
LESS IS MORE
James McCormack
BSc (Pharm), PharmD
Professor
Faculty of Pharmaceutical Sciences
University of British Columbia
Vancouver, BC, Canada
MORE OR LESS
therapeuticseducation.org
medicationmythbusters.com
TO GET A HANDOUT GO HERE
http://therapeuticseducation.org/handouts

- ☑ I have received no honorarium or research money from the drug industry in the last 23 or so years
- ☑ Salary comes through the UBC Faculty of Pharmaceutical Sciences- (legal work)
- ☑ Premium podcast subscription Best Science (BS) Medicine podcast - therapeuticseducation.org
- ☑ iOS apps (iPad/iPhone) KidneyCalc and MyStudies - mystudies.org

ME

Mike Allan

BS without the BS

The Agenda

Start by making you the patient

Cardiovascular risk reduction, diabetes, infectious diseases, a variety of symptomatic conditions including heartburn, acute pain etc.

best available evidence, choosing low doses, shared decision making, how to stop medications etc.

PHILOSOPHY - once you “know” the evidence - decision making/ doing the right thing/choosing wisely/less is more

The 10 “New” Therapeutic Commandments - evidence, tools, myths

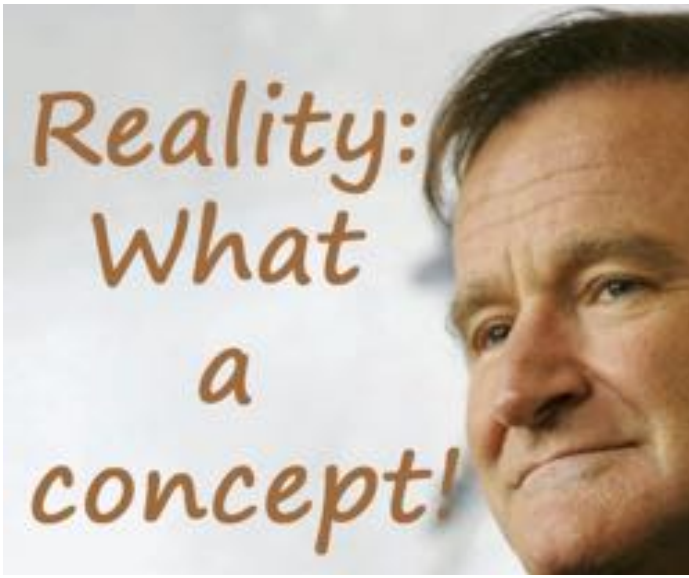
Polypharmacy case

Have fun, engage, ask questions, debate, be open-minded

The Concept for the Concept

NEVER use what I'm going to say/ recommend on your exams

ALWAYS consider these concepts when you are face-to-face with a real live patient



What Will You Do?

You are approximately 45 y/o

You have been diagnosed “properly” with elevated blood pressure

You have tried non-drug measures for 6 months and still your blood pressure remains elevated

QUESTION

ABOVE what blood pressure would YOU take a drug every day for the next 5 years?

What drug and dose would you start with?

What Will You Do?

You are approximately how old you are

You have been diagnosed “properly” with community acquired pneumonia

QUESTION

What drug, dose and duration would you take?

We need minimally disruptive medicine

The burden of treatment for many people with complex, chronic, comorbidities reduces their capacity to collaborate in their care. **Carl May, Victor Montori**, and **Frances Mair** argue that to be effective, care must be less disruptive

