blood culture might show the organism responsible for the infection, but not always. X-rays will show eventual changes, but if early in the infection process, magnetic resonance imaging (MRI) is better for diagnosing osteomyelitis. Like septic arthritis, *S aureus* is the most common organism, although again there are a variety of bacteria that can be the cause, and children are treated with intravenous antibiotics initially and then oral antibiotics to complete a long course.