Clarifying the Treatment Plan
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Story from the front lines:

A healthy man in his 40s was visiting from out of state. He had flown in to watch his son play soccer the day prior to admission. In the week prior to coming here (and two days prior to admission) he had an abscess drained on his upper thigh by his primary physician and was started on PO antibiotics with Bactrim. He sought care in Denver because of some continued irritation and redness at the site of the incision.

He was seen at a free-standing emergency department and subsequently admitted to our hospital for further evaluation due to concern for necrotizing soft tissue infection. Upon arrival to our facility, he was seen by a medical intern and resident overnight.

The overnight team, based on the information given at the time of transfer, initiated broad spectrum antibiotics with vancomycin, piperacillin-tazobactam, and clindamycin and called the Trauma and Acute Care Surgery (TACS) consult team to evaluate the patient. As this admission was on a Saturday night, he was seen overnight by the surgical resident and advised no urgent surgical intervention was required. The day team on the medical service assessed the patient, and felt there was no need for IV antibiotics or continued hospital admission and made a plan to discharge him on oral antibiotics that day. However, after evaluation by the surgical team during the day, surgical exploration in the operating room was recommended. The patient was transferred to the surgical service where it was ultimately determined surgical exploration was not necessary and was discharged home on oral antibiotics that morning. He missed the entirety of his son's soccer tournament.

Teachable moment:

There are several points for improvement in this case. First, the patient was called treatment failure on PO antibiotics, but had taken only 1.5/5 days of the prescribed antibiotics. He did not meet risk factors for failure, which can include obesity, recent antibiotics, lower end of recommended antibiotic dosing, and chronic leg ulcers and/or edema.[1, 2] We also know that though he was well-covered for MRSA, his risk of MRSA was low.[3] Second, we know from clinical experience that erythema may worsen even after appropriate antibiotic initiation when treating a skin and soft tissue infection, and the patient likely did not warrant admission from the free-standing emergency department in the first place. It may be difficult to for a physician receiving a call for request for transfer to deny this transfer, but with normal labs including lactate and CRP and normal vitals with this clinical history, he most likely did not warrant admission, lacking both fever and elevated inflammatory markers.[4] Though necrotizing infection still remains a clinical diagnosis, his LRINEC score was not indicative of this risk.[5] Third, the overnight admitted medical team (who may have been busy with other acutely ill patients) took perhaps an overly aggressive approach in managing this patient's SSTI and may have based their surgical consultation on sign out information from transfer instead of their clinical exam.

Points for improvement include communication and coordination, and decisions being made without full knowledge of the patient's clinical state – including the transfer for admission as well as surgical consultation and subsequent transfer to surgical service. Both resulted in unnecessary nights in the hospital for a condition that could have been managed in an outpatient setting.

References

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