Patient-Centered Deprescribing: Why We All Should Care

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UIC ENGAGE-IL Enhancement of Geriatric Care for All

In Case You Were Wondering

- The views expressed in this presentation are those of the speaker
- The speaker has no direct conflicts or ties industry
  - *Grants* — *HRSA, IDoA, CDoFSS, Age Options, White Crane Wellness*
  - *Advisory* — *IDoA-OASAC, OptumRx, BRIDGE Model*
- Grateful to OFS Healthcare for the opportunity
- To those in attendance…hopefully… "**Lesson's Learned**"

Seduction of Common Sense

. . . (A) long habit of not thinking a thing wrong, gives it a superficial appearance of being right, and raises at first a formidable outcry in defense of custom. But the tumult soon subsides. Time makes more converts than reason.—

Thomas Paine, Common Sense, 1776

OBJECTIVES

1. Describe the PARADOX of PRESCRIBING

2. Define DEPRESCRIBING and its PROCESSES

3. Discuss the evidence of EFFICACY of DEPRESCRIBING

4. Describe instances for DEPRESCRIBING CONSIDERATION

5. List BARRIERS to DEPRESCRIBING

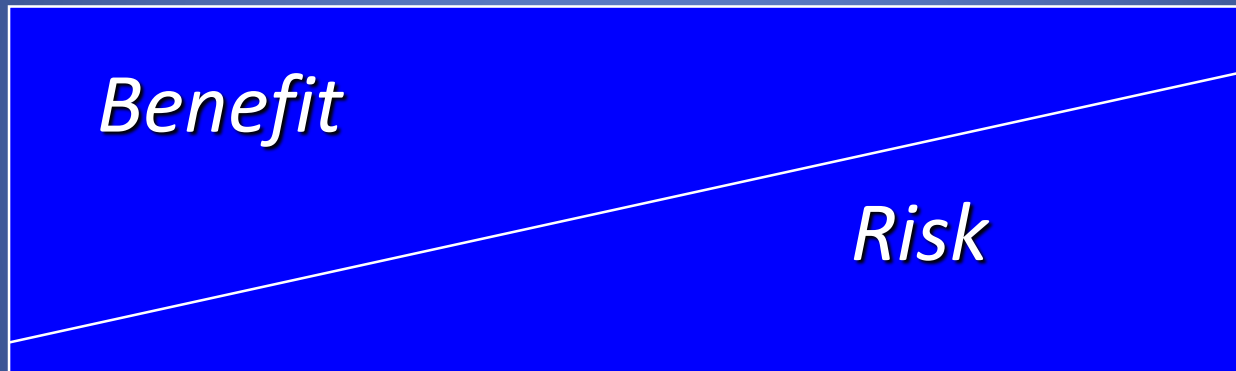
6. Describe FUTURE RESEARCH of DEPRESCRIBING

Evidence Uncertainty

Benefit *Risk*

More good than harm More harm than good

ARR's
NNT



AR's
NNH

Even the best interventions may do harm

An ineffective intervention will do no good apart from the placebo effect and may do harm

Fundamental Paradox

- Baby Boomers and Shortage of trained workforce
- Drug safety concerns tend to be greatest in vulnerable populations - ELDERLY
- Drug prescribing guidance remains deficient
- Most clinical trials exclude vulnerable patient populations
- Industry has little incentive to study at risk groups
- FDA has limited power to require enhanced safety and efficacy data in the vulnerable populations (i.e. older adults)

The single most important "cited barrier" to appropriate prescribing in the elderly is:

1. Lack of time in the office schedule
2. Lack of formal education
3. Patient's request to maintain a specific medication
4. Patient taking a large number of medications
5. Difficulty communicating with other prescribers

Ramaswamy R. et al. J Eval Clin Pract 2011
(n=89, 45% response rate, 25% elderly practice, 75% confident, 31%-<5 out of 8 vignettes)

Polypharmacy Predicament

POOR CLINICAL OUTCOMES[28]

