The who, what, why, where, and when of Clinical Practice Guidelines (CPGs)

James McCormack, BSc(Pharm), Pharm D
Professor, Faculty of Pharmaceutical Sciences, UBC

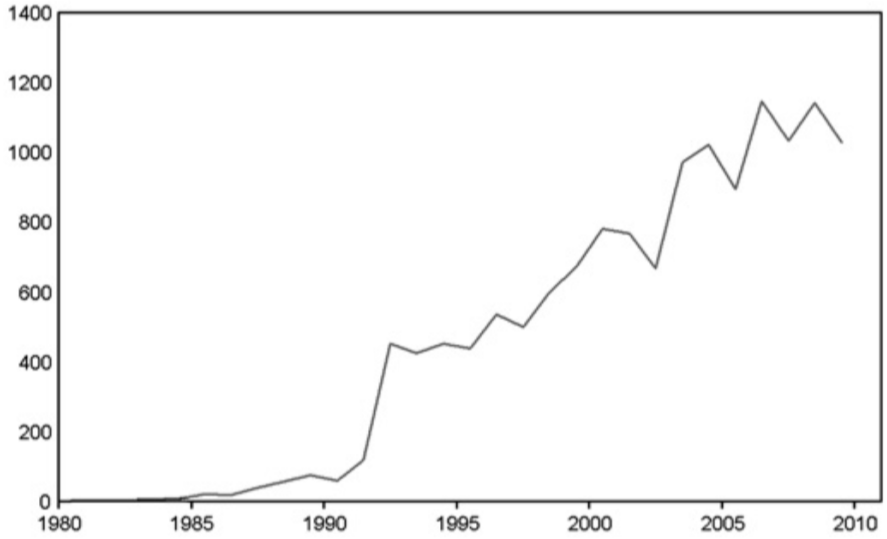


Figure 1 Number of guidelines in PubMed.

Objectives

Describe the uses and limitations of CPGs

Appraise the quality of CPGs to determine how much you should trust the recommendations

Describe how to use CPGs in practice

Discuss the legal issues associated with using or not using CPGs

What is a Clinical Practice Guideline (CPG)?

The Institute of Medicine definition:

"…statements that include recommendations, intended to optimize patient care, that are informed by a systematic review of evidence and an assessment of the benefits and harms of alternative care options”

Clinical Practice Guidelines in Practice and Education

Alfred O. Berg, MD, MPH, David Atkins, MD, MPH, William Tierney, MD

1997 - THE REASONS FOR INTEREST IN QUALITY CLINICAL PRACTICE GUIDELINES

"medical history is littered with clinical practice guidelines that have been fatally incorrect"

"the physician's ability to keep up with the medical literature erodes with each year's burden"

"costly and unexplained variability in medical practice"

"growing demand from patients for greater participation in medical decisions"

J Gen Intern Med 1997;12(Suppl 2):S25–S33

National Guideline Clearinghouse

The Number of Guidelines

Diseases/conditions - 2,983

Treatments/interventions - 7,364

~10,000 guidelines ~10 pages each?

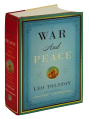
~100,000 pages

500 pages ~ 2 inches

400 inches ~ 33 feet ~10 meters

Highest pole vaulter ~ 20 feet ~ 6 meters

War and Peace is ~1500 pages ~ 70 copies



Wrong guidelines: why and how often they occur

Primiano Iannone,[1] Nicola Montano,[2] Monica Minardi,[3] James Doyle,[3] Paolo Cavagnaro,[4] Antonino Cartabellotta[5]

"Unfortunately, depending on how their reliability is measured, up to 50% of guidelines can be considered untrustworthy. This carries serious consequences for patients' safety, resource use and health economics burden."

EBM 2017;22:1-3

Wrong guidelines: why and how often they occur

Primiano Iannone,[1] Nicola Montano,[2] Monica Minardi,[3] James Doyle,[3] Paolo Cavagnaro,[4] Antonino Cartabellotta[5]

"guideline reliability is largely over-stated, and guidelines still suffer methodological flaws, limited panel composition and conflicts of interests, making their conclusions often untrustworthy. Even when evidence-based methodology is claimed, it is often not fully adopted and the 'evidence-based quality mark' gets misappropriated by vested interests"

EBM 2017;22:1-3

Wrong guidelines: why and how often they occur

Primiano Iannone,[1] Nicola Montano,[2] Monica Minardi,[3] James Doyle,[3] Paolo Cavagnaro,[4] Antonino Cartabellotta[5]

"Furthermore, no official, publicly accountable, reliable, independent and unconflicted rating agency of published guidelines exists."

EBM 2017;22:1-3

Helen Macdonald: Should clinicians spend more time thinking about guidelines than evidence?

September 14, 2018

"EBM training is shifting away from critical appraisal, and towards solid capabilities in finding evidence that has been appraised for you."

CARDIOVASCULAR PERSPECTIVE

Professional Societies Should Abstain From Authorship of Guidelines and Disease Definition Statements

Blogs > Revolution and Revelation

When Did Guidelines Become Holy Writ?

— Milton Packer wonders whether our opinions should be worshipped

“I would rather know evidence and try to apply it to each patient, than memorize guidelines and try to apply them to all patients”

Mark McConnell

How to use CPGs

Is the CPG trustworthy?

Is the CPG applicable to your patient?

Is the CPG setting similar to your practice?

Does the CPG reflect you or your patient's values and preferences?

Reassessment of Clinical Practice Guidelines

Go Gently Into That Good Night

Terrence M. Shaneyfelt, MD, MPH
Robert M. Centor, MD

of 44 guidelines, 87% of the guideline authors had some form of industry tie.[6]

Other biases are also important. The specialty composi-

often “have a one-size-fits-all mentality and do not build flexibility or contextualization into the recommendations”

“greater concern, however, is that some of these consensus statements are being turned into performance measures”

JAMA 2009;301:868-9

STATEMENT

Rethinking the Role of Clinical Practice Guidelines in Pharmacy Education

Daniel L. Brown, PharmD

Palm Beach Atlantic University Lloyd L. Gregory School of Pharmacy, West Palm Beach, Florida

"CPGs can undermine clinical growth by providing a tempting academic short-cut: memorizing clinical facts rather than learning clinical principles"

Amer J Pharmaceutical Education 2015;79

July 8, 2009

Clinical Practice Guidelines and Scientific Evidence

Francesco Enia, MD

JAMA. 2009;302(2):142-147. doi:10.1001/jama.2009.910

"Rather than endeavor to design a map with an answer for every question, I believe that it would be preferable to educate clinicians to handle clinical reality directly and without filtered advice"

JAMA July 8 2009

Clinical Practice Guidelines and Scientific Evidence

Shyam S. Kothari, MD

"Bombarding students with guidelines for all scenarios … may seem more efficient in the short-term but does little to enhance discriminatory skills and numbs the facility for critical thinking."

