ACC Update March 2018 Orlando

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CAD

- ADAPT-PCI
  - Goal:
    - To assess impact of genotyping on P2Y12 prescription patterns following PCI.
  - Outcome:
    - Use of point of care genotype testing for CYP2C19 significantly influences providers choice of P2Y12 inhibitor post PCI.

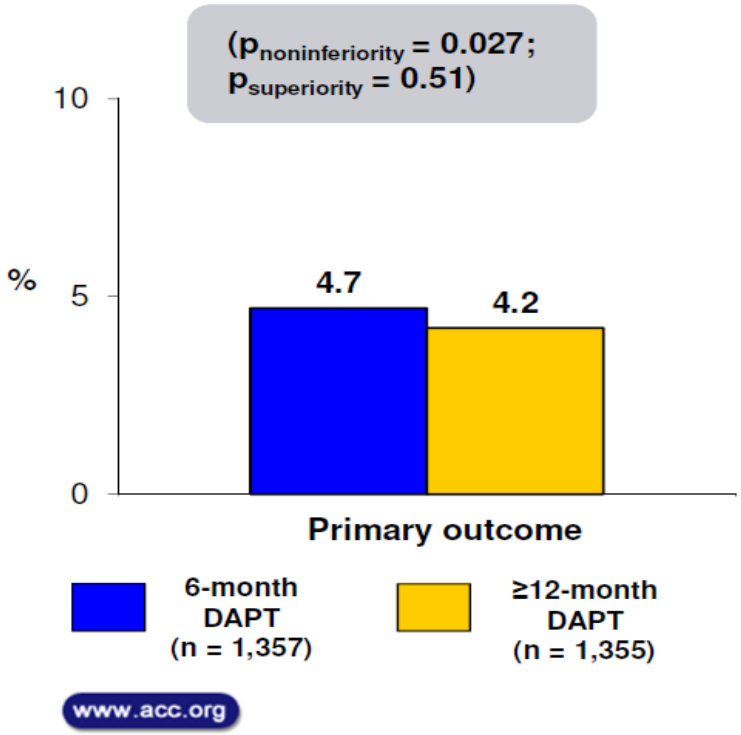
CAD

- CANTOS Trial
  - Goal:
    - Evaluate canakinumab compared with placebo among patients with a hx of MI and elevated hsCRP.
    - Reduces CV Death, Heart Failure, Hospitalization Risk
  - Outcome:
    - canakinumab 150mg was superior to placebo at preventing adverse cardiac events.

CAD

SMART-DATE

Trial design: Patients with ACS undergoing PCI with a second-generation DES were randomized in a 1:1 fashion to either DAPT for 6 months or ≥12 months. Patients were followed for 18 months.



Results

- Primary outcome, MACCE at 18 months: short-term vs. long-term DAPT: 4.7% vs. 4.2%, p for noninferiority = 0.027; p for superiority = 0.51
- MI: 1.8% vs. 0.8%, p = 0.02; nontarget vessel MI: 0.8% vs. 0.2%, p = 0.07; stent thrombosis: 1.1% vs. 0.7%, p = 0.32
- BARC 2-5 bleeding: 2.7% vs. 3.9%, p = 0.09

Conclusions

- 6-month duration of DAPT is noninferior to ≥12-month duration among patients with ACS undergoing PCI with a second-generation DES; however, there is a higher risk of MI with shorter durations
- Trial validates current guidelines, which recommend at least 12 months of DAPT following DES PCI for ACS

Hahn GY, et al. Lancet 2018;Mar 12:[Epub]

CAD

- DEFINE-FLAIR Trial
  - Goal:
    - Evaluate functional lesion assessment by iFR would be non-inferior to FFR among patients with angina/ACS
  - Outcome:
    - iFR was non inferior to FFR at preventing adverse cardiac events

CAD

- ODYSSEY OUTCOMES
  - Goal:
    - Compare safety/efficacy of alicocumab to placebo with recent ACS already on max statin therapy
  - Outcome:
    - PCSK9 (alicocumab) reduced rates of major adverse CV events by 15% compared to placebo
    - Second largest trial to investigate LDL reduction translates into improved CV outcomes. First study to show increase mortality benefit.

