# When Should Preventive Therapies be Stopped in Older Adults

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# Objectives

- Understand potential benefits/risk of cardiovascular (CV) medication in the "oldest old" population
- Use cognitive & physical function to tailor treatment to older adults
- Apply current CV guidelines to older adults appropriately

# Aspirin for primary prevention

# ASPREE trial

Aspirin (ASA) for primary prevention in healthy older adults

- 19,114 participants
  - 65yo + with No hx CV event, dementia, or disability
  - 4.7y median
  - 100mg ASA v placebo
- Rate of CV disease (Hazard ratio (HR) 0.95)
  - 10.7 event per 1000 person yr (ASA)
  - 11.3 event per 1000 person yr (placebo)
- Rate of Hemorrhage (HR 1.38)
  - 8.6 event per 1000 person yr (ASA)
  - 6.2 event per 1000 person yr (placebo)

ASA did not sig decrease CV risk

ASA sig increased bleeding risk

McNeill et al, NEJM, Oct 2018

# ASCEND trial

ASA for primary prevention in Diabetics (DM)

- 15,480 participants
  - DM but no CV disease
  - 7.4y mean
  - 100mg ASA v placebo
- Serious vascular events (Rate ratio (RR) 0.88, p=0.01)
  - ASA 8.5%
  - Placebo 9.6%
- Major bleeding (RR 1.29, p=0.003)
  - ASA 4.1%
  - Placebo 3.2%

ASA sig decreased risk of CV event in diabetics

ASA sig increased risk of major bleeding in diabetics

Bowman et al, NEJM, Oct 2018

# Statin therapy

# PROSPER trial

Statin use for primary & secondary prevention in older adults

- 5,804 participants
  - 70-84yo – with history of OR risk factors for vascular disease
  - Pravastatin 40mg daily vs placebo
  - 3.2y avg
- CV events (HR 0.88, p=0.014)
  - 408 (statin) vs 473 (placebo)
- CHD death & non-fatal myocardial infarction (MI)
  - HR 0.81, p=0.006
- Stroke
  - HR 1.03, p=0.8

Statins reduced CV mortality & non-fatal MI's in older adults

Statins did not reduce stroke risk in older adults

Shepherd et al, Lancet, Nov 2002

# STAREE trial

"STAtins in reducing events in the elderly"

- Primary prevention with low dose statin in older adults
  - 10,000 participants
    - 70yo +
    - Atorvastatin 40mg vs placebo
  - Measured outcomes
    - CV events
    - "disability free survival" (dementia, disability, death)

# Individualizing therapy for older adults

# Factors to consider

Age

- Oldest old subset

Frailty

- Chair rises

Cognitive status

- Mild cognitive impairment vs dementia
- Type of dementia – life expectancy

# Factors to consider

Life expectancy

- Lee Schonberg Index (UCSF ePrognosis) - 5/10y mortality risk & life expectancy
  - Age, sex, BMI, general health status, hx cancer, lung disease, DM, smoking
  - Ability to walk ¼ mile without assistance
  - # hospitalizations over 12mo
  - IADL & ADLs assistance

# Factors to consider

Medication & caregiver burden

- Polypharmacy – 10+
- Dosing interval/mode
- Cost

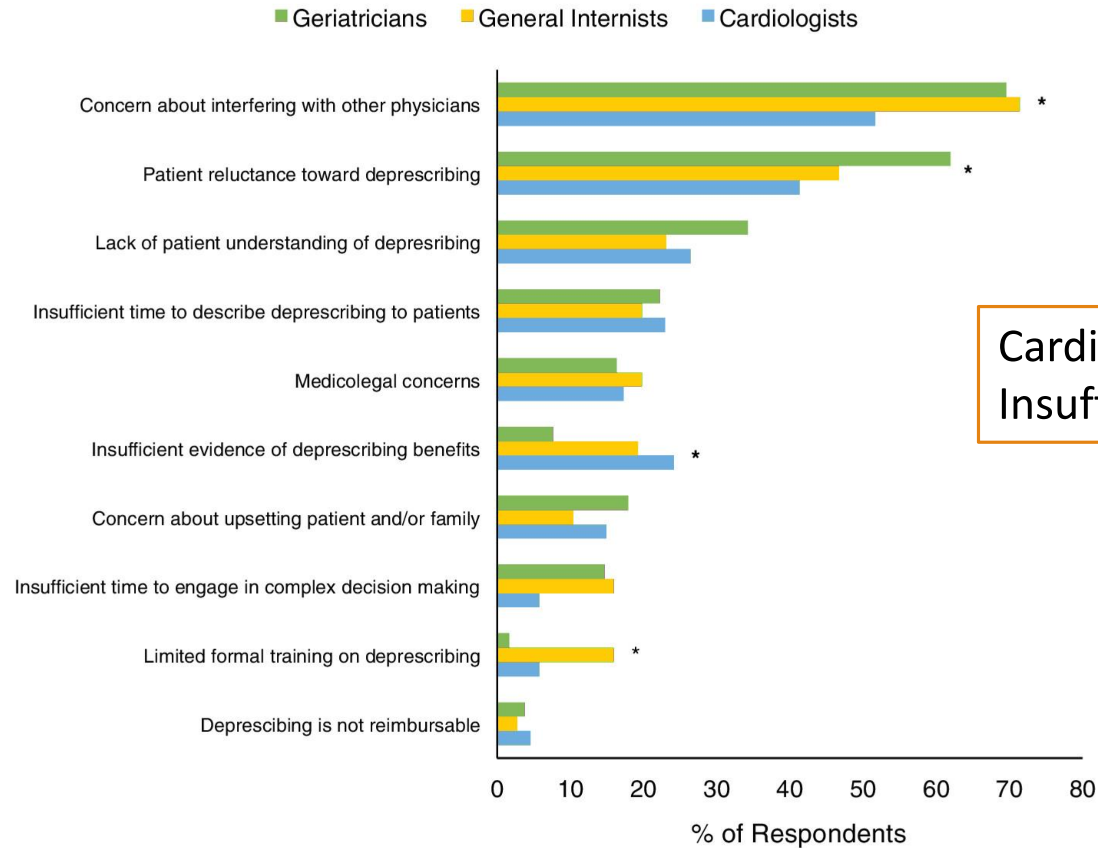
Quality of life

- Side effects of treatment vs expected benefits

Patient goals for care

# Barriers to Deprescribing CV medications

Internists:
1. Concern over other physicians
2. Limited deprescribing training




Cardiologists:
Insufficient deprescribing evidence

Geriatricians:
Patient reluctance

Goyal et al, JAGS, Jan 2020

*P<0.05

# Questions??

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