BMJ 2009;339:b2803

antibiotics

thiazides

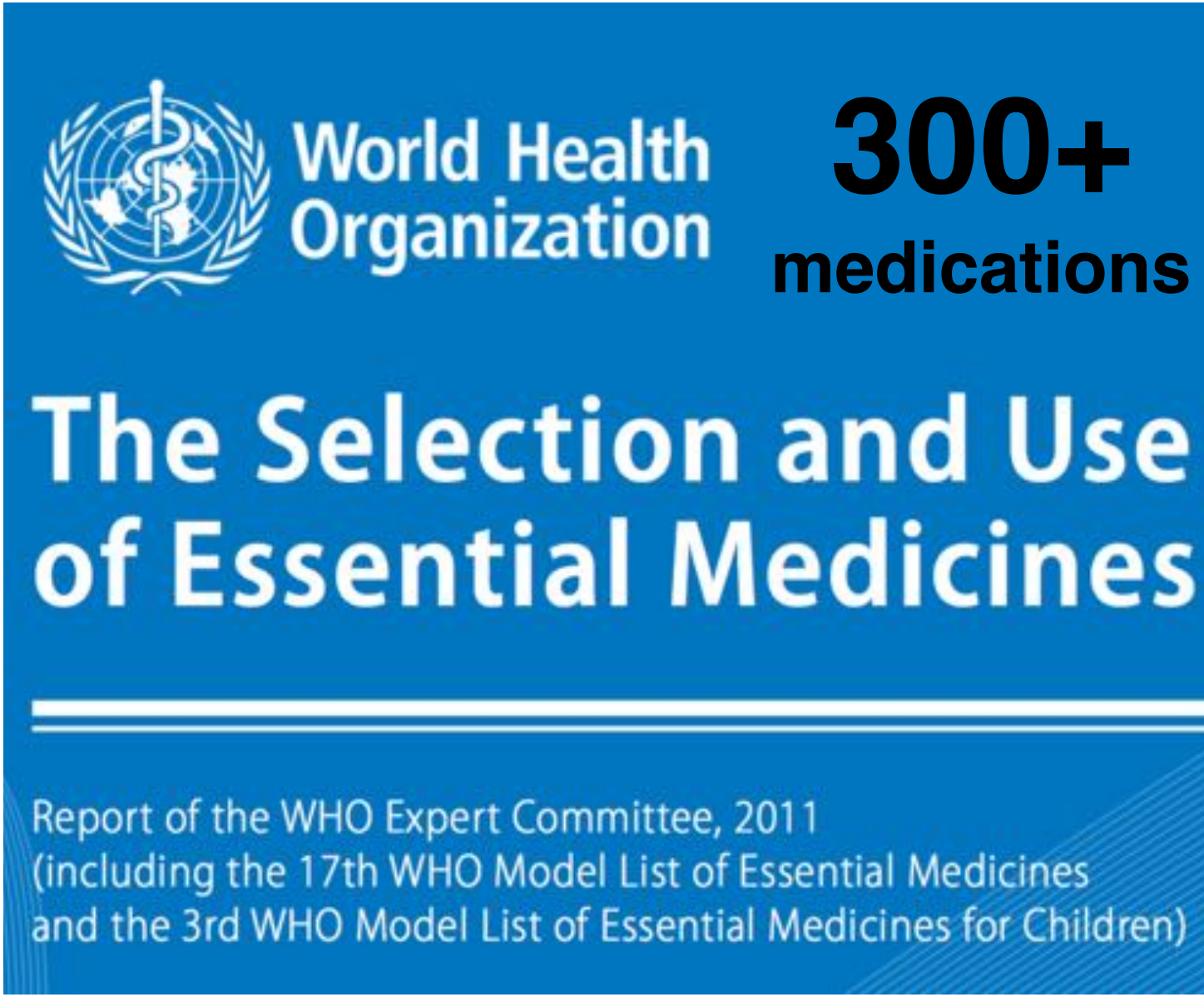
many vaccines

ACE inhibitors

proton pump inhibitors

H2 receptor antagonists

contraceptives



corticosteroids

narcotics

beta-agonists

anesthetics

warfarin

chemotherapy

insulin

adrenalin

thebmj

The BMJ

The BMJ Today: Choosing Wisely makes me happy

7 Jul, 14 | by BMJ

Sometimes we all need cheering up on a Monday morning, and today I couldn't recommend more highly this parody of "Happy" by Pharrell Williams, which sings the virtues of the Choosing Wisely campaign.

Featuring some very sprightly OAPs and lyrics such as "antibiotics for a cold will do nothing but make you ill, a routine screen for many things is often overkill," the song perfectly encapsulates the Choosing Wisely campaign, which is building up steam in the USA and Canada.

The Bullshit Asymmetry

the amount of energy needed
to refute bullshit is an order of
magnitude bigger than to produce it

“Medical science has made such tremendous progress that there is hardly a healthy human left.”

Aldous Huxley

Written by R Lehman, J McCormack, T Perry, A Tejani, J Yudkin

The 10 New Therapeutic Commandments

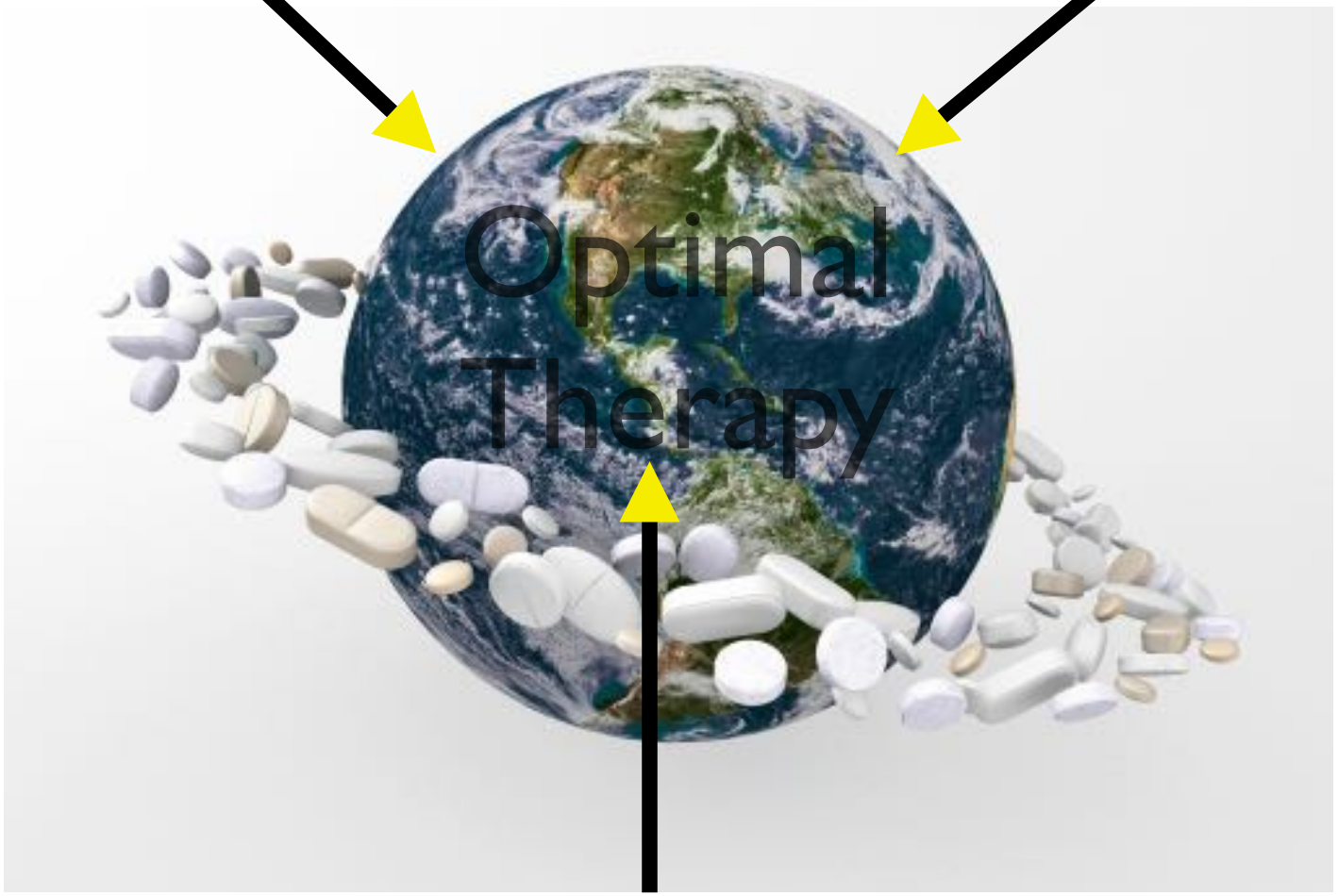
Have no aim except to help patients according to their goals
Always seek knowledge of the benefits, harms, and costs of treatment
If all else fails consider watchful waiting
Honour balanced sources of knowledge
Treat according to level of risk and not to level of risk factor
Not bow down to treatment targets
Honour thy elderly patient
Not pile one treatment upon another
Diligently try to find the best treatment for the individual
Start with the lowest dose possible

1. HAVE NO AIM EXCEPT TO HELP PATIENTS ACCORDING TO THEIR GOALS

World of Optimal Therapy

Patient-Centered

Evidence-Based



Interprofessional

“Choice is a gift from the patient to the doctor, not the other way around”

BMJ 2000;320:874

Loss Of The Individual

"This kind of utilitarian medicine that treats every individual as identical can easily erode the stature and autonomy of patients"

What this involves

Listening and not interrupting

Eliciting facts and experiences without selective bias

The sharing of knowledge

Ultimately a joint process of decision-making

"a physician should order a test only if he or she plans to change therapy as a result"

