

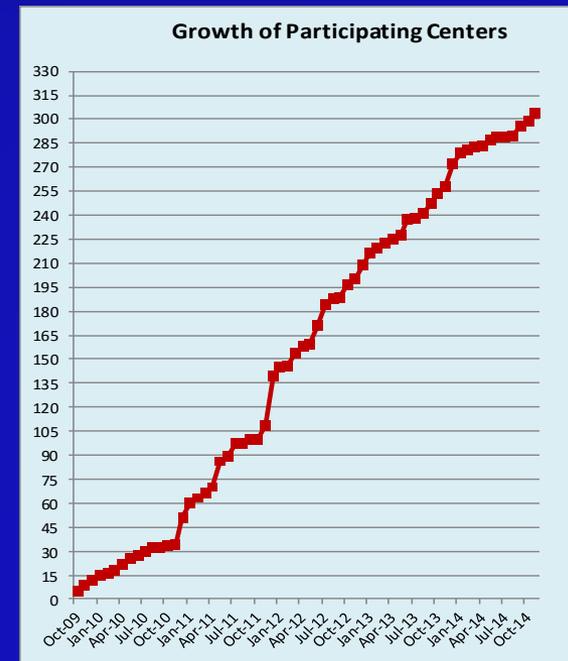


The Current State of the Vascular Low-Frequency Disease Consortium

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Vascular Quality Initiative (VQI)

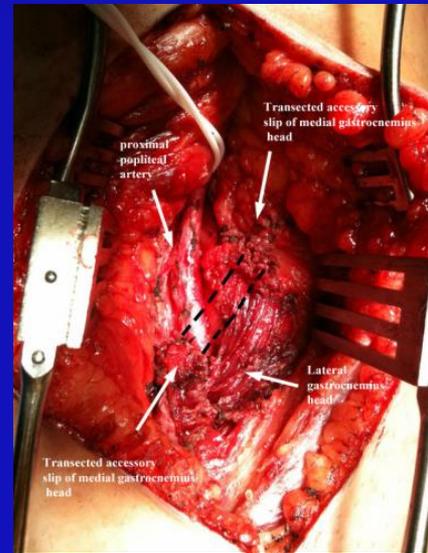
- **Common vascular procedures** entered prospectively into a database
- Patient safety organization (PSO) allows sharing of data
- Short- and long-term data available in large volumes
- Does not evaluate rare or uncommon vascular diseases



VASCULAR

Low Frequency Disease Consortium

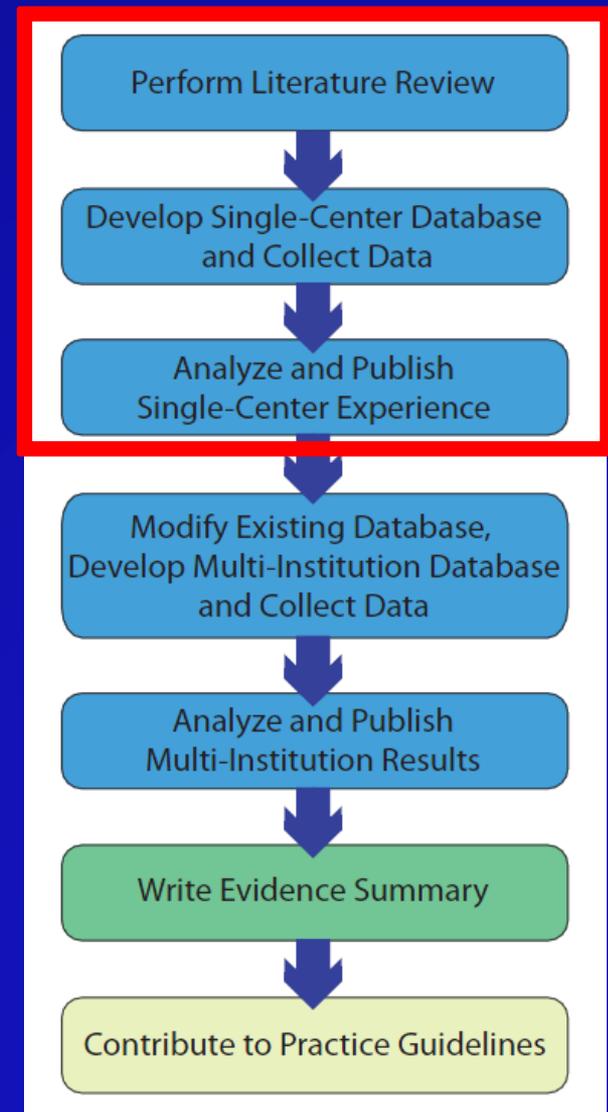
- Addresses uncommon vascular diseases
- Vascular Low Frequency Diseases defined as those that are not entered into VQI
 - Single institutions = not enough cases
 - Only case reports, small series, and large series collected over many years exist in literature
- Represent significant proportion of cases in many vascular surgery programs
 - We estimate **~20%** of new patients at UCLA have an uncommon “low frequency” disease or problem