JAMA 2009;302:145

Don’t just blame the evidence: considering the role of medical education in the poor uptake of evidence-based medicine in clinical practice

Emélie Braschi

BMJ Evidence-Based Medicine doi:10.1136/ bmjebm-2018-111014

“It has always been assumed that medical schools would encourage the conscientious use of the best available evidence - indirect evidence indicates that it is likely not to be the case”

clinical preceptors have been shown to lack EBM skills - also teachers

continuing medical education programmes have had challenges incorporating evidence

preclinical students have been shown to consider EBM less clinically relevant than clinical courses

medical trainees and attending physicians are often unable to estimate benefits and harms of medical interventions

Journal of
Evaluation in Clinical Practice
International Journal of Public Health Policy and Health Services Research

ORIGINAL ARTICLE | Open Access

Of lamp posts, keys, and fabled drunkards: A perspectival tale of 4 guidelines

Trisha Greenhalgh

J Eval Clin Pract. 2018 Apr 15. doi: 10.1111/jep.12925

"The third explanation for our drunken use of guidelines is the over-valuing of rationality (doing the THING RIGHT—as in following rules and guidelines) over reason (doing the RIGHT THING—as in making the right moral choice for this patient at this time, given these contingencies)."

Spectrum of Decisions

Immediate life-threatening issues or very “technical” work - surgery, dispensing etc - YES

Guidelines, even policies, are likely very useful

Symptom treatment - SORT OF

Each person is an experiment - need to know just what has the potential to work and the safety

Risk factor interventions - NO

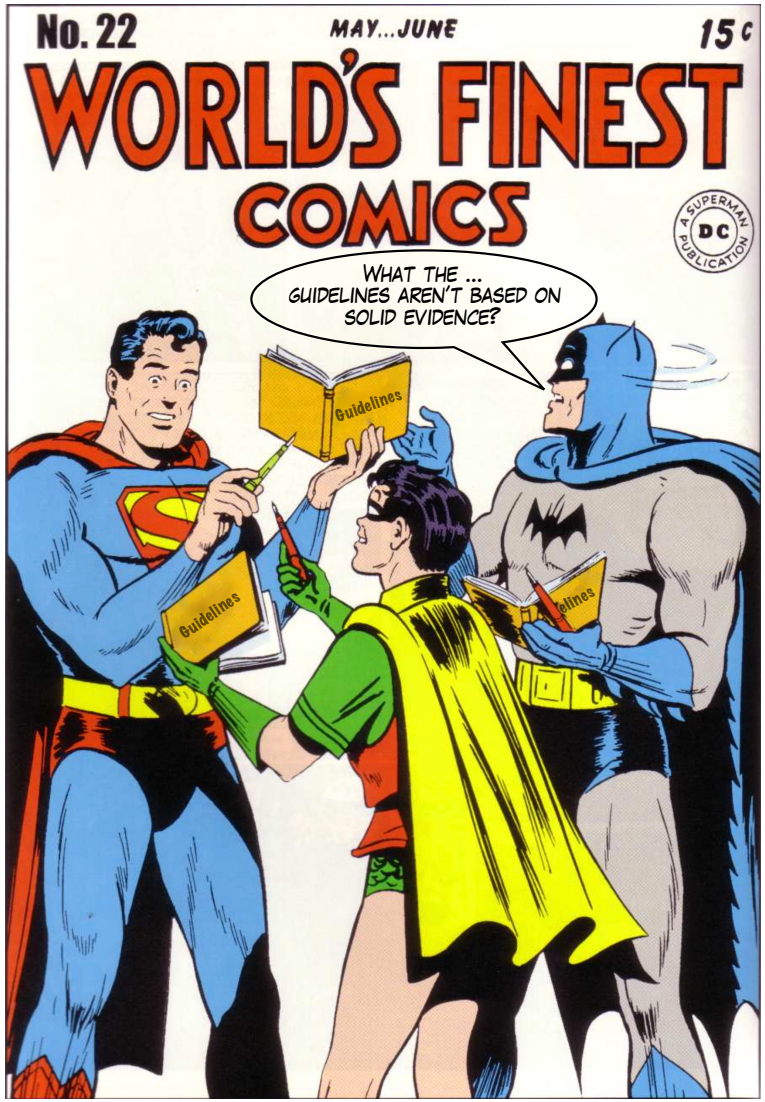
At least not what CPGs are now

Guidelines would be awesome if they…

Were developed primarily by, and definitely for, the people that ultimately end up using them

Were a credible synopsis of the best available evidence presented in a way that clinicians could easily access and interpret

Allowed patient values and preferences to be taken into account



How evidence-based are CPGs?

Typically “evidence-based” guideline recommendations are not based on “solid” evidence

Scientific Evidence Underlying the ACC/AHA Clinical Practice Guidelines

Pierluigi Tricoci; Joseph M. Allen; Judith M. Kramer; et al.

