloma:

Active or inactive Malignant or Benign

-> Assess hormone levels, do a focused native CT

### Case 5 – Screening for cancer

Mr John Smith is now 82 years old. He had a PSA screen 12 years ago after reading about a young man in excruciating agony metastasised cancer in the newspaper. His GP first examined the prostate clinically without anything suspicious. His PSA was mildly elevated (8ug/l, ref. <6.5ug/l), 15% unbound. Thus, he was referred to see a urologist. Transrectal biopsy of the prostate was performed with a normal histology as result. Later a good friend of his was diagnosed with prostate cancer and Mr Smith thought that it would be wise he'd have another check. His PSA continued rising and had now reached a level of 9 ug/l with a free fraction decreased to 9%. After discussing with his GP, they decided to go for another biopsy. This time diagnosed to be local, not growing through the prostatic capsule. The Gleason score was 6.

After discussing the prognosis of this low risk cancer Mr Smith decided not to have any treatment for the disease at this stage. This time however Mr Smith became febrile a week after the biopsy and tested positive for *enterococcus faecalis* in blood cultures. He needed treatment with broad-spectrum antibiotics for several weeks and underwent many rule-out studies such as TEE to screen for bacterial endocarditis.



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Jasmin Anoschki
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#### Questions for discussion:

Should we routinely screen for cancer? What criteria can you name for a good screening test?

### Key points Case 5 – Cancer screening

PSA screening has not shown to decrease mortality

Sensitivity vs. specificity vs. price You need to be able to improve outcome by early detection

# Summing it up

#### Always think, think and think

- Does this make sense?
- Why am I doing this?

At the center stands the patient!

Don't underestimate your power in affecting your clinic

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