This review will provide an overview of hemodialysis catheter-, graft-, and fistula-related infections with emphasis on diagnosis and management in specific settings” Kumbar and Yee (2019).

Abstract:

Infection-related causes are second only to cardiovascular events for mortality among end-stage renal disease patients. This review will provide an overview of hemodialysis catheter-, graft-, and fistula-related infections with emphasis on diagnosis and management in specific settings. Use of catheters at the initiation of dialysis has remained unchanged at 80%. Of all access-related bloodstream infections (BSIs), 70% occur in patients with catheters. The risk factors for BSIs in tunneled, cuffed catheters include the duration of the catheter, past catheter-related bacteremia, left-sided internal jugular vein catheters, hypoalbuminemia, and immunosuppression. Surprisingly, human immunodeficiency virus infection has not been associated with a higher risk of catheter-related bacteremia. Catheter-related bloodstream infection is a clinical definition that requires specific laboratory testing to identify the catheter as the source of the BSI. A central line-associated bloodstream infection is a primary BSI in a patient who had a catheter within the 48-h period before the development of the BSI with no other identifiable source. Guidewire exchange of catheter is a viable alternative in select patients to aid in preserving venous access sites. Catheter lock therapy can decrease infectious complications and mortality. Arteriovenous graft infections are prevalent with significant morbidity. Studies evaluating the impact of stent use in infection risks of the arteriovenous graft are sorely needed.
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