JAMA. 2009;301(8):831-841 (doi:10.1001/jama.2009.205)

Analysis of Overall Level of Evidence Behind Infectious Diseases Society of America Practice Guidelines

Dong Heun Lee, MD; Ole Vielemeyer, MD

Arch Intern Med. 2011;171(1):18-22

Clinical Endocrinology (2013) 78, 183–190 doi: 10.1111/j.1365-2265.2012.04441.x

METHODOLOGICAL ASSESSMENT IN ENDOCRINOLOGY

A comparative quality assessment of evidence-based clinical guidelines in endocrinology

EVIDENCE LEVEL	Cardiology	Infectious disease	Endocrinology
1 or A based on RCTs	11%	14%	6%
3 or C based on opinion	48%	55%	35%

BMJQS

The quality of clinical practice guidelines over the last two decades: a systematic review of guideline appraisal studies

Table 2 Appraisal of Guidelines, Research and Evaluation domain scores of guidelines over time (total sample=608)

	1988–1992 (n=9)	1993–1997 (n=102)	1998–2002 (n=291)	2003–2007 (n=206)	p Value for trend
Domain scores		***Top Score = 100%***			
Scope and purpose	44	61	60	71	<0.001
Stakeholder involvement	18	38	33	37	0.01
Rigour of development	14	41	43	44	0.003
Clarity and presentation	32	56	55	68	<0.001
Applicability	10	30	18	23	<0.001
Editorial independence	17	30	28	33	0.26

Engaging the right people, quality of evidence appraisal, providing useful tools, and competing interests have not improved in 14 years (1993-2007)

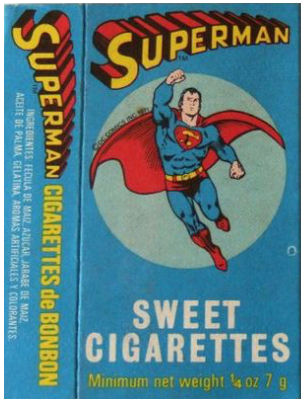
Qual Saf Health Care 2010;19:e58. doi:10.1136/qshc.2010.042077

Recent examples of Guideline **Quality/Rigour**

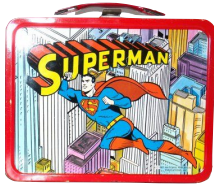
AGREE II (Appraisal of Guidelines for Research and Evaluation)

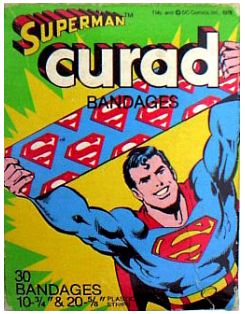
is the instrument typically used ***- 207 guidelines***

avg 55%	neuropathic pain - 16 CPGs - range 27%-88% - BMC Anesthesiology 2016;16:12
avg 30%	hypertension - 11 CPGS - range 8%-86% - PLoS ONE 2013 8(1): e53744
avg 32%	asthma - 18 CPGs - range 8%-64% - Chest 2013 144: 390-7
avg 48%	diabetes - 24 CPGs - range 0%-81% - PLoS ONE 2013 8(4): e58625
avg 20%	vancomycin - 12 CPGs - range 4%-73% - PLoS ONE 2013 9(6): e99044
avg 18%	hypertension (China) - 17 CPGs - range 1-36% - BMJ Open 2015;5:e008099
avg 8%	respiratory (China) - 109 CPGs - range 0%-27%- Chest 2015;148:759-766



Who writes/ sponsors guidelines?





Research

Contributors to primary care guidelines

What are their professions and how many of them have conflicts of interest?

G. Michael Allan MD CCFP Roni Kraut Aven Crawshay Christina Korownyk MD CCFP
Ben Vandermeer MSc Michael R. Kolber MD CCFP MSc

176 PRIMARY CARE guidelines in the CMA database

CONTRIBUTORS

54% non–family physician specialists
17% family physicians - 8% if industry sponsored
11% other clinicians
8% non-clinician scientists
6% nurses
3% pharmacists

69% of guidelines didn't report conflicts of interest

Can Fam Physician 2015;61:52-8

Guideline sponsorship

2009 - 2,300 guidelines in the National Guideline Clearinghouse

Guideline development

- 41% - medical speciality societies
- 22% - government agencies/nonprofit
- 17% - professional associations
- 9% - disease specific societies
- 4% - independent expert panels

at least 2/3 are being developed by groups with a clear potential for important biases

http://www.ncbi.nlm.nih.gov/books/NBK22928/

Prevalence of financial conflicts of interest among panel members producing clinical practice guidelines in Canada and United States: cross sectional study

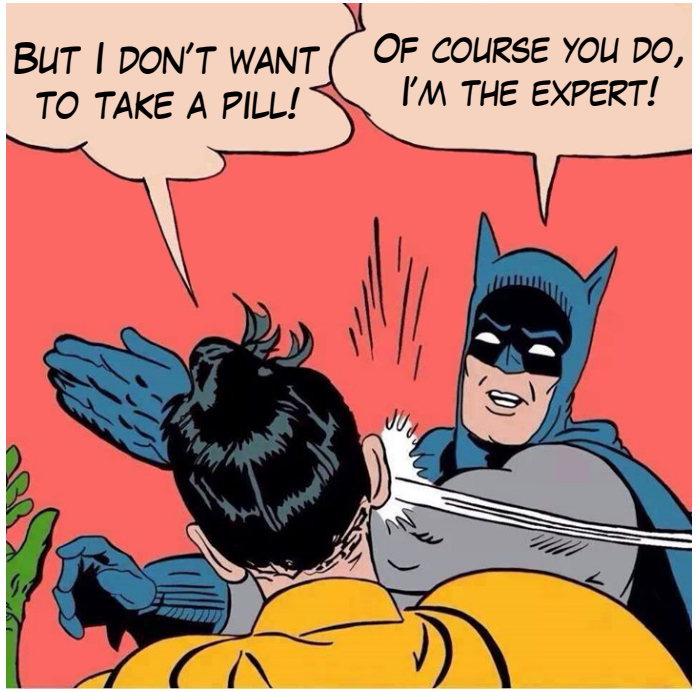
~50-80% of panel members on guidelines have financial COIs

BMJ 2011;343:d5621 doi: 10.1136/bmj.d5621

EVIDENCE BASED MEDICINE

Why we can't trust clinical guidelines BMJ;2013:346

Despite repeated calls to prohibit or limit conflicts of interests among authors and sponsors of clinical guidelines, the problem persists. **Jeanne Lenzer** investigates



How well do guidelines address patient values and preference?