Mortality

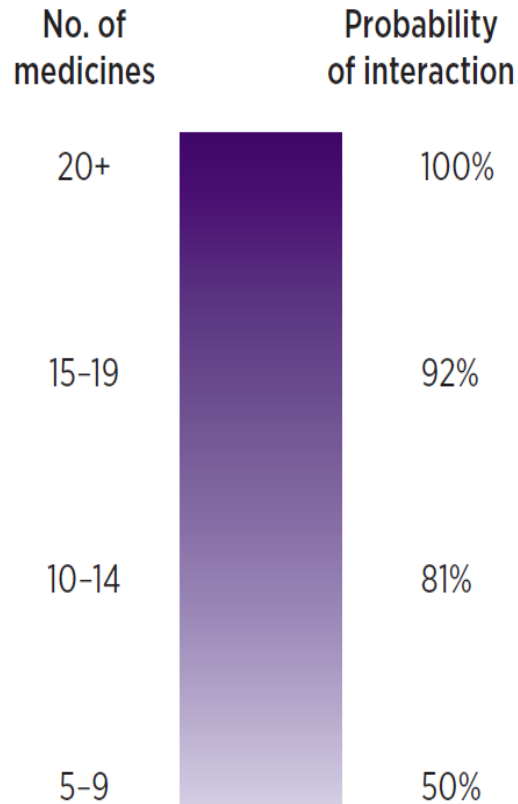
Falls

Disability

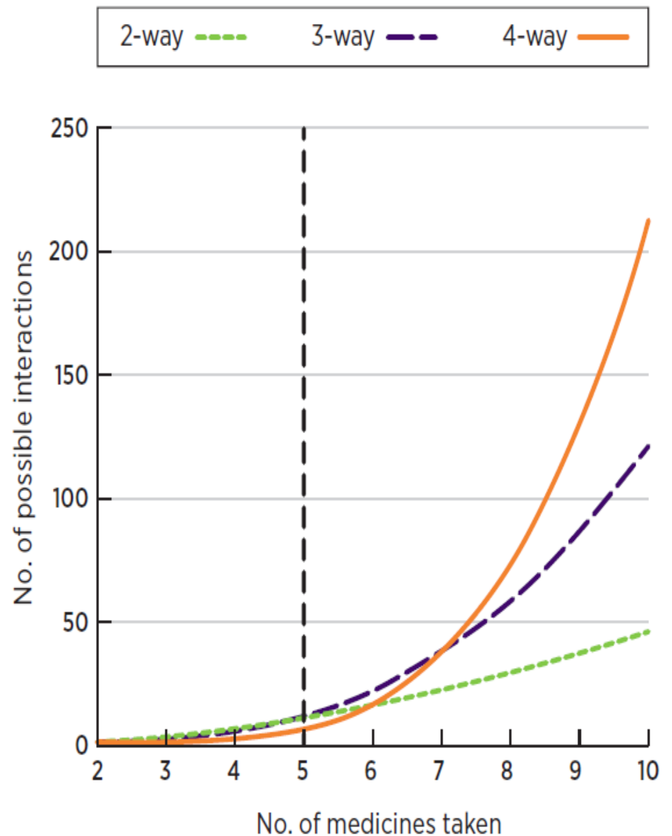
Frailty

No. of medicines

1-WAY DRUG-DRUG INTERACTIONS[29]



COMPLEX DRUG-DRUG INTERACTIONS[30]



www.nps.org.au/older-people

As a provider, do you have "prescriptive authority" to make medication treatment decisions for a patient?

1. No
2. Yes, as a prescriber
3. Yes, only under collaborative practice agreements or institutional protocols

As a provider, how comfortable would you be being involved in “de-prescribing” medication treatment decisions for a patient?

1. Very comfortable
2. Somewhat comfortable
3. Neither comfortable nor uncomfortable
4. Somewhat uncomfortable
5. Very uncomfortable

As a provider, how willing would you be to discuss discontinuing medications of limited benefit with a patient, family member or loved ones?

1. Very willing
2. Somewhat willing
3. Neither willing nor unwilling
4. Somewhat unwilling
5. Very unwilling

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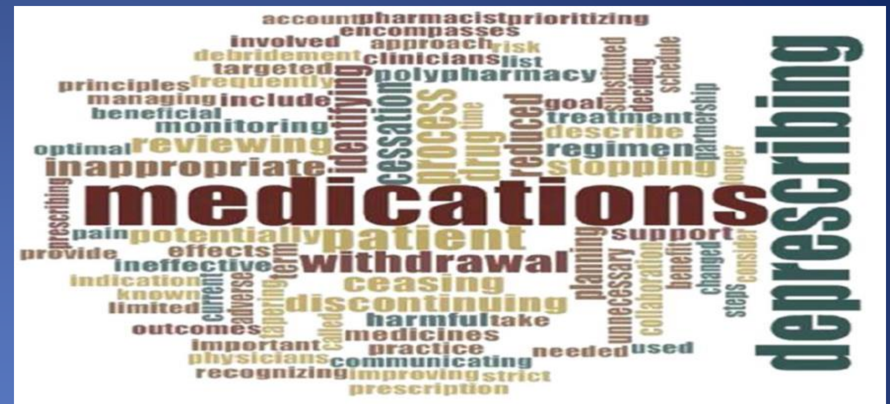
Deprescribing