Susan Ott, MD
Professor
Department of Medicine
University of Washington

II. ALWAYS SEEK KNOWLEDGE OF THE BENEFITS, HARMS, AND COSTS OF TREATMENT

We are knowledge brokers

Knowing the evidence
=
Empowerment

Memorise how to do things - difficult and doesn't require you to think

Have an awareness of the evidence - much easier AND requires you to think

Know what isn't known

Patient choice - not wrong or right thing

Approach to prevention is very different than it is to symptom control

Knowing the evidence leads to a far more satisfying practice

Top 10 reasons for MD visits

Skin disorders, including cysts, acne and dermatitis
Joint disorders, including osteoarthritis
Back problems
Cholesterol problems
Upper respiratory conditions
Anxiety, bipolar disorder and depression
Chronic neurologic disorders
High blood pressure
Headaches and migraines
Diabetes

Mayo Clinic Proceedings 2013;88:56-67

Top 10 reasons for MD visits

RISK REDUCTION
Cholesterol problems
High blood pressure
Diabetes

SKIN DISORDERS
Cysts, acne and dermatitis

PAIN CONTROL
Joint disorders, including osteoarthritis
Back problems
Headaches and migraines

PSYCH/NEURO
Anxiety, bipolar disorder and depression
Chronic neurologic disorders

INFECTIOUS DISEASES
Upper respiratory conditions

Describing Benefits

The chance of "X"

WITH NO TREATMENT

The chance of "X"

WITH TREATMENT

Numbers

	Major coronary events (%)	
	Primary	Secondary
Placebo	5	15
Statin	4	11
RRR	20	25
ARR	1	4
NNT	100	25

Baseline risk
RRR, ARR, NNT
Difference between groups

Penicillin for sore throat

NNT for sore throat at 3 days ~ 6

more effective if Strep + throat swab (RR 0.58 vs 0.78)

NNT for sore throat at 1 week ~ 20

more effective if Strep + throat swab (RR 0.29 vs 0.73)

Symptoms are shortened by ~ 16 hours

NNH for rash or diarrhoea ~10

~1/40,000 severe allergic reaction

CD000023

Antibiotics for otitis media

NNT for pain at 24 hours ~ ∞? 20?

NNT for pain at 2-3+4-7 days ~ 20

NNT for tympanic membrane perforation ~ 33

NNH for rash/diarrhoea/skinrash ~15

Delayed ABX no difference

CD000219

Flu Shot

~ 70-90% effective - using antibodies as the diagnosis
~ 60% effective - if use culture endpoints
~ 85% effective - nasal spray in children 6 months to 6 years old

Every year 1-10% adults get the flu

~ 5% - therefore reduced to 1% - less if unmatched

5-20% per year in children

~10% - therefore reduced to 2%

5% down to 2% (1%) in adults

10% down to 4% (2%) in children

Heartburn

Indication	Outcome	Placebo/no treatment (%)	H2RA (%)	PPI (%)	NNT (PPI vs placebo)
GERD-like symptoms (CD002095)	Heartburn remission	25-40	55	70*	2-3
NSAID ulcer prevention (CD002296)	Clinical ulcers over 6-12 months	0.5-2	No studies	No studies	-
	Endoscopic ulcers at 12 weeks or longer	35	15 high dose H2RA	15	5

*high dose provides approximately a 5% absolute increase in benefit

Pain

The best non-narcotic acute pain killer - dental pain, headache etc

NSAID plus acetaminophen 1000 mg

Naproxen 250 mg/Ibuprofen 400 mg

FULL glass of water - lie on right side

Neuropathic pain

post herpetic neuralgia/diabetic neuropathy

Gabapentin

Moderate improvement 43% (G) vs 26% (P) - NNT~6

Substantial improvement 31% (G) vs 17% (P) - NNT~7

dizziness, sedation, confusion, ataxia, peripheral edema - NNH ~8

CD007938

A test of benefit/harm can be made after 1-2 days at a low dose (100-900 mg/day)

Benefit is unlikely to increase with higher doses or longer treatment

Erectile dysfunction

"Successful" attempts in the sildenafil group ≈ 70%

"Patients" who "responded" in the placebo group ≈ 20%

7/10 "patients" will "respond" each time to sildenafil

2 of these 7 "responded" not because of the drug - NNB of 2

10% headache, 15% flushing, 10% dyspepsia - <1% stopped drug due to side effects

N Engl J Med 1998;338:1397-404

Depression

Patients who respond in the SSRI group ≈ 60%

40% in primary care? Am J Psychiatry 2009; 166:599–607

Patients who respond in the placebo group ≈ 45%

6/10 patients will respond to an antidepressant

4-5 of these 6 improved not because of the drug - NNT of 6-7

CD007954

Accutane/Epuris

10, 20 and 40 mg capsules

Therapeutic Choices - 0.5-2 mg/kg/day for 12-16 weeks
60 kg = 30 to 120 mg/day
"Low dose" was considered 0.5 mg/kg/day and there was a cumulative dose of 120-150 mg/kg

Start with 10 mg a day and continue until all lesions are gone and then continue for 2-4 months at 5 mg/day or 10 mg every other day

Australasian J of Dermatol 2013;54:157–62
Indian J Dermatol Venereol Leprol 2010;76:7-13

ORIGINAL ARTICLE

Isotretinoin 5 mg daily for low-grade adult acne vulgaris – a placebo-controlled, randomized double-blind study

Journal of the European Academy of Dermatology and Venereology 2013

Misleading Terminology

"Significant"
"Use with caution"
"Use with extreme caution"
"Monitor closely"
"High risk"
"Very high risk"
"Really !@#$% high risk"

Beware of "qualitative quantification"

Qualitative descriptor	EU assigned frequency	Mean frequency estimated by participants (n=200)
Very common	>10%	65% (24·2)
Common	1–10%	45% (22·3)
Uncommon	0·1–1%	18% (13·3)
Rare	0·01–0·1%	8% (7·5)
Very rare	<0·01%	4% (6·7)

