Presentation Number: 16

Publishing Title: **Axillary-Axillary Arteriovenous PTFE Grafts for Hemodialysis in Difficult Patients**

Author Block: **Joseph Liechty, MD**, Brad Grimsley, MD, Greg Pearl, MD, Bertram Smith, MD, Dennis Gable, MD, Stephen Hohmann, MD, Taylor Hicks, MD, John Kedora, MD, Toby Dunn, MD, Tammy Fischer, RN, Wes Oglesby, BS, Wilson Davis, MD, William Shutze, MD
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Abstract Body:
OBJECTIVES: Long-term hemodialysis patients are a difficult patient population as they have few remaining access options and may have disadvantaged vasculature in the upper extremities. Because of the increased infection rate with femoral access, surgeons may place an axillary artery to axillary vein arteriovenous graft (AAAVg). Few outcome reports of this technique exist. In this study, which is the largest reported to date, we investigate the results of the AAAVg configuration.
METHODS: At our institution an AAAVg is a PTFE graft in a loop configuration in the upper chest with anastomoses to the axillary artery and ipsilateral axillary vein. After IRB approval was obtained, patients were retrospectively and then prospectively identified and followed for a two year period.
RESULTS: Sixty-three AAAVgs were reviewed. The patient's average age was 55 years (range 23-85). Ninety-three percent had documented prior access. Thirty-eight patients required graft interventions in the follow-up period. Twenty-one balloon angioplasties were performed for outflow venous stenosis. 14 grafts thrombosed at an average of 461days after implant; 7 patients had bacteremia resulting in 4 graft removals as the infective source (6%). Two wound complications (1 hematoma, 1 superficial wound dehiscence) occurred but the graft was preserved. Notably, no patient required treatment for steal. The average primary patency rate was 85% at 30 days, 51% at 6 months and 33% at 1 year. Primary assisted patency was 90% at 6 months, 79% at 1 year, and 37% at 2 years. Secondary patency was 92% at 6 months and 58% at 1 year. Twenty-one patients required a new access at an average of 477 days following initial placement. Twenty-five of the 63 patients have died since receiving their grafts and one patient was transplanted.
CONCLUSIONS: Axillary AV grafts are appropriate for patients who have few upper extremity access options. The patency rates for this "bailout" procedure are at least equivalent to other upper extremity AV grafts. The lack of symptomatic steal is an important benefit. The infection rate is lower than femoral grafts and correspondingly, AAAVgs can even be considered for primary use in patients that have disadvantaged upper extremity vasculature or who are at increased risk of steal syndrome.

Presentation Number: 17

Publishing Title: Patient Compliance Limits the Efforts of Quality Improvement Initiatives on Arteriovenous Fistula Maturation

Author Block: **Susanna K. Lynch, BS**, Sadaf S. Ahanchi, MD, David J. Dexter, MD, Marc H. Glickman, MD, Jean M. Panneton, MD.
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Abstract Body:

OBJECTIVES: Our institutional quality improvement (QI) initiative monitors the schedule for arteriovenous fistula (AVF) maturation with follow-up within 30 days after creation, fistulogram within 40 days if indicated, and a second office visit within 8 weeks. Additionally, a patient liaison contacts patients and dialysis units in cases of delayed follow-up. The purpose of this study is to determine the impact of the QI initiative on patient compliance and overall time to AVF maturation.

METHODS: We performed a retrospective review of patients undergoing initial radiocephalic (RC), brachiocephalic (BC), and basilic vein transposition (BVT) creation before the QI initiative (Pre-QI group: January to April 2012) and during the QI period (QI group: January to April 2013). Categorical data was compared using $\chi 2$ analysis and nominal data was compared using Student t-test.

