Top Ten Things To Know
Implantable CV Device Infections

1. CV implantable electronic devices (CIED), including permanent pacemakers (PPM) and implantable cardioverter-defibrillators (ICD), can develop life-threatening infections.

2. In the US between 1997 and 2004, implantation rates for PPMs and ICDs increased by 19% and 60%, respectively. The majority of device recipients were >65 years of age and had 1 or more coexisting illnesses.

3. Patient characteristics associated with CIED infections include renal failure, corticosteroid use, congestive heart failure, hematoma formation, diabetes mellitus, and anticoagulation use.

4. Prophylaxis with an antibiotic that has in vitro activity against staphylococci should be given at the time of CIED placement.

5. Antimicrobial prophylaxis is not recommended for dental or other invasive procedures not directly related to device manipulation to prevent CIED infection.

6. Staphylococcal species cause the bulk of CIED infections.

7. All patients should have at least 2 sets of blood cultures drawn at the initial evaluation before prompt initiation of antimicrobial therapy for CIED infection.

8. CIED removal is not required for superficial or incisional infection at the pocket site if there is no involvement of the device; 7 to 10 days of antibiotic therapy with an oral agent with activity against staphylococci is reasonable.

9. Complete removal of all hardware is the recommended treatment for patients with established CIED infection because infection relapse rates due to retained hardware are high.

10. Unique concerns for pediatric patients, especially those with congenital heart disease, are addressed.


© 2010, American Heart Association. All rights reserved.