# MedStopper

## medstopper.com

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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**

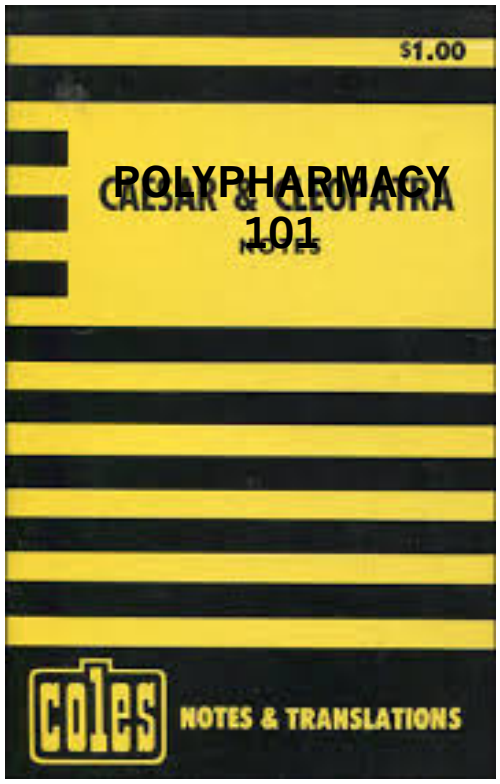
If a patient is on a medication for risk reduction (BP, chol, glucose BMD) the benefit they are receiving is likely not large enough for them to make up for the cost, inconvenience and adverse effects