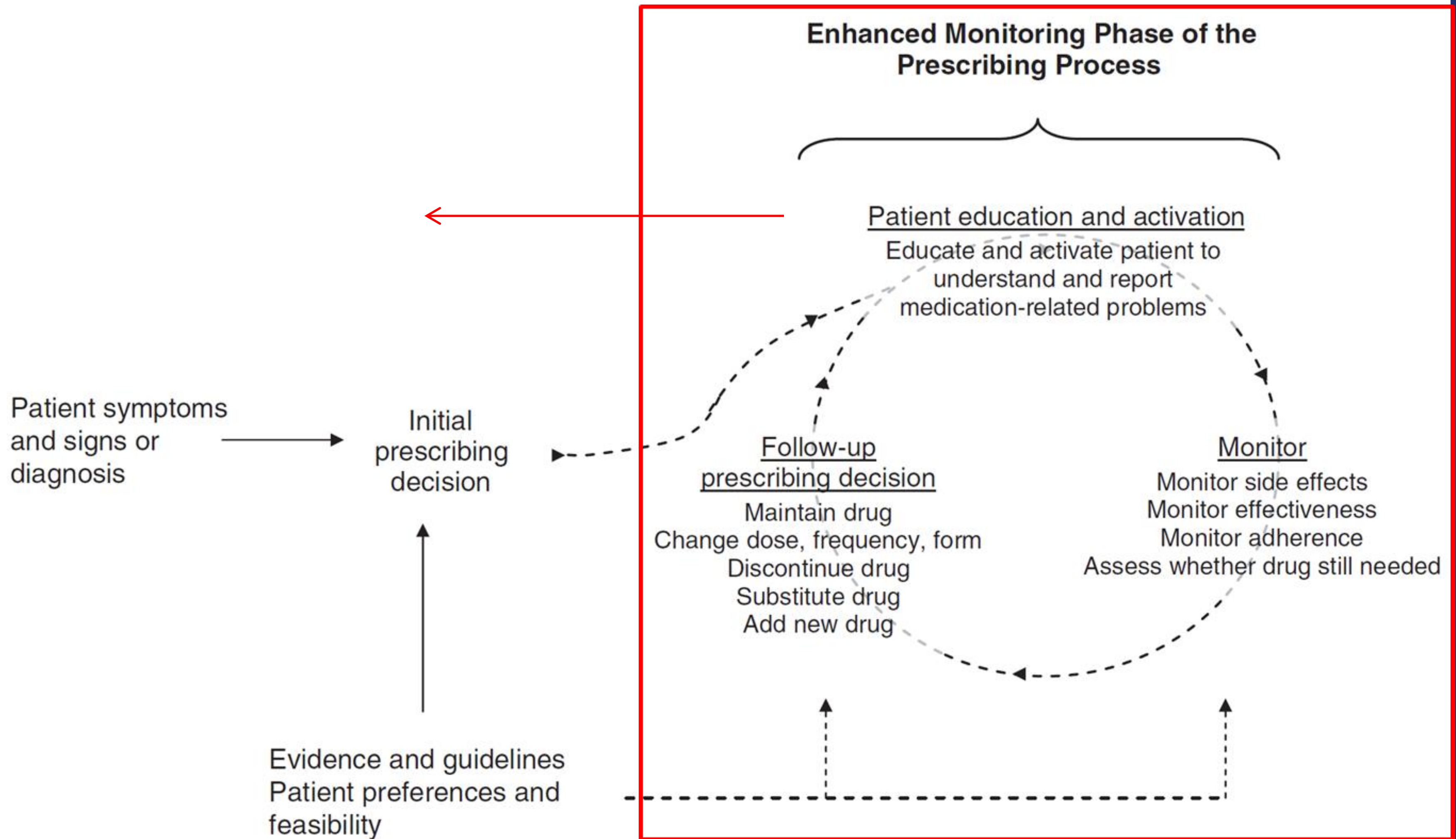
<u>Deprescribing</u>

"The process of withdrawal of an inappropriate medication, supervised by a health care professional with the goal of managing polypharmacy and improved outcomes."

