of several initiatives in cardiac surgery, and we congratulate the authors on their important initiative to reduce this burden.

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Commentary: Mediastinitis: Know the perps—keep the lights on and adapt strategy to asymptotically approach the Centers for Medicare and Medicaid Services “never-event” status

James B. McClurken, MD

Wojnarski and colleagues¹ have superbly analyzed the Veterans Affairs (VA) Healthcare System national methicillin-resistant *Staphylococcus aureus* (MRSA) prevention initiative launched in 2007 as it pertained to MRSA mediastinitis in isolated coronary artery bypass procedures performed at 83 VA hospitals. For 45,323 patients, the incidence of mediastinitis was 0.78%; remarkably, the rate was ~ flat throughout the January 2006 to December 2015 review period and throughout the system. In total, 75% were Gram (+), and MRSA was reduced as pathogen for mediastinitis to 16% of cases within the 70% *Staphylococcus* species. Methicillin-sensitive *S aureus* was

Deep sternal wound infection.

CENTRAL MESSAGE

With <1% for mediastinitis, mediastinitis “never-event” status as stipulated by CMS warrants revisiting.

the single most prevalent organism at 43%. Gram (–) prevalence was 24.5%. The rate of MRSA mediastinitis did decline significantly over 10-year period under review. Average time to manifestation of mediastinitis was 22 days overall with 15 days for Gram (–) and 25 days for Gram (+). Although 30-day mortality was unaffected by mediastinitis, survival long-term (median 4.6 years, range 0-10 years) after mediastinitis was associated with 46% increased risk of death.

The authors’ strategy for MRSA reduction included recognized Society of Thoracic Surgeons Practice Guidelines: first-generation cephalosporin, active surveillance cultures on admission, contact isolation for patients colonized or with infection, and MRSA prophylaxis in high-risk patients. Acknowledged as a key element was institutional “cultural transformation through provider education.” Improved efforts

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targeting MSSA and Gram (–) organisms are fully warranted as suggested by the authors. Success as demonstrated in the VA Healthcare System was both “top-down” and “bottom-up,” with all participating in care of the cardiac surgical patients assuring infection control initiatives were performed.

Active vigilance of outcomes and events our patients experience is the cornerstone of quality improvement initiatives. Much has been learned and reported on reducing surgical-site infections in general and mediastinitis in particular. Virtually all cardiac surgical infection prevention efforts have refined as evidence-based, highly coordinated, multistep, team-based processes. Yet, there must still be individual attention to surgical aseptic details at all times. Awareness of each institutions’ microbiologic pathogens and antibiograms can help guide local considerations for improved adaptive antibiotic prophylaxis in collaboration with infection control and infectious disease colleagues.

An important observation by the authors is the relatively flat mediastinitis rate over the last 2 decades.¹⁻³ It is remarkable to achieve the low mediastinitis rate of 0.78% reported here despite significant presence in this VA cohort of these declining-order contributors to mediastinitis: end-stage renal disease, congestive heart failure, diabetes mellitus, chronic kidney disease, and chronic obstructive pulmonary disease.

It’s worth restating that this system-wide initiative truly benefitted patients at each site, as there was no significant variation of these excellent results across the 83-hospital system.

“Keep the lights on” deep sternal wound events and recognize the shifting pathogens with Methicillin-sensitive *S aureus* now dominant and Gram (–) second in the era of enhanced MRSA awareness and prophylaxis. The goal of 0% mediastinitis remains for all cardiac surgery. Yet, like a top quark—observing it is difficult and the event fleeting. With consistently reported excellent results plateaued <1% for mediastinitis, particularly with comorbidities of current patients undergoing coronary artery bypass, mediastinitis “never-event” status as stipulated by The Centers for Medicare & Medicaid Services on January 31, 2008, warrants revisiting.

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Check for updates

Commentary: Eliminating mediastinitis in Veterans Affairs patients—the American Association for Thoracic Surgery guidelines to the rescue

Harold L. Lazar, MD

In this edition of the *Journal*, Wojnarski and colleagues¹ report the results of their review of the Veterans Affairs

Harold L. Lazar, MD

CENTRAL MESSAGE

The AATS guidelines for the prevention and treatment of sternal wound infections should be instituted in all VA centers to eliminate mediastinitis.

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