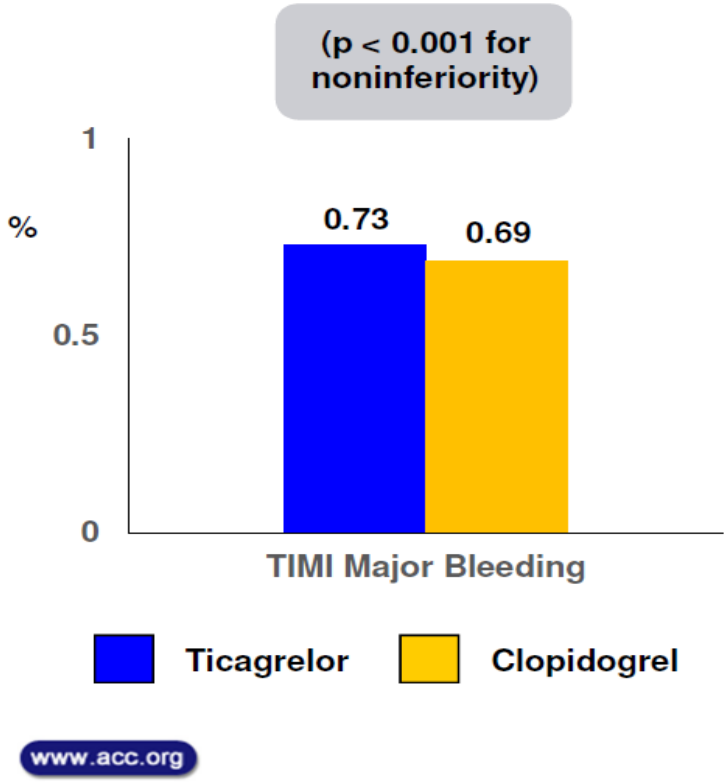
CAD

- ARTEMIS Trial
  - Goal:
    - Compare efficacy of copayment intervention on P2YI2 inhibitor use among ACS patients and outcome at 1 yr.
  - Outcome:
    - While co payment reduction significantly affected clinicians choice of P2Y12 inhibitor use post ACS , improved patients persistence with treatment did not impact outcome at 1 year.

CAD

TREAT

Trial design: Patients who received fibrinolytic therapy for STEMI were randomized to delayed ticagrelor (n = 1,913) versus clopidogrel (n = 1,886). Patients were randomized a median of 11 hours after fibrinolysis and 90% had been pretreated with clopidogrel.



www.acc.org

Results

- TIMI major bleeding: 0.73% of the ticagrelor group vs. 0.69% of the clopidogrel group (p < 0.001 for noninferiority)
- Fatal bleeding: 0.16% with ticagrelor vs. 0.11% with clopidogrel (p = 0.67)
- Intracranial bleeding: 0.42% with ticagrelor vs. 0.37% with clopidogrel (p = 0.82)
- Major adverse cardiovascular events: 4.0% with ticagrelor vs. 4.3% with clopidogrel (p = 0.57)

Conclusions

- Among patients <75 years of age who were treated with fibrinolysis for STEMI, delayed administration of ticagrelor was noninferior to clopidogrel
- There was no excess of major bleeding, fatal bleeding, or intracranial bleeding with ticagrelor vs. clopidogrel

TREAT Study Group. JAMA Cardiol 2018;Mar 11:[Epub]

CAD

- SECURE-PCI
  - Goal:
    - Compare safety/efficacy of loading 2 doses atorvastatin (80mg) early among patients presenting with ACS early invasive approach
  - Outcome:
    - Routine admission of 2 loading doses of high dose statin is not superior to placebo in reducing CV events at 30 days in pt with ACS undergoing early invasive approach.

CAD

- CARES Trial
  - Goal:
    - Evaluate febuxostat compared with allopurinol among patients with CVDz and Gout
  - Outcome:
    - “Findings, showed an uptick in deaths after patients had been taking febuxostat use in patients with CVDz (34% death CVDz, 22% death any cause)”

CAD

- COMPASS Trial
  - Goal:
    - Evaluate anticoagulation strategies with rivaroxaban among patients with stable atherosclerosis
  - Outcome:
    - Rivaroxaban plus ASA was associated with fewer adverse CV events, but more major bleeding events vs ASA alone