"Primum non nocere"

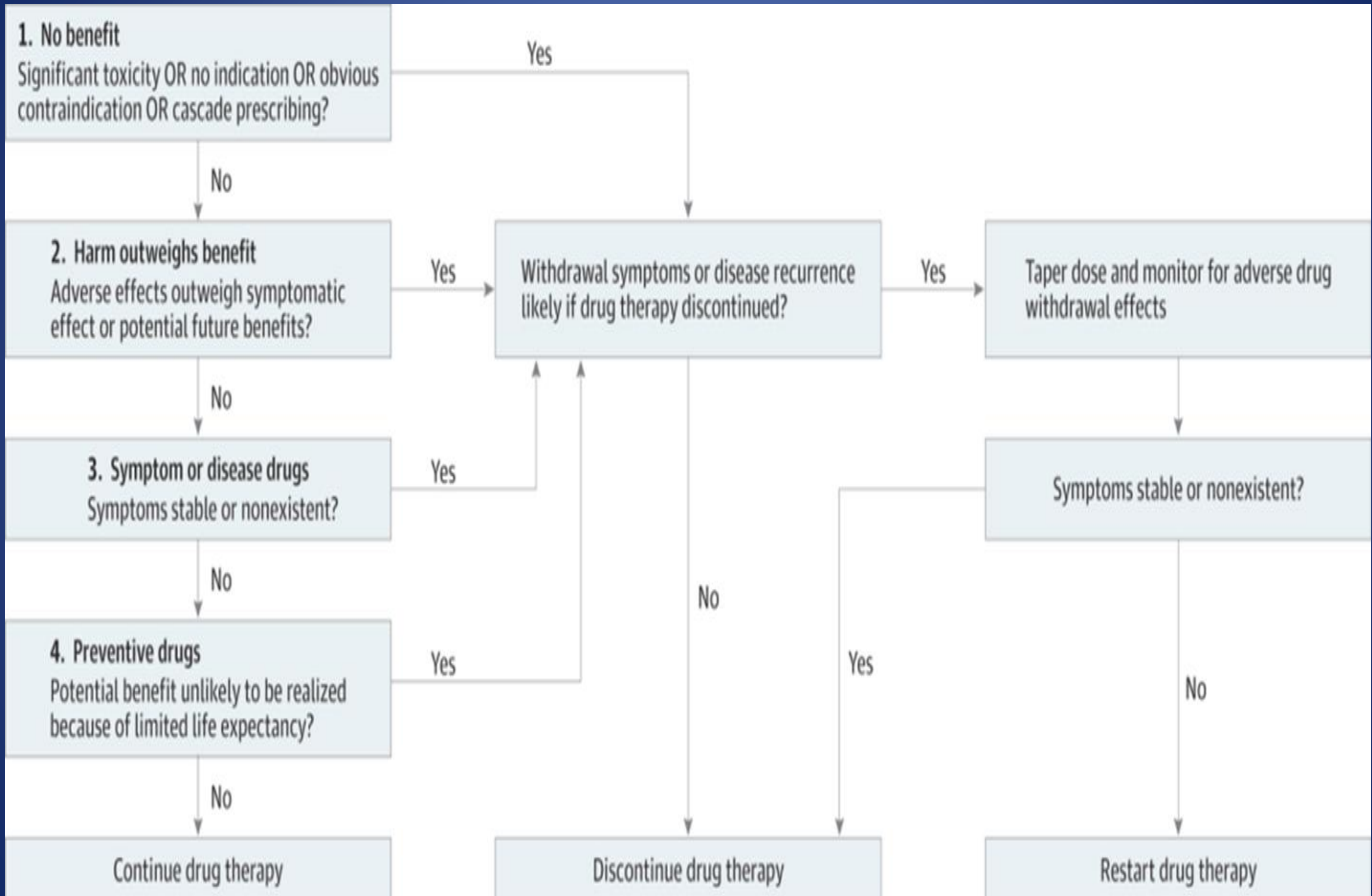
Reeve E, et al. Br J Clin Pharmacol 80:6;1254-68.

Prescribing Process



J Am Geriatr Soc 2011:59;1513-1520

General Approach to De-Prescribing



JAMA Intern Med 2015;175(5):827-34

When and for Whom is deprescribing appropriate?

WHO?

- Any older person with a change in health
- Frail older people
- People with kidney disease or impaired function
- People with multiple prescribers

WHEN?

- At points of change in health
- At transitions in care
- When new symptoms emerge

HOW?

- Ask people to bring in their medicines (e.g. brown bag audit)
- Encourage people to keep a medicines list that is current and regularly updated
- Document a plan that people (e.g. clinicians and patients) can act on

WHAT?