**Popliteal Artery
Entrapment**

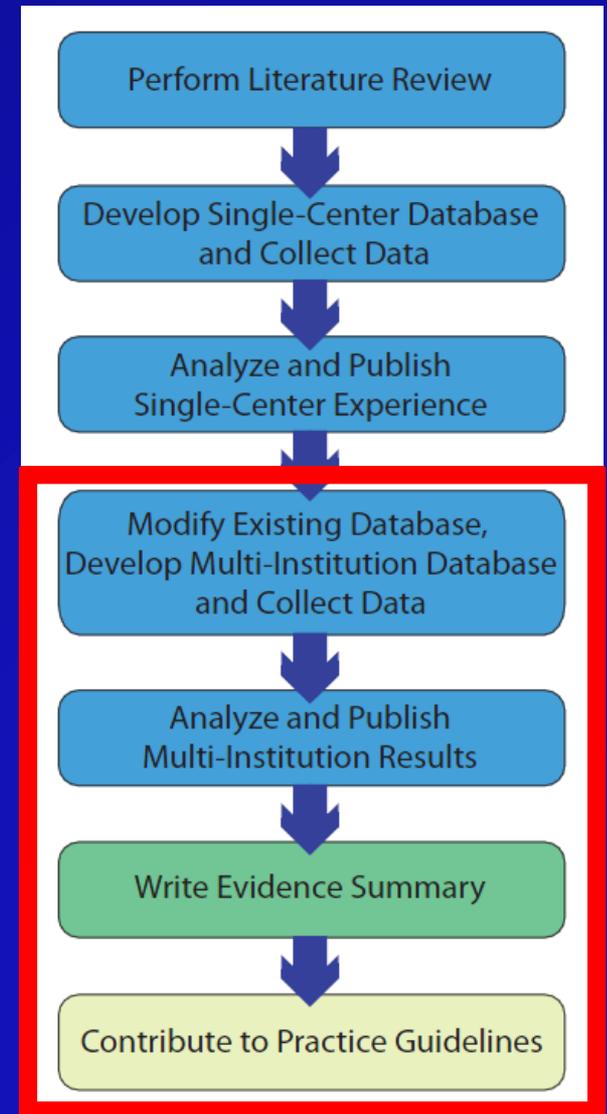
System for Investigation of VLFD's

- Identify low-frequency disease of interest through patient needs
- Conduct thorough literature review
 - Contradictions between studies in diagnosis and management
 - Evolution of management over years (e.g. imaging, endovascular options, etc)
- Develop a database and analyze single institution's data (example: UCLA)
- Present and publish single-center experience



Expansion to Multi-Institutional Process

- Determine if there are still unanswered questions
 - Modify the database
- Provide all necessary documents to collaborators to facilitate expedited review
 - IRB Information
 - Standardized data collection form
 - Streamlined process dramatically reduces time required for data entry
- Publish multi-institutional study



Reasons for Surgeons and Institutions To Collaborate

- Both private practitioners and academic surgeons participate— “real world” data
 - Only participate when topic is of interest
 - Pre-prepared IRB submission packet and data collection sheet are time-saving
 - Opportunity to analyze and critique data
 - Co-authorship on publications
- New research ideas can be generated and developed at any institution. We assist in the development of the project.

Isolated Femoral Artery Aneurysms

- Acute complications do not develop in asymptomatic FAA ≤ 3.5 cm and this should be adopted as the new threshold for elective repair
- Chronic intraluminal thrombus should reduce the size threshold for elective repair
- Current recommendation to repair all symptomatic FAA should remain unchanged

From the Society for Vascular Surgery

The current management of isolated degenerative femoral artery aneurysms is too aggressive for their natural history

Peter F. Lawrence, MD,^a Michael P. Harlander-Locke, BS,^a Gustavo S. Oderich, MD,^b Misty D. Humphries, MD,^c Gregory J. Landry, MD,^d Jeffrey L. Ballard, MD,^e and Christopher J. Abularrage, MD,^f for The Vascular Low-Frequency Disease Consortium, *Los Angeles, Calif; Rochester, Minn; Salt Lake City, Utah; Portland, Ore; Orange, Calif; and Baltimore, Md*

Asymptomatic Renal Artery Aneurysms

- RAA < 3 cm rarely rupture, even when 2-3 cm and not calcified
- RAA growth rate is 1 mm/year, although most did not grow
 - With current threshold of > 2 cm to repair, 66% of asymptomatic RAA in this study would require surgical repair in the next 10 years
 - With a threshold of ≥ 3 cm to repair, *only 11% of asymptomatic RAA in this study would require surgical repair in the next 10 years*
- Repair cured or improved hypertension in > 50% of patients whose RAA was found during workup for difficult-to-control-hypertension