Adding "value" to clinical practice guidelines

James P. McCormack PharmD Peter Loewen PharmD

5 Canadian Guidelines for
blood pressure, cholesterol, glucose, and bone density

197 PAGES - 90,000 WORDS

99(0.1%) words - relevant to
patients' values and preferences

Can Fam Physician 2007;53:1326-27

Management of Hyperglycemia in Type 2 Diabetes, 2015: A Patient-Centered Approach

Update to a Position Statement of the American Diabetes Association and the European Association for the Study of Diabetes

Diabetes Care 2015;38:140–149 | DOI: 10.2337/dc14-2441

Diabetes Care
THE JOURNAL OF CLINICAL AND APPLIED RESEARCH AND EDUCATION
January 2015 Volume 38, Supplement 1

Standards of Medical Care in Diabetes—2015

Diabetes Care January 2015

113 PAGES

Looked for info on

- Risk estimation (magnitude)
- Impact of treatment on risk
- Potential harms (magnitude)

"The information presented in these documents is glucose-centric and not organized or presented in a way that could be construed as supporting shared decision making"

Their response

“would like to thank McCormack et al for their thoughtful letter regarding the American Diabetes Association’s Standards of Medical Care in Diabetes”

“agrees that shared decision making is a valuable aspect of diabetes care … that process would be incredibly labor intensive and would make the Standards long and unwieldy”

“Clinical guidelines are the foundation for evidence-based medicine”

Guidelines

Hypertension Canada's 2016 Canadian Hypertension Education Program Guidelines for Blood Pressure Measurement, Diagnosis, Assessment of Risk, Prevention, and Treatment of Hypertension

~11,800 words - 20 pages

Total mention of values and preferences - 0.19% of the words

"Practitioners are advised to consider patient preferences, values, and clinical factors when determining how to best apply these recommendations at the bedside"

"In the absence of Canadian data to determine the accuracy of risk calculations, **avoid using absolute levels of risk** to support treatment decisions"

ACP American College of Physicians℠ Leading Internal Medicine, Improving Lives **2017** CLINICAL GUIDELINE

Treatment of Low Bone Density or Osteoporosis to Prevent Fractures in Men and Women: A Clinical Practice Guideline Update from the American College of Physicians

~8,700 words - 27 pages

Benefits

No numbers whatsoever for fracture risk or fracture benefit

Do present info in an appendix - new studies

Harms 2017

28 numeric mentions of side effects

6 absolute numbers

22 relative numbers

One mention of patient preferences

Recommendation 6: *ACP recommends that clinicians should make the decision whether to treat osteopenic women 65 years of age or older who are at a high risk for fracture based on a discussion of patient preferences, fracture risk profile, and benefits, harms, and costs of medications. (Grade: weak recommendation; low-quality evidence)*

ACP American College of Physicians℠
Leading Internal Medicine, Improving Lives

2017 CLINICAL GUIDELINE

Treatment of Low Bone Density or Osteoporosis to Prevent Fractures in Men and Women: A Clinical Practice Guideline Update from the American College of Physicians

Recommendations: Recommendation 1: *ACP recommends that clinicians offer pharmacologic treatment with alendronate, risedronate, zoledronic acid, or denosumab to reduce the risk for hip and vertebral fractures in women who have known osteoporosis. (Grade: strong recommendation; high-quality evidence)*

2017

"Evidence is insufficient to determine the comparative effectiveness of pharmacologic therapy or the superiority of one medication over another, within the same class or among classes, for prevention of fractures"

ACP American College of Physicians℠ Leading Internal Medicine, Improving Lives

2017 CLINICAL GUIDELINE

Treatment of Low Bone Density or Osteoporosis to Prevent Fractures in Men and Women: A Clinical Practice Guideline Update from the American College of Physicians

"The data do not support monitoring BMD during the initial 5 years of treatment in patients receiving pharmacologic agents to treat osteoporosis."

2017

Major Medical Associations Feud Over Diabetes Guidelines

March 5, 2018 · 5:01 PM ET

CLINICAL GUIDELINES | 6 MARCH 2018

Hemoglobin A_{1c} Targets for Glycemic Control With Pharmacologic Therapy for Nonpregnant Adults With Type 2 Diabetes Mellitus: A Guidance Statement Update From the American College of Physicians

"Clinicians should aim to achieve an HbA1c level **between**

7% and 8% in most patients with type 2 diabetes"

Because of harms - primarily internists

CONSENSUS STATEMENT BY THE AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS AND AMERICAN COLLEGE OF ENDOCRINOLOGY ON THE COMPREHENSIVE TYPE 2 DIABETES MANAGEMENT ALGORITHM – *2018 EXECUTIVE SUMMARY*

"**An A1C level of ≤6.5% is considered optimal** if it can be achieved in a safe and affordable manner, but higher targets may be appropriate for certain individuals and may change for a given individual over time."

Because of benefits - primarily endocrinologists

Patient benefit expectations

Factors involved in deciding to start preventive treatment: qualitative study of clinicians' and lay people's attitudes

David K Lewis, Jude Robinson, Ewan Wilkinson

Qualitative study using semi-structured interviews

"Many of the preferences expressed by the clinicians and lay people in this study are at odds with recommendations in guidelines"

BMJ 2003;327:841

Differing perceptions of intervention thresholds for fracture risk: a survey of patients and doctors

Did NOT ask patients to consider side effects or drug cost, just the dosing regimen, in the decision

"A typical patient in our study required a
50% absolute fracture risk and
50% relative risk reduction (giving an absolute risk reduction of 25%)
before considering long-term drug therapy"

A prominent current guideline …
recommends pharmacologic intervention at thresholds of
10- year risk of 20% for major osteoporotic fracture or
3% for hip fracture

125 (77%) of doctors would recommend treatment
24 (21%) of our patient cohort would consider treatment justified

Osteoporos Int 2012;23:2135–40

20 "NEGATIVE" STUDIES IN A ROW

From 2008-2015

LIPIDS

AIM-HIGH, HPS2-THRIVE (niacin)

ACCORD (fibrates)

dalOUTCOMES (dalcetrapib)

STABILITY (darapladib)

DIABETES

ACCORD, ADVANCE, VADT

(aggressive A1c lowering)

ROADMAP (olmesartan)

ORIGIN (insulin)

SAVOR-TIMI 53 (saxagliptin)

EXAMINE (alogliptin)

ALECARDIO (aleglitazar)

BLOOD PRESSURE

ALTITUDE (aliskiren)

VALISH, AASK, ACCORD

(aggressive BP lowering)

GENERAL

ACTIVE (irbesartan/afib)

CRESCENDO (rimonabant)

VISTA-16 (varespladib)

182,000+ patients

FINALLY, STARTING IN 2015…

1) EMPA-REG OUTCOME (empagliflozin) ~1.5% ARR (CVD) over 3 years
2) LEADER (liraglutide) ~ 2.5% ARR over 4 years
3) SPRINT (120mmHg vs 140mmHg) ~ 1.5% ARR (CVD) over 3 years but also ~1.5% ARI (Kidney)
4) HOPE 3 (statins) YES, BUT blood pressure no benefit
5) FOURIER (evolocumab) ~1.5% ARR over 2 years BUT $15,000/year
6) DECLARE-TIMI 58 (dapagliflozin) ~1% ARR (CVD) over 4 years
7) HARMONY (albiglutide) ~ 2% ARR (CVD) over 2.5 years

BUT!!!!!