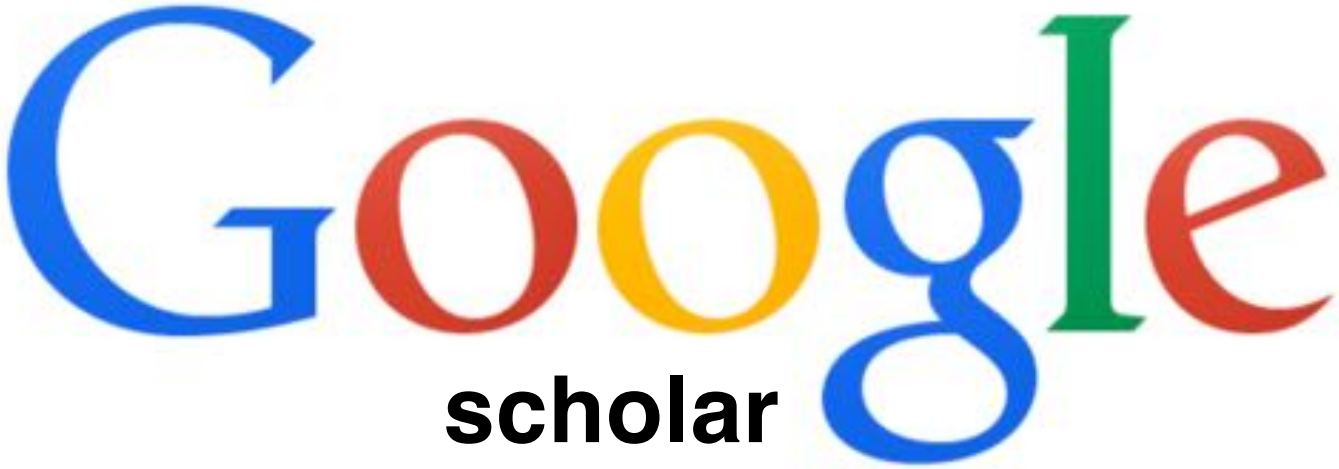
Values are mean (SD).

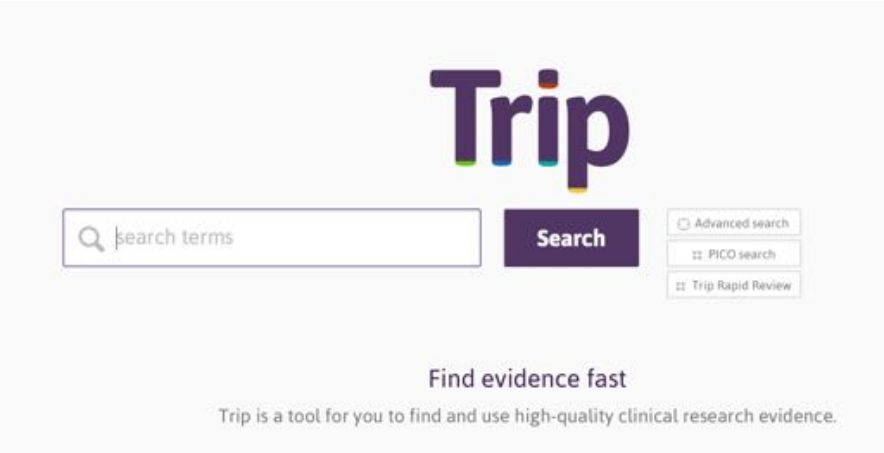
Lancet 2002;359:853–54

III. HONOUR BALANCED SOURCES OF KNOWLEDGE

LOVE THEM!

They are my BFF





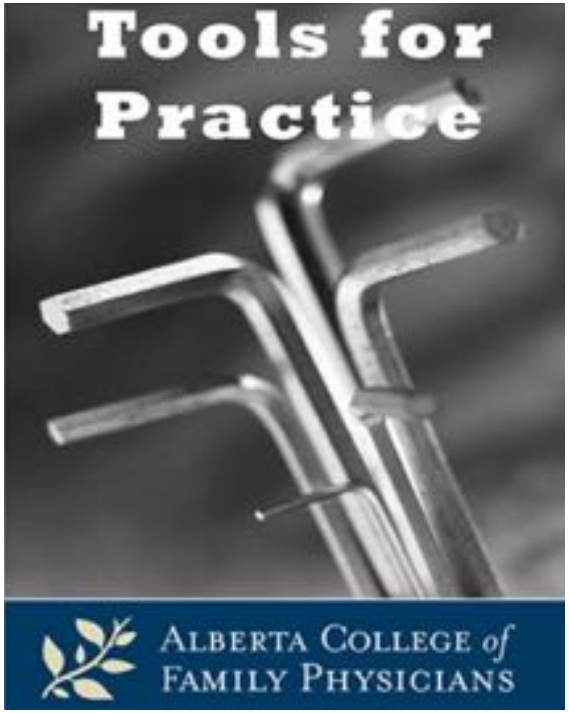
Trip Database - a clinical search tool designed to allow health professionals to rapidly identify the highest quality clinical evidence for clinical practice

Cochrane Library - full-text access, regularly updated systematic reviews by the Cochrane Collaboration. Includes completed systematic reviews and review protocols in development.

Pubmed-Medline - broadly covers biomedical literature. The indexing data for Medline comes from the US National Library of Medicine.

OvidSP-Embase - indexes biomedical literature, with strengths in pharmaceutical information and the European and Japanese literature

Tools for Practice



Sponsored by: Alberta College of Family Physicians
http://www.acfp.ca/tfp_original.php
Every two weeks: <350 words Evidence-based review of a focused clinical question
Selected articles in: Canadian Family Physician and on PubMed

How to Critically Appraise an RCT in 10 minutes - free iBook

Free Book

Get Sample

Send a sample of this book to iBooks on your devices that have Automatic Downloads enabled.

This book includes audio, video, and other interactive materials.

Category: Medical
Published: Jul 04, 2012
Publisher: James McCormack
Seller: Therapeutics Education Collaboration
Print Length: 17 Pages
Size: 79.1 MB
Language: English

Requirements: This book can only be viewed using iBooks 2 or later on an iPad with iOS 5 or later.

How to Critically Appraise an RCT In 10 Minutes

Description

If the thought of reviewing a clinical study seems like an insurmountable task, this book was developed to show you how to critically evaluate a randomized controlled trial in around 10 minutes.

FREE

IV. NOT BOW DOWN TO TREATMENT TARGETS

Outcomes Are Not Created EQUAL Surrogate Markers

Ask yourself: Can a patient feel the outcome?

If No - it is a surrogate marker

20 "NEGATIVE" STUDIES IN A ROW

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!!!!

