DECIDE

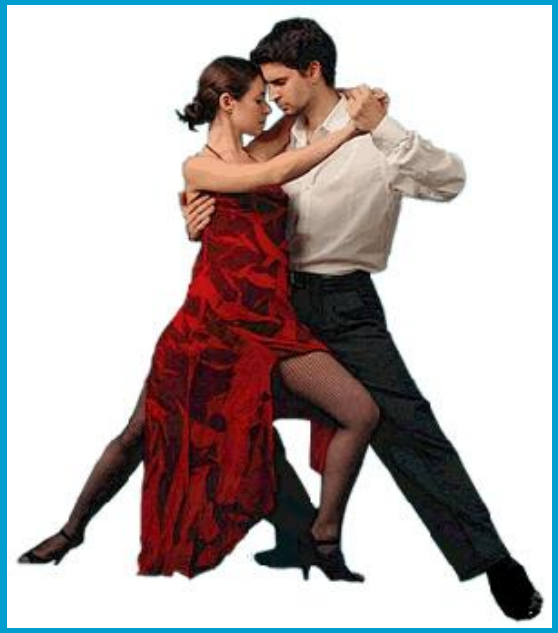
Developing and Evaluating Communication strategies to support Informed Decisions and practice based on Evidence

GRADE

magic

making GRADE the irresistible choice

Relating clinical decisions to evidence



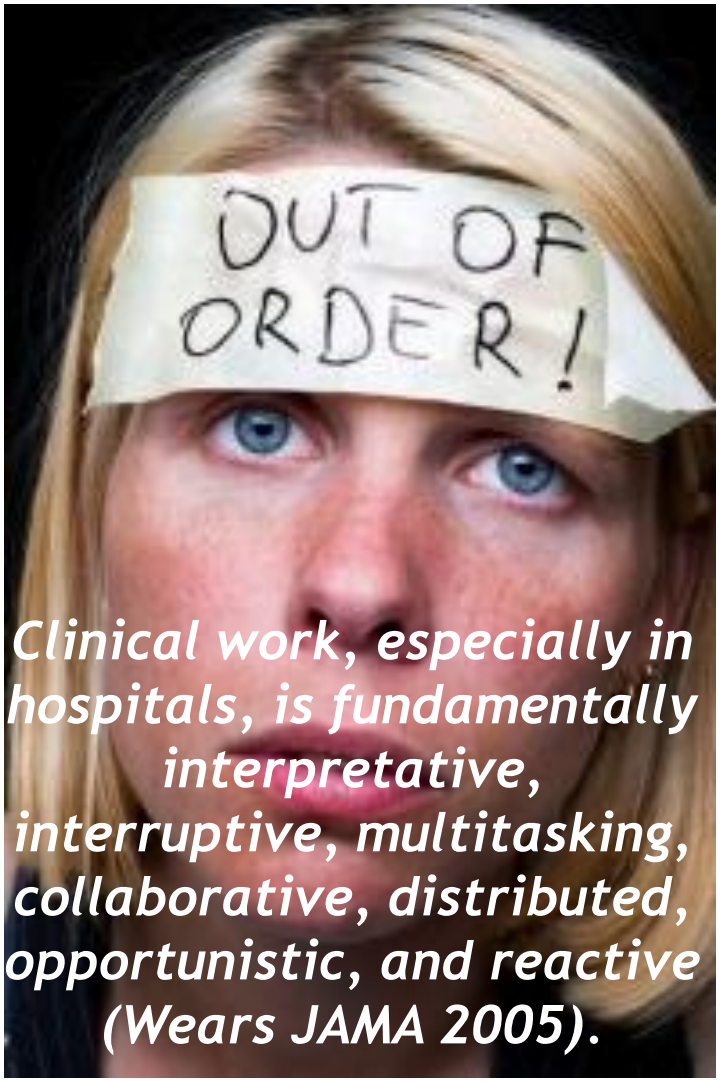
This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°258583

Sykehuset Innlandet HF

Relating clinical decisions to evidence

Scope of this talk:

- ✓ Clinical questions at the point of care, why bother?
- ✓ Evidence-based practice and trustworthy guidelines
- ✓ What are the problems with current guidelines?
- ✓ Real life implementation of DECIDE strategies through MAGIC
- ✓ Remaining challenges, solutions



Meet Anne, with abdominal complaints…

- 53 yrs, account manager
- DM II, hyperlipidemia and HT (high cardiovaskular risk)
- Aspirin, statins, ACE-inhibitor
- Stomach pain past 6 months
- Upper endoscopy: Normal
- Diagnosis: Functional dyspepsia

Anne: ”*Do I really need aspirin? What is it good for?*

How good are we at answering our questions?

Original Investigation

Clinical Questions Raised by Clinicians at the Point of Care
A Systematic Review

Guilherme Del Fiol, MD, PhD; T. Elizabeth Workman, PhD, MLIS; Paul N. Gorman, MD

RESULTS In 11 studies, 7012 questions were elicited through short interviews with clinicians after each patient visit. The mean frequency of questions raised was 0.57 (95% CI, 0.38-0.77) per patient seen, and clinicians pursued 51% (36%-66%) of questions and found answers to 78% (67%-88%) of those they pursued. Overall, 34% of questions concerned drug treatment, and 24% concerned potential causes of a symptom, physical finding, or diagnostic test finding. Clinicians' lack of time and doubt that a useful answer exists were the main barriers to information seeking.

CONCLUSIONS AND RELEVANCE Clinicians frequently raise questions about patient care in their practice. Although they are effective at finding answers to questions they pursue, roughly half of the questions are never pursued. This picture has been fairly stable over time despite the broad availability of online evidence resources that can answer these questions. Technology-based solutions should enable clinicians to track their questions and provide just-in-time access to high-quality evidence in the context of patient care decision making. Opportunities for improvement include the recent adoption of electronic health record systems and maintenance of certification requirements.

studies with similar methods.

Invited Commentary

Walking steps of evidence-based practice 2014

Does Anne need to take aspirin?

FOCUSED QUESTIONS

Search for recommendations in evidence-based guidelines

Can you trust and use those recommendations?

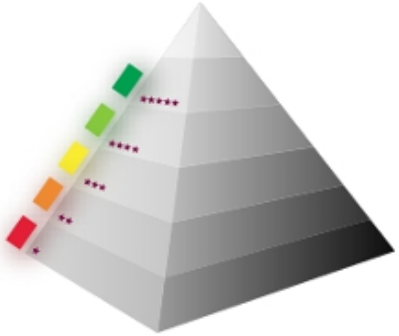
Apply the recommendations on individual patients

AUDIT

IMPLEMENT

How do we get to the evidence in Norway?

