MedStopper

medstopper.com

James McCormack
BSc (Pharm), PharmD
Professor
Faculty of Pharmaceutical Sciences
University of British Columbia
Vancouver, BC, Canada

therapeuticseducation.org
medicationmythbusters.com

FOR A HANDOUT GO HERE
https://therapeuticseducation.org/handouts

Three “depressing” but very empowering concepts

SYMPTOMS

If a patient seems to be getting a benefit from a medication for symptoms they likely aren't

RISK REDUCTION

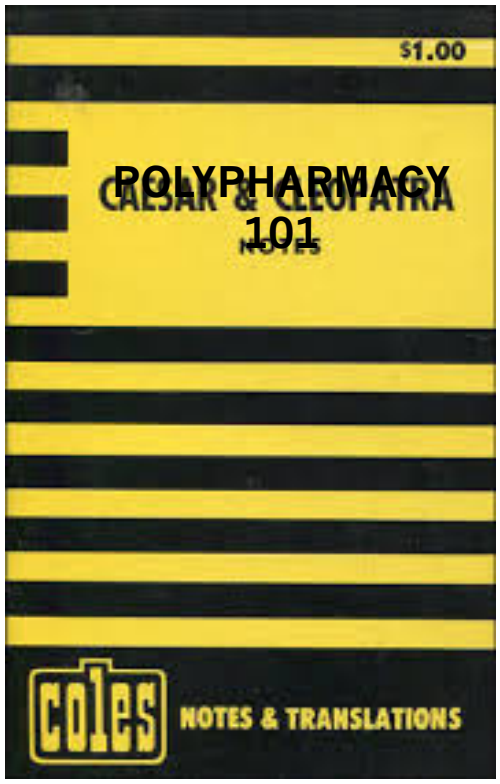
If a patient is on a medication for risk reduction (BP, chol, glucose BMD) the benefit they are receiving is likely not large enough for them to make up for the cost, inconvenience and adverse effects

DOSE

If a patient is on a medication they are likely on too high a dose

Do a Comprehensive Medication History

UNTIL PROVEN OTHERWISE



The drug and the dose are WRONG!!!!!

Prioritize the medications
3 criteria

Will it Reduce Symptoms?

Is it actually helping?

Will it Reduce the Risk of Future Illness?

Is the size of the effect big enough to justify the potential side effects, costs and inconvenience?

Will it Cause Harm?

Are any of their symptoms being caused by their medication?

Symptoms

Will it reduce symptoms?

does it have evidence that it works? - and how big of an effect?

sildenafil/PPIs ~ 50% absolute benefit

antidepressants, dementia meds ~10% absolute benefit?

is it ACTUALLY working in that patient?

were the symptoms being CAUSED by a medication?

Symptom NNTs

PPIs, sildenafil - NNT ~2

NSAIDs, opioids - pain NNT ~3-5

Antidepressants - severe depression - NNT ~10

Ipratropium - asthma attack - NNT ~11

Cholinesterase inhibitors - ADAS-Cog >4 - NNT ~10

Sleeping pills - improvement in sleep quality - NNT ~13

Steroids - sore throat - NNT ~3, Bell's palsy - NNT ~10

Antibiotics - acute COPD exacerbation - NNT ~5

Topical antibiotics - bacterial conjunctivitis - NNT ~7

But you need to know what goes on in the placebo group

	If a person has responded, what is the % chance it was the medication	
Response in the placebo group	RCT Benefit 10% - NNT 10	RCT Benefit 20% - NNT 5
0%	~100%	~100%
10%	~50%	~66%
20%	~33%	~50%
30%	~25%	~40%
40%	~20%	~33%

The Placebo Group Effect

not the placebo effect and these are ballpark numbers

~0% - general anesthesia

~5% - psychosis

~10% - sildenafil, OCD

~20% - Alzheimer's meds, acetaminophen for headaches, side effects

~25% - menopausal symptoms, migraine (frequency/severity)

~30% - blood pressure goal, depression, anxiety, PTSD, PPIs/H2RA, sore throat, NSAIDs of OA, inhalers for COPD

~40% - panic disorders

When a medication has “worked”, if you were a betting person you would bet that it probably wasn't because the medication worked.