EMPA-REG OUTCOME (empagliflozin) -1.6% ARR over 3.1 years

SPRINT (120mmHg vs 140mmHg) - but no data

Risk of future illness
CVD risk/benefit

(most people don't benefit despite a lifetime of treatment)

Assume a person's lifetime risk of CVD is that of a male with two CVD risk factors - roughly 50% (NEJM 2012;366:321-9)

Assume that with multiple risk factor modification we can reduce that risk relatively by 60% (VERY optimistic)

Risk goes from 50% ➡ 20%

30% of individuals BENEFIT

70% DO NOT despite a LIFETIME of treatment

Risk MARKERS - lots

(risk assessment)

vs

Risk FACTORS - few

(treat)

1967

Effects of Treatment on Morbidity in Hypertension

Results in Patients With Diastolic Blood Pressures Averaging 115 Through 129 mm Hg

Veterans Administration Cooperative Study Group on Antihypertensive Agents

Lower BP in patients with average DBP of 121 mmHg - 19 months

Placebo - 70 patients - 27 CVD events - 4 deaths

Drug - 73 patients - 2 events - 0 deaths

2009 Canadian Cardiovascular Society/Canadian guidelines for the diagnosis and treatment of dyslipidemia and prevention of cardiovascular disease in the adult – 2009 recommendations

TARGETS OF THERAPY

Risk level	Primary target: LDL-C	Class, level
High	<2 mmol/L	Class I, level A
CAD, PVD, atherosclerosis	or	
Most patients with diabetes	≥50% ↓ LDL-C	
FRS ≥20%	apoB <0.80 g/L	
RRS ≥20%		
Moderate	<2 mmol/L*	Class IIa, level A
FRS 10% to 19%	or	
LDL-C >3.5 mmol/L	≥50% ↓ LDL-C	
TC/HDL-C >5.0	apoB <0.80 g/L	
hs-CRP >2 mg/L in men >50 years and women >60 years of age		
Family history and hs-CRP modulate risk		
Low	≥50% ↓ LDL-C	Class IIa, level A
FRS <10%		

Level A = recommendation based on evidence from multiple randomized trials or meta-analyses

2013 ACC/AHA Guideline on the Treatment of Blood Cholesterol to Reduce Atherosclerotic Cardiovascular Risk in Adults

"The Expert Panel was unable to find RCT evidence to support titrating cholesterol-lowering drug therapy to achieve target LDL–C or non-HDL-C levels, as recommended by ATP III"

Effectiveness of Estrogens for Therapy of Myocardial Infarction in Middle-Age Men

JAMA
1963;183:106-12

10 mg versus placebo - over 5 years
Cardio/renal event - first 3 months - 22% vs 5% - but mortality lower at 5 years therefore a new trial suggested
"Feminizing effect" - 40% vs 30%

The Coronary Drug Project

Initial Findings Leading to Modifications of Its Research Protocol

The Coronary Drug Project Research Group

Terminated early

JAMA 1970;214:1303-13

5 mg versus placebo - over 18 months
Definite non-fatal MI - 6.2% vs 3.2%
Pulmonary embolism - 1.5% vs 0.4%
Excessive shopping - 80% vs 3%

Overdiagnosis/overtreatment

=

the diagnosis/treatment of a condition which a person fully informed by the best available evidence would not want.


I'VE BEEN LABELLED
TYPE 2 DIABETES
IBD
BS
CVD
SILENT THIEF
SILENT KILLER
CRP
BMW
DOA
OSTEOPOROSIS
DSM 5
SAD
CHRONIC FATIGUE
GAD
HDL
METABOLIC SYNDROME
OSTEOPENIA
ADHD
IBS
CAD
ED
TLC
HIGH CHOLESTEROL
PRE-HYPERTENSION
DEPRESSION
PSA
POLYMYALGIA
GET MILK
TAKE OUT THE GARBAGE
LOW T
LDL
SBP
A1c
OBESE
SFA
WALK THE DOG
PRE-DIABETES
BMI
BMD
STD
CHD
FU
DBP

Real "Targets"

FOR RISK REDUCTION

Patient has had the benefits and risks of therapy explained to them and they have made a shared-decision

FOR SYMPTOM CONTROL

Patient has received the least expensive therapy at the lowest dose that effectively controls their symptoms

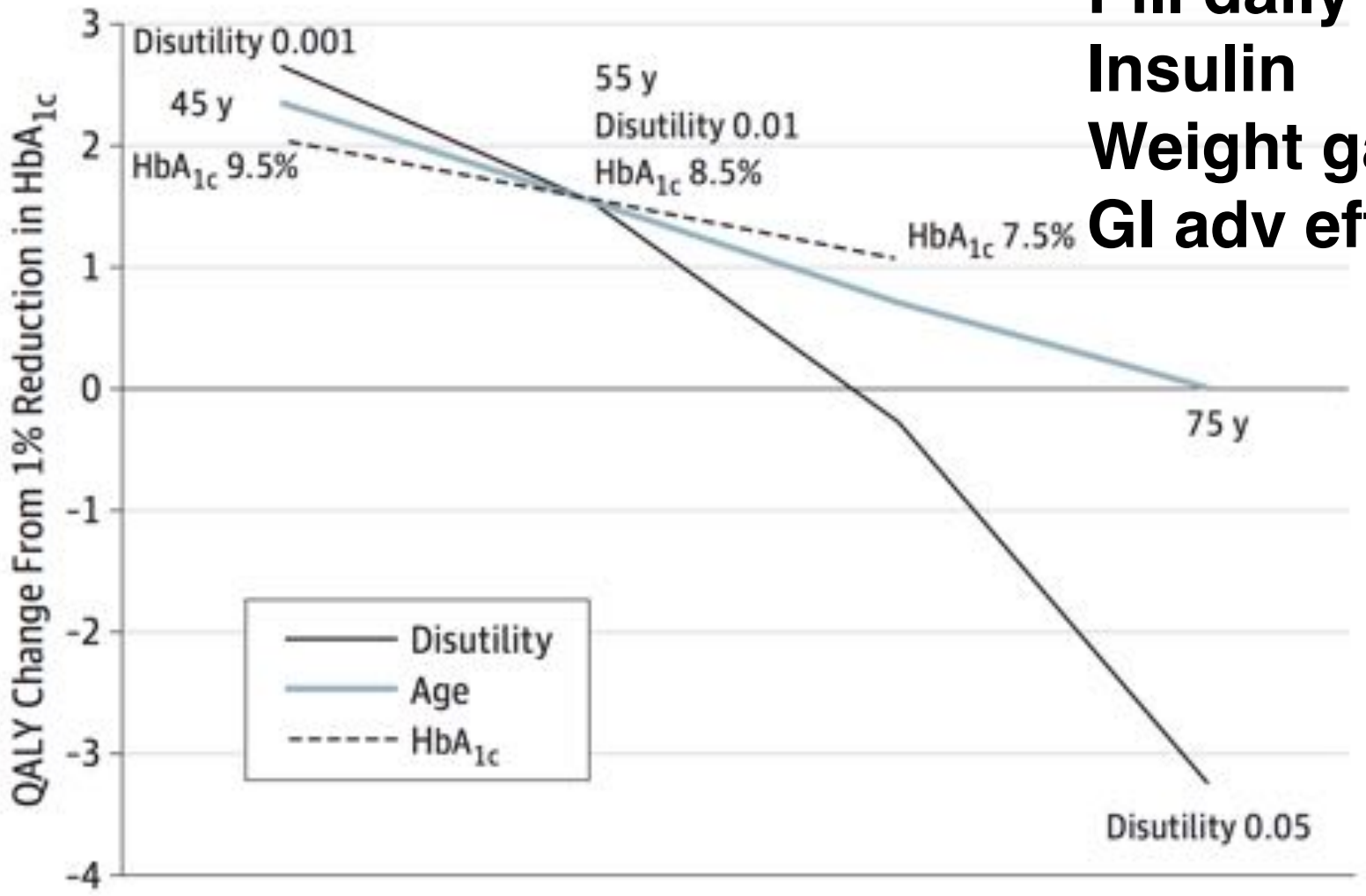
T2DM - Lifetime Treatment Benefits - absolute risk reduction