- Pyramid-search through Norwegian Electronic Health Library
- 6 S model: A hierarchy of information resources for clinical questions



6S model explained
Criteria for articles in PLUS

Oppslagsverk ★★★★★
UpToDate
Best Practice

Oppsummerte oversikter ★★★★☆
ACP Journal Club (via PLUS)
DARE

Systematiske oversikter ★★★☆☆
PLUS Syntheses

Oppsummerte enkeltstudier ★★☆☆☆
ACP Journal Club (via PLUS)

Enkeltstudier ★☆☆☆☆
PLUS Studies

Oppslagsverk ★★★★★

UpToDate

Benefits and risks of aspirin in secondary and primary prevention of cardiovascular disease

Where are the national or local guidelines?

Oppsummerte oversikter ★★★★☆

ACP Journal Club (selected via PLUS)

Review: Daily aspirin reduces short-term risk for cancer and cancer mortality

Review: Aspirin does not reduce CHD or cancer mortality but increases bleeding

More Results...

Systematiske oversikter ★★★☆☆

PLUS Syntheses

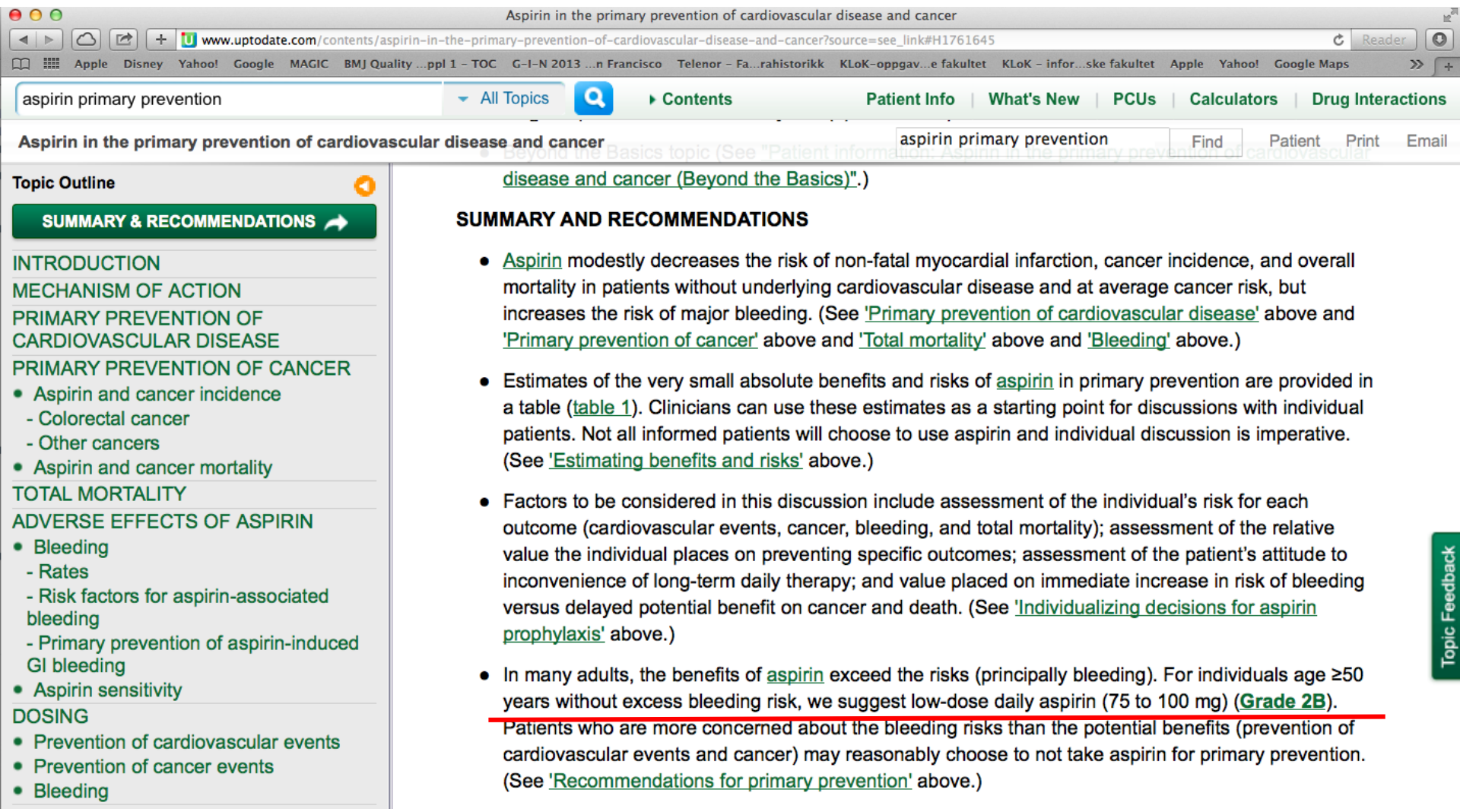
Oral 5-aminosalicylic acid for maintenance of remission in ulcerative colitis.*(Systematic Review)*

Safety, effectiveness, and cost-effectiveness of new oral anticoagulants compared with warfarin in preventing stroke and other cardiovascular events in patients with atrial fibrillation..*(Systematic Review)*

More Results...

Oppsummerte Enkeltstudier ★★☆☆☆

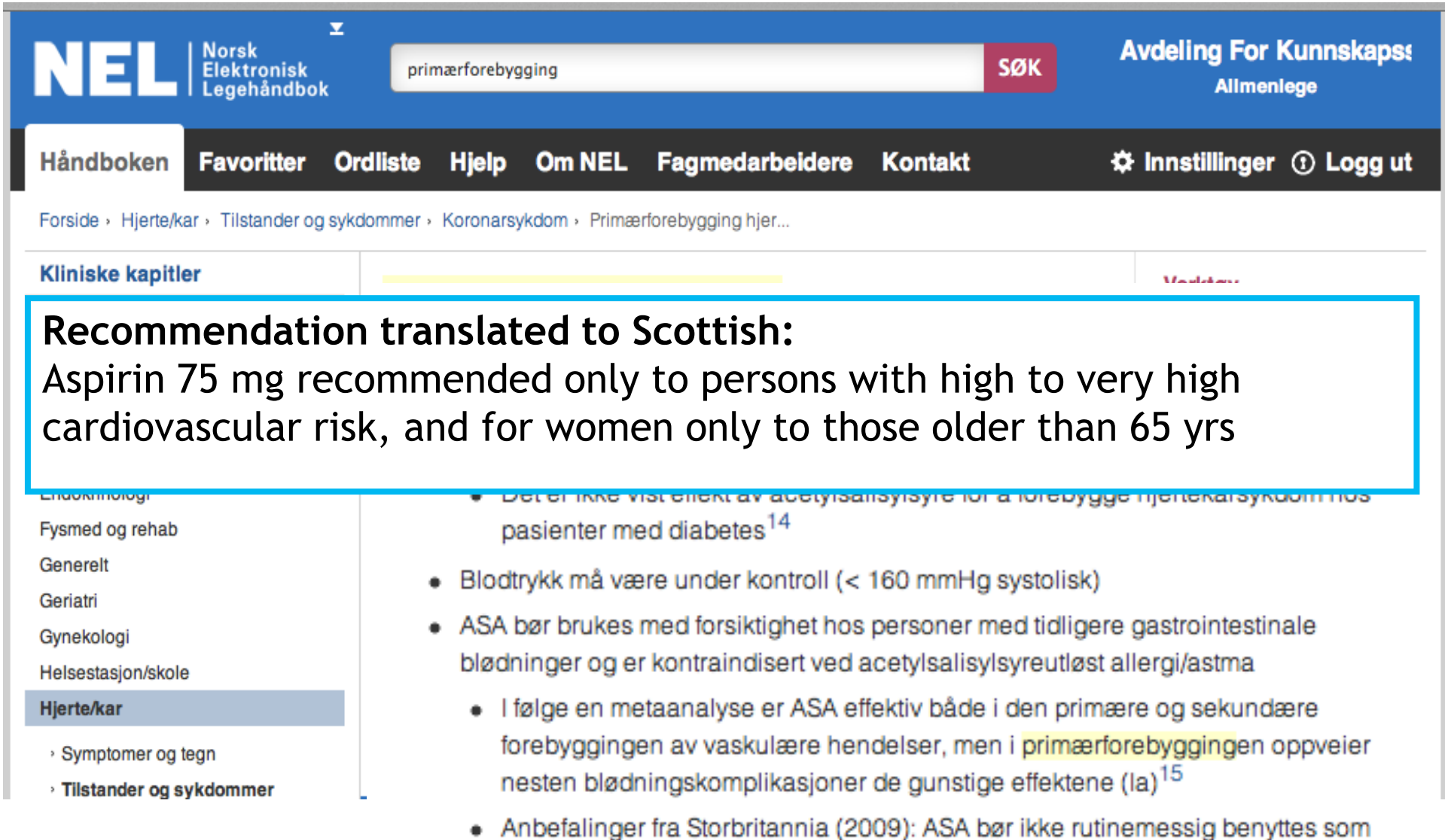
ACP Journal Club (selected via PLUS)



