Deprescribing

What Drugs to Dump

How Common is Polypharmacy

- 12% of medicare female beneficiaries take > 10 medications (not including OTC and supplements)
- >60% of patients over 65 are on > 5 medications

Start with Simple Stuff

- Dump the docusate (Colace)

Does Colace Soften the Stool?

- Randomized, controlled trial of docusate vs. psyllium, 170 adult patients with chronic constipation received either 5.1 g twice a day of psyllium or 100 mg twice a day of docusate
- Compared with baseline, psyllium increased stool water content by 2.33%, vs .01% for docusate (*P* =. 007), and stool weight was increased in the group treated with psyllium, compared with docusate-treated patients (359.9 g/week vs. 271.9 g/week, respectively; *P* = .005)
- Aliment Pharmacol Ther. 1998 May;12[5]:491-7

Colace in Opioid Treated Patients

- In a study of constipation treatment in patients receiving opioids, A total of 74 patients were randomized to receive docusate 100 mg twice a day plus senna, or placebo plus senna. Once the study was started, inclusion criteria were broadened to include hospice patients with nonmalignant disease and patients who were not on opioids.
- Almost all patients in the study did receive opioids (94% of the docusate patients and 100% of placebo-treated patients). There were no significant between the groups in stool volume, frequency, consistency, or in perceived completeness of evacuation.
- J Pain Symptom Manage. 2013 Jan;45[1]:2-13

Conclusions on Colace

- A systematic review of the usefulness of docusate in chronically ill patients concluded that the widespread use of docusate for the treatment of constipation in palliative-care patients is based on inadequate experimental evidence (J Pain Symptom Manage. 2000 Feb;19[2]:130-6).
- The Canadian Agency for Drugs and Technologies in Health concluded “the available evidence suggests that docusate is no more effective than placebo in the prevention or management of constipation” . Canadian Agency for Drugs and Technologies in Health; 2014 Jun 26.

Antibiotics Before Dental Procedures in Patients With Artificial Joints

2009 AAOS Statement

- Healthcare providers “consider” antibiotic prophylaxis prior to any invasive procedure performed on all patients with total knee or hip replacements, regardless of the age of the joint arthroplasty or the patient’s medical history.
- American Association of Orthopaedic Surgeons. Information statement 1033: Antibiotic prophylaxis for bacteremia in patients with joint replacements. Feb 2009

The Evidence?

- The analogy of late prosthetic joint infections with infective endocarditis is invalid as the anatomy, blood supply, microorganisms, and mechanisms of infection are all different (1)

1) McGowan DA. Dentistry and endocarditis. *Br Dent J.* 1990;169:69.

What Did The Reference Really Say?

- “The analogy of late prosthetic hip infections with dentally related endocarditis is false and no special precautions are required in offering dental treatment to such patients.”

1997 ADA/AAOS Statement

- Presently, no scientific evidence supports the position that antibiotic prophylaxis to prevent hematogenous infections is required prior to dental treatment in patients with total joint prostheses. The risk/benefit and cost/effectiveness ratios fail to justify the administration of routine antibiotic prophylaxis.

The analogy of late prosthetic joint infections with infective endocarditis is invalid, as the anatomy, blood supply, microorganisms and mechanisms of infection are all different.

JADA, Vol. 128, July 1997:1004-8

2012 ADA/AAOS Joint Statement

Evidence Insufficient to Recommend Routine Antibiotics for Joint Replacement Patients Who Undergo Dental Procedures

- AAOS Clinical Practice Guideline Unit

Antibiotics For Patients with Joint Prosthesis

- 1997- NO
- 2009- Consider
- 2012- No
- New evidence from 1997 to 2012? No

Prosthetic Joint Infection Following Invasive Dental Procedures and Antibiotic Prophylaxis in Patients With Hip or Knee Arthroplasty

- All Taiwanese residents (N=255,568) who underwent total knee or hip arthroplasty between January 1, 1997, and November 30, 2009, were screened.
- 57,066 patients who underwent dental treatment matched with equal numbers who did not.6,513 matched pairs of patients who underwent dental treatment were further matched with those receiving antibiotics and those not
- PJI occurred in 328 patients (0.57%) in the dental subcohort and 348 patients (0.61%) in the nondental subcohort (P=.3). No difference in infection risk between those who took antibiotics and those who didn't
- Infect Control Hosp Epidemiol. 2017;38:154–161

Stop the PPI

Stop the PPI if at all Possible

- Some patients have reasons- refractory GERD, gastric protection in high risk patients on NSAIDS
- Good candidates to go off PPI's- given from chronic abdominal pain, started in the hospital

Problems With PPI's?

