## **JOURNAL WATCH**

Our panel of experts highlight the most important research articles across the spectrum of topics relevant to the field of clinical practice

Expert panel: Robert S Dieter, Vascular & Endovascular Medicine, Loyola University Medical Center, IL, USA; Joseph Blondeau, Royal University Hospital, Saskatoon, Saskatchewan, Canada; Bradford A Perez, Duke University Hospital, Durham, NC, USA; Brian Czito, Duke University Hospital, Durham, NC, USA

## News & Views

**Journal Watch** 

News

Interview

Hayashida K, Bouvier E, Lefèvre T *et al.* Transcatheter aortic valve implantation for patients with severe bicuspid aortic valve. *Circ. Cardiovasc. Interv.* 6(3), 284–291 (2013).

As transcatheter aortic valve replacement gains wider acceptance, its clinical indications will continue to expand. The bicuspid aortic valve presents morphological challenges for the implantation of a transcathter aortic valve and the clinical outcomes have varied. In this study, the investigators compared the outcomes of transcatheter aortic valve replacement based upon valve morphology. They found that the outcomes were similar between the bicuspid and the tricuspid aortic valve patients. This is an important study that will hopefully help expand the use of transcatheter aortic valve replacement for a wider spectrum of valvular morphologies.

- Written by Robert Dieter

Harold JG, Bass TA, Bashore TM *et al.*; Presidents and Staff; American College of Cardiology Foundation; American Heart Association; Society of Cardiovascular Angiography and Interventions. ACCF/AHA/SCAI 2013 Update of the Clinical Competence Statement on coronary artery interventional procedures: a report of the American College of Cardiology Foundation/American Heart Association/American College of Physicians Task Force on Clinical Competence and Training (writing committee to revise the 2007 clinical competence statement on cardiac interventional procedures). *Circulation* 128, 436–472 (2013).

There has been considerable literature published on the outcomes of percutaneous coronary intervention based upon procedural volume for both the individual operator as well as the institution. In the current iteration and update of the ACCF/AHA/SCAI clinical competence on coronary interventions, the authors have shifted the standard from 75 annual percutaneous coronary interventions down to 50 percutaneous coronary interventions. They base this decision on the declining overall volumes of percutaneous coronary interventions, increasing safety of the procedure, advances in equipment and patient selection. Hopefully, these current standards will reflect favorably in patient outcomes as we move forward.

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- Written by Robert Dieter



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Schaffner F, Medlock JM, Van Bortel W. Public health significance of invasive mosquitoes in Europe. *Clin. Microbiol. Infect.* 19(8), 685–692 (2013).

Invasive Aedes species mosquitoes (A. albopictus, A. aegypti, A. japonicas, A. atropalpus and A. koreicus) are known to be established in Europe and have been associated with the transmission of mosquito-borne diseases including chikungunya (Italy, 2007) and dengue fever (France, 2007; Madeira 2012-2013). Invasive mosquitoes colonize new territories and, through disease transmission, impact human and animal health, the environment and clearly the economy. International travel and trade may serve to increase the potential introduction of new mosquitoes to naive areas. This article reviews the public health significance of invasive mosquitoes and mosquitoborne diseases, and reviews documented cases/outbreaks in Mediterranean and European regions. Additionally, the article comments on the potential growing threat the mosquito-borne diseases may pose to Europe. Intervention to eliminate vectors has worked in some areas but is likely dependent on how successfully established the vectors are and how they can continue to survive and propagate.

- Written by Joseph Blondeau

Freixas N, Bella F, Limón E, Almirante B, Gudiol F. Impact of a multimodal intervention to reduce bloodstream infections related to vascular catheters in non-ICU wards: a multicenter study. *Clin. Microbiol. Infect.* 19(9), 838–844 (2013).

Nosocomial bloodstream infections are most often related to vascular catheters and are associated with significant morbidity and mortality, along with substantial costs to healthcare programs. Considerable effort and resources have been invested into understanding the variables leading to catheter-related blood stream infections. Freixas *et al.*, in a multicenter study, implemented interventions in an attempt to impact on blood stream infections. The interventions consisted of practices related to catheter insertion and maintenance, healthcare worker training, point prevalence surveys and feedback reports. Results suggest intervention programs may substantially impact patient safety by reducing catheter-associated bloodstream infections. As with all studies, this study has limitations including not being randomized. Despite limitations, interventions that positively impact patient care and safety are worthy of further consideration.

- Written by Joseph Blondeau

Mukherjee S, Hurt CN, Bridgewater J *et al.* Gemcitabine-based or capecitabinebased chemoradiotherapy for locally advanced pancreatic cancer (SCALOP): a multicentre, randomised, Phase 2 trial. *Lancet Oncol.* 14(4), 317–326 (2013).

The optimal treatment of locally advanced pancreatic cancer remains controversial. Early phase studies demonstrated favorable outcomes comparing gemcitabinebased chemoradiotherapy with standard fluorouracil-based chemoradiotherapy [1,2]. The study by Mukherjee et al. in Lancet Oncology is a Phase II multicenter randomized study including patients with locally advanced, nonmetastatic pancreatic cancer performed in the UK. All patients in this study received three 28-day cycles of induction chemotherapy (gemcitabine 1000 mg/m<sup>2</sup> on days 1, 8 and 15 plus capecitabine 830 mg/m<sup>2</sup> twice daily on days 1-21). Following induction chemotherapy, patients with responding or stable disease received capecitabine (830 mg/m<sup>2</sup> twice-daily) versus gemcitabine (300 mg/m<sup>2</sup> weekly) each delivered with concurrent radiotherapy (50.4 Gy in 28 daily fractions). The primary end point of the study was progression-free survival at 9 months, which was higher in the capecitabine group (62.9 vs 51.4%; p = not significant). Additionally, median overall survival was improved in the capecitabine group (15.2 vs 13.4 months; p = 0.025). Importantly, overall grade 3/4 toxicity appeared improved in the capecitabine group (12 vs 37%) and more patients receiving concurrent capecitabine with radiation were able to complete the prescribed radiotherapy course (75 vs 68%). Given the generally

poor outcomes to be expected in either treatment arm with improved tolerability of capecitabine compared with gemcitabinebased chemoradiotherapy in this study and others [3,4], we agree with the authors that capecitabine-based chemoradiotherapy would be an appropriate template for future radiotherapy studies investigating therapeutic intensification aimed at achieving better long-term control rates in this disease.

- Written by Bradford A Perez and Brian Czito

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## Financial & competing interests disclosure

The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

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