Doctor 56 yrs old: *"Aspirin to everyone above 50? Are you kidding me?"*

Discuss with your neighbour: What does GRADE 2B mean?

National guidelines, what do they say?



Clinical practice guidelines: The good, the bad and the ugly

ORIGINAL INVESTIGATION

ONLINE FIRST | HEALTH CARE REFORM

Failure of Clinical Practice Guidelines to Meet Institute of Medicine Standards

Two More Decad

Justin Kung, MD; Ram K

Background: In Marc
(IOM) issued a new set
guidelines intended to
being produced. To ou
view of adherence to s
taken since one publis

Methods: Two review
guidelines selected at r
line Clearinghouse (NC
18 of 25 IOM standard

Results: The overall me
standards satisfied (ou
interquartile range of 6
than half of the guideli
of the IOM standards. B
duced by subspecialty s
of the IOM standards
flicts of interest (COIs)
the guidelines surveye
such information, COI

INVITED COMMENTARY

ONLINE FIRST

In Guidelines We Cannot Trust

The Institute of Medicine (IOM) recently updated its standards for guideline development.[1] If adhered to, trustworthy guidelines should follow. Trustworthiness connotes integrity, dependability, and reliability. Unfortunately, in guidelines we cannot trust.

In the late 1990s, 2 colleagues and I critically appraised a broad set of published guidelines and found that guidelines adhered to less than half of the methodological standards for guideline development.[2] We opined that since the guideline industry was in its infancy, over time developers would adhere to recommended standards of guideline development. As demonstrated by Kung et al[3] in this issue of the *Archives*, guidelines are still not following guidelines.

Kung et al[3] scrutinized 114 guidelines published in the National Guidelines Clearinghouse against 18 of the standards recently set forth by the IOM.[1] Despite some methodological limitations, Kung et al[3] found that the overall

should have no COIs.[1] While I laud this ideal we have little evidence regarding the impact on guideline quality and the resulting recommendations by policies prohibiting relations with industry, and there is the potential cost of the loss of subject expertise on guideline panels. Disclosure alone is insufficient to protect against COIs. I favor an approach championed by the American College of Chest Physicians' Antithrombotic Guidelines, in which panel members with significant COIs do not participate in discussions or voting on recommendations for which they have COIs but may offer written input so that clinical and research expertise is maintained.[5]

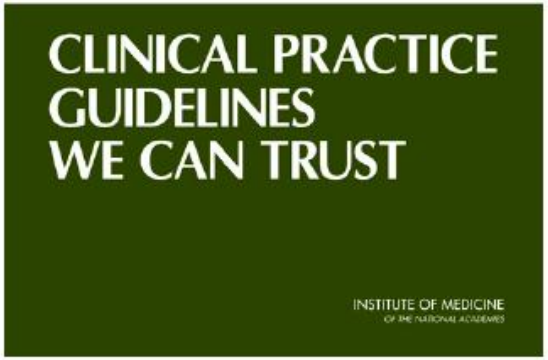
A closely related topic that limits guideline trustworthiness is the often single subspecialty panel composition. Members of a clinical specialty are likely to recommend interventions for which their specialty serves a role. One needs to look no further than prostate cancer screening guidelines for evidence of this. Groups without mul-

Trustworthy guidelines: New standards and definitions

New definition

"Clinical Practice Guidelines are statements that include recommendations intended to optimize patient care. They are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options "

Wide consensus



Imagine you found a trustworthy guideline for Anne

- **Are these guidelines**
- ✓ Created efficiently?
- ✓ Available, useful and understandable for clinicians?
- ✓ Suited for integration into EMRs, EBM textbooks and adaptation?
- ✓ Sufficiently up to date?
- ✓ Facilitating shared decisions?
- **We need to do better!**

