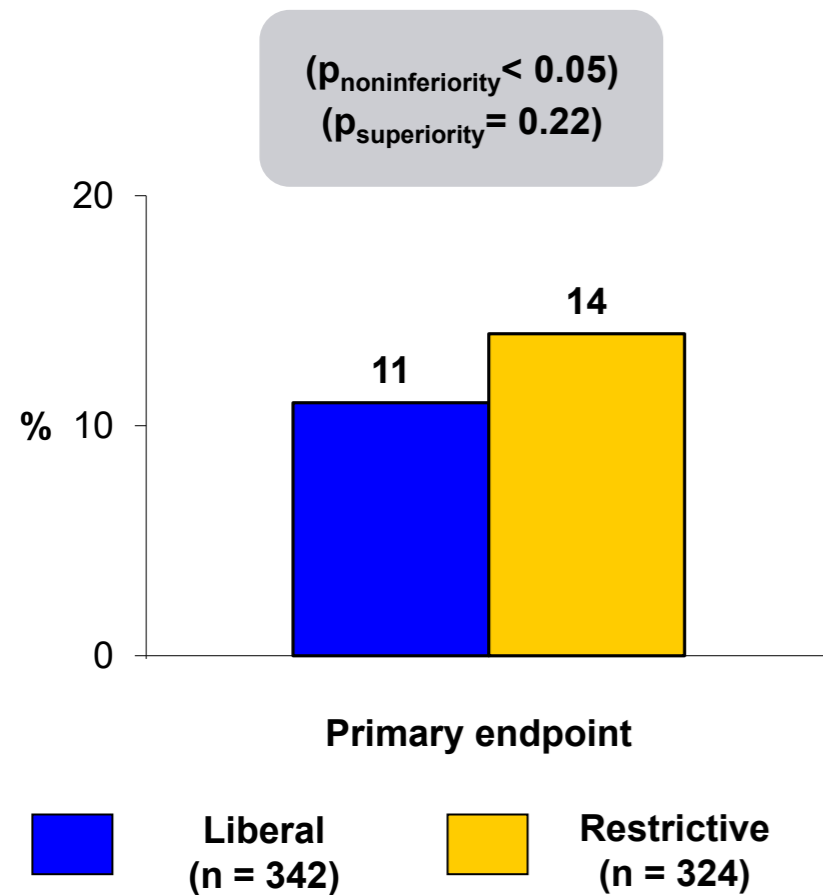# REALITY

AMERICAN COLLEGE of CARDIOLOGY

Trial Description: Patients with acute MI and Hgb ≤10 g/dl during admission were randomized in a 1:1 fashion to either a liberal (for Hgb ≤10 g/dl, goal Hgb >11 g/dl) or a restrictive (for Hgb ≤8 g/dl, target Hgb 8-10 g/dl) RBC transfusion strategy. Patients were followed for 30 days.

($p_{noninferiority}$< 0.05)
($p_{superiority}$= 0.22)

Primary endpoint

Liberal (n = 342)   Restrictive (n = 324)

RESULTS

- Primary endpoint, all-cause death, reinfarction, stroke, and emergency revascularization prompted by ischemia: restrictive vs. liberal transfusion strategy: 11.0% vs. 14.0%; HR 0.77, 95% CI 0.50-1.18 ($p_{noninferiority}$< 0.05, $p_{superiority}$ = 0.22)
- All-cause mortality: 5.6% vs. 7.7% ($p > 0.05$), recurrent MI: 2.1% vs. 3.1%
- Acute renal failure: 9.7% vs. 7.1% ($p = 0.24$), infection: 0% vs. 1.5% ($p = 0.03$), acute lung injury: 0.3% vs. 2.2% ($p = 0.03$)

CONCLUSIONS

- A restrictive PRBC transfusion strategy is noninferior to a more liberal strategy for acute MI patients; also, infections and acute lung injury were higher with a more liberal strategy
- Total blood utilization and costs were both lower with the restrictive strategy; this strategy was considered cost-dominant

Presented by Dr. Philippe Gabriel Steg at ESC Virtual Congress 2020