RESULTS: We reviewed 198 "first-time" AVF creations in patients with a mean age of 61 years with 57% male. Demographics and comorbidities between the pre-QI and QI groups were similar. During the pre-QI period 110 initial AVFs were created: 28% RC, 44% BC, and 28% BVT, while during the QI period 88 initial AVFs were created: 27% RC, 51% BC and 22% BVT ($\chi 2$=0.487). Compliance with the 30-day post-operative appointment increased significantly after the QI initiative, from 48% in the pre-QI group to 65% in the QI group (p=0.015). Yet, the QI initiative did not maintain an impact on the subsequent follow-up checkpoints. No statistical difference was identified for compliance with fistulogram within 40 days of access creation (pre-QI 12% vs. QI 25%, p=0.093) and for compliance with 8-week post-operative appointment (pre-QI 33% vs. QI 23%, p=0.457). Both checkpoints demonstrate a very high non-compliance rate. Accordingly, time to maturation was 88 days for both the pre-QI and QI group, with a failure to mature rate of 22% for the pre-QI group and 21% for the QI group.

CONCLUSIONS: The QI initiative significantly increased the number of patients complying with the first 30-day follow-up appointment after access creation. However, patient compliance with timely fistulogram and second follow-up appointment was very poor and not influenced by the QI initiative, limiting the functional impact of the QI initiative on time to AVF maturation.

Presentation Number: 18

Publishing Title: Outcomes of Percutaneous Suture Mediated Vessel Closure in Venous Interventions

Author Block: **Allan W. Tulloch, MD**, Sharon C. Kiang, MD, Daniel S. Levi, MD, Jamil Aboulhosn, MD, Brian G. DeRubertis, MD.
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Abstract Body:

OBJECTIVES: The safety and efficacy of vascular closure devices in the arterial system has been well documented. However, there are no reports describing the use of these devices in the venous system, despite the increasing frequency of percutaneous venous interventions, often involving large-bore sheaths in anticoagulated patients. This report describes our experience using the Perclose Proglide™ (Abbott Vascular Devices, CA) suture-mediated device in venous closure.

METHODS: Retrospective review of all patients undergoing off-label venous access closure with the Perclose was performed from 2008-2012. 70 patients (50% male, mean age 28yrs) underwent 70 femoral venous access closures for sheaths ranging from 9F-22F (mean 18F). A single Preclose device was used post-intervention for sheaths up to 12F, and two Preclose devices were used with the "Preclose" technique for sheaths > 12F. Indications for intervention included non-thrombotic May-Thurner Syndrome with leg swelling, May-Thurner Syndrome with deep vein thrombosis, and pulmonary insufficiency requiring a percutaneous pulmonic valve. All patients underwent full anticoagulation intraprocedurally (ACT >250 sec) and at the time of vessel access closure. Mean follow-up was 13 months, and consisted of physical exam (all patients) and venous duplex ultrasound (20%). Main outcome measures were DVT and access site hematoma.

RESULTS: During longitudinal follow-up, there were no documented cases of DVT or access site hematoma. Venous duplex ultrasound was performed between 1-56 months post-procedurally with normal flow documented in all studied patients. Six patients (9%) had ipsilateral leg swelling necessitating imaging that demonstrated no evidence of DVT or venous stenosis. Two deaths occurred (one <30 days, one late) due to heart failure in pulmonary insufficiency patients, but neither were procedure related.

CONCLUSIONS: The use of suture-mediated devices in the venous system appears to be well tolerated with no documented cases of deep venous thrombosis in our series. The absence of any occurrences of hematoma in these patients, despite large bore sheath access and full anticoagulation, suggests a clinical benefit for use of suture-mediated closure devices. Prospective studies with routine post-procedure duplex imaging after Perclose use in the venous system will better elucidate the long-term safety of this technique.

Presentation Number: MP13

Publishing Title: Overweight patients receiving radiocephalic arteriovenous fistulas do not have improved functional outcomes despite earlier referral and younger age

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Abstract Body:

OBJECTIVES: Radiocephalic arteriovenous fistula (RC) has become the preferred first line access procedure for hemodialysis patients. Overweight patients as measured with a Body Mass Index (BMI) greater than 25 kg/m2 are thought to have worst outcomes compared to patients with lower BMI. Some investigators have refuted this notion. We examined the outcomes of our normal and overweight patients with RC placement

METHODS: We obtained institutional board review approval to retrospectively query our VA Medical Center database from January 1, 2003 to December 31, 2008 to identify all patients who had RC fistula placement. RC outcomes were followed for an additional 48 months. Low BMI (25 kg/m2) patients were examined.