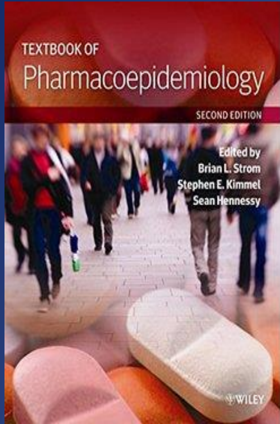
- Support from pharmacists and nurses

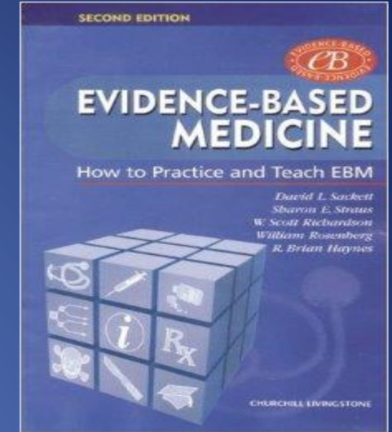
MEDICINE MANAGEMENT

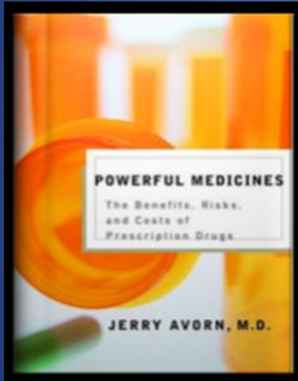
www..nps.org.au/older-people. Medicine Wise News September 2013

Which of the following should be considered when thinking about deprescribing a particular medication?

1. Efficacy
2. Safety
3. Patient specific goals therapy
4. All of the above

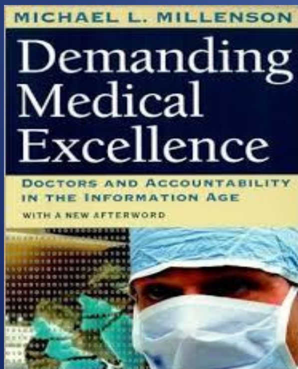


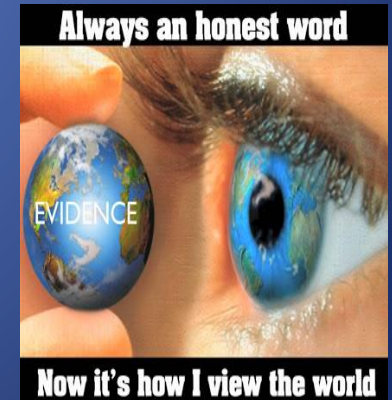




David Lawrence Sackett, MD

November 17, 1934 - May 13, 2015





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Evidence of Efficacy of Depreescribing

Drug Withdrawal Trial

Iyer S. Drugs and Aging. 2008;25:12:1021-31.

Systematic review (n=31 trials, n=8,972 subjects)

Drug Withdrawal Trial

van der Cammen TJM. Age & Ageing. 2014;43(1):20-5.

(n=7 trials)

Falls , cognitive impairment and end-of-life

- N=15 RCT's, N=16 observational, >65 years and older, targeted deprescribing
- Antihypertensives (n=7,636)
- Psychotrophic and benzodiazepines classes (n=1184)
- Discontinuation rates without harm
  - 20% - 85% of patients remained normotensive off medication @ 6 months and 5 years
- **Reduced falls and improvement in cognitive and psychomotor function in the CNS medication categories**
- + impact of cessation of psychotropic agents on falls and cognition replicated

Evidence of Efficacy of Deprescribing

Drug Withdrawal Trial

Nelson MR et al. BMJ 2002;325(7368):815-17.

Australian Blood Pressure Study Cohort

(N=503, 65-84yo

169 General Practices)

- Demonstrated 37% of participants remained normotensive 1 year after targeted drug withdrawal
  - +predictors
    - Lower "on treatment" SBP, younger age, 2 week success, and single treatment

Drug Withdrawal Trial

Ekbom T et al. J Intern Med 1994;235(6):581-8.

(5-year follow-up, N=333, 70-84yo)

Sweden

- Cessation of inappropriate antihypertensive agents for 5 years was 20%
- Fewer cardiovascular events and deaths over the 5 year follow-up period
  - + predictors – monotherapy, low doses, lower SBP

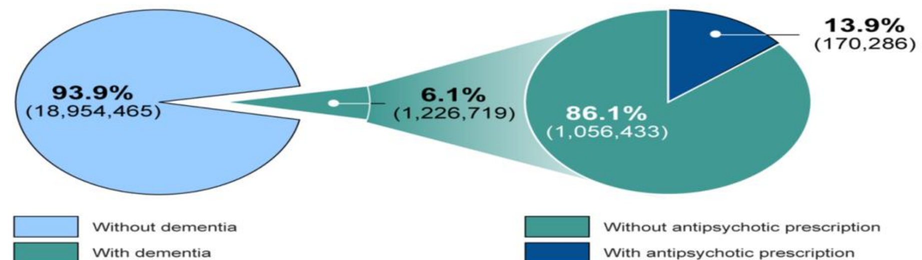
Evidence of Efficacy of Deprescribing

Drug Withdrawal Trial

Declercq T. Cochrane Database Syst Rev 2013;3:CD007726

N=606, 9 trials

- N=9 RCT's, (7 nursing homes, 1 outpatient, 1 both)
- dementia and antipsychotic use >65 years and older, targeted deprescribing
- Demonstrated safety of withdrawing antipsychotic agents that had been used continuously in > 80% of patients with dementia
- **Note: non-significant increase in mortality in people who continued antipsychotics use @ 12 months (5%-8%) vs. placebo**



Evidence of Efficacy of Deprescribing

Drug Withdrawal Trial

Tannenbaum C et al. JAMA Intern Med 2014;174(6):890-98.

