

3 Recent Papers That Affect My Practice – Handout

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Edoxaban for the Treatment of Cancer-Associated VTE

Raskob G, et al. 2018. N Engl J Med 378;7

- Randomized, open label; 13 countries in 114 centers
- Cancer patients with symptomatic or incidental VTE
- Edoxaban (a direct oral anticoagulant – DOAC) vs. Dalteparin
- 1046 patients using intention to treat analysis (but only 303 and 316 followed to end of trial)

Question:

Is Edoxaban a viable alternative to LMWH for treatment of cancer associated VTE?

Findings:

Edoxaban (a DOAC) equal to low molecular weight heparin (LMWH) in the treatment of VTE in cancer patients as measured by composite endpoint of re-thrombosis and major bleeding within one year. However, when separated though VTE was reduced with Edoxaban, major bleeding occurred more often.

Why does it matter?

Based on the CLOT trial guidelines currently recommend daily LMWH injections to treat VTE and prevent reoccurrence. Previously data was lacking on what agent should be used past 6 months to minimize reoccurrence and bleed risk. This is the first study to demonstrate that a DOAC is non-inferior to LMWH and to study patients past that 6 month period. DOACs offer an easy oral route thus making them more convenient, and will likely prove to be less expensive long term.

Association of High-Sensitivity Cardiac Troponin I Concentration With Cardiac Outcomes in Patients With Suspected ACS

Chapman A, et al. 2017. JAMA. 318(19):1913-1924

- Meta-analysis of 22,457 patients in 11,845 articles; including 17 cohorts (>18K pts) where individual data was reanalyzed
- All prospective studies from the emergency room where high sensitivity troponin I (HS-Ti) was measured at presentation
- A priori threshold of 99.5% negative predictive value based on outcomes of MI and cardiac death

Question:

What is the optimal HS-Ti concentration at presentation to risk-stratify patients with suspected ACS?

Findings:

A patient suspected of ACS may be identified as low risk of MI or cardiac death within 30 days if their initial troponin I is <5ng/ml.

Why does it matter?

Testing for ischemic cardiac damage has become more and more sensitive over the last few decades. With the high sensitivity Troponin I it is unclear as what level we can stratify various patient presentations. Clinicians are somewhat lost with respect to interpreting the wide range of values, particularly those on the low end of the scale. This review examined a high number of patients via meta-analysis to demonstrate that a low HS-Ti corresponds with a very low probability of major cardiac event in the subsequent 30 days.

Canagliflozin and Cardiovascular and Renal Events in Type 2 Diabetes

Neal B, et al. 2017. N Engl J Med 377;7

- CANVAS Program: Data from 2 trials involving 10,142 patients intended to look at CV safety vs. risks such as DKA, UTI, and fractures
- Randomized, placebo controlled; 667 centers in 30 countries
- Followed for 188.2 weeks (almost 4 years)
- Patients all DM2 with high CV risk
- Primary outcome: composite of death = CV causes + nonfatal MI + nonfatal CVA

Question:

What are the cardiovascular, renal and safety outcomes for SGLT-2 inhibitor Canagliflozin in type 2 diabetics with high CV risk?

Findings:

Patients in the study had a significantly lower risk of CV events versus placebo. However, those patients were at higher risk for toe/metatarsal amputation so careful decisions must be made in deciding who .

Why does it matter?

Cardiovascular events are the biggest cause of morbidity and mortality on type 2 diabetics. Previous studies have not shown blood sugar control to affect cardiovascular outcomes, and so guidelines focus on other risk factor modification (such as BP). This study presents a therapy that is effective for blood sugar control and reduces the rate of serious cardiac events through a number of proposed mechanisms. The higher risk of amputation, however, means we must be selective in balancing this benefit against risk for those with significant peripheral vascular disease.