ACCELERATE (evacetrapib) - ⇧ HDL (130%), ⇩ LDL (40%) - no CVD benefit
TECOS (sitagliptin) - no benefit over 3 years - 0.5% ARI (diabetic eye diseae)
CARMELINA - (linagliptin) - no benefit over 2 years

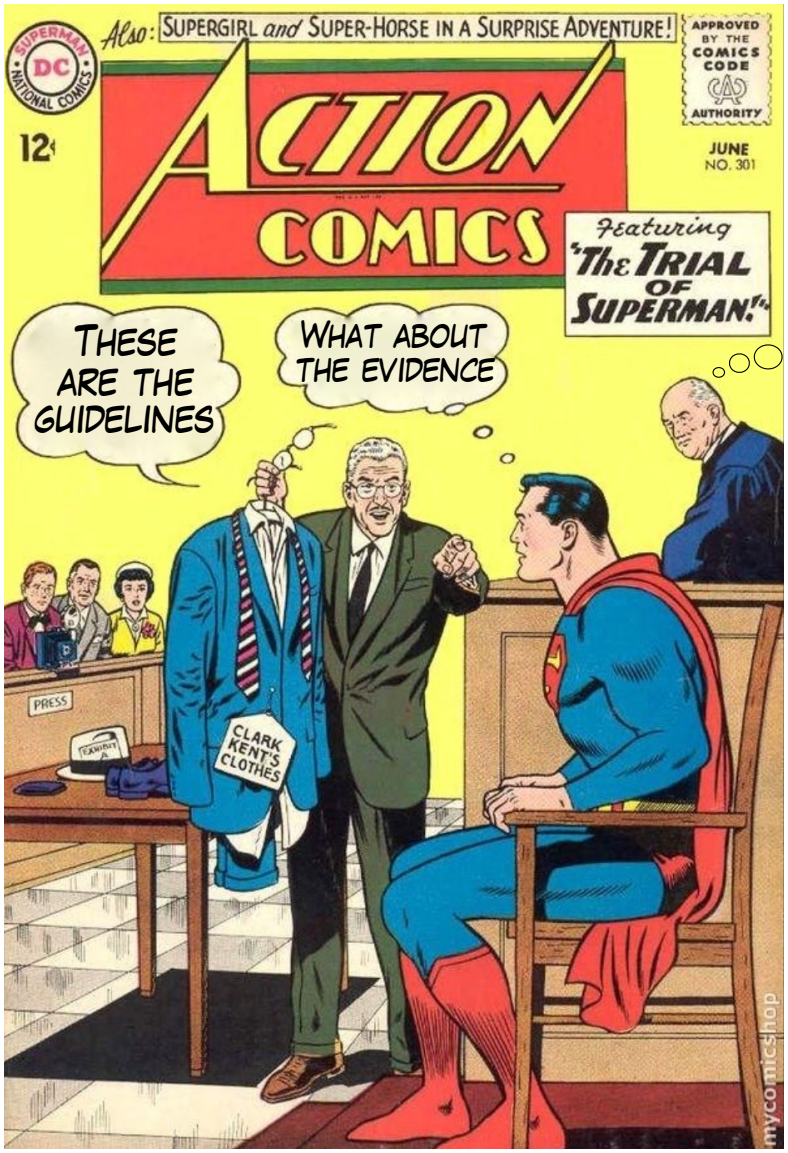
Patient preferences for shared decisions: A systematic review

Betty Chewning [a,*], Carma L. Bylund [b], Bupendra Shah [c], Neeraj K. Arora [d], Jennifer A. Gueguen [e], Gregory Makoul [f]

"In three quarters of the cancer studies … the majority of patients preferred shared or autonomous decision making. In contrast, this was true for only about half of the studies with non- disease specific study populations"

"the number of patients who prefer participation has increased over the past three decades so that the majority of patients prefer to participate in decisions"

Patient Educ Couns (2011), doi:10.1016/j.pec.2011.02.004



THE COURT ACTUALLY LIKES SHARED DECISION-MAKING

Guidelines and the Law

Guidelines and the Law

"As per the Canadian Medical Association Handbook on Clinical Practice Guidelines, guidelines should NOT be used as a legal resource in malpractice cases as "their more general nature renders them insensitive to the particular circumstances of the individual cases."

CJD
Canadian Journal of Diabetes
A Publication of the Professional Sections of the Canadian Diabetes Association
Une publication des sections professionnelles de l'Association canadienne du diabète
CONTENTS: April 2013 ▪ Volume 37 ▪ Supplement 1

CMPA
Empowering
better healthcare

The Bottom Line

Sep 2011

Even an authoritative CPG may NOT be found to be determinative of a standard of care.

It is prudent for physicians to be aware of authoritative clinical practice guidelines relevant to their practices. If a clinical decision may be perceived as being contrary to a recognized and accepted CPG, a physician, where appropriate, may consider the following steps: consult with a colleague or relevant specialist, discuss reasonable treatment options with the patient, and document the patient's consent for the chosen treatment.

If deviating from an established CPG, physicians should consider documenting the rationale for doing so, as well as any discussions with the patient about such variance.