EMPOWER Cluster RCT

(N=148 vs 155 controls)

Canada

Drug Withdrawal Trial

D-PRESCRIBE Trial

(in progress)

(NSAIDs, sulfonylureas, antihistamines, benzodiazepines)

(N=450)

Canada

- Direct to consumer detailing targeting benzodiazepine discontinuation or dose reduction (≥25% sustained for ≥ 3 months) in adults >65 years and older
- 62% of consumer's shared information with prescriber (SHARED DECISION MAKING)
- @ 6 months
  - 27% vs. 5% achieved complete discontinuation
  - 11% vs. 6% achieved dose reduction
- 42% experienced ADWE's, 5% were prescribed an additional medication

Evidence of Efficacy of Deprescribing

Polypharmacy

Garfinkel D et al. Arch Intern Med 2010;170(18):1648-54.

FP referral to CGA clinic

Good Palliative-Geriatric Practice algorithm

- N=70 community dwelling elderly – ADVANCED DISEASE
  - Avg. age 83yo, 61% had 3 or more and 26% had 5 or more comorbidities, mean # of meds 7.7, avg. 4.4 meds discontinued per patient
  - Follow-up period approx. 19 months
- 311 medications in 64 patients were recommended to discontinue
  - 2% - restarted due reoccurrence of original indication
  - 14% died @ mean follow-up 13 months
  - 81% successful discontinuation achieved
  - No deaths or adverse events attributed to medication withdrawal
  - 88% reported global improvement in health

Most non-palliative medications should be discontinued in patients with a terminal illness:

1. Strongly Agree
2. Agree
3. Neither Agree nor Disagree
4. Disagree
5. Strongly Disagree

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The primary goals of deprescribing include:

1. ↓ polypharmacy; ↑ adverse events
2. ↓ polypharmacy; ↑ (+) patient outcomes
3. ↓ medication adherence; ↑ adverse events
4. ↓ medication adherence; ↓ (-) patient outcomes

Deciding Which Therapies Can Be Discontinued

MCC – CASE

71 yo presents with cough, SOB and likely COPD exacerbation

<u>Problem List</u>: (n=14)

HTN, CAD, CVA 2011, RLE weakness, COPD, DM, Osteoporosis, Osteoarthritis, GERD, Anxiety, Insomnia, Allergic Rhinitis, Glaucoma, >50 pack years

<u>Medications</u>: (n=21)

14 chronic, 7 PRN

Deciding Which Therapies Can Be Discontinued

Steroid/LABA 160/4.5mcg	*2 puffs BID*	*Mirtazapine 7.5mg*	*QHS*
Albuterol nebs/inhaler	*Q4H prn*	*Amlodipine 10mg*	*Daily*
Prochlorperazine 5mg	*TID Prn*	*Trazodone 100mg*	*QHS Prn*
Meclizine 25mg	*TID Prn*	*Zolpidem 10mg*	*QHS*
Acetaminophen 500mg	*Q4H Prn*	*Estrogen Cream*	*2X weekly*
Diclofenac 1% Gel	*QID Prn*	*Traimcinolone Cream*	*BID*
Alendronate 70mg	*1X weekly*	*Diphenhydramine 25mg*	*BID*
Omeprazole 40mg	*QAM*	*Fluticasone Nasal*	*BID Prn*
Insulin glargine 13U	*QAM*	*Dorzolamide/Timolol*	*BID*
Insulin aspart 2U	*AC TID*	*Latanoprost*	*QHS*
Sitagliptin 100mg	*Daily*		

Deciding Which Therapies Can Be Discontinued

Rank	Drug	Number of participants (%)
#1	Benzodiazepines	43/47 (91%)
#2	Atypical antipsychotics	38/47 (81%)
#3	Statins	22/47 (47%)
#4	Tricyclic antidepressants	21/47 (45%)
#5	Proton-pump inhibitors	20/47 (43%)
#6	Urinary anticholinergics	17/47 (36%)
#7	Typical antipsychotics	16/47 (34%)
#8	Cholinesterase inhibitors	16/47 (34%)
#9	Opioids	12/47 (26%)
#10	Selective serotonin reuptake inhibitors	9/47 (19%)
#11	Bisphosphonates	8/47 (17%)
#12	Anticonvulsants	7/47 (15%)
#13	Beta-blockers	3/47 (6%)
#14	Antiplatelets	3/47 (6%)