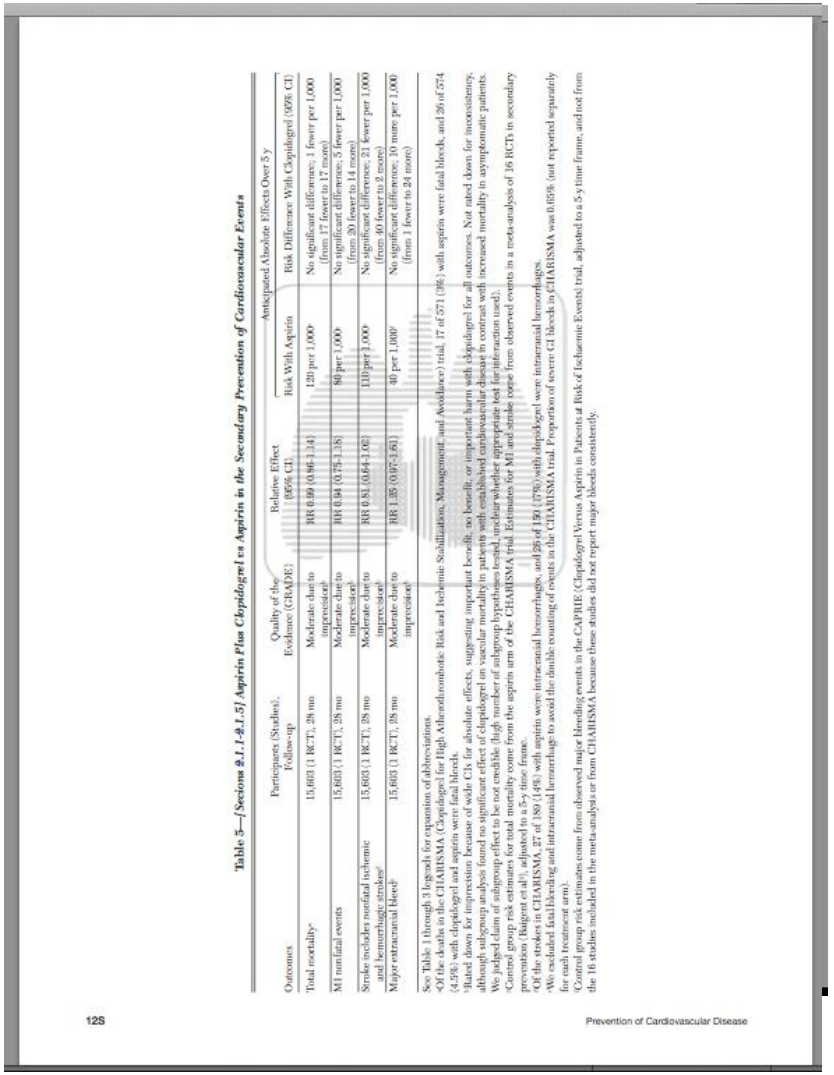
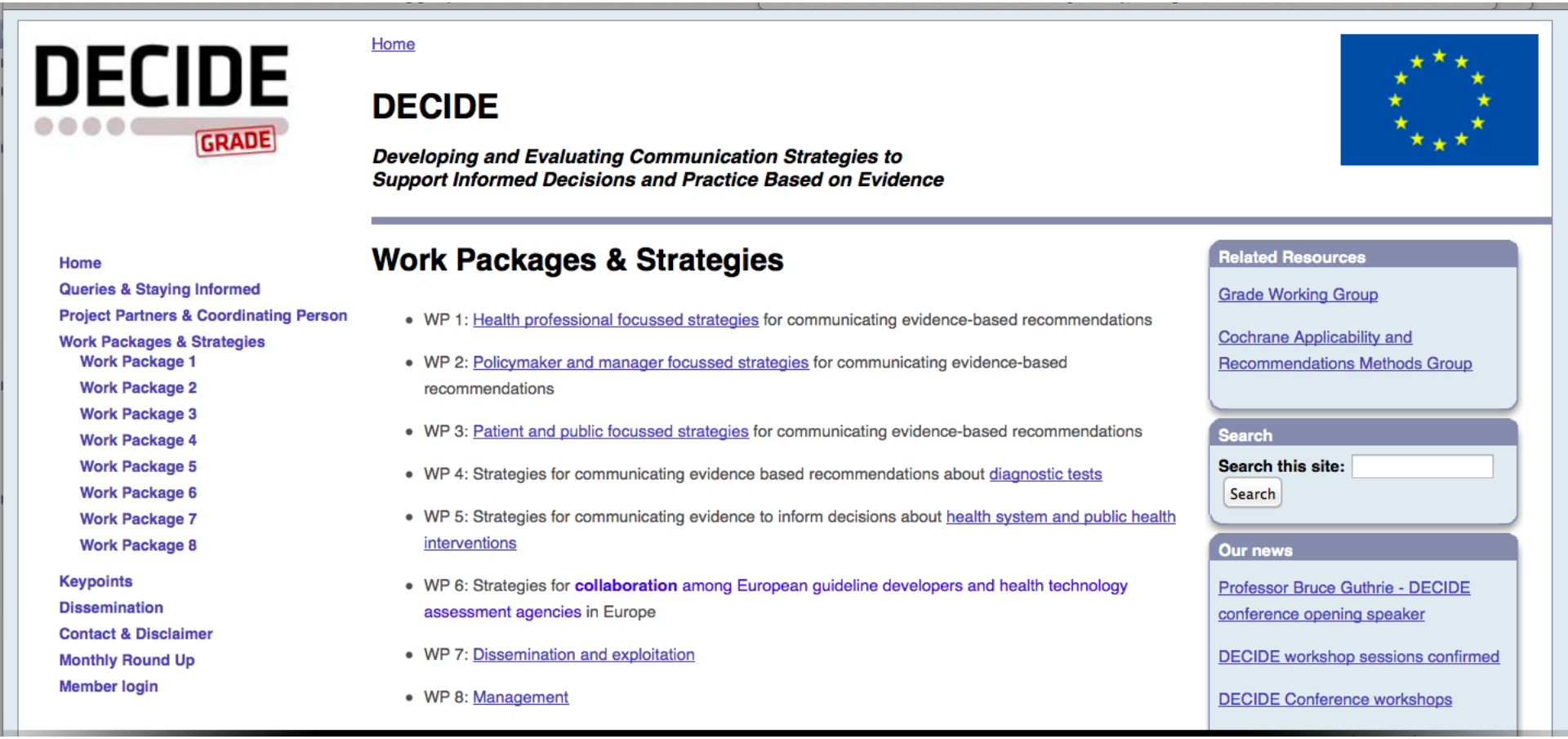


Table 5—[Sections 8.1.1-8.1.5] Aspirin Plus Clopidogrel vs Aspirin in the Secondary Prevention of Cardiovascular Events

