Vascular Quality Initiative®

Summary of Key Learnings, Issues and Ideas from 16 Regional Vascular Quality Improvement Meetings

Spring 2015

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Regional Meeting Selected Presentations

"Contrast-Induced Nephropathy (CIN) Following Peripheral Angiography: Are We Doing Enough to Prevent These "Never Events'?" by Benjamin Brook, MD (Rocky Mountain)	 CIN presentation Rocky Mountain VQI_F (CLICK ICON TO VIEW PRESENTATION)

- CIN a significant risk for patients exposed to contrast media while undergoing therapeutic peripheral vascular interventions (PVI)
- CIN is scheduled to be added to the list of hospital acquired complications or 'never events' that Medicare will not reimburse. '
- A range of therapeutic agents and protective measures shown to reduce CIN (e.g. oral N-acetyl cysteine, CO2 angiography) but their efficacy has not been established
- Goal is to standardize renal protection measures among patients undergoing PVI; wide variation in CIN preventive measures among VSGNE providers in 2012
- Need QI programs to determine if CIN is prevented among patients that received standardized care in other regions

Improving Documentation in Vascular Care and the Impact of ICD-10" by Dr. Beth Wolf, Jo Brautigam, and Lori Bennet (Carolina)	 2015 4 29 Vascular Surgery Documentatic (CLICK ICON TO VIEW PRESENTATION)

- Importance of listing all diagnoses in History and Physical section
- Guidance on operative and progress notes and discharge summaries
- Documentation re: critical limb ischemia, excisional debridement, new diagnosis after surgery and acute blood loss
- Impact of ICD – 10: pressure ulcers and varicose veins of LE
- List of on-line resources for ICD-10.

"Ultrasound Guidance during Arterial Access for Peripheral Vascular Intervention: A VSGNE Quality improvement Project" by Jeffrey Kalish, David Gillespie, Marc Schermerhorn, Daniel Bertges, Chris Healey, Paul Bloch	Ultrasound Guidance VSGNE 4-13-15 no m (CLICK ICON TO VIEW PRESENTATION)

- Local vascular complications = most frequent adverse outcome for femoral puncture
- Puncture over upper half of femoral head is safest location; cephalad punctures increase complication rates and should be avoided
- Operator interpretation of images crucial to lowering complications
- Appropriate use of smaller sheaths, closure devices and routine ultrasound guidance may potentially protect against hematoma formation
- Many important risk factors that predict hematoma formation after femoral arterial access are not modifiable.
- Routine use of ultrasound guidance may decrease the risk for hematoma formation for both modifiable and non-modifiable patient/procedural characteristics.

VSGNE Goals: Track hematoma rates of surgeons/centers that switch to routine ultrasound usage and track new data fields: EVAR/TEVAR: percutaneous femoral access and ultrasound guidance PVI: individual access sites recorded separately, "closure device successful". Increase the utilization of ultrasound guidance for arterial access from 40% to 80%.

- Popular Ratings of Vascular Surgery: Implications for Practice – Nicholas Osborne, MD, U of M Medical Center
- Open Proximal Abdominal Aortic Aneurysms: Techniques and Outcomes – Loay Kabbani, MD, HFH
- Fenestrated Endovascular Aneurysm Repair (FEVAR) – Robert Cuff, MD, Spectrum Health

"Popular Ratings of Vascular Surgery: Implications for Practice" by Nick Osbourne (Michigan)	Michigan Vascular-ratings talk.p (CLICK ICON TO VIEW PRESENTATION)

- Growing interest in hospital and physician rating systems
- Outlined rating systems that identify high quality hospitals including CMS Hospital Compare (includes measure for high risk surgeries, Health Grades, Leapfrog Group, Consumer Reports, others
- Noted lack of concordance across hospital rating systems
- Physician rating programs have minimal oversight – programs include RateMDs, Angie's List, Yelp
- Highlighted Doximity, a social networking tool for physicians designed to facilitate collaboration across physicians in a HIPAA compliant environment – 400,000 physicians are registered.

"Open Proximal Abdominal Aortic Aneurysms (PAAA) – Techniques and Outcomes" by Loay Kabbani, MD (Michigan)	Open PAAA 2015.pdf (CLICK ICON TO VIEW PRESENTATION)

- PAAA has higher mortality and morbidity than infrarenal AAA
- Increased risk include higher operative time, hazards to adjacent organs, cardiac strain
- Proximal control allows reconstruction
- Preservation of renal function in juxtrarenal and suprarenal AAA repair; mortality comparable to infrarenal AAA with good durability of repair
- Accurate assessment by CTA of the upper abdominal aorta and visceral branch anatomy is the most important step of pre-operative care
- Accurate proximal clamp site and logical clamping and unclamping sequence are key components of complex aortic surgeries.