RISK REDUCTION

Will it reduce the risk of future illness?

does it have evidence that it works? - and how big of an effect - risk tools, benefit estimates

~baseline CVD/fracture risk, ~absolute benefit

neither you nor your patient will ever know if it works

is the medication causing any symptoms?

Languages: English (EN)

The Absolute CVD Risk/Benefit Calculator

Framingham
Heart attacks + angina/coronary insufficiency + heart failure + strokes + intermittent claudication

QRISK®2-2014
Heart attacks + strokes

ACC/AHA ASCVD
CHD death + nonfatal heart attacks + fatal/nonfatal strokes

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
Enter present blood pressure regardless of treatment
120 mmHg is used for baseline risk

On treatment for BP
Yes ✔ No
Click YES if taking blood pressure medication
Only applies if SBP is greater than 120 mmHg

Total Cholesterol
3 mmol/L
Cholesterol should be prior to drug treatment
3 mmol/L is used for baseline risk.
Click to change to mg/dL.

HDL Cholesterol
1.3 mmol/L
HDL should be prior to drug treatment
1.3 mmol/L is used for baseline risk.

Chronic Kidney Disease

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
- Vitamin/Omega-3 supplements
- BP meds (not atenolol/doxazosin)
- Low-mod intensity statins
- High intensity statins
- Fibrates
- Niacin
- Ezetimibe
- Metformin
- Sulfonylureas
- Insulins
- Glitazones
- GLPs
- DPP-4s
- Meglitinides
- SGLT2
- Smoking Cessation
- ASA

Benefit Estimate Details

Risk Time Period

10 years

97.9%	No event
2.1%	Total with an event
0.0%	Number who benefit from treatment
NNT ∞	Number needed to treat
2.1%	Baseline events using baseline factors alone
0.0%	Additional events "caused" by risk factors