- Decreased Ca absorption
- Decreased iron absorption
- Increased fracture risk
- Decreased thyroid absorption
- Poor Magnesium absorption
- Poor B12 absorption
- Decreased Ketoconazole/Itraconazole absorption
- Increased risk of C. difficile, and recurrent C Diff and more severe C diff. FDA warning 2/12
- CKD/ AKI
- Dementia?

How to Taper a PPI

- Little strong evidence
- Options for taper- after completing a 4 week course

Reduce PPI to lowest dose then stop or change to on demand treatment

Or switch to H2 blocker

Can Fam Physician. 2017 May; 63(5): 354–364.

Follow Up After Stopping PPI for GERD

- Reevaluation at 4 and 12 weeks
- Most patients do not recur with severe disease after withdrawing PPI (1)

- Am J Gastroenterol. 2011 Nov; 106(11): 1953–1960.

Statins for Primary Prevention in the Elderly

Statin Use in Patients Over 75

- 46 864 people aged 75 years or more without clinically recognised atherosclerotic CVD.
- In participants without diabetes, the HR for statin use in 75-84 yo were 0.94 (95% confidence interval 0.86 to 1.04) for CVD and 0.98 (0.91 to 1.05) for all cause mortality, and in those aged 85 and older were 0.93 (0.82 to 1.06) and 0.97 (0.90 to 1.05), respectively
- Patients with diabetes, the HR of statin use in 75-84 year olds was 0.76 (0.65 to 0.89) for CVD and 0.84 (0.75 to 0.94) for all cause mortality

- BMJ. 2018;362:k3359.

Medications for Sleep

Medication Treatment For Chronic Insomnia

- CBT is preferred treatment of choice for chronic insomnia
- Medications with weak recommendation in practice guidelines: Zolpidem, doxepin,tamezepam,triazolam,ramelteon, zaleplon, suvorexant, and eszopiclone
- Recommended against: Trazodone,diphenhydramine, tryptophan,valerian,melatonin
- Clinical Practice Guidelines for Treatment of Insomnia. J Clin Sleep Med. 2017;13(2):307.

Zolpidem and Dementia

- Retrospective population-based nested case-control study
- A total of 8406 dementia and 16,812 control subjects were enrolled from Taiwan NHIRD during 2006 to 2010
- Zolpidem use was associated with non AD dementia Adjusted OR=1.33, 95% CI 1.24–1.41
- Relationship is obscure with AD- with increased risk between 170-819 mg/year, no association above or below those doses
- Medicine (Baltimore). 2015 May; 94(17): e809

Hypnotic Drugs and Mortality

- Retrospective cohort study.
- The age adjusted hazard ratio for mortality during the whole follow-up period for use of any study drug in the first year after recruitment was 3.46 (95% confidence interval 3.34 to 3.59) and 3.32 (3.19 to 3.45) after adjusting for other potential confounders
- Estimated 4 increased deaths /100 patients followed over 7.6 years

- BMJ. 2014 Mar 19;348:g1996

Zolpidem Doesn't Increase Mortality?

- Retrospective cohort study (Taiwan National database)
- Users of benzodiazepines (HR = 1.81; 95% confidence interval [CI] = 1.78-1.85) and mixed users (HR = 1.44; 95% CI = 1.42-1.47) had a higher risk of death
- Zolpidem users (HR = 0.73; 95% CI = 0.71-0.75) exhibited a lower risk of mortality
- PLoS One. 2015 Dec 28;10(12):e0145271.

Zolpidem and Falls

- Retrospective cohort study evaluating inpatient falls and zolpidem use
- The fall rate among patients who were prescribed and received zolpidem (n = 4962) was significantly greater than among patients who were prescribed but did not receive zolpidem (n = 11,358) (3.04% vs 0.71%; P < 0.001)
- J Hosp Med. 2013 Jan;8(1):1-6.