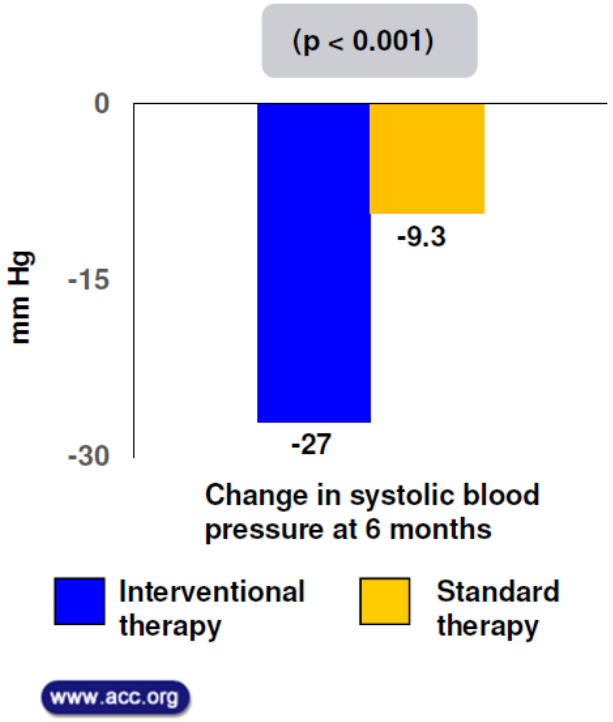
CAD

- POISE Trial
  - Goal:
    - Evaluate effect of treatment with BB (metoprolol) compared with placebo on major CV events in patients undergoing non-cardiac surgery
  - Outcome:
    - " Our results suggest at 1 year for every 1000 pt having non cardiac surgery, treatment with BB would prevent MI in 12 pt but would result in an excess of 13 deaths and 6 strokes".
    - Research is needed to establish ways to derive benefit of perioperative beta-blockade while mitigating risk.

Vascular

Blood Pressure Reduction in Black Barbershops

Trial design: Black barbershop patrons with uncontrolled hypertension were randomized to interventional therapy (n = 139) vs. standard therapy (n = 180). Interventional therapy consisted of barbers who promoted monthly follow-up with pharmacists.



Results

- Change in systolic blood pressure at 6 months: -27.0 mm Hg in the interventional group vs. -9.3 mm Hg in the standard therapy group ($p < 0.001$)
- Blood pressure <130/80 mm Hg: 63.6% in the interventional group vs. 11.7% in the standard therapy group ($p < 0.001$)
- Number of blood pressure medications: 2.6 in the interventional group vs. 1.4 in the standard therapy group ($p < 0.001$)

Conclusions

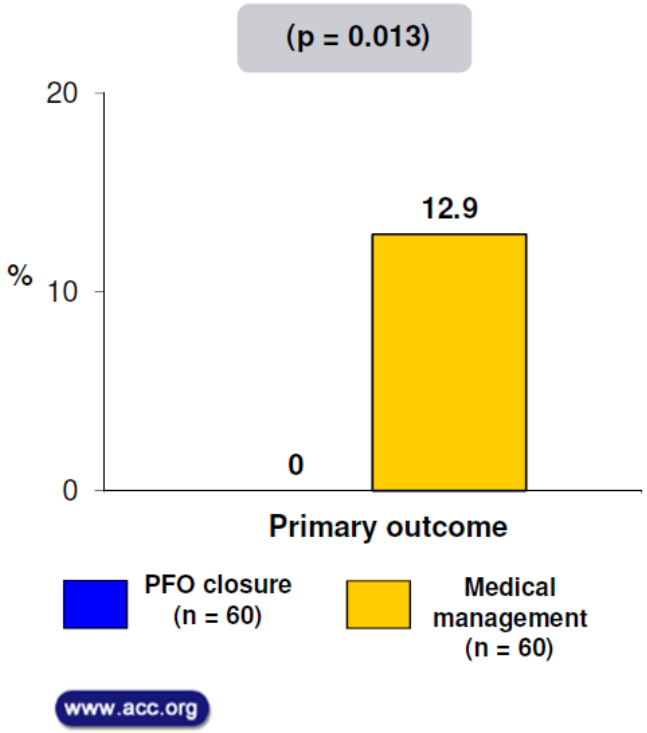
- Among black barbershop patrons with uncontrolled hypertension, interventional therapy was effective at reducing systolic blood pressure at 6 months compared with standard therapy

Victor RG, et al. N Engl J Med 2018;Mar 12:[Epub]

Vascular

DEFENSE-PFO

Trial design: Patients with high-risk PFO were randomized in a 1:1 fashion to either PFO closure with the Amplatzer PFO Occluder or medical management. Patients were followed for 2 years. The trial was terminated early.