Carotid Body Tumor Resection

- Shamblin class predicts risk of both bleeding and nerve injury
- **Distance from the base of the skull** as well as Shamblin class should be determined preoperatively
 - DTBOS independently predicts bleeding risk and permanent nerve injury
 - DTBOS in combination with Shamblin is more predictive of outcomes than Shamblin classification alone
 - DTBOS is the single best predictor of cranial nerve injury
- **Tumor volume** was independently associated with bleeding and adds value to predicting bleeding risk in combination with Shamblin class and DTBOS

Cryopreserved Allograft for Aortic Graft Infection

- Cryopreserved aortoiliac allograft allows for aortic reconstruction in the setting of infection and is associated with low early and long-term morbidity and mortality
- Associated with low rates of graft rupture, aneurysm formation, recurrent infection, and limb loss
- Cryopreserved aortoiliac allograft should be considered a first line treatment against primary or aortic graft infections

From the Society for Vascular Surgery

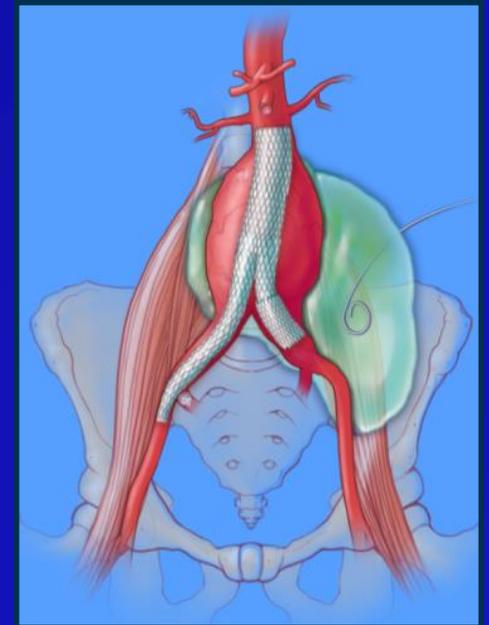
The use of cryopreserved aortoiliac allograft for aortic reconstruction in the United States

Michael P. Harlander-Locke, BS,^a Liv K. Harmon, MD,^a Peter F. Lawrence, MD,^a Gustavo S. Oderich, MD,^b Robert A. McCreedy, MD,^c Mark D. Morasch, MD,^d and Robert J. Feezor, MD,^e for The Vascular Low-Frequency Disease Consortium, Los Angeles, Calif; Rochester, Minn; Indianapolis, Ind; Billings, Mont; and Gainesville, Fla

J Vasc Surg. 2014 Mar;59(3):669-74.

Aortic Endograft Infection

- Clinicians should have a high index of suspicion to diagnose symptomatic post-operative EVAR/TEVAR patients with graft infection, especially in those patients with chronic infections or contaminated index procedures
- NAIS or cryopreserved, then antibiotic soaked prosthetic grafts, should be considered for reconstruction after complete explantation
- Medical management is associated with a high mortality rate



Next Steps to Improve Process

- Form an **advisory board** to oversee consortium activities and select project proposals
- Develop a **data auditing system** to ensure integrity of data being shared
- **Seek sponsorship** from a professional society
- Secure grant with **salary support**
- Hire **consultants**
 - Literature Review, Statistical Analysis, Graphics/Illustrations
- Develop **prospective studies** based on VLFDC retrospective studies

Current VLFDC Studies

Study	Current Status
Adventitial Cystic Disease	Univ. of Indiana: Multi-Institutional Study Data Analysis
CryoVein and CryoArtery Angioaccess for AV Graft Infections	UCLA: Multi-Institutional Study Data Analysis
Isolated Mesenteric Artery Dissection	UC Davis: Multi-institutional Study Data Analysis
Vascular Ehlers-Danlos syndrome	Univ. of Washington: Multi-Institutional Study Data Analysis
Development of Venous Ulcer Treatment Algorithm	UCLA: Multi-Institutional Study Data Collection
Popliteal Artery Entrapment Syndrome With Occlusion	UCLA: Multi-Institutional Study Data Collection
Persistent Sciatic Artery	UCLA: Single Institutional Study In Progress
Carotid Artery Aneurysms	UCLA: Single Institutional Study In Progress
Venous Aneurysms	UCLA: Single Institutional Study Initiation Phase

Conclusions

- Use the VQI for common vascular diseases to benchmark yourself and your institution
- Low frequency vascular diseases are commonly encountered in all vascular practices- get involved!
 - Literature is currently not available on the management of many of these problems
 - A systematic approach using a standardized multi-institutional database can shed light on these uncommon diseases
 - Better information on appropriate care will improve vascular outcomes for patients and reduce the cost related to inappropriate care
- The process fosters a collaborative relationship among institutions and researchers

V A S C U L A R
Low Frequency Disease Consortium

VLFDC

**ARE YOU INTERESTED
IN PARTICIPATING?**

Come Say Hi or Email:

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