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

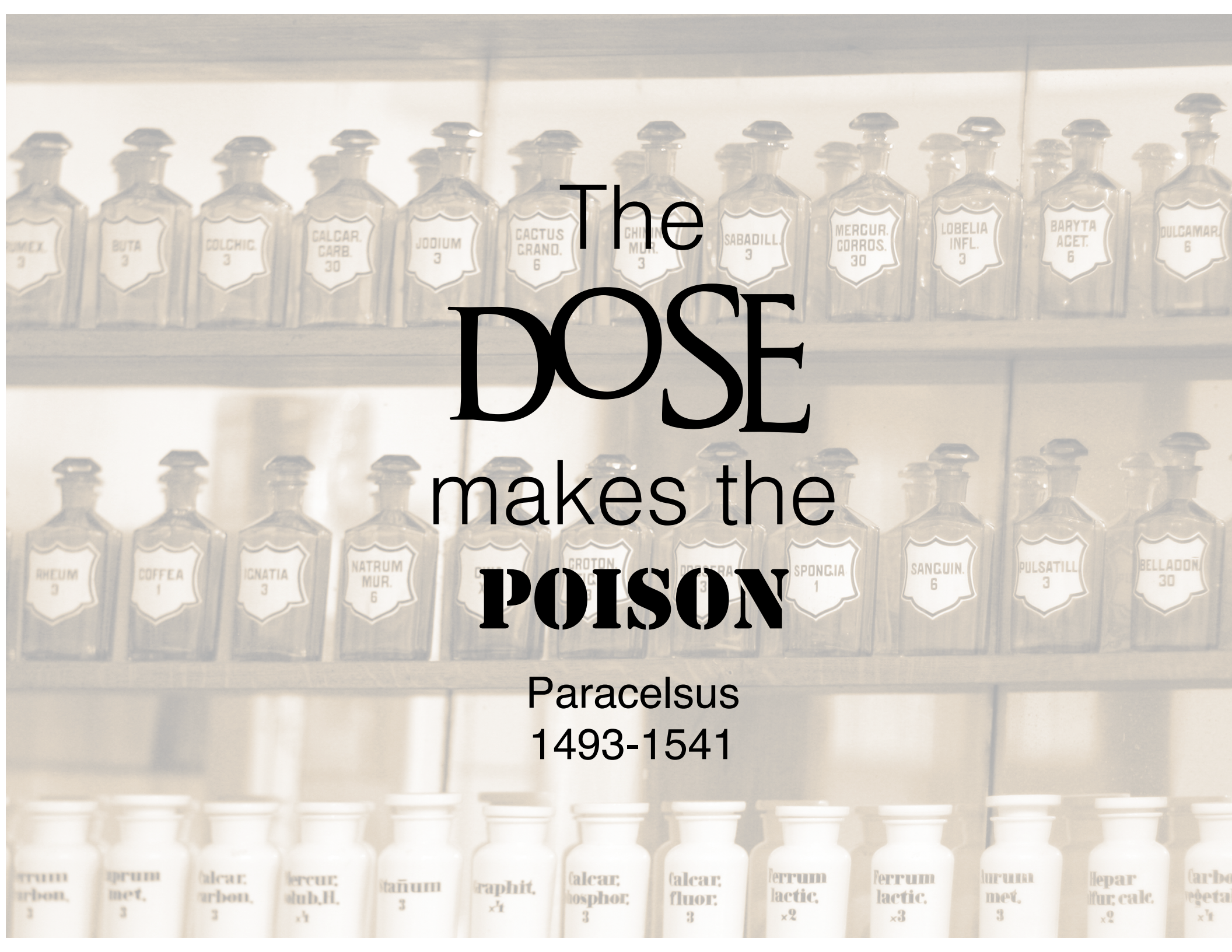
Print Report

cvdcalculator.com

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"

