

From: [Faculty Description of Research Project](#)
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Subject: New submission from Faculty Description of Research Project
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Project title:

Long Term Complications of Catheter Related Bacteremia in Dialysis Patients Treated with Catheter Salvage

Faculty mentor name, email, department and phone number

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Research Project Description

Background :

Central venous catheters are used for vascular access in dialysis and carry a risk of catheter related bacteremia. Management of catheter related bacteremia includes catheter removal with delayed replacement, catheter removal with immediate replacement, or catheter salvage, which involves keeping the same catheter and instilling it with antibiotic solutions (antibiotic lock). Current guidelines suggest that if the catheter related infection is uncomplicated then catheter salvage therapy should be attempted. While safe in the short term, whether catheter salvage is associated with increased bacteremia recurrence and/or incidence of metastatic infection is unclear.

Hypothesis :

In hemodialysis patients with catheter related bacteremia, catheter salvage will be associated with increased risk of bacteremia recurrence and metastatic infections.

Methods:

We will use the Integrated Data Repository at the University of Florida to identify all inpatient admissions who were on hemodialysis and had a catheter related bacteremia between 1/1/2010 to 3/1/2017.

Statistical Analysis:

We will compare the incidence of recurrent bacteremia and metastatic infections in patients with catheter salvage vs without using chi-square tests. We will use logistic regression to adjust for confounding variables on the outcome of interest. The division of nephrology has several full-time statisticians who will assist with the statistics analysis.

Role of Student:

Student will abstract the data from EPIC, will help with the analysis and prepare the manuscript for publication. It is expected that the work will result in 1 publication several abstracts. The student will have authorship and get to present abstract at a national meeting.

Funding: NIH and VA funds for PI.

References:

Allon M. Dialysis catheter-related bacteremia: treatment and prophylaxis. Am J Kidney Dis 2004; 44:779
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Lata C, Girard L, Parkins M, et al. Catheter-related bloodstream infection in end-stage kidney disease: a Canadian narrative review. Can J Kidney Health Dis 2016; 3:24.

Mokrzycki MH, Zhang M, Cohen H, et al. Tunnelled haemodialysis catheter bacteraemia: risk factors for bacteraemia recurrence, infectious complications and mortality. Nephrol Dial Transplant 2006; 4: 1024-31.