	Age	ESRD	Vision Loss	Amputation	First MI
Metformin at diagnosis	45	6.5	2.1	2.7	2.6
	55	4.2	1.6	2.2	4.0
	65	2.1	1.0	1.5	3.7
	75	0.7	0.5	0.8	2.7
Switch to Insulin after 10 years	45	1.3	0.4	0.4	1.0
	55	0.7	0.2	0.3	0.8
	65	0.3	0.1	0.2	0.6
	75	0.1	0	0.1	0.3

UKPDS - most optimistic

JAMA Intern Med. doi:10.1001/jamainternmed.2014.2894

Figure 2. Sensitivity Analysis: Changes in Quality-Adjusted Life Years (QALYs) per 100 Treatment Years



Dysutility	Estimate
Pill daily	0.001
Insulin	0.02-0.12
Weight gain	0.04
GI adv effe	0.04

Variability in gains in QALYs from a 1% reduction in hemoglobin A_{1c} (HbA_{1c}) level for various age, utility, and starting HbA_{1c} values.

“Pre-diabetes could be defined as a risk factor for developing a risk factor.”

Yudkin J, Montori V

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

Risk estimation

no mention or discussion of the magnitude, in relative or absolute terms, of any adverse clinical endpoints associated with elevated glucose

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

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Standards of Medical Care in Diabetes—2015

Diabetes Care January 2015

Impact of treatment

no mention of the magnitude with regards to retinopathy/ kidney disease/neuropathies

CVD - “16% reduction in events” and “reductions in MI” (15% sulfony/insulin, 33% met) and “in all-cause mortality (13% and 27%, respectively) from the UKPDS/ 10 year follow-up

“every HbA1c reduction of 1% may be associated with a 15% relative risk reduction in nonfatal myocardial infarction, but without benefits on stroke or all-cause mortality” and a 9% “reduction in major CVD outcomes”

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

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Standards of Medical Care in Diabetes—2015

Diabetes Care January 2015

Potential Harms

12 classes of medications mentioned

~50 disadvantages/harms are listed in tables

nowhere in the tables, and only twice in the documents, are absolute numbers for side effects provided (SGLT2 inhibitors/mycotic infections and DPP-4/heart failure)

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”

V. TREAT ACCORDING TO LEVEL OF RISK AND NOT TO LEVEL OF RISK FACTOR

Evidence-based risk communication

"There is likely no single best method of communicating probabilities to patients but rather several good options with some better suited to certain risk scenarios."

Ann Intern Med 2014;161:270-80

Recommended approaches

GENERAL SUGGESTIONS - these are “relative”
use percentages or natural frequencies(numerator/denominator)
use absolute terms
add bar graphs or icon arrays
use incremental risk format with icon arrays in the same array

- avoid use of NNTs

if use relative risks add baseline risks

Ann Intern Med 2014;161:270-80

Cardiovascular Risk/Benefit Calculator

Please provide feedback and suggestions to james.mccormack@ubc.ca. For more detailed information and acronym definitions etc see the FAQ. For important calculator caveats click here.

CVD | CHD | Heart Attacks | Strokes | ASCVD

Risk Time Period
10 years

Age
50 years

Gender Male **Female**

Smoker Yes **No**
CVD risk is reversed after 5-10 years of no smoking

Diabetes Yes **No**

Systolic Blood Pressure
120 mmHg
120 mmHg is used for baseline risk

Total Cholesterol
3 mmol/L
3 mmol/L is used for baseline risk.
Click to change to mg/dL

HDL Cholesterol
1.3 mmol/L
1.3 mmol/L is used for baseline risk.

Relative Benefit: 0%
Benefit often has *nothing* to do with the effect on the surrogate marker. At present, you can only select one intervention at a time.

Physical Activity
Mediterranean Diet vs Low fat
BP meds (not atenolol/doxazosin)
Statins | Fibrates | Niacin
Ezetimibe | Metformin
Sulfonylureas | Insulins | Glitazones
GLPs | DPP-4s | Meglitinides
ASA

Benefit Estimate Details

Family History of Early CHD
If CHD in men < 55 years, women < 65 years - increase risk by 50%. If no family history - decrease estimates by 33%.

Adjust Overall Risk
100 %
Use to adjust risk based on family history or if patient is at a lower/higher risk than the Framingham cohort. See the FAQ for guidance.

97.6%	No events
2.4%	Baseline events using baseline factors
0.0%	Additional events – "caused" by risk factors over baseline
0.0%	Benefits – will not have an event because of "treatment"
NNT	∞	Number needed to treat

As with all risk calculators, calculated risk numbers are +/- 5% at best. More information

http://cvdcalculator.com

SPARC - Stroke Prevention in Atrial Fibrillation Risk Tool

for estimating risk of stroke and benefits & risks of antithrombotic therapy in patients with chronic atrial fibrillation

references/notes

version 6.21, March 2013

Developed by Peter Loewen, ACPR, Pharm.D., FCSHP

peter.loewen@ubc.ca

In your patient with atrial fibrillation, which of the following stroke or bleeding risk factors are present?

CHADS2 CRITERIA

- CHF/LV dysfunction (diagnosed at any time in the past)
- Hypertension (controlled or uncontrolled)
- Age > 75
- Diabetes (Type I or II) controlled or uncontrolled
- TIA or stroke at any time in the past

CHADS2 SCORE (0-6):0

CHA2DS2-VASc CRITERIA

- Prior MI, peripheral artery disease, or aortic plaque
- Age 65-75
- Female

CHA2DS2-VASc SCORE (0-9):0

HAS-BLED CRITERIA*

- Abnormal renal function
- Abnormal liver function
- History of major bleeding (any cause)
- History of labile INR (time in therapeutic range <60%)
- Current "excess" use of alcohol
- Currently taking antiplatelet drug(s) or NSAID(s)

HAS-BLED SCORE (0-9)*:0

*no studies have observed major bleeding in patients with score>5, so these must be interpreted as "risk probably >10%".

