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AUTOMATED ELECTRONIC ALERTS FOR DETECTION OF INFECTED CARDIOVASCULAR IMPLANTABLE ELECTRONIC DEVICE IN PATIENTS WITH BACTEREMIA

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Electrophysiology

AUTOMATED ELECTRONIC ALERTS FOR DETECTION OF INFECTED CARDIOVASCULAR IMPLANTABLE ELECTRONIC DEVICE IN PATIENTS WITH BACTEREMIA

Poster Contributions
Poster Hall_Hall F
Sunday, March 5, 2023, 11:45 a.m.-12:30 p.m.

Session Title: Electrophysiology: Clinical Science 10
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Presentation Number: 1523-144

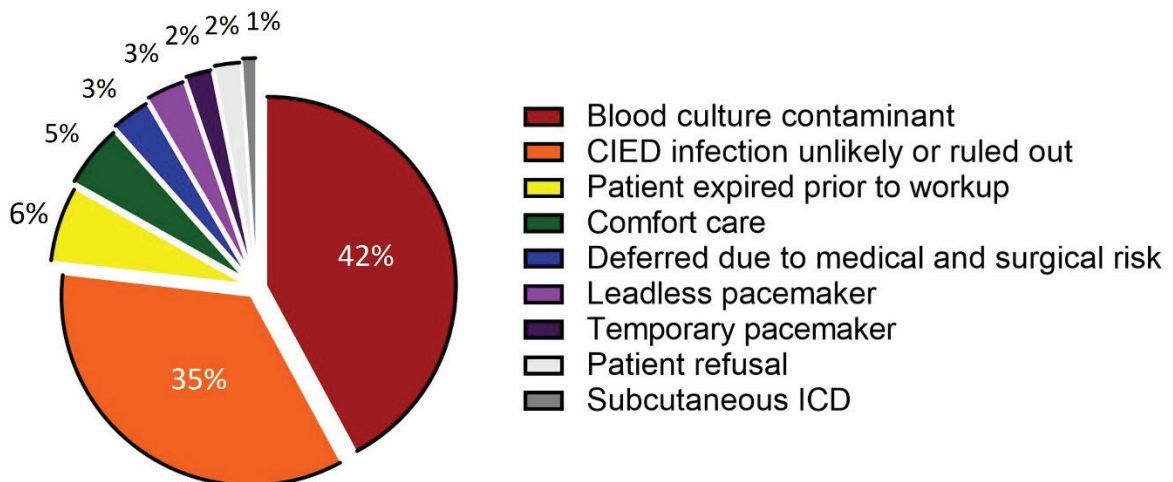
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Background: Cardiovascular implantable electronic device (CIED) infection is common. Early detection and prompt device extraction has been associated with improved outcomes.

Methods: We developed an automated electronic alert system for identification of patients at risk for CIED infection and implemented it in our electronic medical record from March 2021 to September 2022. A best practice alert (BPA) is generated and sent to an electrophysiologist and an infectious disease specialist if a patient meets two conditions: 1. A positive blood culture and 2. The presence of a prespecified key term on a chest x-ray report within 10 days of the positive blood culture. Key terms include defibrillator, defibrillator lead, AICD, ICD, cardiac device, pacemaker. We evaluated the specificity of our BPA and the rate of CIED extraction.

Results: A total of 150 patients were identified. In the first three quarters, the BPA had a specificity of 65.3%. Three patients meeting criteria were not identified by the system. Key terms were revised at the end of the third quarter. The specificity of the BPA in the following three quarters increased to 80.4%. The rate of CIED extraction was 13.6%. Complete procedural success was achieved in all patients. Reasons for non-extraction are shown in Figure.

Conclusion: An automated electronic alert system can be used to detect patients with bacteremia at risk for CIED infection. Further study is needed to assess if the implementation of an alert system translates to improved patient outcomes.



Total = 95