PLoS ONE 10(4):e012246
(n=65 Canadian Geriatric Experts- 36 pharmacists, 19 MDs, 10 NP's)
3 round delphi, 67% response

Deciding Which Therapies Can Be Discontinued

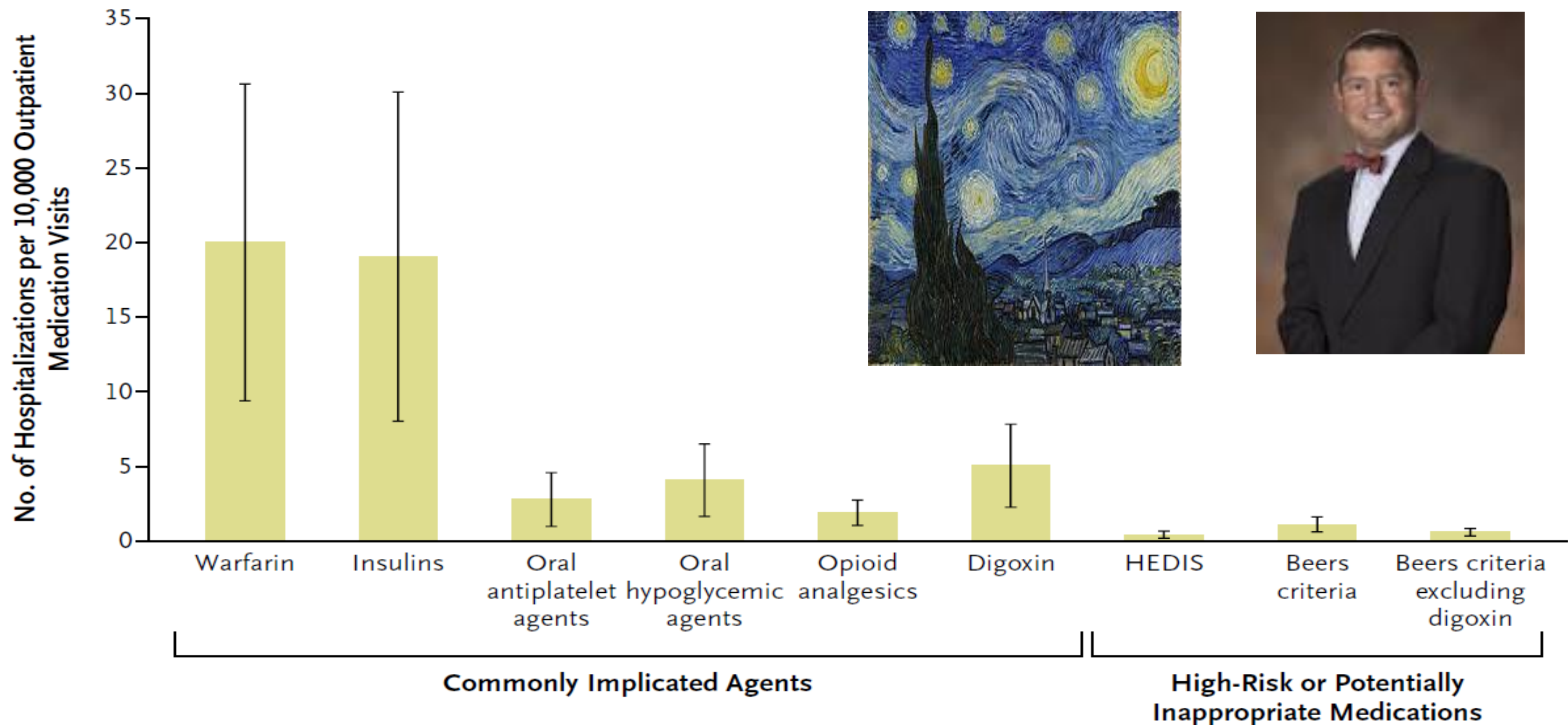


Figure 1. Estimated Rates of Emergency Hospitalizations for Adverse Drug Events in Older U.S. Adults, 2007–2009.

NEJM 2011;365:2002-12.