"Fenestrated EVAR: Techniques and Outcomes" By Robert F. Cuff MD FACS (Michigan)	MVS-Fenestrated.pdf (CLICK ICON TO VIEW PRESENTATION)

- Preoperative planning is key to success
- Patient selection is important factor in avoiding complications
- Reviewed technical considerations including length of proximal body, placement of working sheaths and covered vs bare metal stents
- Fenestrated grafts can be successfully used to treat juxtarenal AAAs but should be reserved for high risk operative patients and renal artery stent patency must be followed closely.

"EMR 'Smart Texts': VQI Data Abstraction at the U. of Rochester" by Michael Stoner, MD, Lisa Spellman, RN (Greater New York)	EPIC Presentation_Univ of F (CLICK ICON TO VIEW PRESENTATION)

- Project addresses problem of dispersed data or lack of documentation
- VQI 'smart texts' provide structured documentation that can be inserted into any note for each VQI procedure and is designed to work with the EPIC system
- Use of 'smart text' reduces data entry time and ambiguity
- Smart texts for discharge summary and follow-up.

Regional Meeting Findings and Key Learnings

'Pre-operative Risk Factors Associated with SSI in LEB', Tanya R. Flohr, MD, (Virginia)

- Patients with infections were more likely to have undergone **sequential open vascular interventions** compared to no infection patients
- **Recent IR procedures** appear to be protective
- Patients with clinical signs of infection had a higher **BMI**
- A higher percentage of patients with infections were **wheelchair bound** as compared to patients without infections; more patients with infections were **unable to see their incision**
- Patients with clinical signs of infection were more likely to have a **prior graft infection**, more likely to be **diabetic**, more likely to be **insulin dependent** and more likely to have a higher **Hemoglobin A1C** and **pre-op blood glucose.**

'EVAR: Percentage of Patients with LOS >2 days', Gary Lemmon, MD (Midwest)

The Midwest region has done very well on both EVAR and CEA and have been asked to present on the reasons why this region is consistently performing so well. Possible reasons for good performance include:

- We're doing a lot of percutaneous punctures on EVARS
- We're getting Foley catheters out because we have a Foley catheters protocol.

'Variation in Carotid Ultrasound Criteria for Significant Stenosis', Eddy Arous, MD (VSGNE)

Multispecialty guidelines developed over the past decade have not included standardized criteria for classifying carotid duplex parameters into discrete ranges of stenosis. Our group previously demonstrated significant regional variation in the diagnostic criteria of carotid duplex ultrasound studies, with widely disparate velocity criteria used among centers to assign degrees of carotid stenosis. The authors recommend the use of a PSV of 125 to 230 cm/s to suggest a 50% to 69% stenosis and a PSV of greater than 230 cm/s to suggest a greater than 70% stenosis. The widespread adoption of a standardized validated set of carotid duplex ultrasound criteria is a critical next step that can be promoted by the major accreditation organizations such as the IAC.

Strategies and Ideas from Regional Quality Groups for Improving Long Term Follow-up (LTFU)

Greater New York - Stony Brook Medical Center implemented the following strategies to improve their LTFU rates:

- RN has capability of making follow-up appointments for patients
- Monthly follow up reports pulled from M2S database
- Printed out follow up forms to be filled out by NP/PA/Physician on the day patient is in office
- Suggestions to increase compliance include: incorporate quality as part of annual evaluation that includes follow-up appointments and start with a few select modules

- VSGNE members agreed to un-blind the LTFU reports to name centers with their results so low performers could learn from high performers and peer pressure could help improve results
- Low rates of follow-up may be a patient education issue – physicians may need to do more on the front end to inform the patient why it's important they return for a follow-up. (Midwest) The Carolinas regional qroup is developing a card for VQI patients that emphasizes the importance of follow-up visits that will be available this fall.
- In terms of long term follow-up, quarterly Push Reports could help increase compliance. (SoCal)
- Geisinger Medical Center is sending their hospital data manager to the private practice sites at specified time intervals to abstract the data from paper charts. There may be data abstractors already employed by the hospital for other databases such as STS or NCDR who could also help.(Mid-Atlantic)
- Some hospitals have tied LTFU to credentialing to encourage cooperation.
- Our good results to date have been for the most part related to the tenacity of the data analysts, who have been persistent in calling patients to get them into their doctors for follow-up. (Upper Midwest)

