ACC.22 Late-Breaking Clinical Trial

Low Rates of Guideline Directed Care Associated with Higher Mortality in Patients With Infected CIEDs

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No infection left behind
Lead Management
Background and methods

• CIED infection is an HRS/EHRA Class I indication for referral and for full system removal, but practice patterns and outcomes remain unknown\textsuperscript{1,2}

• This study was the largest ever real-world analysis of CIED infection treatment and utilized:
  – A 100% Medicare sample (Medicare fee-for-service beneficiaries with Part D)
  – 14 years of data (Jan 2006 – Dec 2019)
  – Included over 1 million patients with CIEDs
    • De novo implants >12 months old
    • Both a billing claim for endocarditis or infection of a device implant and documented antibiotic therapy

• Independent analysis conducted by Duke University, presented as a late-breaking clinical trial at ACC 2022
Primary results

• **>8 in 10** patients are not treated according to Class I guidelines for CIED infection (full system removal)

• **42.9% lower risk** of death with timely system extraction vs. no extraction
Additional findings

• Any extraction was associated with lower mortality when compared to no extraction (adjHR 0.73, 95% CI 0.67-0.81, p<0.001)

• Female patients and black patients less likely to have extraction within 30 days (p<0.001)
Conclusion

• **Earlier extraction** is associated with a **significantly lower risk of death** compared with no extraction.
• **Among patients with CIED infection**, there is a **lack of guideline adherence** and a need to improve guideline-directed care.

“This study highlights the life-threatening nature of device infections and the significant opportunities to improve care in these complex patients. The findings also emphasize the importance of timely diagnosis and complete treatment. Making things better for patients tomorrow will require working with clinicians across various specialties to advance education to help diagnose CIED infections and deliver timely care. The opportunity to ensure all patients have access to guideline recommended care is not only imperative, but life-saving for patients across the world.”

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Infection + Device
= Removal

Learn more at Philips.com/deviceinfection
References