Results

- Primary outcome, stroke/vascular death/TIMI major bleeding over 2 years: PFO closure vs. medical management: 0 vs. 12.9%, p = 0.013
- Ischemic stroke: 0 vs. 10.5%, p = 0.023; hemorrhagic stroke: 0 vs. 2.5%, p = 0.3; TIA: 0 vs. 2.0%, p = 0.32
- New ischemic lesion on MRI: 8.8% vs. 18.4%, p = 0.24

Conclusions

- PFO closure among patients with cryptogenic stroke and high-risk PFO (atrial septal aneurysm, hypermobility, or large size) was superior to medical management alone in reducing the primary endpoint including recurrent ischemic strokes up to 2 years of follow-up
- Although terminated early, overall results were similar to recent trials supporting PFO closure

Presented by Dr. Jae-Kwan Song at ACC 2018

Vascular

- ACCELERATE Trial
  - Goal:
    - Compare safety/efficacy of evacetrapib, CETP inhibitor in patients with high vascular risk
  - Outcome:
    - Evacetrapib is not superior to placebo in reducing CV events in pt with high risk for vascular risk despite favorable effects on HDL-C and LDL-C.

Heart Failure

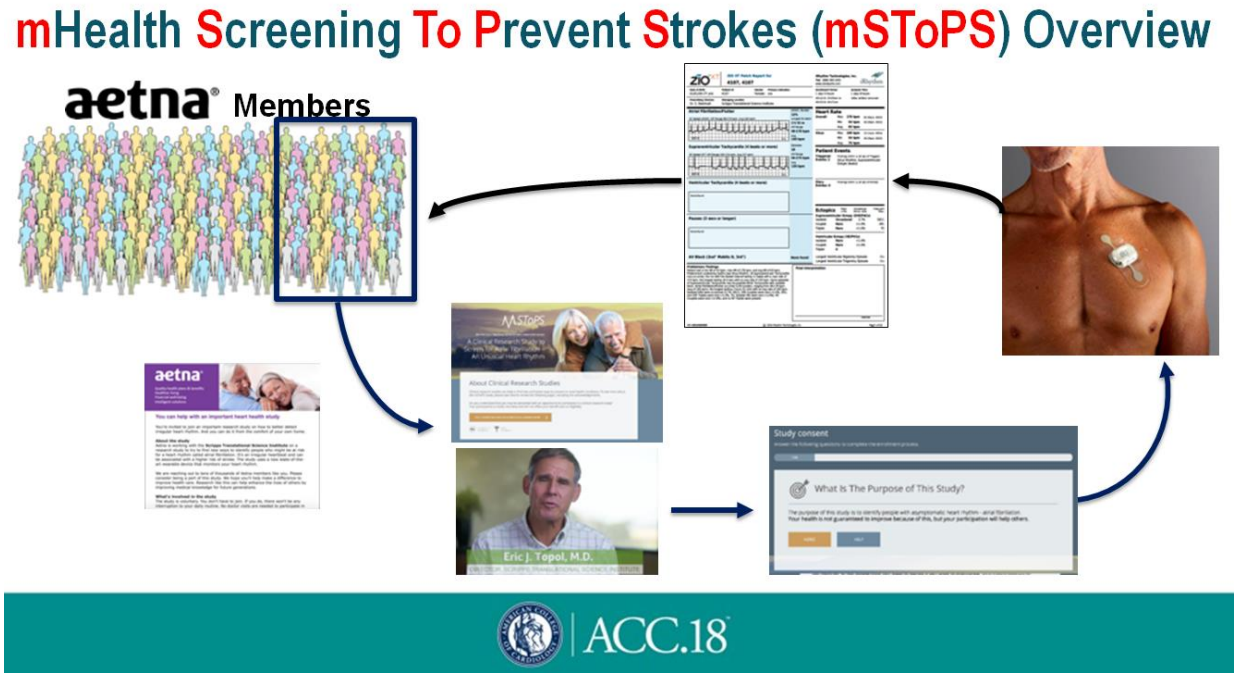
- CECCY Trial
  - Goal:
    - Evaluate carvedilol compared with placebo among patients with HER2-neg breast cancer undergoing anthracycline based chemotherapy
  - Outcome:
    - Study failed to show carvedilol was superior to placebo at preventing CM

