Objective(s)
Drug-eluting stents (DES) are highly efficacious for interventions on coronary saphenous vein graft bypasses, with improved patency over angioplasty and bare metal stenting. We have used these coronary stents in failing lower extremity bypass grafts with aggressive or refractory stenotic lesions, and present the experience at a single institution.

Methods
All patients who underwent DES (coronary stent) placement in an infrainguinal vein bypass graft from 2012-to-2017 were identified through operative records. Demographic, treatment, and follow-up data were extracted retrospectively from the medical record. Wilcoxon signed-rank and rank-sum tests were used to compare the reintervention-free intervals for paired and
unpaired data, respectively.

Results
A total of 22 DES were placed in 18 lower extremities. Median age at the time of bypass was 64 (range 49-84). All patients required an infrageniculate distal anastomosis, and used greater saphenous vein. Following bypass, patients underwent a mean of 3.3 ± 2.4 interventions. Forty-five percent of reinterventions were for recurrent ischemic symptoms (n=27), while 55% were reintervened upon for asymptomatic, but concerning surveillance duplex findings. Reinterventions included plain balloon angioplasty (PTA, n=27), drug coated balloon angioplasty (n=6), cutting balloon angioplasty (n=5), bare metal stenting (n=8), and DES placement. DES were placed for initial (n=13) or recurrent stenoses (n=9). Half of all DES were placed immediately following PTA that had yielded unsatisfactory residual stenosis on completion angiogram. All attempted DES placements were technically successful, and required no additional interventions at time of placement. The median time-to-reintervention or time-to-last available duplex demonstrating patency (if no additional reintervention occurred) trended in favor of DES over standard endovascular interventions, but was not statistically significant (7.7 months, interquartile range [IQR] 3.7-13.8 vs. 4.8 months, IQR 1.8-9.7; P=0.22). On subgroup analysis of patients with DES placed for a recurrent stenosis after a preceding standard endovascular intervention (n=9 stents), time-to-reintervention was significantly longer following DES compared to that of the preceding standard intervention (median 7.1 months, IQR 3.6-10.4 vs. 3.8 months, IQR 1.8-9.8, P=0.01).

Conclusions
DES provided acceptable durability for lower extremity bypass stenoses, and was a helpful adjunct for patients with unacceptable immediate post-PTA stenosis on completion angiogram. Furthermore, in the subgroup of patients with DES placed for recurrent stenosis after standard interventions, DES had significantly increased durability compared to those standard interventions.

Author Disclosure Block: