Discussion: RE-DUAL PCI

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Disclosures: None
Why Look at Subgroups?

- Patients in RCTs differ in many ways, yet we focus on overall results.
- Some patients may have more benefit (or harm) than average.
- Is there significant variation among patients in
  - Relative risk reduction?
  - Absolute benefit or risk?
  - Balance of risk and benefit?
Consistency of Treatment Effects

- Forest plot of relative risks is a standard figure in trial reports
  - Shows if treatment “works the same” across subgroups defined by baseline factors
  - Insights into mechanisms

- Interaction test shows if subgroups differ significantly in their relative risk reductions
  - None significant in RE-DUAL PCI
Absolute Differences

- Equal relative risk reductions in subgroups can still lead to unequal absolute risk differences
- High risk groups get more absolute benefit
  - Absolute ~ baseline risk * RRR
- More bleeding on ticagrelol vs. clopidogrel
  - Randomized dual vs. triple therapy had
    - Similar relative risk reductions
    - Somewhat larger absolute risk differences
- Ticagrelor vs clopidogrel was NOT randomized, and comparison was not adjusted for confounders
Are there patients with
- High bleeding risk AND
- Low stroke/MI risk?

Stroke and bleeding share many risk factors, so both risks tend to go up or down together

Balance of risk and benefit may be tipped in patients with low/high or high/low risks for bleeding and stroke/MI

- No clear evidence for this in RE-DUAL PCI
Conclusions

- Subgroups are worth examining, but don’t over-interpret findings
- Look for significant interactions
- Absolute benefits and risks may vary even if relative risks don’t
- RE-DUAL PCI results are generally consistent in the 3 subgroups presented today
  - ACS or non-ACS
  - BMS or DES
  - Ticagrelol or clopidogrel