Valvular

- NOTION
  - Goal:
    - Compare outcomes TAVR vs SAVR in unselected patients with severe AS
  - Outcome:
    - 1 yr outcomes following TAVR and SAVR were similar in low risk pt with severe AS
    - NOTION is the first trial to report on 5-year outcomes after TAVR vs SAVR in lower risk patients (82% with STS < 4%)
    - After 5 years, there were no differences in all-cause mortality, stroke, myocardial infarction, or these combined
    - There was no difference in prosthetic valve re-intervention
    - Prosthetic opening area was larger and mean gradient lower for TAVR and remained unchanged over time
    - TAVR continued to have more mild/moderate prosthetic regurgitation
    - New pacemaker implementation after TAVR trended to be associated with increased mortality
    - Determining the longevity of TAVR prostheses will require longer term follow-up

EP

- m STOPS Trial
  - Goal:
    - EKG patches Ups At Home Afib Diagnosis
  - Outcome:
    - Improved the rate of atrial fib diagnosis vs routine care



EP

- VEST Trial
  - Goal:
    - Compare safety/efficacy of wide WCD in reducing SCD among post MI patients with EF <35%
  - Outcome:
    - WCD does not reduce SD but reduces all cause mortality up to 90 days in patients with EF <35% immediate post MI compared with controls.
    - VEST represents the first randomized, controlled trial of the WCD
    - Prescribing the WCD is reasonable to protect high-risk patients with a low LV EF post-MI until evaluation for an ICD at 40-90 days

Methods: Intervention-WCD

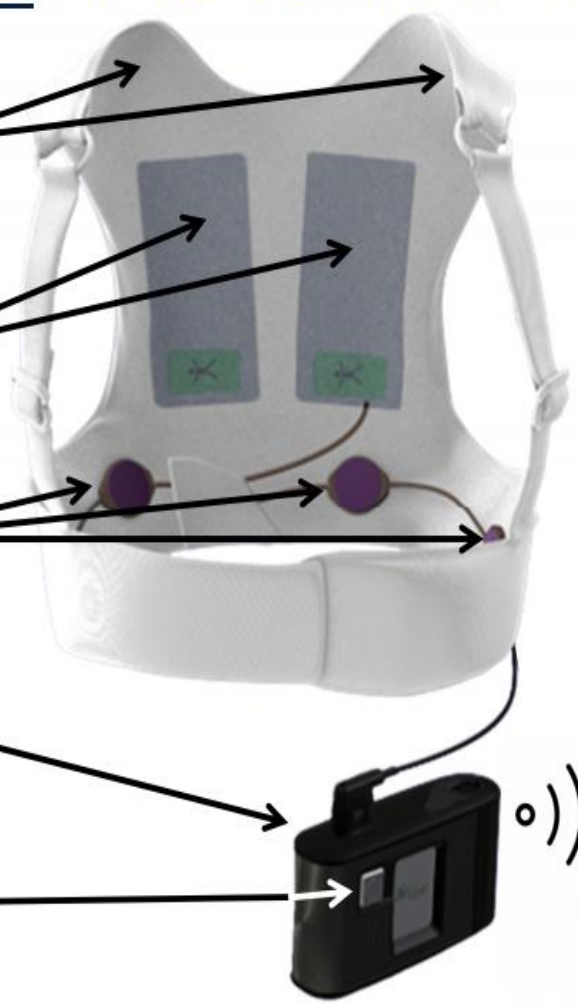
Washable-Interchangeable Garment

Self-Gelling Defibrillation Electrodes

Dry ECG Electrodes

Rechargeable Monitor & Battery Pack

Response Buttons



Monitors
- Wear-time
- Noise
- Device warning
- Asystole
- VT/VF

Treatment
- VT/VF

Investigators blinded to data

VEST & VEST REGISTRY

UCSF

Summary

*Shared Decision Making for Clinic Buzzword to Bedside
*JACC Journal
*CV Disease in Women
*Latest Guidelines Focus on
    Preventing SCD-managing patients with ventricular arrhythmias
    Managing and treating patients with high BP
*2018 EHRA Practical Guide to NOAC Use in AF
*Registries

- A coordinated approach to Quality Improvement
- Better outcome thru Action Registries
- Patient Navigation Program-Focus MI: Solution to Reduce MI Readmissions Nationally
- PINNACLE Registry 10 years
- GWTG Heart Failure Registry

Thank You

Questions?
Comments?