Cardiology updates for Generalists

2024 Alabama and Mississippi Chapters Annual Scientific Meeting

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Conflicts of Interest

- None (Topic is Cardiology, presenter isn’t a Cardiologist)
Intended Learning Outcomes

By the conclusion of this session, those in attendance should be able to:

• Highlight impact of Liberal vs restrictive transfusion strategies for Acute Myocardial Infarction
• Add to their existing practice of diuresis in Heart Failure
• Acknowledge and address the importance of Iron supplementation in Anemia with Heart Failure
• Evaluate B blocker use in Acute MI without LV dysfunction
• GLP-1 for Secondary prevention in ASCVD
• Encourage and increase utilization of Palliative measures in Advanced Cardiac Disease with poor QOL
Liberal transfusion for acute myocardial infarction – MINT Trial

- Restrictive transfusion (lower hemoglobin threshold, typically 7 or 8 g/dL) is appropriate for most patients
- 3504 patients (fu for 30 days) Mean Age: 72 years (Females 22%)
- Restrictive (Hb 8g/dL) or Liberal (Hb threshold 10g/dL)
- Primary Outcome: Recurrent MI or Death at 30 days
- No significant difference, but a trend towards improved outcomes noted
- No increased risk of adverse events/ frequency of Heart Failure
- Consider for patients with Type 1 MI or hemodynamic instability

The TRANSFORM-HF Randomized Clinical Trial

- Patients: 2859 patients (fu for 17 months)  Mean Age: 64 years (Females 37%)
- Randomized to torsemide or furosemide
- Primary outcome: All cause mortality
- No difference in mortality or quality of life or symptoms
- (regardless of ejection fraction, previous loop diuretic use, and baseline health status)
- Focus on appropriate dosing of loops diuretics rather than the agent

Stephen J. Greene, MD, Eric J. Velazquez, MD, Kevin J. Anstrom, PhD, Robert M. Clare, MS, Tracy A. DeWald, PharmD, MHSc, Mitchell A. Psotka, MD, Andrew P. Ambrosy, MD, Gerin R. Stevens, MD, PhD, John J. Rommel, MD, Tamas Alexy, MD, PhD, Fassil Ketema, MSc, Dong-Yun Kim, PhD, Patrice Desvigne-Nickens, MD, Bertram Pitt, MD, Eric L. Eisenstein, DBA, Robert J. Mentz, MD, on behalf of the TRANSFORM-HF Investigators
Patients: 519 (fu for 3 months) Mean Age: 78 years (37.4% Females)

Acetazolamide 500mg iv Daily

Primary outcome: successful decongestion within 3 days after randomization

Acetazolamide (42.2%) vs. placebo (30.5%) (irrespective of baseline LVEF and renal function)

Better response when HCO3 > 27

Diuresis and achieving optimal volume can be challenging

Residual congestion >>> higher post-discharge adverse outcomes.

Shorter stay

Small study, Belgium – limits generalizability

IV Iron in Heart Failure- Meta-analysis

3 RCTs – adults with HF and Iron deficiency > 52 weeks (4501 patients)

Co-primary efficacy endpoints:

• composite of total/recurrent cardiovascular hospitalizations and cardiovascular death
• composite of total HF hospitalizations and cardiovascular death, through 52 weeks.

Ferric carboxymaltose significantly reduced hospitalizations for HF and cardiovascular causes

Higher benefit for ischemic HF

IRONMAN Study

Patients: 1,137 (fu for 2.7 years)  Mean patient age: 73 years (females 27%)

Primary outcome: cardiovascular death or HF hospitalization

Iron infusion is not superior to usual care
No changes in quality of life measures or walk distance

• Serum Ferritin < 100ug/L and/or a TSAT <20% : most likely to benefit from IV iron (Reduced risk of the primary outcome)
• IV Iron- Class IIa recommendation - 2022 AHA/ACC/HSA HF guideline
• Ferric derisomaltose : rapid, high-dose infusion

SELECT Trial – GLP1 in adults with ASCVD and BMI > 27

- Patients: 17,604 (fu 39 months) Age: 45 and more (27.7% females)
- Semaglutide - 2.4 mg sc weekly, uptitrated from 0.24 mg over 16 weeks
- Primary outcome: CV mortality, nonfatal MI, or nonfatal stroke
- 6.5% vs. 8.0% (HR 0.80; 95% CI 0.72-0.90; P<0.001; NNT=67)
- Decreases in body weight and waist circumference
- The estimated global prevalence of diabetes is approximately 30% among patients with chronic coronary syndromes
- Included only patients with preexisting cardiovascular disease.

REDUCE-AMI: b-blockers after acute MI with preserved EF

No trials pertaining to beta-blocker use in Acute MI without LV dysfunction

• Patients: 5,020  Age: 65 years (females 22%)

• 35% had STEMI

• B blocker (preferably Metoprolol 100mg daily)

• Primary outcome: MI or all-cause mortality

• 7.9% vs 8.3% (HR 0.96; 95% CI 0.79 to 1.16; P=0.64)

• Patients with preserved LVEF following AMI, beta-blockers might not offer significant cardiac benefit

ADAPT Trial

- Impact of telehealth nurse and social worker palliative care team on QOL
- 306 Patients: Outpatients with COPD, HF, or ILD at high risk of hospitalization or death who reported poor quality of life
- Age: 68.9 years (Females 9.8%)
- 6 phone calls with a nurse to (symptom management) and 6 phone calls with a social worker (psychosocial care)
- Primary outcome: change in quality of life from baseline to 6 months
- FACT-G score range, 0-100, with higher scores indicating better quality of life, clinically meaningful change ≥4 points
- FACT-G score improved 6.0 points vs 1.4 points (difference, 4.6 points [95% CI, 1.8-7.4]; P = .001; standardized mean difference, 0.41).

Some other Interesting Reads

- PREVENT CALCULATOR
- BAXDROSTAT Trial
- B-Blockers for Heart rate control in septic shock
- Triglycerides and cardiovascular risk in rheumatoid arthritis
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Questions

Please Direct questions to:

Your Friendly Cardiologist or

Dr. Allison Rogers!!!