Orthopaedic Infection: Diagnosis And Treatment

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Orthopedic hardware infections are much feared and costly complications that can occur when these devices are implemented both in traumatic cases as well as in joint replacement surgery. Because these infections can lead to great morbidity, it is important to understand their pathophysiology as well as the principles behind their diagnosis and initial treatment. Plastic surgeons are frequently consulted as part of a multidisciplinary team to provide stable soft tissue coverage of the associated defects that result from these infections. Orthopedic implants have revolutionized treatment of bone fractures and noninfectious joint arthritis. Today, the risk for orthopedic device-related infection (ODRI) is <1%–2%. However, the absolute number of patients with infection continuously increases as the number of patients requiring such implants grows. Treatment of ODRIs most frequently includes long-term antimicrobial treatment and removal of the implant. Recent evidence from observational trials and 1 randomized clinical trial indicate that a subset of patients can be successfully treated with retention of the implant.