

CELLULITIS

Cellulitis is a bacterial infection of the skin and subcutaneous tissues. The Healthcare Cost and Utilization Project (HCUP) states there were approximately 340,000 hospital discharges in 2002 with a Diagnosis Related Group (DRG) for Cellulitis. Patients with cellulitis with complications and co-morbidities had a mean length-of-stay of 5.3 days with an in-hospital mortality of 0.8%. The mean charges for these patients were \$13,000. The figures were slightly improved for uncomplicated cellulitis, as the mean length-of-stay dropped to 3.6 days and total charges decreased to \$8,000 per patient. Hospitalists can provide leadership to standardize care delivery, improve discharge planning, and promptly identify and address severe cases of cellulitis that require further intervention.

KNOWLEDGE

Hospitalists should be able to:

- Describe the clinical presentation of cellulitis and compare routine and complicated cellulitis.
- Differentiate cellulitis from chronic venous stasis and other conditions that may mimic cellulitis and discuss the accuracy of signs/symptoms in patients admitted with cellulitis.
- Describe the indicated tests required to evaluate cellulitis.
- Relate cellulitis with certain host exposures (including pseudomonas with hot tub exposure, streptococci and venous harvest site cellulitis, and aeromonas with fresh or brackish water).
- Identify patients with co-morbidities (such as the immunocompromised patient, and those with chronic venous and lymphatic problems) and extremes of age (the elderly and the very young) who are at increased risk for a complicated course of cellulitis.
- Differentiate empiric antibiotic regimens for uncomplicated and complicated types of cellulitis.
- Explain indications for inpatient admission.
- Describe the prognostic indicators, including patient co-morbidities, for complicated and uncomplicated cellulitis.
- Explain goals for hospital discharge, including specific measures of clinical stability for safe care transition.

SKILLS

Hospitalists should be able to:

- Elicit a focused history to identify precipitating causes of cellulitis and co-morbid conditions that may impact clinical management.
- Accurately identify and document cellulitis borders and signs of complications, which may include crepitis and abscess.
- Determine and interpret an appropriate and cost-effective initial diagnostic evaluation of cellulitis including laboratory and radiological studies.
- Initiate empiric antibiotic treatment of cellulitis based on host exposures, predisposing underlying systemic illness, history and physical examination, presumptive bacterial pathogens, and evidence based recommendations.
- Treat co-existing fungal infection, edema, and other conditions that may exacerbate cellulitis.
- Formulate a subsequent treatment plan that includes narrowing antibiotic therapies based on available culture data and patient response to treatment.
- Determine appropriate timing for transition from intravenous to oral therapy.
- Assess patients with cellulitis in a timely manner, and manage or co-manage the patient with the primary requesting service.

ATTITUDES

Hospitalists should be able to:

- Communicate with patients and families to explain the history and prognosis of cellulitis.
- Communicate with patients and families to explain goals of care plan, discharge instructions, and management after release from hospital.
- Communicate with patients and families to explain tests and procedures and their indications, and obtain informed consent.
- Recognize the need for early specialty consultation in cases with complications, misdiagnosis, or lack of response to therapy.

- Initiate prevention measures for recurrent cellulites, prior to discharge.
- Employ a multidisciplinary approach to the care of patients with cellulitis that begins at admission and continues through discharge.
- Communicate to outpatient providers the notable events of the hospitalization and anticipated post-discharge needs.
- Consider cost effectiveness (including formulary availability), and ease of conversion to outpatient treatment when choosing among therapeutic options.
- Employ multidisciplinary teams to facilitate discharge planning.
- Utilize evidence based recommendations to guide diagnosis, monitoring and treatment of cellulitis.

SYSTEM ORGANIZATIONS AND IMPROVEMENT

To improve efficiency and quality within their organizations, Hospitalists should:

- Implement systems to ensure hospital-wide adherence to national standards, and document those measures as specified by recognized organizations.
- Lead, coordinate or participate in multidisciplinary initiatives, which may include collaboration with infectious disease physicians, to promote patient safety and optimize cost-effective diagnostic and management strategies for patients with cellulitis.