RESULTS: A total of 284 male patients had 571 access procedures performed during the study period. Of these 109 (19.1%) were RC. 40.4% (n=44) were in a low BMI group and 59.6% (n=65) were in the high BMI group. Kaplan-Meier analysis indicated similar functional patencies of RC fistulas in the low and high BMI groups (p=0.749).

Outcomes of Low vs High BMI

	Low BMI (n=44)	High BMI (n=65)	p value
Average BMI kg/m2 (mean +/- SD)	22.11 +/- 1.78	31.13 +/- 4.70	<0.0001†
Alive at the end of the study	21 pts (47.8%)	29 pts (44.6%)	0.8452*
Age at the time of surgery (mean years +/- SD)	73.45 +/- 10.58	68.86 +/- 11.14	0.0280†
On Dialysis at the Time of Surgery	20 pts (45.4%)	11 pts (16.9%)	0.0021*
Successful Cannulation	16 pts (36.4.%)	27 pts (41.5%)	0.6904*
Endovascular Interventions per Access (mean +/- SD)	0.5625 +/- 0.8139	0.4444 +/- 0.7511	0.5583†

*Fisher's Exact Test † Wilcoxon Rank Sum

CONCLUSIONS: RC is considered a first line operative procedure for those receiving hemodialysis. Patients had similar functional outcomes and endovascular procedures regardless of BMI. Interestingly, patients with higher BMI were statistically younger and had earlier referral for RC placement. Despite these two perceived advantages, functional outcomes did not differ between the two groups

Presentation Number: MP14

Publishing Title: Catheter Directed Thrombolysis for Deep Vein Thrombosis Increases Stroke Risk and Mortality in the Nationwide Inpatient Sample

Author Block: **Thomas Curran, MD**, Dominique Buck, MD, John C. McCallum, MD, Jeremy Darling, BA, Raul Guzman, MD, Mark Wyers, MD, Allen Hamdan, MD, Elliot Chaikof, MD, PhD, Marc Schermerhorn, MD.
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Abstract Body:

OBJECTIVES: Catheter directed thrombolysis (CDT) may limit long-term morbidity after acute deep vein thrombosis (DVT) but is also associated with complications. As prior studies of CDT have been limited by small sample size and low adverse event rates, we aim to characterize the utilization and short-term risks of CDT for acute DVT in a large national registry.

METHODS: The Nationwide Inpatient Sample (NIS) was used to capture all inpatient admissions with a primary diagnosis of DVT from 2005 to 2011 using International Classification of Disease Ninth Revision (ICD-9) diagnosis codes. Treatment with CDT was noted via ICD-9 procedure code. CDT and non-CDT groups were compared for development of cerebral hemorrhage, hemorrhage and death. Comparisons were carried out using Fisher's exact test, t-test or multivariable logistic regression.

RESULTS: We identified 920,033 patients admitted for DVT with 27,895 (3.0%) receiving CDT. Utilization of CDT increased from 1.4% in 2005 to 4.6% in 2011 (p<.001). CDT patients were younger and less likely to have major medical comorbidities (Table). CDT was associated with increased hemorrhagic stroke (.7% vs. .1%; p<.001), hemorrhage (4% vs. .6%; p<.001) and death (1.2% vs. 0.8%; p<.001). Length of stay was also significantly longer in patients with CDT (6.8 vs. 4.9 days; p<.001). IVC filter placement was more common in CDT patients (34.8% vs. 15.1%; p<.001). Independent predictors of cerebral hemorrhage were CDT [OR: 6.2 (95%CI: 3.5-11.0)] and transfer from long term care facility [OR: 5.5 (95%CI: 2.7-11.8)]. Adjusted for age and comorbidity CDT was associated with an increased risk of death [OR: 1.8 (95%CI: 1.5-2.4)].