**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.

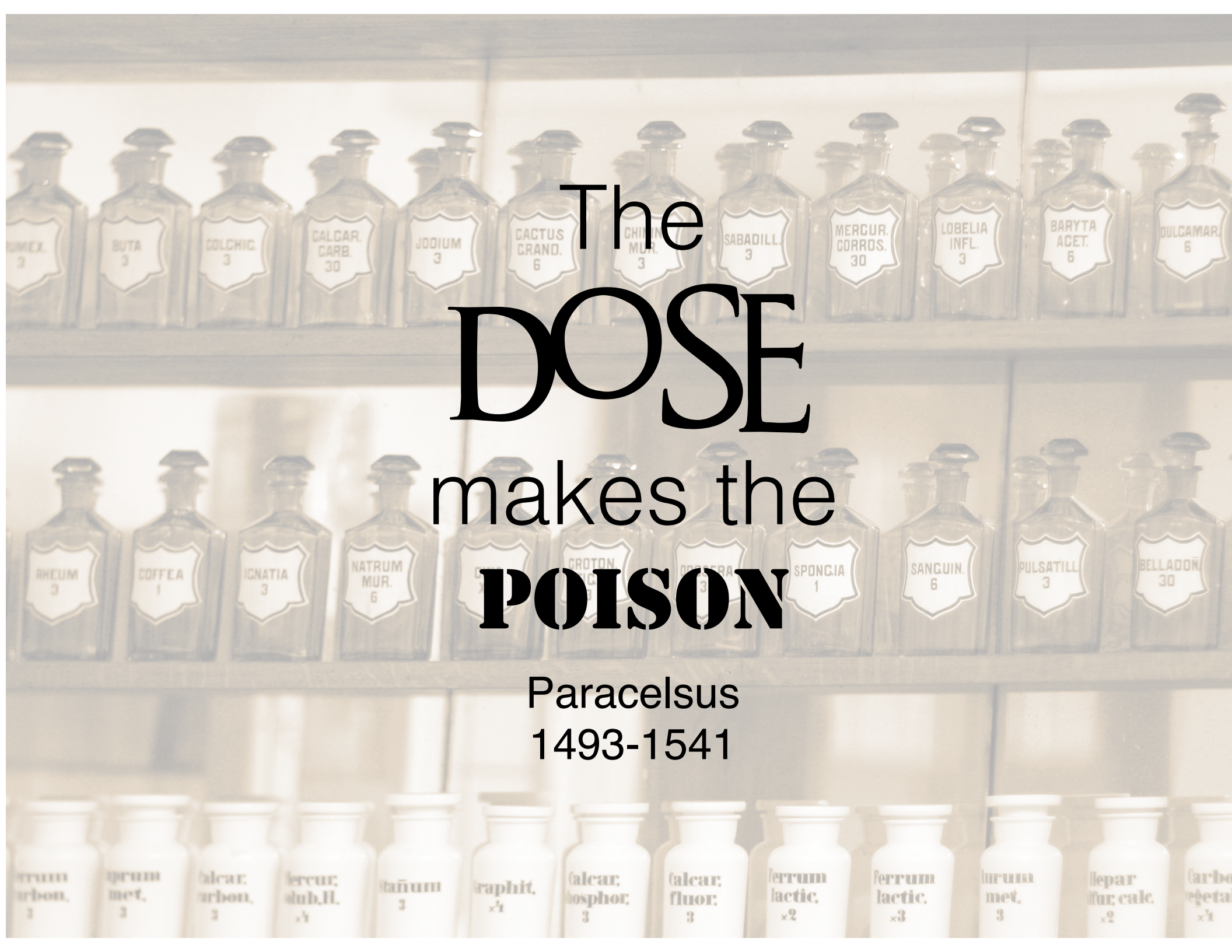
Print Report

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"