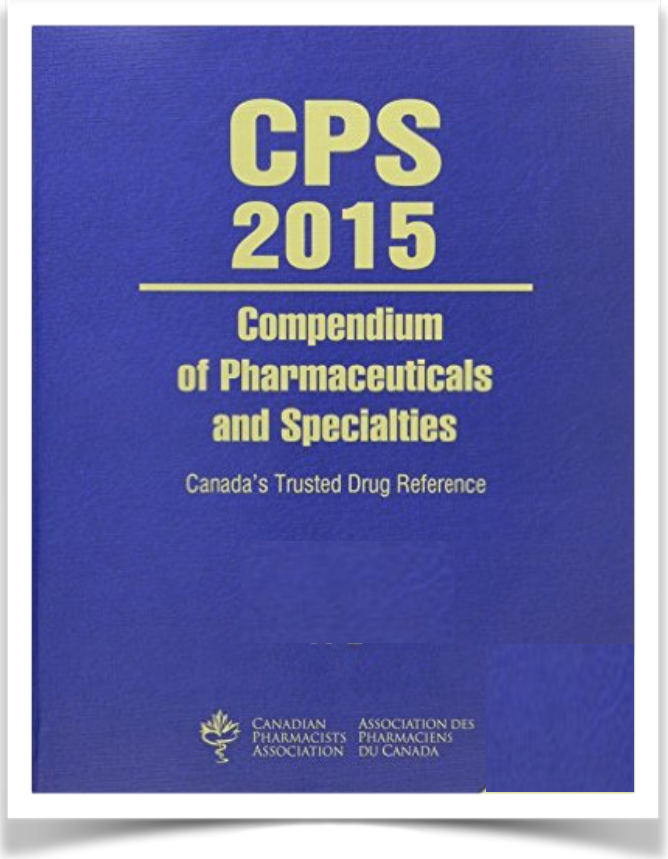
JAMA 2016;315:2063-4

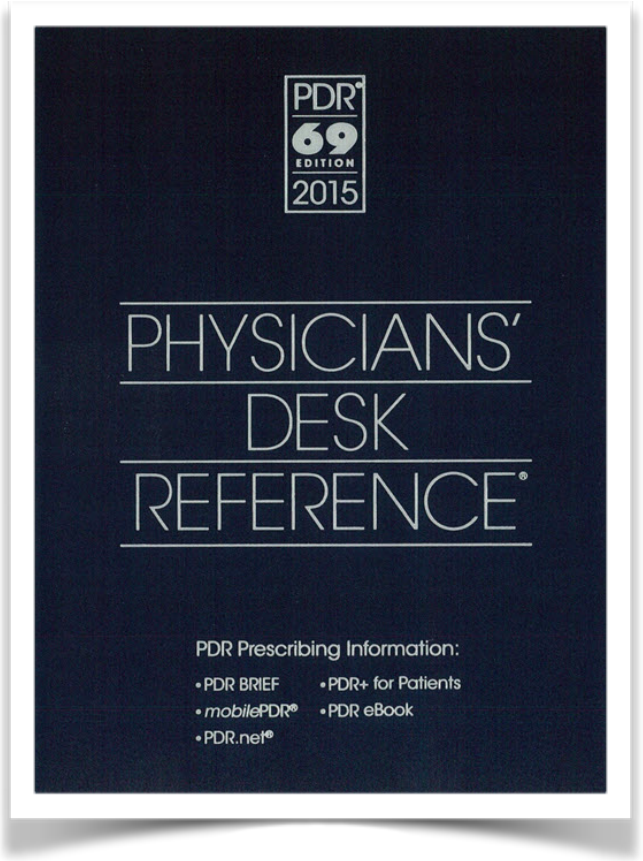

The
DOSE
makes the
POISON
Paracelsus
1493-1541

This simple concept can eliminate most medication problems

USE VERY LOW DOSES

The doses in these books





are all "WRONG" for individual patients

When a new drug comes on the market almost never, have more than 2 doses been studied.

To get a drug on the market you have to show it works therefore one has to choose a dose to study that is high enough that, if it is going to work, it will work in most people in the study.

It's a dose thing

"more than 80% of ADRs causing admission or occurring in hospital ... are dose related, an 'accentuation' of the known pharmacological effect of the drug, and thus predictable and potentially avoidable"

Br J Clin Pharmacol 2004; 57:121–6

CMAJ ANALYSIS

Is bigger better? An argument for very low starting doses

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

”Unless the condition is severe or life-threatening, drug treatment can be started at a very low dose (half or one-quarter the recommended starting dose)”

CMAJ 2011. DOI:10.1503 /cmaj.091481

Most of the effect of a medication comes from the “low” starting doses AND doubling a dose never doubles the effect - in fact it sometimes has no additional effect

Advantages of starting with “very” low doses

Get the potential “placebo group effect” without deception

Patients are engaged in the process of finding the best dose for them

Cost savings can be considerable and most adverse events can be minimized

Most clinically relevant drug interactions can be avoided

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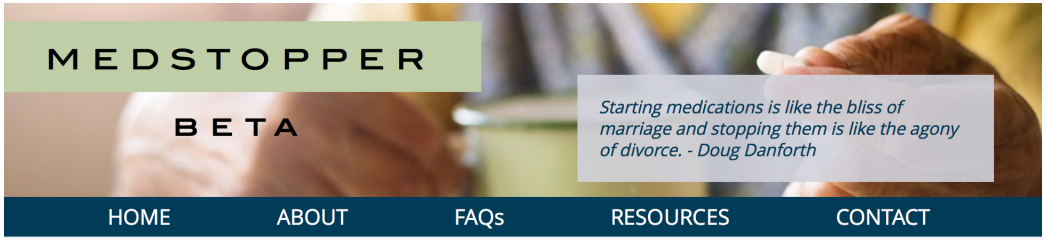


MedStopper is a deprescribing resource for healthcare professionals and their patients.