CONCLUSIONS: Though utilization of CDT for the treatment of DVT has risen three-fold since 2005, CDT is associated with a six-fold increase in hemorrhagic stroke risk and two-fold increase in mortality risk. While CDT may decrease late sequellae of DVT, these small but significant short-term risks must be recognized. Further study is required to elucidate the long-term benefit of CDT.

	All Patients (N=920,033)	CDT Patients (N=27,895)	Non-CDT Patients (N=892,138)	p value
Age, Mean (Years)	64.7	53.3	64.5	<.001
Female (%)	53.5	48.9	53.7	<.001
Black Race (%)	14.9	11.0	15.1	<.001
Congestive Heart Failure (%)	8.6	3.6	8.7	<.001
Diabetes (%)	21.1	15.2	21.3	<.001
Chronic Obstructive Pulmonary Disease (%)	11.2	7.0	11.3	<.001
Chronic Renal Failure (%)	9.7	6.5	9.8	<.001

Presentation Number: MP15

Publishing Title: **Elimination of medically unnecessary duplex venous scanning based upon an established algorithm can result in significant cost savings for Medicare**

Author Block: **Nicolas J. Mouawad, MD MPH MBA**, Michael R. Go, MD, Mounir J. Haurani, MD, Mark Moseley, MD MHA, Bhagwan Satiani, MD MBA.
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Abstract Body:

BACKGROUND: The utility of duplex venous scanning (DVS) for suspected deep vein thrombosis (DVT) in the emergency department (ED) remains controversial. Protocols for efficient use of DVS have been proposed but not universally adhered to. We aimed to measure potential cost savings and economic impact in our institution and nationally with adherence to our institutional protocol for DVS in Medicare patients seen in the ED.

METHODS: We have previously described the utility of after-hours DVS in the workup of suspected DVT in our ED, have proposed an algorithm to maximize efficiency, and have calculated that 15.3% of DVS can safely be avoided with adherence to this protocol. By investigating cost variables for equipment, administrative overhead and personnel costs, the cost of performing DVS was computed. The national Medicare database was queried for number of DVS performed in the ED (HCPS 93970 or 93971) and charges/payments by Medicare were identified. We then determined the cost savings at our institution and nationally by Medicare.

RESULTS: 2087 DVS were performed in the ED at our institution across all payers in the study period. 572 Medicare patients had 249 (43%) bilateral and 323 (57%) unilateral studies. Cost per DVS at our institution was calculated at $306.70. Annual institutional savings using the protocol were estimated at $97,710. Nationally, there were 306,307 Medicare beneficiary DVS studies through the ED in 2011. Eliminating unnecessary DVS through the ED would result in $5,285,090 savings annually.

Number of DVS scans in our ED **(HCPS 93970 & 93971)**	**Cost of DVS scans in our ED**	**Number of DVS not necessary**	Our potential savings	**Number of DVS scans in a ED for Medicare patients nationwide**	**Total Medicare charges**	**Total paid by Medicare**	**Number of DVS scans for Medicare patients not necessary**	Potential Savings by Medicare
2087	$640,083	319	**$97,933**	306,307	$275,796,852	$34,543,066	46,865	**$5,285,090**

CONCLUSION: Increasing pressure for cost containment under a value based payment model in preparation for ACOs and ‘bundled’ payments necessitates critical evaluation of resource utilization in each clinical area related to Vascular Surgery. Adherence to a protocol maximizing appropriate utilization of DVS in the ED as an example can result in significant cost savings locally, for Medicare and the taxpayer. Applying this schema nationally is an opportunity for responsible management of finite resources, reducing wasteful care and significant cost containment.