	PERCENT PER YEAR			
	Stroke / Embolism		Major Bleeding	
THERAPY	CHADS2	CHA2DS2-VASc	Pop.Avg.	HAS-BLED
NO THERAPY	1.2%	0.7%	0.6%	
ASPIRIN	0.9%	0.5%	1.1%	
ASPIRIN+CLOP	0.7%	0.4%	3.8%	
WARFARIN	0.4%	0.2%	3.8%	1.2%
DABIGATRAN 110	0.4%	0.2%	3.0%	1.0%
DABIGATRAN 150	0.3%	0.2%	3.8%	1.2%
RIVAROXABAN	0.4%	0.2%	3.8%	1.2%
APIXABAN	0.3%	0.2%	2.6%	0.8%

http://www.sparctool.com

VI. IF ALL ELSE FAILS CONSIDER WATCHFUL WAITING

Watchful Waiting

Many patients want advice and reassurance

Repeat blood pressures, cholesterols, glucose, bone densities - TRICKY but…

“Watchful waiting” - for BPH/prostate related symptoms

Alpha blockers change symptoms

irritative (frequency, nocturia, burning, urgency, or urge incontinence) or obstructive(hesitancy, weak stream, dribbling, incomplete voiding, or retention)

by 3 point on a 35 point scale - considered slightly improved

Upper respiratory tract infections

Scandinavian Prostate Cancer Group Study Number 4 (SPCG-4)

	Radical prostatectomy	Watchful waiting	Control group
Death at 18 years <65	40	66	N/A
Androgen deprevation <65	44	73	N/A
Death at 18 years >65	70	72	N/A
Androgen deprevation >65	41	63	N/A
Distress from erectile dysfunction	48	36	37
Urinary leakage once a day or more	41	11	3
Regular use of protective aid	54	25	8
Nocturia	49	63	42

N Engl J Med 2014;370:932-42

Lancet Oncol 2011; 12: 891–99

BMJ

EDITORIALS

BMJ 2012;344:d7955 doi: 10.1136/bmj.d7955 (Published 2 February 2012)

A prescription for improving antibiotic prescribing in primary care

Comprehensive education programmes can reduce antibiotic prescriptions, but the impact on clinical outcomes is unclear

James McCormack *professor*[1], G Michael Allan *associate professor*[2]

[1]Faculty of Pharmaceutical Sciences, University of British Columbia, BC, Vancouver, Canada V6T1Z3; [2]Department of Family Medicine, University of Alberta, AB, Edmonton, Canada

"Most community acquired infections still respond to the same antibiotics that have been used for decades and many guidelines still support their use"

Delayed prescriptions

Delayed prescriptions for sore throats and otitis media reduces the use of antibiotics far more than education about inappropriate antibiotic use

Upper respiratory tract infections

93% down to 32% - 14% still get them if you don't initially prescribe an antibiotic

Urinary tract infections

97% down to 77%

VII. NOT PILE ONE TREATMENT UPON ANOTHER

L.R. (a Family MD)
Mid -Feb

Her Grandmother - 90 year old very frail female

History of a. fib, hypertension, angina, congestive heart failure, familial tremor, macular degeneration and recently diagnosed with diabetes

Blood sugars running 8-15 prior to treatment

Hb A1C - 8.3

Never smoked

Suffered a compression fraction of a thoracic vertebrae in the fall

A lung mass not yet diagnosed - elected not to proceed with the bronchoscopy

Echocardiogram from the fall - not much of anything

Clinically she gets tachycardia and short of breath walking 15 feet

HR 81

BP sitting 139/65

BP standing after 1 minute 154/73 and heart rate 73

20 regular meds/4 PRNs
Gliclazide 30mg daily
Potassium chloride 600mg daily
Ramipril 10mg daily
Metoprolol 100mg twice daily
Furosemide 40mg daily
Valsartan 160mg daily
Digoxin 0.0625mg daily
Hydromorphone 3mg twice daily
Vitamin D 1000 IU daily
Calcium 1250mg daily
B12 250mg daily
Vitamin C 500mg daily
Vitalux daily
Omega 3s daily
Warfarin 2mg daily/3mg every other day
Atorvastatin 20mg daily
Zopiclone 3.75mg daily
Sennoside 12mg daily
Nitro patch 0.4mg qhs
Atrovent
Flovent
PRN Ativan 0.5 mg sl for anxiety/SOB
PRN Nitro spray
PRN Hydromorphone 1mg
PRN Gravol

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HR 81

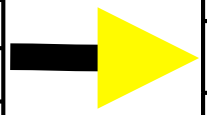
BP sitting 139/65

BP standing after 1 minute 154/73 and heart rate 73

20 regular meds/4 PRNs	Improves symptoms	Long term benefit	Potential for harm	Rebound potential	Dose reduction useful	STOP 12 HALF 5
Gliclazide 30mg daily	N	?	+++	Y	Y	STOPPED
Potassium chloride 600mg daily	N	N	+	N	N	STOPPED
Ramipril 10mg daily	?	Y	+++	Y	Y	HALF
Metoprolol 100mg twice daily	?	Y	+++	Y	Y	HALF
Furosemide 40mg daily	Y	Y	++	Y	T	KEPT
Valsartan 160mg daily	?	Y	+++	Y	Y	HALF
Digoxin 0.0625mg daily	N	?	+++	N	Y	STOPPED
Hydromorphone 3mg twice daily	Y	Y	++	Y	T	KEPT
Vitamin D 1000 IU daily	N	?	-	N	N	STOPPED
Calcium 1250mg daily	N	N	+	N	N	STOPPED
B12 250mg daily	N	N	+	N	N	STOPPED
Vitamin C 500mg daily	N	N	-	N	N	STOPPED
Vitalux daily	N	Y	-	N	N	STOPPED
Omega 3s daily	N	N	-	N	N	STOPPED
Warfarin 2mg daily/3mg every other day	N	Y	+++	N	T	KEPT
Atorvastatin 20mg daily	N	Y	++	N	Y	HALF
Zopiclone 3.75mg daily	Y	N	++	Y	Y	HALF
Senosside 12mg daily	Y	Y	+	Y	T	KEPT
Nitro patch 0.4mg qhs	Y	Y	+	Y	T	KEPT
Atrovent	N	N	-	N	Y	STOPPED
Flovent	N	N	+	N	Y	STOPPED
PRN Ativan 0.5 mg sl for anxiety/ SOB	N	N	+	N	Y	STOPPED
PRN Nitro spray	Y	Y	-	N	N/A	-
PRN Hydromorphone 1mg	Y	Y	-	N	N/A	-
PRN Gravol	Y	Y	-	N	N/A	-