Many courts (UK, US, CA)

"The reasonable-patient standard … requires physicians and other health care practitioners to disclose all relevant information about the risks, benefits, and alternatives of a proposed treatment that an **OBJECTIVE PATIENT** would find material in making an intelligent decision as to whether to agree to the proposed procedure"

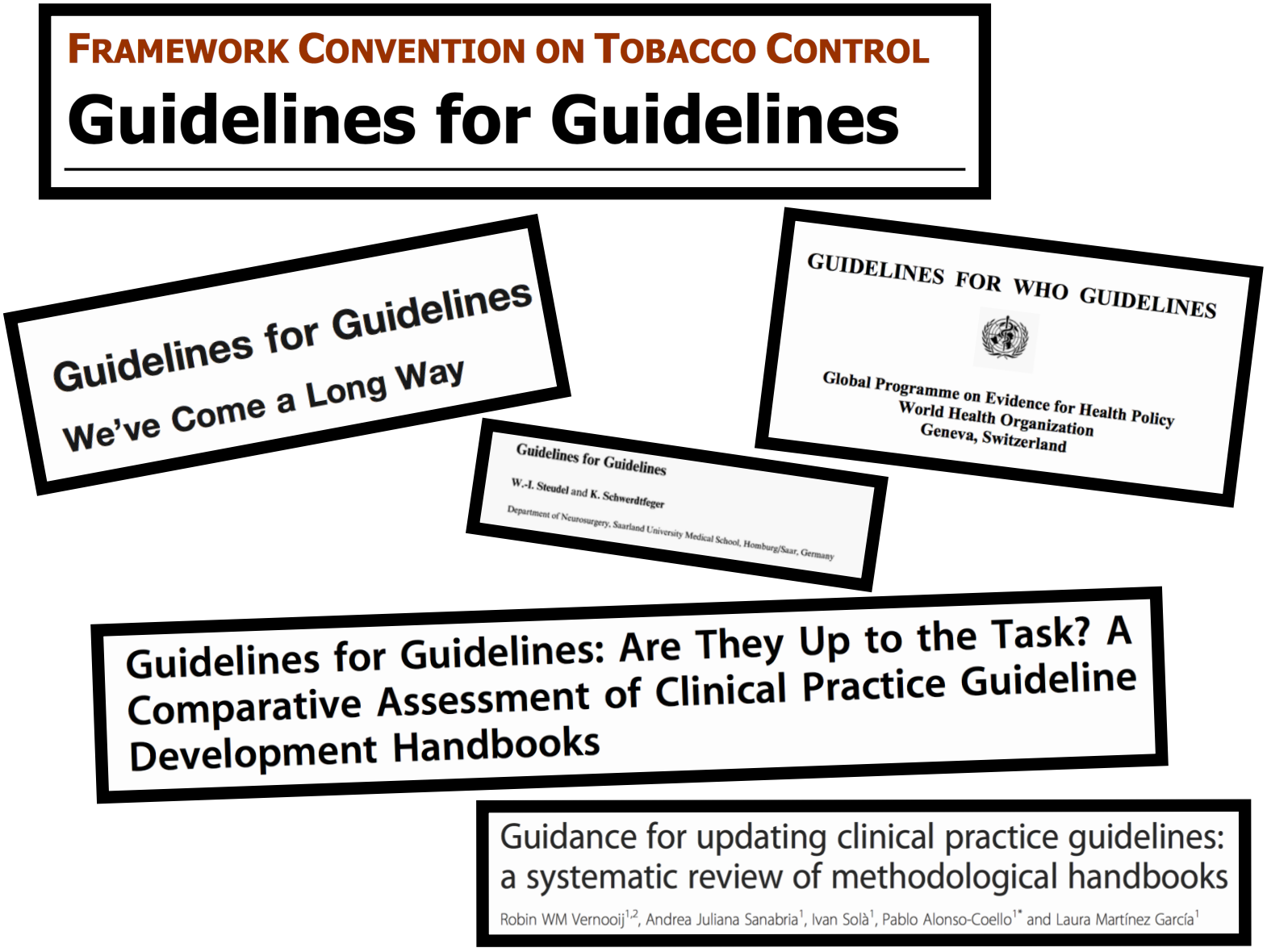
JAMA 2016;315:2063-4

CJHP JCPH
about register log in search
The Canadian Journal of Hospital Pharmacy
Le Journal canadien de la pharmacie hospitalière
▶▶▶ browse, search & read the CJHP online

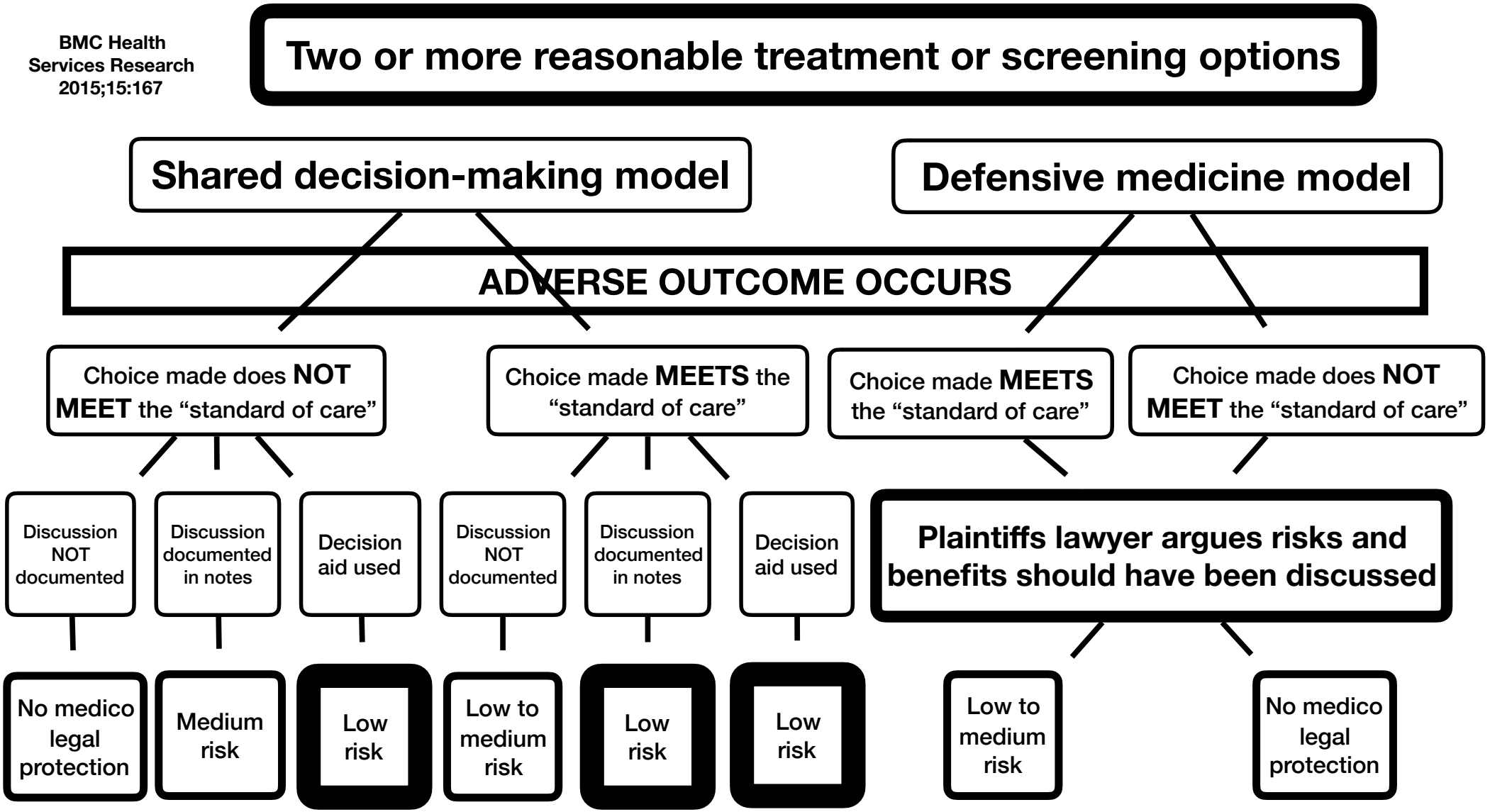
Can J Hosp Pharm. 2013 Jul-Aug; 66(4): 253–255. PMCID: PMC3743858

