

***Can we improve post-MI medication adherence for FREEE?***

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# Background and Design

- Several medications can improve post-MI outcomes
  - Including beta-blockers, ACE-I/ARB, and statins
- Discharge prescription of these meds now near optimal
  - Yet long-term adherence notoriously poor
- Many blame high drug costs as cause
  - *Could giving them away improve patient adherence?*

## MI FREEE Trial - Design

- Cluster RCT in 2,980 plan sponsors (n=5,855 patients)
- Intervention (waive plan co-pay) vs. control (usual care)
- Primary endpoint: 1st readmit for vascular event/revasc
- Secondary: med adherence, other events, costs

# MI FREEE Major Findings

- **Medication adherence in follow-up was low**
  - Absolute Adherence: ACE/ARB 35%, BB 41%, statin 49%
  - Full (80%+) adherence for 3 meds: 9%
- **Full coverage improved med adherence slightly**
  - Increasing absolute rates by 4-6%
- **Primary outcome: 1<sup>st</sup> major vascular event/revasc**
  - 17.6 vs 18.8 events /100 pt yr: HR 0.93 (0.82-1.04) p=0.21
- **Secondary outcomes:**
  - Total vascular events/revasc: HR 0.89 (0.80-0.99) 0.03
  - Major vascular events: HR 0.86 (0.74-0.99) 0.03
  - Total costs: \$66,008 vs. \$71,778, HR 0.89 (0.50-1.56) 0.68

# Trial Strengths and Issues

## ■ Trial had several strengths

- Very important clinical and health policy topic
- Designed as practical clinical trial
- Intervention potentially 'scale-able' to nation
- Collected costs of intervention and its impact

## ■ Factors that may have limited impact on adherence

- Employed population, all with prescription coverage
- Intervention only affected 3 meds (avoiding clopidogrel)
- Delayed time to intervention (median: 49 days post D/C)

## ■ Factors that may have limited impact on outcomes

- Underpowered (originally designed for 7500 pts)
- Young population; follow-up median 1yr; low event rates
- Limited impact of intervention on adherence

# Conclusions

- While MI FREEE had only a modest impact on medication adherence and missed its primary endpoint, it showed providing free post-MI medications could...
  - Reduce total vascular events and pay for itself!
  - *Thus, widespread adoption is recommended*
- MI FREEE also highlights the huge challenges for post-MI secondary prevention - even when meds are given free,
  - Adherence rates for each med less than 50% and
  - Only 1 in 10 patients consistently take all their meds
  - *Thus, novel adherence strategies desperately needed!*