20 regular meds/4 PRNs
Gliclazide 30mg daily
Potassium chloride 600mg daily
Ramipril 10mg daily
Metoprolol 100mg twice daily
Furosemide 40mg daily
Valsartan 160mg daily
Digoxin 0.0625mg daily
Hydromorphone 3mg twice daily
Vitamin D 1000 IU daily
Calcium 1250mg daily
B12 250mg daily
Vitamin C 500mg daily
Vitalux daily
Omega 3s daily
Warfarin 2mg daily/3mg every other day
Atorvastatin 20mg daily
Zopiclone 3.75mg daily
Senosside 12mg daily
Nitro patch 0.4mg qhs
Atrovent
Flovent
PRN Ativan 0.5 mg sl for anxiety/SOB
PRN Nitro spray
PRN Hydromorphone 1mg
PRN Gravol

March 7



5 regular meds/5 PRNs
Metoprolol 100mg twice daily
Furosemide 40mg daily
Valsartan 80mg daily
Hydromorphone 3mg twice daily
Warfarin 3mg daily
PRN Senosside 12mg daily
PRN Nitro patch 0.4mg qhs
PRN Ativan 0.5 mg sl for anxiety/SOB
PRN Hydromorphone 1mg
PRN Zopiclone 1/4 of 7.5mg

April 1

Apart from her family doctor cutting her hydromorphone by 1/3 and putting her into opioid withdrawal 2 weeks ago, she is feeling much better (after analgesics returned to normal).

She feels less tired and her heart races less when she has to walk anywhere. She is definitely more alert and less confused.

In 4 weeks they are going to re-evaluate her BP and consider decreasing valsartan or trying to decrease metoprolol.

Quality of life comparisons

	QOL utilities
Mild stroke	0.7
Angina	0.64
Diabetic neuropathy	0.66

Comprehensive diabetes care	0.64

Diabetes Care 2007;30:2478-83

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

CMAJ EDITORIAL

CMAJ • JANUARY 6, 2009 • 180(1) FRANÇAIS À LA PAGE SUIVANTE

Medical errors, apologies and apology laws

Effect of apology on liability

2 (1) An apology made by or on behalf of a person in connection with any matter

(a) does not constitute an express or implied admission of fault or liability by the person in connection with that matter,

(b) does not constitute a confirmation of a cause of action in relation to that matter for the purposes of section 5 of the *Limitation Act*,

(c) does not, despite any wording to the contrary in any contract of insurance and despite any other enactment, void, impair or otherwise [illegible] connection with that matter, and

(d) [illegible]

(2) Despite any other enactment, evidence of an apology made by or on behalf of a person in connection with any matter is not admissible in any [illegible]

"Despite any other enactment, evidence of an apology made by or on behalf of a person in connection with any matter is not admissible in any court as evidence of the fault or liability of the person in connection with that matter"

How to decrease chance of lawsuits

BC has an apology law - So apologise!!!

Put in place something that will prevent the error in the future

Don't be a JERK

If there is negligence - **$$$$$$$$$**

VIII. DILIGENTLY TRY TO FIND THE BEST TREATMENT FOR THE INDIVIDUAL

We Are All Individuals

Every patient is an "n of 1" study
Every treatment is an experiment

IX. HONOUR THY ELDERLY PATIENT

The Elderly

Consider that renal and liver function are 50% at best

Symptoms key!!!

Life expectancy

- Statins
- Aspirin
- Warfarin

Heart failure

Inhalers for COPD

X. START WITH THE LOWEST DOSE POSSIBLE

Size really does matter

CMAJ

ANALYSIS

Is bigger better? An argument for very low starting doses

James P. McCormack PharmD, G. Michael Allan MD, Adil S. Virani PharmD

CMAJ, January 11, 2011

A sample of RCT Evidence

6.25 mg hydrochlorothiazide	first marketed at 50 to 200 mg daily
6.25 mg captopril	25 mg PO TID is still a commonly recommended initial starting dose for hypertension
25 mg sildenafil (Viagra)	effective dose for erectile dysfunction
25 mg sumatriptan (Imitrex)	works as well as100 mg
5 mg daily fluoxetine (Prozac)	similar effects to those seen at 20 mg and 40 mg daily
0.25 mg ezetimibe (Ezetrol)	1/40th of the recommended initial starting dose provides 50% of the LDL lowering effect
15 mg elemental iron daily	as effective for anemia in the elderly as 50 mg and 150 mg with a lower incidence of side effects
150 mg daily bupropion (Zyban) 0.5 mg BID varenicline (Champix)	produces the same rate of smoking cessation at one year as 300 mg daily (1.0 mg BID)
10 mg atorvastatin	produces 2/3 of the effect on cholesterol as that seen with an 80 mg (8-fold increase) dose
200 mg ibuprofen (Motrin)	as effective as 400 mg for migraine headache
25 mg ranitidine (Zantac)	as effective as 125 mg for heartburn relief
1.8 mg colchicine	as effective as 4.8mg for acute gout with less adverse events

Doxepin (Sinequan)

Depression - start 25-50 mg - optimal 75mg -150mg up to 300mg

Doxepin in the Treatment of Primary Insomnia:
A Placebo-Controlled, Double-Blind,
Polysomnographic Study

J Clin Psychiatry
2001;62:453-63

"The results support the effectiveness of low doses (25-50 mg) of doxepin to improve sleep"

INSOMNIA

Sleep 2007; 30: 1555–61

Efficacy and Safety of Three Different Doses of Doxepin in Adults with Primary Insomnia

All three doses worked better than placebo
AND
NO side effects over placebo

A recommended low dose was still 25-50 times TOO HIGH


Thou shalt…
I
Have no aim except to help patients according to their goals
II
Always seek knowledge of the benefits, harms, and costs of treatment
III
Honour balanced sources of knowledge
IV
Not bow down to treatment targets
V
Treat according to level of risk not to level of risk factor
VI
If all else fails consider watchful waiting
VII
Not pile one treatment upon another
VIII
Diligently try to find the best treatment for the individual
IX
Honour thy elderly patient
X
Start with the lowest dose possible
The New Therapeutics


M-G-M's TOP TECHNICOLOR MUSICAL!
GET ABOARD
THE BAND WAGON
Starring
FRED ASTAIRE
CYD CHARISSE
OSCAR LEVANT · NANETTE FABRAY
JACK BUCHANAN
with JAMES MITCHELL
Story and Screen Play by BETTY COMDEN and ADOLPH GREEN
Songs by HOWARD DIETZ and ARTHUR SCHWARTZ
Directed by VINCENTE MINNELLI
Produced by ARTHUR FREED
Choice
Choosing Wisely
Skepticism
Low Dose
Happy
BS Medicine
Common Sense
Less Is More
Shared Decision
Evidence