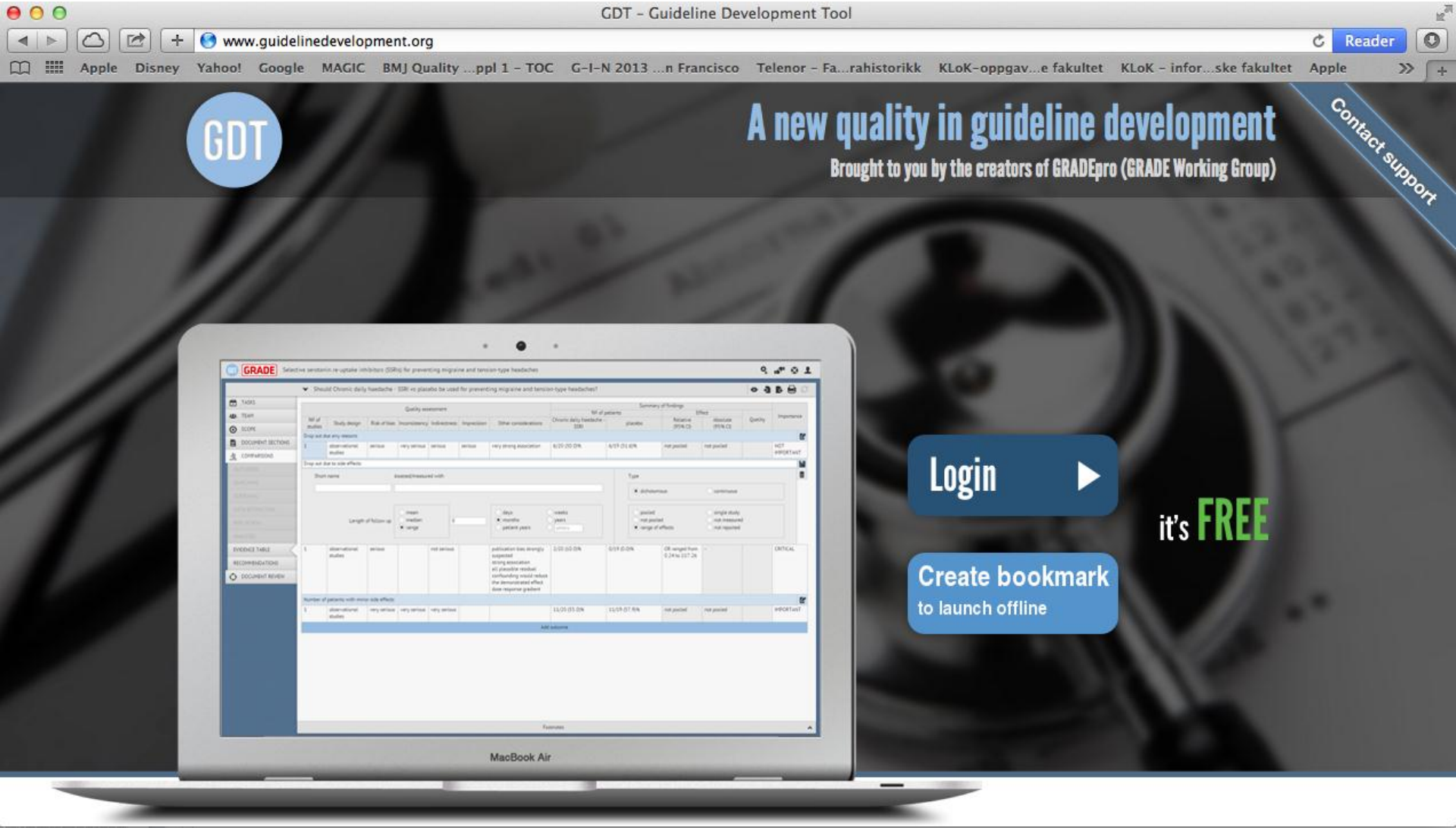
Outcomes	Participants (Studies), Follow-up	Quality of the Evidence (GRADE)	Relative Effect (95% CI)	Anticipated Absolute Effects Over 5 y	
				Risk With Aspirin	Risk Difference With Clopidogrel (95% CI)
Total mortality[a]	15,603 (1 RCT), 28 mo	Moderate (due to imprecision)[b]	RR 0.99 (0.86-1.14)	120 per 1,000	No significant difference; 1 fewer per 1,000 (from 17 fewer to 17 more)
MI nonfatal events	15,603 (1 RCT), 28 mo	Moderate (due to imprecision)[b]	RR 0.94 (0.75-1.18)	80 per 1,000	No significant difference; 5 fewer per 1,000 (from 20 fewer to 14 more)
Stroke (includes nonfatal ischemic and hemorrhagic stroke)[c]	15,603 (1 RCT), 28 mo	Moderate (due to imprecision)[b]	RR 0.81 (0.64-1.02)	110 per 1,000	No significant difference; 21 fewer per 1,000 (from 40 fewer to 2 more)
Major extracranial bleed[d]	15,603 (1 RCT), 28 mo	Moderate (due to imprecision)[b]	RR 1.35 (0.97-1.61)	40 per 1,000[e]	No significant difference; 10 more per 1,000 (from 1 fewer to 24 more)

See Table 1 through 3 legends for expansion of abbreviations.
[a]Of the deaths in the CHARISMA (Clopidogrel for High Atherothrombotic Risk and Ischemic Stabilization, Management, and Avoidance) trial, 17 of 571 (3%) with aspirin were fatal bleeds, and 26 of 574 (4.5%) with clopidogrel and aspirin were fatal bleeds.
[b]Rated down for imprecision because of wide CIs for absolute effects, suggesting important benefit, no benefit, or important harm with clopidogrel for all outcomes. Not rated down for inconsistency, although subgroup analysis found no significant effect of clopidogrel on vascular mortality in patients with established cardiovascular disease in contrast with increased mortality in asymptomatic patients. We judged claim of subgroup effect to be not credible (high number of subgroup hypotheses tested, unclear whether appropriate test for interaction used).
[c]Control group risk estimates for total mortality come from the aspirin arm of the CHARISMA trial. Estimates for MI and stroke come from observed events in a meta-analysis of 16 RCTs in secondary prevention (Bajpai et al[a]), adjusted to a 5-y time frame.
[d]Of the strokes in CHARISMA, 27 of 380 (14%) with aspirin were intracranial hemorrhages, and 25 of 130 (17%) with clopidogrel were intracranial hemorrhages.
[e]We excluded fatal bleeding and intracranial hemorrhage to avoid the double counting of events in the CHARISMA trial. Proportion of severe GI bleeds in CHARISMA was 0.65% (not reported separately for each treatment arm).
[f]Control group risk estimates come from observed major bleeding events in the CAPRIE (Clopidogrel Versus Aspirin in Patients at Risk of Ischemic Events) trial, adjusted to a 5-y time frame, and not from the 16 studies included in the meta-analysis or from CHARISMA because these studies did not report major bleeds consistently.