Should Clinical Practitioners, as Part of Institutional or Accreditation Standards, Be Required to Document Their Rationale When Choosing to Not Adhere to Widely Accepted Clinical Practice Guidelines?

"Although clinical practitioners should be encouraged to document their rationale for decision-making, accreditation bodies should avoid using guideline adherence as a surrogate marker for competency and should instead maintain a focus on patient outcomes as markers for assessment"


FRAMEWORK CONVENTION ON TOBACCO CONTROL
Guidelines for Guidelines
Guidelines for Guidelines
We've Come a Long Way
GUIDELINES FOR WHO GUIDELINES
Global Programme on Evidence for Health Policy
World Health Organization
Geneva, Switzerland
Guidelines for Guidelines
W.-I. Steudel and K. Schwerdtfeger
Department of Neurosurgery, Saarland University Medical School, Homburg/Saar, Germany
Guidelines for Guidelines: Are They Up to the Task? A Comparative Assessment of Clinical Practice Guideline Development Handbooks
Guidance for updating clinical practice guidelines: a systematic review of methodological handbooks
Robin WM Vernooij[1,2], Andrea Juliana Sanabria[1], Ivan Solà[1], Pablo Alonso-Coello[1*] and Laura Martínez García[1]

BMC Health Services Research 2015;15:167



There are LOTS of guidelines

Often don’t provide a solid synopsis/systematic review of the best available evidence

Often don't provide sufficient information to do shared-decision-making or even support the concept

Many “conflicts” and ownership issues

Patient expectations are often at odds with guideline recommendations

Legal precedents are leaning in favour of benefit/ harm communication

Education and Guidelines

Obviously inform you students that CPG's exist

We all need to discuss up front the limitations and issues of clinical practice guidelines

We need to know how to appraise and integrate the best available evidence

Admit we don't have answers for everything

We need to help you think for yourselves and use common-sense

Need to be allowed to make "mistakes"

It is totally OK to go "against" the guidelines

The Guideline Solution?

What should guidelines contain?

Who should write them?

What should they not contain?

Are there examples of well-done guidelines?

Guidelines should provide
ballpark estimates
of what happens if
you DON'T treat/test/screen
and if
you DO treat/test/screen

Guidelines would be awesome if they…

Were developed primarily by, and definitely for, the people that ultimately end up using them

Were a credible synopsis of the best available evidence presented in a way that clinicians could easily access and interpret

Allowed patient values and preferences to be taken into account

Simplified lipid guidelines

Prevention and management of cardiovascular disease in primary care

G. Michael Allan MD CCFP Adrienne J. Lindblad ACPR PharmD Ann Comeau MN NP CCN(C) John Coppola MD CCFP
Brianne Hudson MD CCFP Marco Mannarino MD CCFP Cindy McMinis Raj Padwal MD MSc
Christine Schelstraete Kelly Zarnke MD MSc FRCPC Scott Garrison MD PhD CCFP Candra Cotton
Christina Korownyk MD CCFP James McCormack PharmD Sharon Nickel Michael R. Kolber MD CCFP MSc