Presentation Number: MP16

Publishing Title: Results of Repeat Percutaneous Interventions on Failing Arteriovenous Fistulas and Grafts and Factors Affecting Outcomes

Author Block: **Kimberly T. LeBlanc, MD, PhD**, Alex Csizinscky, MD, Julie Flahive, Francesco Aiello, MD, Jessica P. Simons, MD, Andres Schanzer, MD, Louis M. Messina, MD, William P. Robinson, MD
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Abstract Body:
OBJECTIVES: Repeat percutaneous interventions on failing arteriovenous fistulas (AVF) and grafts (AVG) for hemodialysis are common but the outcomes are not known. We sought to determine the results of second-time percutaneous intervention on AVGs and AVFs and identify factors associated with failure.

METHODS: We reviewed second-time percutaneous interventions on failing AVFs and AVGs at a single institution between 2007 and 2013. Patient comorbidities, graft or fistula configuration, lesion characteristics, and procedural characteristics of the intervention performed were analyzed with respect to technical success, primary, primary assisted, and secondary patency.

RESULTS: 96 second-time percutaneous interventions were performed on 52 AVFs and 44 AVGs. Patients included 56% men at a mean age of 64 (SD=17) years. Lesions were primarily located along the accessed portion of the outflow in AVFs and within the length of the graft and at the venous anastomosis in AVGs. Transluminal angioplasty alone was performed in 79 patients and uncovered or covered stents were placed in 15. Pharmacomechanical thrombectomy was performed in 32 patients (34%) and was more commonly performed in AVGs compared to AVFs (53% vs. 17%, p=0.0002). Technical success was achieved in 90 procedures (97%). Median follow-up was 2.5 years. One-year primary patency, assisted primary patency, and secondary patency were 35%, 85%, and 85%, respectively. Primary patency did not differ between AVFs and AVGs but five-year secondary patency was lower for AVG in comparison to AVF (49% vs 90%, P=0.04). On multivariable analysis, only the need for pharmacomechanical thrombectomy significantly predicted failure of primary patency (HR 2.62, 95% CI: 1.59-4.32, p=0.0002). The presence of an AVG compared to AVF independently predicted failure of secondary patency (HR 2.86, CI: 1.00-8.15, p=0.05).

CONCLUSIONS: Second-time percutaneous interventions on AVFs and AVGs are associated with excellent technical success but poor primary patency at one year. Pharmacomechanical thrombectomy frequently necessitates additional percutaneous interventions within 1 year to maintain patency. Additional interventions result in acceptable secondary patency with AVG performance inferior to that of AVF. The cost-effectiveness of repeat percutaneous interventions required to maintain AVG and AVF patency as well as optimal surveillance strategies need further investigation.

Presentation Number: MP17

Publishing Title: Increased Arteriovenous Fistula Cannulation Rate at Index Hemodialysis Has Not Impacted Catheter Usage Over the First Five Years of the Fistula First Breakthrough Initiative

Author Block: **Devin S. Zarkowsky, MD**, Joseph Canner, MHS, Isidor Arhuidese, MD MHS, Eric Schneider, PhD, Umair Qazi, MD, MPH, James H. Black, III, MD, Julie A. Freischlag, MD, Mahmoud B. Malas, MD MHS.
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Abstract Body:
OBJECTIVES: To examine trends in hemodialysis access methods between 2006 and 2010 in first-time renal replacement therapy patients.
METHODS: An IRB-approved retrospective analysis of a prospectively-maintained database from the United States Renal Data System comprising information on all ESRD patients in the country was performed. Those patients with dialysis access established before 2006 and patients who received a kidney transplant at any time were censored. Chi-square tests and ANOVA provided descriptive statistics.
RESULTS: Between 2006 and 2010, 510,000 patients commenced hemodialysis, 17.4% (17.1-17.9) through permanent surgical access. Intravascular hemodialysis catheters (IHC) were the most common access method employed, 82.6% (82.1-82.9), while arteriovenous fistulae (AVF) and arteriovenous grafts (AVG) were utilized with less frequency, 13.8% (12.2-15.0) and 3.5% (2.9-4.2) respectively. AVF and AVG exhibit a statistically significant inverse relationship over the study period, with AVF access increasing in frequency concurrent with a decrease in AVG ($p<0.001$, Table 1); incident dialysis via IHC remained essentially unchanged.
CONCLUSIONS: These results quantify a shift in conduit selection, likely owing to increased AVF awareness related to the Fistula First Breakthrough Initiative (FFBI). FFBI targets AVF cannulation at the index hemodialysis episode in 50% of patients, a goal not yet achieved. This initiative succeeded in shifting permanent access creation toward autogenous fistulae at the expense of prosthetic-based fistulae, a trend signaling evolution in surgical decision-making. However, we have failed to impact catheter use. There is a critical need for cultural change among patients and physicians To reduce dialysis initiation through IHC. FFBI began this process in 2006 and it is incumbent on the vascular surgery community to continue challenging educational, cultural and economic barriers preventing ESRD patients from receiving optimum care.