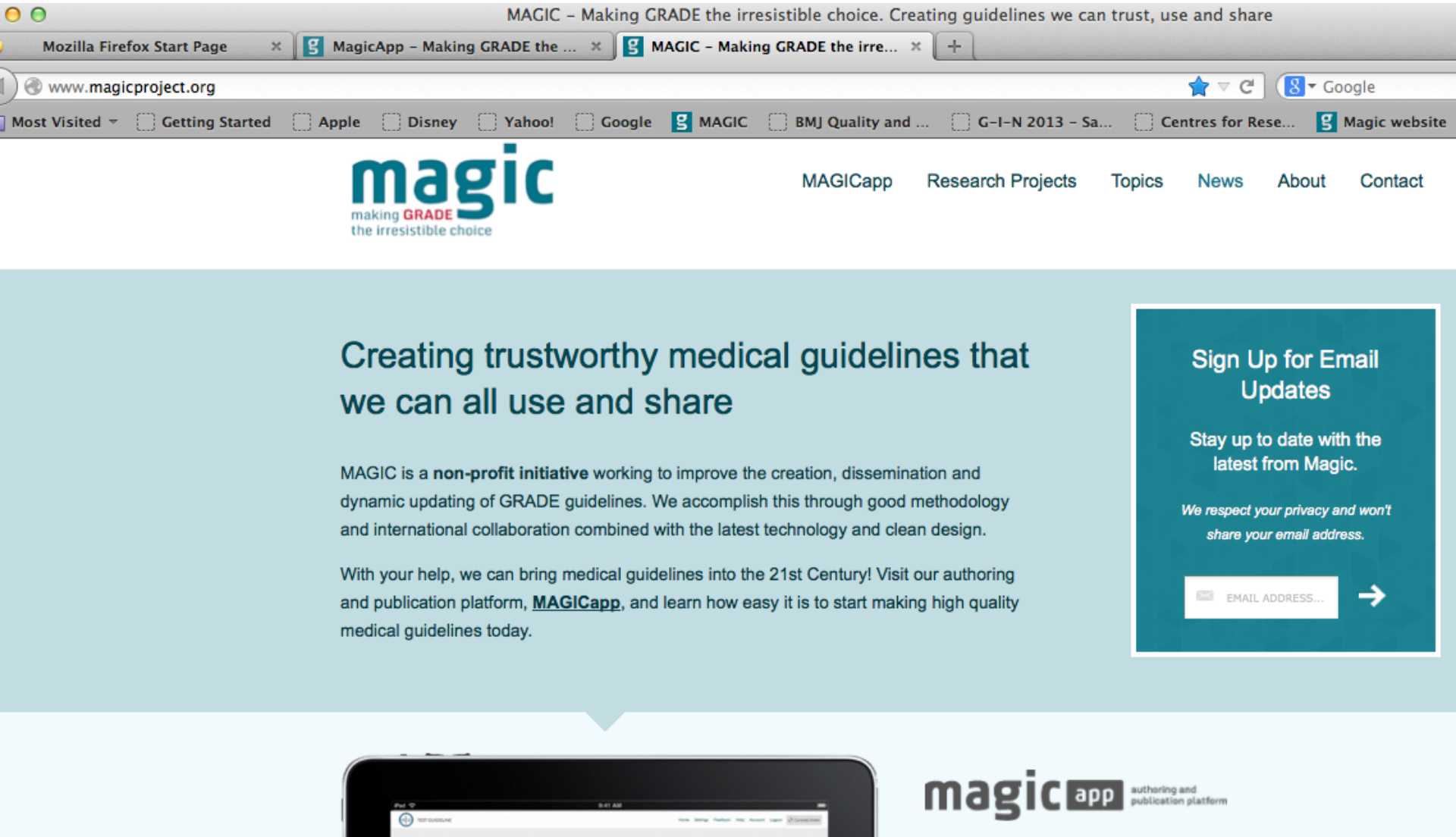
DECIDE WP1: health professional focussed strategies



GDT will implement DECIDE dissemination strategies

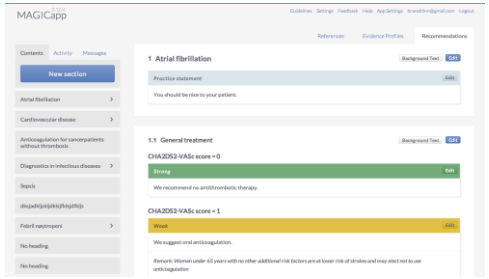


MAGIC research and innovation program performs research in collaboration with DECIDE



magic
making GRADE
the irresistible choice

Guideline panel using MAGICapp



Guideline authoring tool and publication platform (MAGICapp)

New evidence

Dynamic updating

PICO | Individual studies | Descriptive tables | Evidence profiles

Recommendations | Key information | Rationale

Database
structured and tagged content

Multilayered Guideline outputs

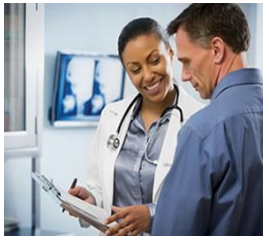
Web + App

Integrated in the EMR

Adaptation

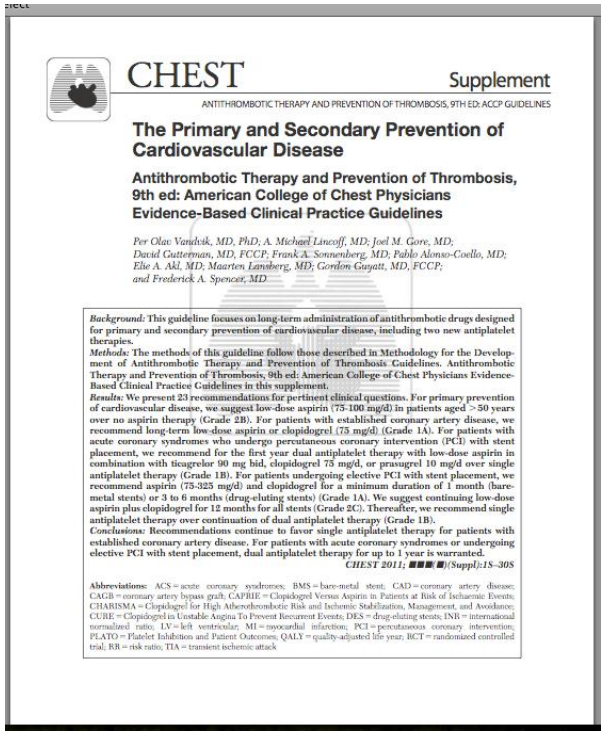
National/ local or EBM Textbooks

Decision aids for patients and clinicians



Developing and testing DECIDE WP1 strategies

through MAGICapp and national adaptation of guidelines



CHEST Supplement

ANTITHROMBOTIC THERAPY AND PREVENTION OF THROMBOSIS, 9TH ED: ACCP GUIDELINES

The Primary and Secondary Prevention of Cardiovascular Disease

Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines

Per Olav Vandvik, MD, PhD; A. Michael Lincoff, MD; Joel M. Gore, MD; David Gutterman, MD, FCCP; Frank A. Sonnenberg, MD; Pablo Alonso-Coello, MD; Elie A. Akl, MD; Maarten Lansberg, MD; Gordon Guyatt, MD, FCCP; and Frederick A. Spencer, MD

Background: This guideline focuses on long-term administration of antithrombotic drugs designed for primary and secondary prevention of cardiovascular disease, including two new antiplatelet therapies.

Methods: The methods of this guideline follow those described in Methodology for the Development of Antithrombotic Therapy and Prevention of Thrombosis Guidelines. Antithrombotic Therapy and Prevention of Thrombosis, 9th ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines in this supplement.

Results: We present 23 recommendations for pertinent clinical questions. For primary prevention of cardiovascular disease, we suggest low-dose aspirin (75-100 mg/d) in patients aged > 50 years over no aspirin therapy (Grade 2B). For patients with established coronary artery disease, we recommend long-term low-dose aspirin or clopidogrel (75 mg/d) (Grade 1A). For patients with acute coronary syndromes who undergo percutaneous coronary intervention (PCI) with stent placement, we recommend for the first year dual antiplatelet therapy with low-dose aspirin in combination with ticagrelor 90 mg bid, clopidogrel 75 mg/d, or prasugrel 10 mg/d over single antiplatelet therapy (Grade 1B). For patients undergoing elective PCI with stent placement, we recommend aspirin (75-325 mg/d) and clopidogrel for a minimum duration of 1 month (bare-metal stents) or 3 to 6 months (drug-eluting stents) (Grade 1A). We suggest continuing low-dose aspirin plus clopidogrel for 12 months for all stents (Grade 2C). Thereafter, we recommend single antiplatelet therapy over continuation of dual antiplatelet therapy (Grade 1B).