Strategies to Facilitate Deprescribing in Clinical Practice

Tools

- Beer's
- Anticholinergic Risk (ARS)
- Drug Burden index
- OBRA Guidelines
- TRIM

- Country specific:
  - START/STOPP, Ireland
  - ARMOR, Britain, NHS
  - Geriatric-Palliative method, Israel
  - PRISCUS, Germany
  - PIEA, Australia
  - Sweden, France, Norway, Italy

System-Level

- Professional Societies
  - *Choosing Wisely Campaign*
- Universities and Research
- Clinical Guideline Developers
- Government & Statutory Bodies

Ther Adv Drug Saf 2015;6(6):212-233
JAMA Intern Med 2015:175(5):829
CMAJ 2014;186(18):1372

Pressures for Safer Prescribing

Institute of Medicine (IOM)

Institute of Health Care Improvement (IHI)

Centers for Medicare & Medicaid (CMS)

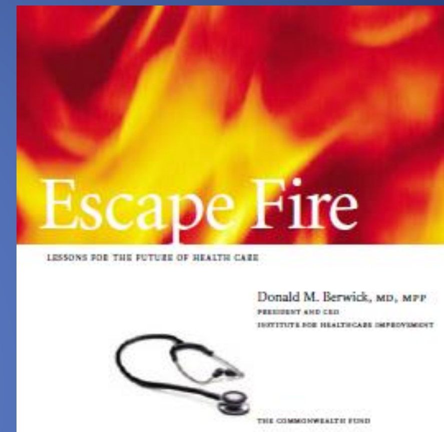
Agency for Health Care Research (AHRQ)
  DEcIDE/CERTs – UIC

Institute for Safe Medication Practices (ISMP)

Rand Corporation - ACOVE Project

Hartford & Reynolds Foundations

Professional Organizations



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Barriers to Routine Deprescribing

Myths and Pressures

- Diagnostics, drug company, marketing and for profit pressures

Prescribers’ fears, restraints and frustrations

- Lack of evidence in EBM movement
- Fear of legal system, superiors, colleagues, peers, patients and families

Patient / family role and pressure

- Give me something attitude
- “Expert prescribed” who are you to question
- Underappreciation of the scope drug related problems

Ther Adv Drug Saf 2015;6(6):212-233

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Areas Requiring More Research

- To what extent does standardized deprescribing affects clinical outcomes?
- Under what circumstances could deprescribing confer negative irreversible effects?
- What is the most effective, practical approach to deprescribing in routine clinical practice?
- How can treatment benefit-harm estimates be presented within prescriber-patient encounters in ways that optimally inform decisions?

Ther Adv Drug Saf 2015;6(6):212-233

As a provider, how comfortable would you be being involved in “de-prescribing” medication treatment decisions for a patient?

1. Very comfortable
2. Somewhat comfortable
3. Neither comfortable nor uncomfortable
4. Somewhat uncomfortable
5. Very uncomfortable

As a provider, how willing would you be to discuss discontinuing medications of limited benefit with a patient, family member or loved ones?

1. Very willing
2. Somewhat willing
3. Neither willing nor unwilling
4. Somewhat unwilling
5. Very unwilling

Appropriate De-Prescribing CHALLENGE

- Don’t let the perfect be the enemy of the good
  - *CLINICAL JUDGEMENT & PATIENT CONTEXT*

- Target initiatives to high prevalence/high severity meds
  - Based on your location, practice setting
  - Consider team based approaches (i.e. nurse, pharmacist)

- Stopping meds should to be done with same consideration as starting --- *Adverse Drug Withdrawal Reactions*

- Criteria = *Patient-centered care vs. Population care*
  - ***Aim to stop at least one drug and monitor***

"It is an art of no little importance to administer medicines properly:

but it is an art of much greater and more difficult acquisition to know when to suspend or altogether to omit them."

-Philippe Pinel, 1745-1826

18th Century Asylum reforms created the foundation for widespread clinical and pathological observations on mental disorders

Alois Alzheimer, MD

June 14, 1864 – December 19, 1915

Resource of Interest

- Garfinkel D, Ilhan B, Bahat G. Routine deprescribing of chronic medications to combat polypharmacy. *Ther Adv Drug Saf* 201;6(6):212-233.
- Lehman R, Tejani AM, McCormack J, Perry T, et al. Ten commandments for patient-centered treatment. DOI:10.3399/bjgp15X687001.
- Schiff GD, Galanter WL, Duhig J MA, Lodolce AE, Koronkowski MJ, Lambert BL. Principles of conservative prescribing. *Arch Intern Med* 2011;171(16):1433-1440. doi:10.1001/archinternmed.2011.256.
- Scott IA, Hilmer SN, Reeve E et al. Reducing inappropriate polypharmacy: The process of deprescribing. *JAMA Intern Med* 2015;175(5):827-34.