Brief Clinical Findings/Issues

- <u>Extended Length of Stay (ELOS)</u>
  Dr. Siddharth Patel conducted a study of risk factors and financial losses associated with ELOS for carotid endarterectomy patients and found that MAE (mobility assistive equipment), low volume surgeon, and IV medication for hypertension or hypotension were predictive of LOS > 1 day. (FL, GA, MS)

- <u>CEA LOS</u>
  LOS not meaningful without qualifying with readmissions data. Need to track 30 day data for all procedures to capture readmissions. If LOS is low but readmissions are high, it is useful information to know. (Great Lakes)

- <u>Infra inguinal Bypass Procedures with Chlorhexidine or Chlorhexidine + Alcohol Skin Prep</u>
  Several centers are using a combination of Chlorhexidine, Loban, and Dura-prep. There is wide variation within the region, depending on how the abstractor enters the data into the registry. (Midwest)

Chlorhexidine use varies from 7% to 97% and they believe there is a data abstraction issue. If there is an ulcer/open wound that is prepped with iodine – how should that be recorded? What if Chlorhexidine and ETOH were used on the remainder of the surgical wound - reporting all three would make that case look non-compliant. Needs clarification. (SoCal)

- Lower Extremity Bypass.
  Hashtag method of obtaining extra data without having to build/add more fields worked; we collectively agreed as a region to voluntarily to use the hashtag method to track readmissions for 30day LEB voluntary follow up. (SoCal)

Regional Quality Improvement Projects Being Considered

(for regional groups that may want to collaborate or share resources)

- Ultrasound guidance using data from the PVI module (Midwest)
- Antiplatelet and statins (Midwest)
- CEA operative time – comparison with other practice time (Midwest)
- Percentage of Percutaneous Femoral PVI Procedures Using Ultrasound Guidance: Center Variation 0-98%: Group agreed that this will be their new regional QI project. (VSGNE)
- Reducing Contrast Induced Nephropathy (Michigan)
- Smoking Cessation (Southeastern, Carolinas, VSGNE)
- SSI reduction after infrainguinal bypass. (Michigan)

Finance and Administrative Issues

The Midwest Group is exploring a partnership with Anthem/BCBS because of the model they have in Michigan. BCBS Michigan pays for participation in SVS, STS and ACC. It includes performance incentives for physicians and hospitals that help offset registry expenses. Other groups are considering a dues structure and potential sources of external support.

Data Management Issues

- Each regional group now has a Regional Data Manager lead that attends quarterly data management conference calls with the PSO.
- Each Regional Data Manager lead hosts a call with their regional data managers to discuss best practices and collect questions to convey to the PSO.
- DASpecialists and Q-Centrix are two data abstraction companies that VQI members use; M2S can provide additional information.

Educational Credits: Preference for CMEs or MOCs

MOCs: 5 regional groups (Greater NY, Michigan, Midwest, VSGNE, TN)
CMEs: 2 regional groups (Pacific Northwest, Upper Midwest)

Other preferences:

- Patient safety credits (Great Lakes)
- CMEs for nurses/MOCs for physicians (SO CAL)

The SVS is recruiting a new Education Director and will review these education preferences in 2016.

Recommendations for SVS/PSO

- Need for more formal education for data abstractors and monthly call in forums with M2S. (Southeastern)
- Provide a yearly report reflecting our improvement, instead of only the comparative reports (Midwest)

Appendices: Copies of Regional Meeting Summaries

CAROLINAS 1  Carolinas Spring Meeting 2015	**GREAT LAKES 1**  Great Lakes Spring Meeting 2015	**FGMVSG 2**  FGMVSG Spring Minutes 2015	**SO CAL 3**  Voice – Minutes Spring 2015
ROCKY MOUNT 5  Rocky Mountain March 2015 Minutes	**MID AMERICA 4**  Mid America Minutes April 13, 2015	**MIDWEST 4**  Midwest VC Spring Biannual Meeting Minutes 05.15.2015	**SOUTHERN 5**  SOVONET Minutes April 2015
GREATER NY6  2015 Spring Meeting Minutes VSGGNY	**VSGNE 7**  VSGNE Spring Meeting Slides April-2015	**VA VSGE 8**  VVSG Spring Meeting Minutes 2015	**MI VSG HERE 9**  Michigan VSG Spring Meeting 2015
MID ATLANTIC 10  Mid Atlantic VSG Spring Meeting 2015	**TN 11**  TN-VSG Minutes Spring 2015	**UPPER MIDWEST 12**  UMVN Minutes Spring 2015	**PCNW 13**  Pacific NW Spring Meeting 2015