Conclusions: Recommendations continue to favor single antiplatelet therapy for patients with established coronary artery disease. For patients with acute coronary syndromes or undergoing elective PCI with stent placement, dual antiplatelet therapy for up to 1 year is warranted.

CHEST 2011; ■■■:■(Suppl):1S–30S

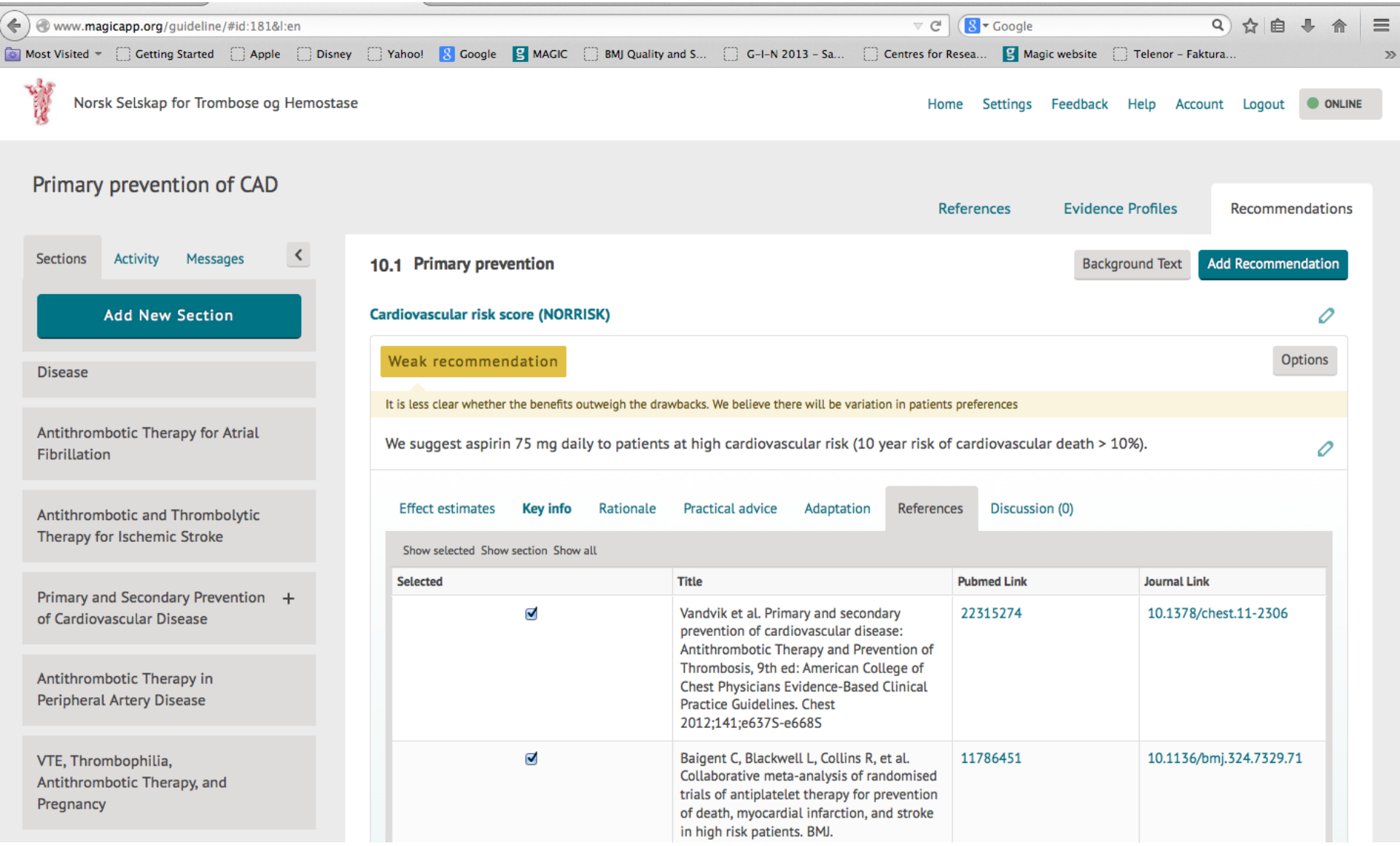
Abbreviations: ACS = acute coronary syndromes; BMS = bare-metal stent; CAD = coronary artery disease; CAGB = coronary artery bypass graft; CAPRIE = Clopidogrel Versus Aspirin in Patients at Risk of Ischaemic Events; CHARISMA = Clopidogrel for High Atherothrombotic Risk and Ischemic Stabilization, Management, and Avoidance; CURE = Clopidogrel in Unstable Angina To Prevent Recurrent Events; DES = drug-eluting stents; INR = international normalized ratio; LV = left ventricular; MI = myocardial infarction; PCI = percutaneous coronary intervention; PLATO = Platelet Inhibition and Patient Outcomes; QALY = quality-adjusted life year; RCT = randomized controlled trial; RR = risk ratio; TIA = transient ischemic attack

Authoring of multilayered guideline formats, insights so far:

- Feasible to create and publish, difficult to write
- Transparent and systematic adaptation process was painful

Kristiansen A, Brandt L, Alonso P, et al. CHEST 2014-online

DECIDE phase 3: Implementing and testing multilayered guideline formats in Norway

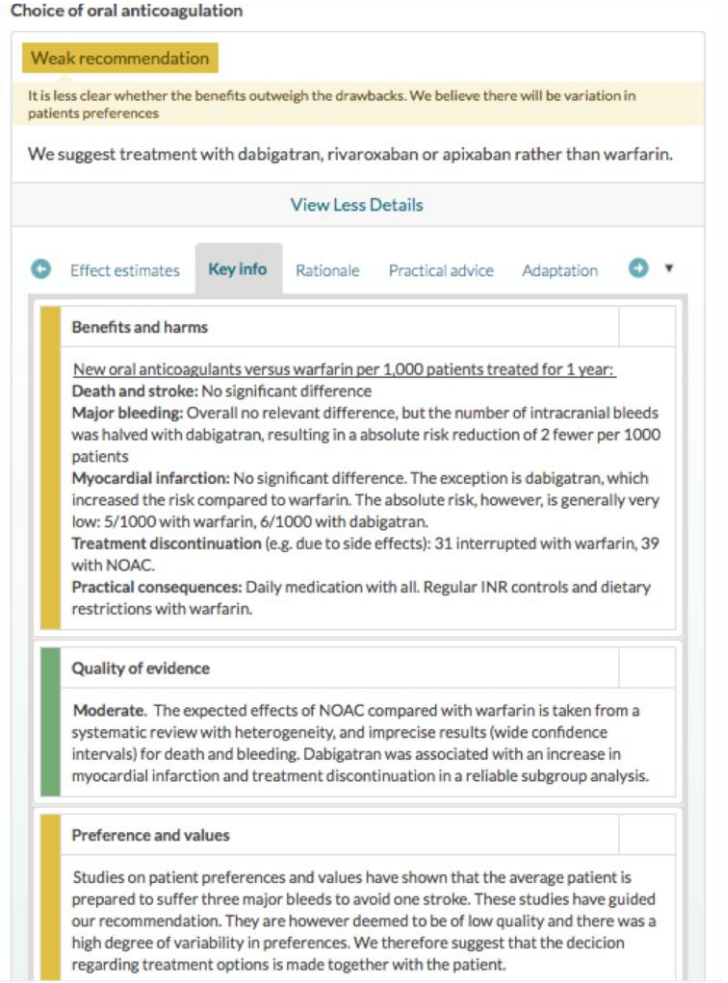


Insights from DECIDE WP1 research so far

From user-testing, surveys/ trials and real life observations

- Multilayered formats
- ✓ Well accepted, useful, preferred
- ✓ Conceptual (mis) understanding
- ✓ Further improvements necessary
- ✓ Ready to be applied in your guidelines

