Aspirin – Is There a Role In 1° Prevention?

### Primary Outcomes

- Death from MI/vascular events, stroke, death from CV disease
- Nonfatal MI/vascular events
- All-cause mortality

### Secondary Outcomes

- Total CV events
- Fatal MI/vascular events in addition to fatal stroke
- Nonfatal MI/vascular events plus nonfatal stroke
- Nonfatal MI/vascular events and MI plus fatal CV event
- Nonfatal MI/vascular events and total fatal CV event
- Any reported CV event (composite)

### Values

- $k$: number of studies
- $OR$: odds ratio
- $CI$: confidence interval

### ASPREE Trial

- 19,114 pts, >65-70 yo, no known CVD, ASA 100mg vs placebo, median 4.7 yrs f/u
- CVD Major Hemorrhage

### ARRIVE Trial

- 12,546 pts, >55-60 yo, moderate CV risk, low risk bleeding, ASA 100mg vs placebo, 6 yrs f/u

### ARRIVE Trial

- Gastrointestinal bleeding
- $p<0.0007$, stratified by only $p<0.0006$

### What About In An Elderly Population?

- ASPREE Trial: 19,114 pts, >65-70 yo, no known CVD, ASA 100mg vs placebo, median 4.7 yrs f/u
- CVD Major Hemorrhage

### Conflict of Interest Disclosure

- I have no financial relationships with a commercial entity producing healthcare-related products and/or services
What About In An Elderly Population?

**ASPREE Trial**: 19,114 pts, >65-70 yo, no known CVD, 100mg ASA vs Placebo, median 4.7 yrs f/u

- Death, Dementia, Disability

What About A Diabetic Population?

**ASCEND Study Collaborative Group. NEJM 2018.**

- **ASCEND Trial**: 15,480 pts, DM w/o CVD, ASA 100mg vs placebo, median 7.4 yrs f/u
- Is There Anything Else That Helps?
  - **ASCEND Trial**: 15,480 pts, DM w/o CVD, 1gm n-3 fatty acids (460mg EPA) vs olive oil, median 7.4 yrs f/u

Is There Anything Else We Can Do?

**Manson, et al. NEJM 2018; ASCEND Study Collaborative Group. NEJM 2018.**

- **VITAL Trial**: 25,871 pts, >50 yo w/o CVD, 1gm n-3 fatty acids (460mg EPA) vs placebo, median 5.3 yrs f/u
- **ASCEND Trial**: 15,480 pts, DM w/o CVD, 1gm n-3 fatty acids (460mg EPA) vs olive oil, median 7.4 yrs f/u

Maybe There is Still Hope…

**REDUCE-IT: 25% Reduction In MACE With High-Dose EPA**

- Reduce risk of cardiovascular events by 25% with high-dose EPA
Promising Results

REDUCE-IT: 8,179 pts, CVD or DM & Tgs 135-499/100-500, 4gm Icosapent ethyl vs (median 4.9 yrs f/u)

CV death, MI, stroke, PCI, unstable angina

Not for Vitamin D.....

VITAL Trial: 25,871 pts, >50 yo w/o CVD, 2,000 IU vs placebo, median 5.3 yrs f/u

Take Home Points:

• Era of Aspirin for primary CV prevention is over

• High concentrated EPA, but not OTC omega-3, may be useful in primary (DM) and secondary prevention

• Poor evidence for primary prevention with Vitamin D

Thank you!

How About Supplemental Vitamins?