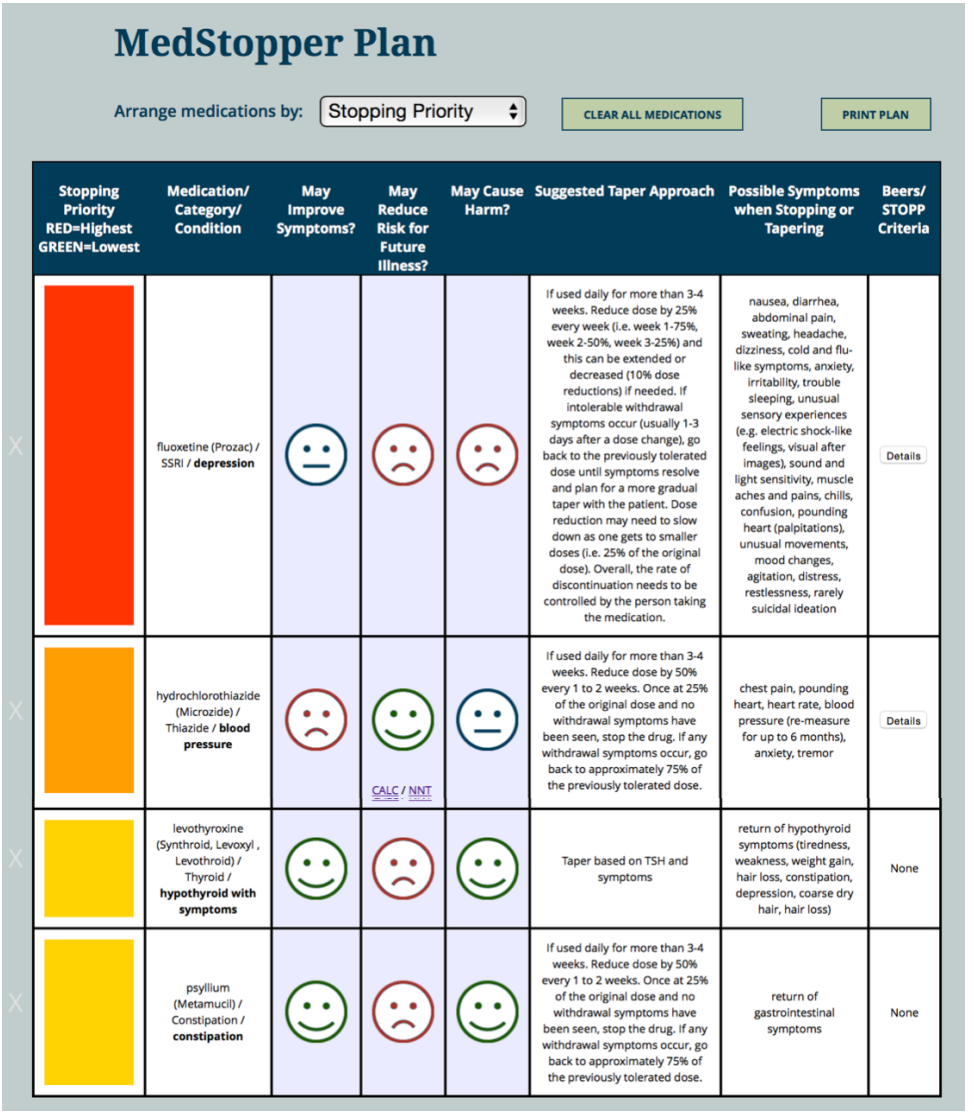
1 Frail elderly?