Incident hemodialysis method

	AVF (%)	AVG (%)	IHC (%)
2006 (n=99,545)	13,155 (12.2)	4,181 (4.2)	82,209 (82.6)
2007 (n=100,256)	13,670 (13.6)	3,674 (3.7)	82,912 (82.7)
2008 (n=101,253)	13,933 (13.8)	3,344 (3.3)	83,976 (82.9)
2009 (n=104,513)	15,028 (14.4)	3,309 (3.2)	86,176 (82.5)
2010 (n=104,433)	15,666 (15.0)	3,054 (2.9)	85,713 (82.1)
p-value	<0.001	<0.001	<0.001

Presentation Number: MP18

Publishing Title: Choice of Hemodialysis Extremity Access Can Reduce Catheter Days

Author Block: **Jonathan Levison, MD**, Bree Porcelli, BS, Alexis Deitz, Marissa Karchin, Rami Bustami, PhD, MBA, Clifford Sales, MD, MBA.
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Abstract Body:
OBJECTIVES: The National Kidney Foundation-Kidney Dialysis Outcomes Quality Initiative (KDOQI) and Fistula First guidelines recommend early evaluation to plan extremity access for the patient with Chronic Kidney Disease. However, 80% of patients initiate hemodialysis through a central venous catheter. We examined our results to determine whether specific extremity access procedures: autogenous fistula (AVF), single stage transposition arteriovenous fistula (SST,) or arteriovenous grafts (AVG) had varying days of catheter use prior to extremity access cannulation.
METHODS: A retrospective review was performed for all patients undergoing creation of an extremity access from 2010 and 2011. Three groups of patients were identified: SST, AVF and AVG. Other data gathered included patient demographics, co-morbidities, diameter of venous anatomy based on preoperative venous duplex mapping, as well as follow-up interventions required to maintain access patency. Total Catheter Days (TCD) were calculated based on identifying the time from access implantation to catheter removal. TCD was compared in the three groups using the Kruskal-Wallis test and chi-square test, respectively. A multivariate linear regression model was used to predict the natural logarithm of TCD by group.
RESULTS: 220 patients with extremity access were included, 50 SST (23%), 64 AVF (29%) and 106 graft (48%). Median follow-up was 10 months. TCD was available for 127 patients (58%) with an overall median of 110 days: 106.5 days for SST, 178.5 for AVF and 69 days for AVG; $p<0.001$ by the Kruskal-Wallis test. Results from linear regression showed that TCD was significantly longer for AVF when compared to SST. AVG was associated with a significantly shorter TCD when compared to the autogenous fistula groups. (PE = 0.50, 0.75; $p<0.001$, 0.002, respectively). Results from multivariate logistic regression showed increased likelihood of receiving an AVG in patients with older age, IDDM, obesity, previous HD access, and smaller diameter of venous anatomy ($p<0.05$).
CONCLUSION: The creation of a SST is preferred over AVF when creating extremity access in patients with an indwelling tunneled catheter. AVG can be considered in patients while attempting to minimize the requirement of an indwelling tunneled catheter.