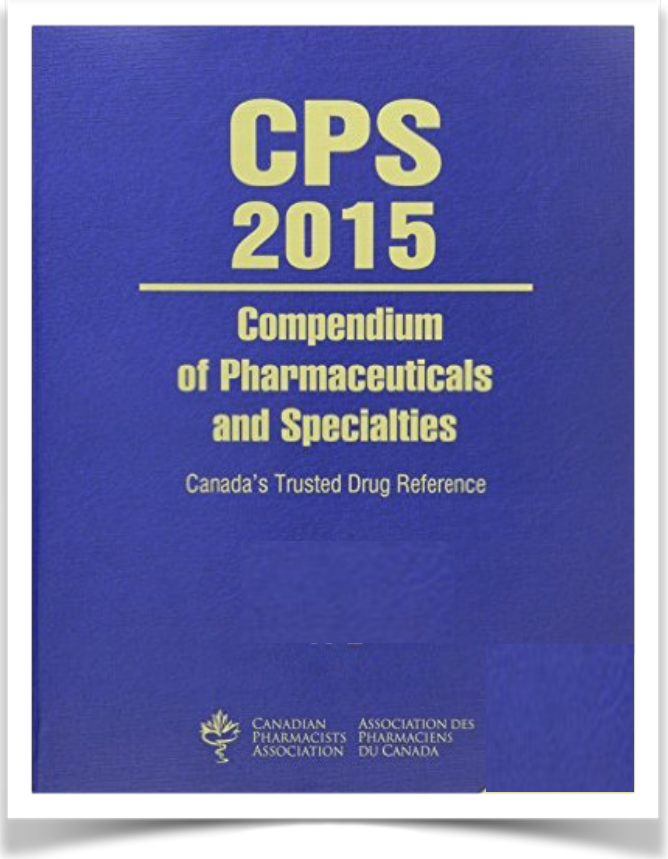
JAMA 2016;315:2063-4

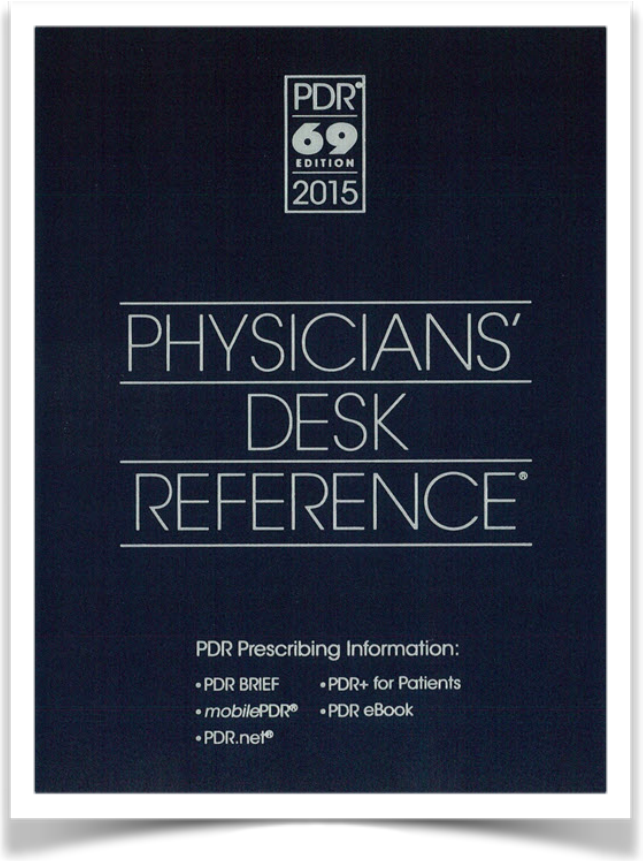

The
DOSE
makes the
POISON
Paracelsus
1493-1541

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

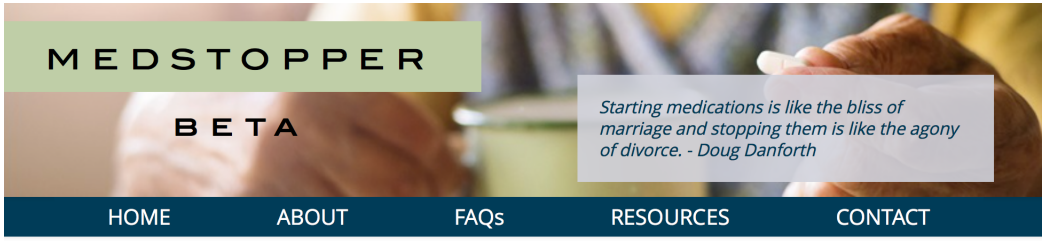
Get the potential “placebo group effect” without deception

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

# MEDSTOPPER




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

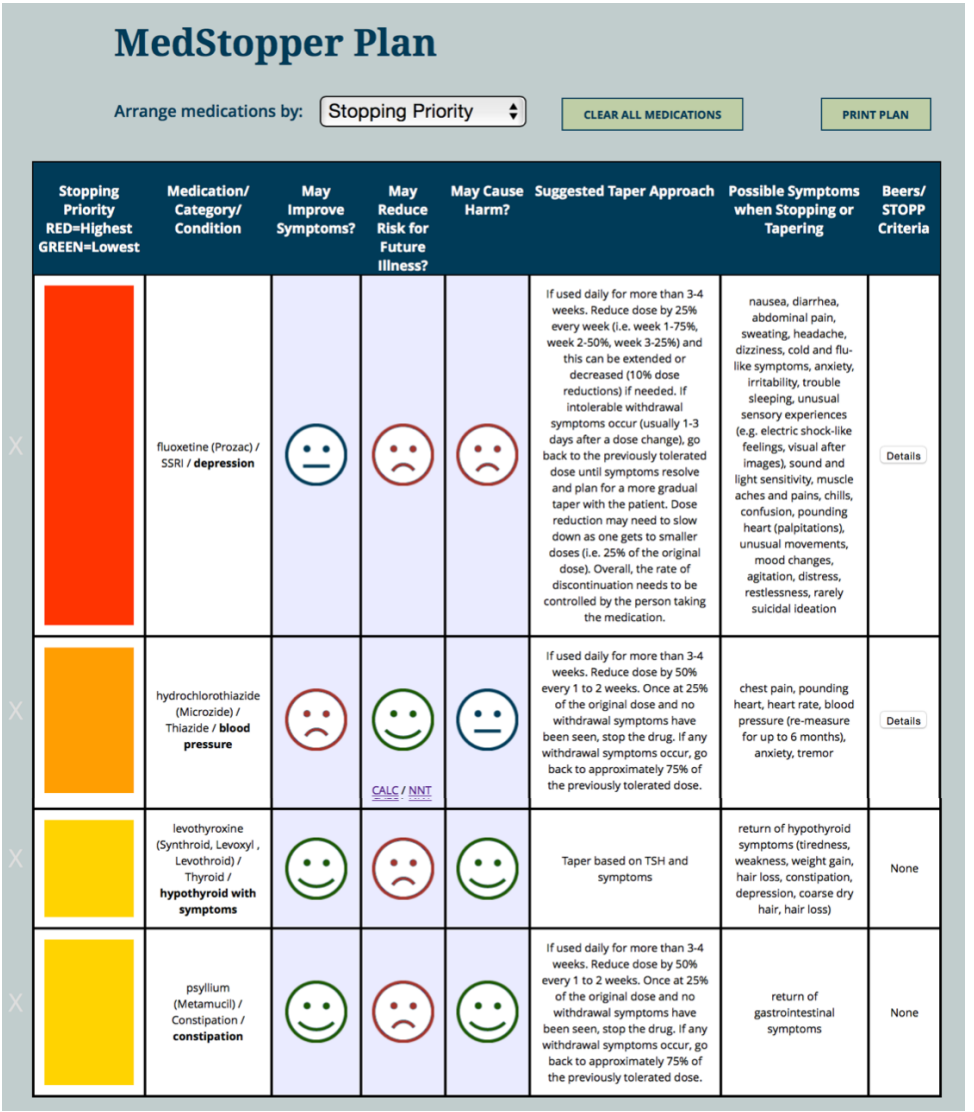
1 Frail elderly?

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

medstopper.com

# The MedStopper Team

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