2 Generic or Brand Name: hydro

3 Select Condition Treated:

Generic Name	Brand Name	Condition Treated	Add to MedStopper
dihydroergotamine	DHE 45	Select Condition	ADD
hydrochlorothiazide	Microzide	blood pressure	ADD
hydrocodone	Vicodin	Select Condition	ADD
hydrocortisone		Select Condition	ADD

Previous Next



MedStopper Plan

Arrange medications by: Stopping Priority | CLEAR ALL MEDICATIONS | PRINT PLAN

Stopping Priority RED=Highest GREEN=Lowest	Medication/ Category/ Condition	May Improve Symptoms?	May Reduce Risk for Future Illness?	May Cause Harm?	Suggested Taper Approach	Possible Symptoms when Stopping or Tapering	Beers/ STOPP Criteria
	fluoxetine (Prozac) / SSRI / **depression**	😐	☹	☹	If used daily for more than 3-4 weeks. Reduce dose by 25% every week (i.e. week 1-75%, week 2-50%, week 3-25%) and this can be extended or decreased (10% dose reductions) if needed. If intolerable withdrawal symptoms occur (usually 1-3 days after a dose change), go back to the previously tolerated dose until symptoms resolve and plan for a more gradual taper with the patient. Dose reduction may need to slow down as one gets to smaller doses (i.e. 25% of the original dose). Overall, the rate of discontinuation needs to be controlled by the person taking the medication.	nausea, diarrhea, abdominal pain, sweating, headache, dizziness, cold and flu-like symptoms, anxiety, irritability, trouble sleeping, unusual sensory experiences (e.g. electric shock-like feelings, visual after images), sound and light sensitivity, muscle aches and pains, chills, confusion, pounding heart (palpitations), unusual movements, mood changes, agitation, distress, restlessness, rarely suicidal ideation	Details
	hydrochlorothiazide (Microzide) / Thiazide / **blood pressure**	☹	🙂 CALC / NNT	😐	If used daily for more than 3-4 weeks. Reduce dose by 50% every 1 to 2 weeks. Once at 25% of the original dose and no withdrawal symptoms have been seen, stop the drug. If any withdrawal symptoms occur, go back to approximately 75% of the previously tolerated dose.	chest pain, pounding heart, heart rate, blood pressure (re-measure for up to 6 months), anxiety, tremor	Details
	levothyroxine (Synthroid, Levoxyl , Levothroid) / Thyroid / **hypothyroid with symptoms**	🙂	☹	🙂	Taper based on TSH and symptoms	return of hypothyroid symptoms (tiredness, weakness, weight gain, hair loss, constipation, depression, coarse dry hair, hair loss)	None
	psyllium (Metamucil) / Constipation / **constipation**	🙂	☹	🙂	If used daily for more than 3-4 weeks. Reduce dose by 50% every 1 to 2 weeks. Once at 25% of the original dose and no withdrawal symptoms have been seen, stop the drug. If any withdrawal symptoms occur, go back to approximately 75% of the previously tolerated dose.	return of gastrointestinal symptoms	None

Ranks medications as to which ones to potential stop first

Gives approaches for how to stop or taper medications - and what to monitor

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The MedStopper Team

James McCormack (UBC)
Rita McCracken (UBC)
Dee Mangin (McMaster U, Hamilton)
Barb Farrell (Bruyère Research Institute, Ottawa)
Robert Rangno (UBC, Emeritus)
John Sloan (Vancouver GP)
Michael Allan (University of Alberta)
Johanna Trimble (patient representative and observer)
Alan Cassels (project administrator)
Keith White (Local GP)
Malcolm Maclure BC Academic Chair in Patient Safety and Professor in the Department of Anesthesiology, Pharmacology and Therapeutics at UBC
Dan Kim (IHI student)
Robert Yao (IHI student)
Jacqueline Eng (IHI student)
Saaranga Sasitharan (IHI student)

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