Can Fam Phy 2015;61:857-67

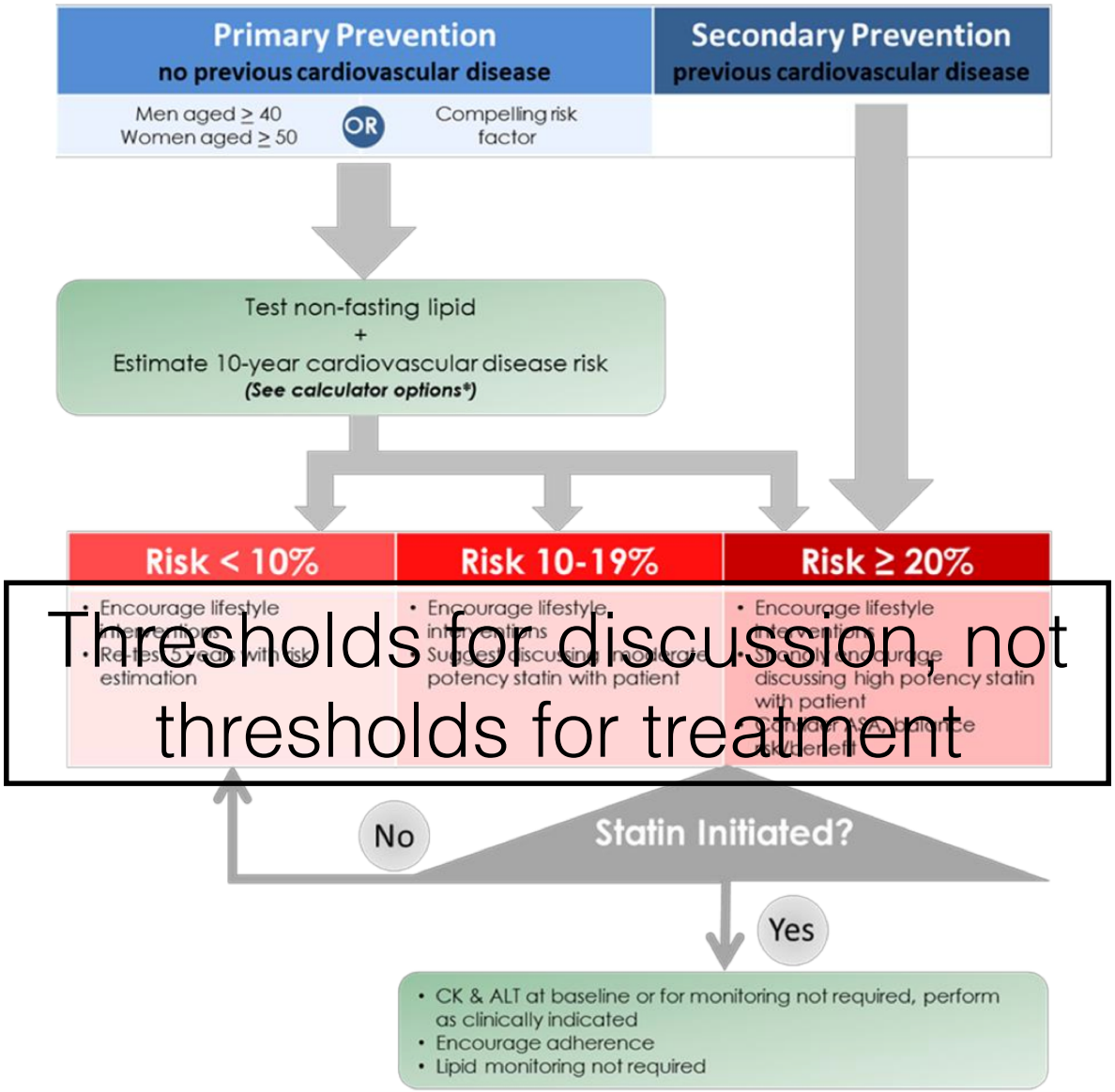
Thresholds for discussion NOT thresholds for treatment

CLINICAL PRACTICE GUIDELINES

Simplified guideline for prescribing medical cannabinoids in primary care

G. Michael Allan MD CCFP Jamil Ramji Danielle Perry Joey Ton PharmD Nathan P. Beahm PharmD
Nicole Crisp RN MN NP-Adult Beverly Dockrill RN Ruth E. Dubin MD PhD FCFP DCAPM Ted Findlay DO CCFP FCFP
Jessica Kirkwood MD CCFP Michael Fleming MD CCFP FCFP Ken Makus MD FRCPC Xiaofu Zhu MD FRCPC
Christina Korownyk MD CCFP Michael R. Kolber MD CCFP MSc James McCormack PharmD Sharon Nickel
Guillermina Noël MDes PhD Adrienne J. Lindblad ACPR PharmD

Can Fam Phy 2018;64:111-120



Thresholds for discussion, not thresholds for treatment

Reducing Your Risk for Heart Attacks & Strokes

A SHIFT IN THINKING...

What's Changed?

If you asked anyone how to reduce your risk of a heart attack or stroke you'd likely hear them mention the need to lower your cholesterol.

CHOLESTEROL ONLY TELLS US PART OF YOUR HEART HEALTH STORY

However, many studies have shown improving cholesterol does not always reduce risk of cardiovascular disease (heart attack or stroke). By worrying only about cholesterol we might miss helping the right people because cholesterol is only one risk

Medication

Statin therapy should be discussed with all people with moderate to high cardiovascular risk (10% or more). Your healthcare provider can explain your risk and how statins can reduce that risk by 25-35%.

STATINS CAN REDUCE YOUR RISK OF HEART ATTACK AND STROKE BY 25% TO 35%

A low-dose of ASA (Aspirin®) may also be recommended for further risk reduction if you are at high cardiovascular risk (20% or more) or have had a heart attack or stroke. ASA reduces cardiovascular risk by about 12.5% (half or third as effective as statins). Note – ASA can cause bleeding.

What are the side effects of statins?

All drugs come with

Most Common

1 in every 10 to 20 people – muscle aches or stiffness*

1 in every 10,000

Are statins right for you?

You decide. Speak with your healthcare provider about your risk of cardiovascular disease and the benefits and risks of taking statins. Regardless of your decision, your healthcare provider will support you!

This number is an educated guess of your chances of developing cardiovascular disease in the next 10 years. For example, a 10% risk means you have about a 1 in 10 chance of having a heart attack or stroke in the next 10 years.

What can you do to reduce your risk of heart attack or stroke?

Eat healthy – be active – don't smoke

These lifestyle choices reduce your risk of cardiovascular disease and benefit your overall health.

EXERCISE OR A MEDITERRANEAN DIET CAN REDUCE YOUR RISK OF HEART ATTACK AND STROKE BY 30%

tested?

Not taking a statin → You should continue to have your cholesterol tested every 5 years.

Taking a statin → No. Once you have decided to take a statin a cholesterol test is unnecessary – statins help to reduce your cardiovascular risk no matter what your cholesterol level. So knowing your cholesterol level would not change your treatment plan.

Are statins right for you?

You decide. Speak with your healthcare provider about your risk of cardiovascular disease and the benefits and risks of taking statins. Regardless of your decision, your healthcare provider will support you!

Alberta College of Family Physicians

The College of Family Physicians of Canada | Le Collège des médecins de famille du Canada

TOP Toward Optimized Practice

Education and Guidelines

Obviously inform students that CPG's exist

Need to discuss up front the limitations and issues of clinical practice guidelines

Need to know how to appraise and integrate the best available evidence

Admit we don't have answers for everything

Need to help students think for themselves and use common-sense

Need to be allowed to make "mistakes"

It is totally OK to go "against" the guidelines

It’s all about figuring out

The Chance of “X”

WITH NO

TREATMENT/TEST

The Chance “X”

WITH

TREATMENT/TEST

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EDITORIALS

Introduction to *BMJ* Rapid Recommendations

New BMJ collaboration accelerates evidence into practice to answer the questions that matter quickly and transparently through trustworthy recommendations

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