- Optimised formats not enough! Are guidelines:
- Possible to find, navigate and use?
- ✓ Integrated in EMR, localized?
- ✓ Kept up to date?



Remaining challenges: The long and winding road

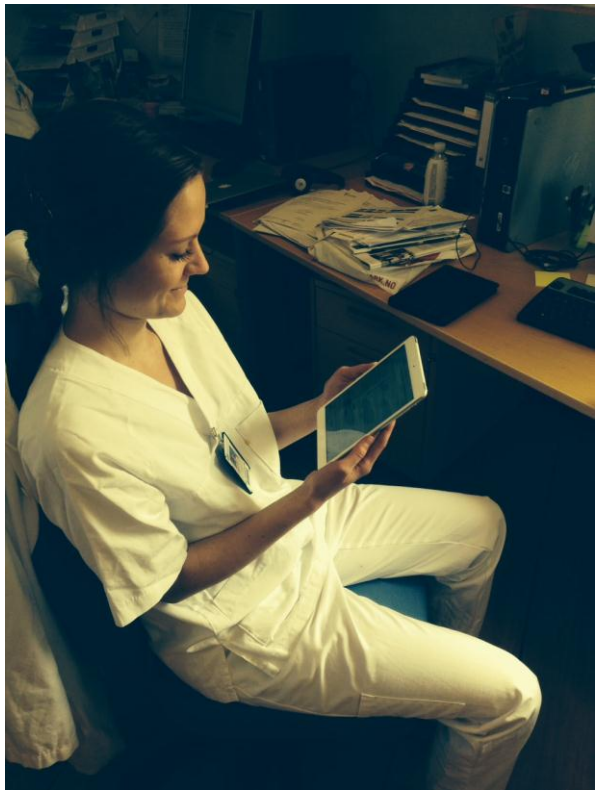
- Clinical question: *Should my bedridden patient with pneumonia get thromboproprophylaxis?*

- *”Oh, there is a new guideline for this? That ´s nice…”*

- 3 minutes, still no answer
- Showstopper, angry doc..
- Thanks Internet Explorer 8

Solutions: Answer in 17 seconds on tablet

(happy doctor, strong recommendation for thromboprophylaxis, patient got the right treatment ;-)



SHARE IT

(Sharing Evidence to Inform Treatment decisions)

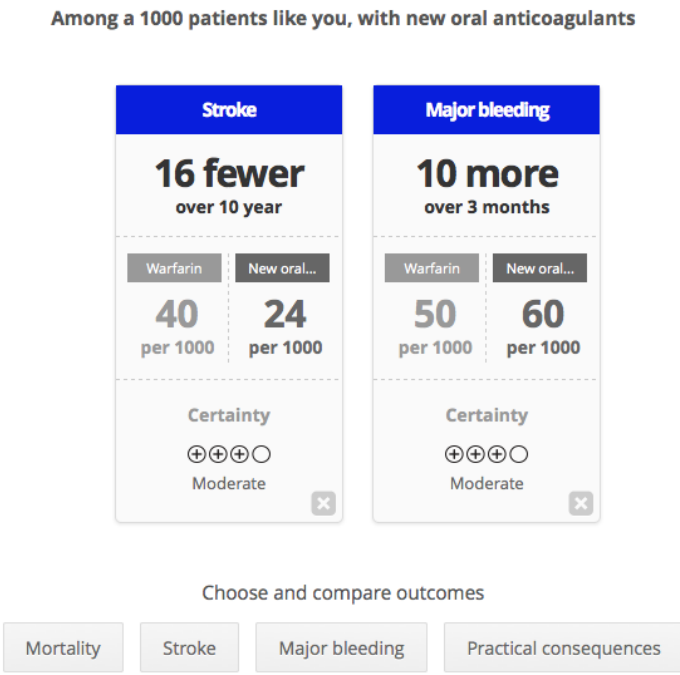
DECISION AIDS LINKED TO RECOMMENDATIONS IN GRADE GUIDELINES TO IMPROVE SHARED DECISION MAKING IN CLINICAL CONSULTATIONS

- Weak recommendations: Shared decisions becomes key but how?
- We develop decision aids that

✓ *Display benefits,harms, burdens to clinicians and patients, to **create discussions***

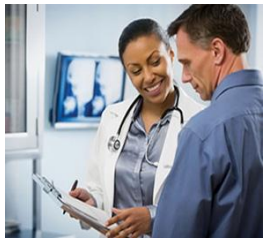
✓ *Based on best current published research evidence*

- Research ongoing with development (user-testing) optimal presentation formats in consultations



MAGIC

Decision Aids



Low dose aspirin vs. no treatment for primary prevention ▼

Among a 1000 patients like you, with aspirin

Mortality	Myocardial infarctions	Major extracranial bleeding
↓ **6 fewer** at 10 years	↓ **28 fewer** at 10 years	↑ **20 more** at 10 years
No treatment: 100 per 1000	No treatment: 121 per 1000	No treatment: 37 per 1000
Aspirin: 94 per 1000	Aspirin: 93 per 1000	Aspirin: 57 per 1000
Certainty: ⊕⊕⊕◯ Moderate	Certainty: ⊕⊕⊕⊕ High	Certainty: ⊕⊕⊕⊕ High

Choose and compare outcomes

Mortality | Myocardial infarctions | Non-fatal stroke | Major extracranial bleeding | Practical consequences

Walking steps of evidence-based practice 2014

Does Anne need to take aspirin?

Focused clinical question in PICO format

Search for recommendations in evidence-based guidelines

Weak recommendation for aspirin in trustworthy guideline, answer within 2 minutes

Share evidence with Anne, she decided not to take aspirin

How do we implement these guidelines in practice?

In summary

- Trustworthy guidelines answer questions by relating best current evidence to clinical decisions. They need to

✓ Be easy to find, use and understand point of care

✓ Facilitate shared decision making

- DECIDE WP1 strategies show promise
- Conceptual understanding one main challenge
- Real life testing yields additional insights
- Implementation in your guidelines would be great!

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement n°258583

SECOND OPINION

BY ROB ROGERS