Title: A Multidisciplinary Approach to Reduce the Impact of Readmission and Healthcare Expenses in the Peripheral Arterial Disease Patient

ABSTRACT BODY

Background:
Peripheral arterial disease (PAD) affects an estimated 12 million patients (pts) in the United States annually and is associated with severe cardiovascular morbidity, mortality, and expense. 30-day readmission (readmit) rates for PAD pts are as high as >20% in advanced critical limb ischemia. Opportunities to reduce readmit and healthcare expenses for this group were identified.

Methods:
Retrospective review of all vascular surgery pts with a readmit following index hospitalization for PAD was performed. A detailed chart review was completed to obtain patient demographics, readmit diagnoses with contributing factors. Pts were grouped by readmit reason and common underlying causes were analyzed. A multi-center protocol was developed and implemented to address opportunities for care improvement. The projected financial impact of this protocol was also assessed.

Results:
Between February 2018 - January 2019, 80 pts met review criteria. Reasons for readmit included comorbidity exacerbation (n=20, 25%), incision/graft infection (n=18, 22.5%), amputation stump/wound infection (n=16, 20%), acute graft/stent thrombosis (n=12, 15%), postoperative hemorrhage (n=4, 5%), and unclassified (n=10, 12.5%). A multidisciplinary protocol was established to address key concerns, including co-morbid conditions (Endocrinology, Infectious Disease, Hematology, Internal Medicine), wound care (Wound Care Center, Podiatry, Orthotics), arterial perfusion status (real-time perfusion monitoring, medication regimen), smoking cessation, and nutrition supplementation. Care coordination was instituted to promote protocol compliance. Utilizing this multidisciplinary team, decrease in readmit rate by 50% and annual savings of $619,080 were projected (using AHRQ est. readmit cost). Upon poster presentation, institution-specific savings will be shared using mean index admission and readmit cost.

Conclusions:
Retrospective review of readmit data for PAD pts resulted in the development and implementation of a multidisciplinary protocol to optimize the care required for this patient population. Expectations are a 50% decrease in readmit and significant annual cost savings.

Clinical Implications: My study will help enable cardiovascular clinicians to assist in the development and implementation of a multidisciplinary protocol aimed at optimizing the complexities of care required for the peripheral arterial disease patient.