

# Deep Space Infections- Ring the Alarm!

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## Background

Deep space infections such as endocarditis, septic arthritis, psoas abscess, and spinal epidural abscess are rare and potentially devastating entities that often elude early diagnosis, leading to increased morbidity & mortality. Common risk factors are overlooked, and this talk will provide the learner with a broad look at new-age risk factors.

## Misunderstood Risk Factor #1: The immunocompromised.

Expanding your view of immunocompromised can greatly reduce your miss rate. This includes patients with “End-Stage” ANYTHING (lung, cardiac, liver, renal, etc), the malnourished / deconditioned (ie, undomiciled, frail, elderly, alcoholism), as well as your oncology/transplant patients, and those on biologics.

## Misunderstood Risk Factor #2: People who put things where they don't belong.

Expanding your view of foreign bodies will help reduce your misdiagnosis rate as well. Invasive procedures that leave pending prostheses such as valve replacements and endovascular aortic repairs, as well as indwelling ports, fistulas, catheters, and foleys, are all risk factors. Obviously, IV drug usage falls into this category.

## Misunderstood Risk Factor #3: The recurrently ill.

A significant number of patients with deep space infection have received an antibiotic prescription in the prior month, making it one of the most common red flags. Roughly two-thirds of patients are bacteremic on presentation, so seeding might have occurred on the first visit after partial treatment. Furthermore, patients with prior deep-space infections have a high recurrence rate. Trauma should be considered in this category as well.

## Bottom line:

**Risk factors + elevated ESR or CRP = strongly consider further radiologic work up**

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