Bottom Line on Zolpidem

- Dementia data weak- especially a lack of data implicating AD
- Mortality- no
- Falls- yes

Deprescribing Strategies

- Abruptly stopping the BZRA (ie, abrupt discontinuation)
- Tapering the BZRA dose (ie, gradually reducing the dose until complete cessation of the BZRA)
- Recommending CBT (ie, a CBT program for insomnia with the aim of stopping or reducing BZRA use in the process)
- Combining tapering and CBT
- Reducing BZRA use with the following approaches:
  - -Using a lower dose of BZRA compared with baseline
  - -Using BZRAs only as needed
- Providing substitutive therapy (ie, discontinuing the BZRA and replacing it with an alternative agent [eg, melatonin] either abruptly or by cross-tapering)

Canadian Family Physician May 2018, 64 (5) 339-351;

Medications and Chronic Insomnia

- Small benefit, which stops after a few weeks in many patients. Stop drugs if not effective.
- CBT is the best option if available (and your patient has a functioning brain)
- Choosing medication treatment is pure risk vs reward, as risks are real

Muscle Relaxants

Cochrane Database Syst Rev. 2003;
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Cochrane Database Syst Rev. 2003;

Evidence of Benefit in Acute Back Pain

- Pooled RR for non-benzodiazepines versus placebo after two to four days was 0.80 [95% CI; 0.71 to 0.89]for pain relief and 0.49 [95% CI; 0.25 to 0.95]for global efficacy.
- But, RR 1.50 for side effects (sedation)

- Cochrane database Syst Rev 2003; 2:CD004252.

Muscle Relaxants for Chronic Musculoskeletal pain

- No clear evidence of benefit for chronic musculoskeletal pain
- Weak evidence for acute exacerbations of low back pain (1)
- Side effects are common, sometimes severe, especially in the elderly (fall risk)
- Spine 2003;28 (17): 1978-92

- 85 yo woman is brought to the ED after a syncopal episode. Her care givers report a similar episode 2 weeks ago,but she recovered so quickly they did not seek evaluation for her.
- Meds: Omeprazole 20 mg, pravastatin 40 mg, citalopram 10 mg, albuterol, donepezil 10 mg, isosorbide mononitrate 60mg and calcium. On exam BP 100/60 P 55. ECG Bradycardia with normal intervals. What drug most likely caused of her syncope?

- A) Citalopram
- B) Pravastatin
- C) Donepezil
- D) Isosorbide
- E) Calcium

Cholinesterase inhibitors and Syncope

- Cholinesterase inhibitors and bradycardia
  - ChE-I → RR bradycardia ↑ 1.4 (95% CI, 1.1–1.6)
  - Dose effect: donepezil > 10mg → 2.1 ↑ risk

J Am Geriatr Soc 2009;57:1997

- Clinical significance: ChE-I use associated with
  - Syncope: HR ↑ 1.76 (95% CI, 1.57-1.98)
  - ED visits for bradycardia: HR ↑ 1.69
  - Pacemaker placement: HR ↑ 1.49
  - Hip Fx: HR ↑ 1.18 (95% CI, 1.03-1.34)

Arch Intern Med 2009;169:867

Cholinesterase Inhibitors

How Effective is Donepazil For AD?

- NNT is 12
- Should stop if not seeing benefits
- Side effects common and troubling

Urinary incontinence

Nausea, decreased appetite, weight loss

Syncope

BMJ 2005;331:321-327

Asthma Treatment

Does My Patient Really Have Asthma?

- Prospective, cohort trial of asthma patients
- 701 patients participated, 613 completed study
- All patients were monitored with peak flow/spirometry/bronchial challenge- all tapered of all asthma meds over 4 visits
- 33% ended up having current asthma ruled out, and after 12 months ,29% (88% of those diagnosed with no asthma exhibited no clinical or lab evidence of asthma at 12 months

- JAMA 2917;317:269-279.

Deprescribing in “Asthma”

- Safe to consider in stable patients- especially if no definitive diagnosis
- Would start by removing B agonist, then decreasing inhaled steroid dose

Deprescribing- Summary

- PPI's- reduce to H2 blocker, or taper off
- Cholinesterase inhibitors- Are they getting any benefit? Is it causing addition of other drugs
- No need to give antibiotic prophylaxis for joint replacments