Presentation Number: MP19

Publishing Title: Fistula maturation from surgery to usage to catheter removal: Effect of a novel protocol for hemodialysis fistula maturation assistance on reduction of hemodialysis catheter dwell time

Author Block: **Jose A. Ramirez, MD**, Warren Krackov, MD, Yusbel Perez, PA-C.
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Abstract Body:

BACKGROUND: K-DOQUI guidelines call for early arterio-venous fistula usage in patients with End Stage Renal Disease (ESRD); however, there has often been a significant delay before fistulas can be used to allow for fistula maturation; this has proven to be a barrier to early fistula usage. Many patients are therefore forced to endure prolonged catheter dwell times, with increased infection rates until their fistulas are mature enough to be used. Balloon-assisted fistula maturation is a technique to help accelerate fistula maturation and therefore diminish the time before a fistula can be used. The technique has been performed since, with well documented outcomes. We developed a novel protocol for assisting in the maturation of hemodialysis fistulae in order to reduce the amount of time catheters are required in these patients.

MATERIALS AND METHODS: We retrospectively analyzed 83 patients, who had either a radiocephalic arteriovenous fistula at the wrist or a brachiocephalic arteriovenous fistula at the antecubital fossa over a 24 month period, all of whom had the fistulas placed in either a fully JACAHO-compliant outpatient surgical center or in the hospital setting. We followed patients using the following protocol: at one week post-op for a wound check, then at 2 weeks from the surgery for a fistulogram with possible intervention, and at 4 weeks after the surgery for a 2nd fistulogram with possible intervention. When the fistula was at least 6 mm in size by ultrasound (in compliance with K-DOQUI guidelines), the fistula was used, with patients returning in 1-2 weeks for catheter removal.

RESULTS: The mean time for first time fistula usage was 45.4 days, which represents a significant decrease from the standard of care. Complications with fistula usage included small hematomas and ecchymosis.

CONCLUSION: Our data show that the use of a novel balloon-assisted fistula maturation protocol in the early postoperative period is a safe and effective method for decreasing the amount of time before a fistula can be used, with minimal complications, thereby theoretically significantly reducing catheter dwell times and associated morbidity and mortality.

Presentation Number:	MP20
Publishing Title:	**VTE Prevention Through the Application of Evidence-Based Practice: Validation of a Modified VTE Risk Assessment Tool**
Author Block:	**Foula Kontonicolas, M.D.**, Sam Morales, MD, Anita Volpe, MD, Pierre Saldinger, MD, Alan M. Dietzek, MD. Danbury Hospital, Danbury, CT
Abstract Body:	**OBJECTIVES:** Venous thromboembolism (VTE) is a potential preventable complication of surgery which can result in higher morbidity and cost. VTE risk assessment preoperatively can help stratify high risk patients in order to properly administer VTE prophylaxis. A simple, modified risk assessment tool was developed based on the ACS NSQIP Best Practice Guidelines. The simplicity of this modified tool supports it's consistent and efficient application within the perioperative setting. **METHODS:** The modified risk assessment tool was developed based upon the ACS NSQIP Best Practice Guidelines. A comparative application of both tools was conducted on 1,002 patients from the American College of Surgeons National Surgical Quality Improvement Database between the dates of 3/2010 to 8/2011. Inclusion criteria followed the ACS NSQIP multi-specialty requirements. Analysis of total VTE score from both tools was conducted. **RESULTS:** Of the 1,002 patients, 11 (1.09%) had a score on the VTE risk assessment tool that differed from the ACS NSQIP Best Practice Guidelines. One patient (0.1%) had a score difference which would require a change in VTE prophylaxis. Statistically, there was no difference in score results between the ACS NSQIP Best Practice Guidelines and our VTE risk assessment tool. **CONCLUSION:** Our modified VTE risk assessment tool is equally as sensitive as compared to the ACS NSQIP Best Practice Guidelines in scoring VTE risk and is a valid risk assessment tool