SoCAL VOICE REGIONAL DATA MANAGER WEBINAR APRIL 26, 2018

Agenda

- Review January 2018 meeting minutes
- Quality Improvement Projects
  - Guest: Julie Beckstrom, MSN, RN, CCRC Division of Vascular Surgery, University of Utah
    - Utilizing #Hashtags for a VQI Regional Quality Improvement Project
  - Regional QI projects
- Lead Data Manager (national) Update
  - Participation Awards
  - 30 Day Readmission
  - CEA/CABG data entry
- Regional Reports: Q&A
- Data Management Issues
- Data Entry Inter-rater Reliability
- Open Forum
- SoCal Voice Meeting: May 4, 2018 Laguna Beach, CA (Prior to Southern California Vascular Society Annual Meeting May4-6, 2018
- Regional meeting DM breakout sessions at VAM: June 20-23, 2018 Boston, MA
- Next DM Webinar

SoCal Voice Regional Data Managers Webinar

DATE 1/25/18
Webinar Meeting

Attendance: Debbie Bordwell, Gabriela Flores, Katrina Ladd-Reeder, Molly Kurth, France De Leon, Carol Psahoulias, Angela Evans, Sandi Anderson, Roberta Write, Ahmed Abou-Zamzam, Wendy Chiodo, Karen Heaney, and Kelsi Ostenson
SVS – Cheryl Jackson, Nancy Heatley

Agenda Item	Discussion	Action
Welcome	• Introductions • Meeting organization – submission of agenda items and frequency	• Lead DM will again ask for input a few weeks before meeting, decided next meeting should be 2nd -3rd week in April

Lead Data Manager (National) Update	• Call for IRR cases - VQI at VAM in Boston
	• Regional meeting at VAM – June 20-23 2018 in Boston, MA
	• 30 day readmission – possible pilot
	  – Requested by many organizations
	  – Voluntary vs mandatory collection
	  – Reason for readmission
	  – Discussion on data points
	  – Feedback from others: not currently tracking readmission
		• Cheryl is looking for charts that can be used in breakout, TVAR/EVAR or any case that is out of the normal flow

SoCal Voice Regional Data Managers Webinar

Agenda Item	Discussion	Action
Quality Improvement/Data Management	• Hashtags (#) – Use for specific short term QI project (internal or regional level) – Currently not being used by region – Other regions have started to use, information available on how to use • Sharing reports within region – Team at Providence St. Peter currently using system level dashboard will look into sharing with team – Member only portion of web – on VQI website https://www.vqi.org/member-services/ • Collecting stats of which registries are being used in the region – If acceptable with PSO regulations, team agreed it would be useful to have a list with centers and which registries they participate in • Spring Regional report deadlines -Procedures performed by 12/31/17 must be completed by 1/31/18 to be included in Spring regional reports	• Lead DM will send out poster board and memo on how to use Hashtags • Nancy to follow up with lead DM regarding PSO regulations and creating self-reported list of regional registry participation

SoCal Voice Regional Data Managers Webinar

Agenda Item	Discussion	Action
PVI IRR	• ABI - LE duplex study presented for ABI IRR (PVI data element) - Team reviewed registry ABI definitions -Team discussed ABI results with respect to vessel rigidity and non-compressible vessels	• Cheryl Jackson to send to PVI committee for discussion
Next Meetings	• Next SoCal Voice Webinar - April 19th • SoCal VOICE May 4th 2018 at Laguna Beach CA (combined meeting with NorCal)	

PVI IRR: ABI

Indication: Other specified peripheral vascular diseases, Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene, Generalized atherosclerosis
ICD Codes: I7389 E1351 I7091
History: IP; Non-healing wound on RT 5th metatarsal. H/x diabetes.

Ankle Brachial Index

RIGHT			LEFT	
	Systolic BP (mmHg)		Systolic BP (mmHg)	
Index				Index
	138	Brachial	140	
		Posterior Tibial		
0.91	128	Anterior Tibial	220	1.57
		Toe Pressure		

FINDINGS

On the right, the ankle/arm pressure ratios at the posterior tibial could not be obtained due to barely audible signals. Ankle/ brachial is reduced in the anterior tibial artery. Duplex imaging reveals calcific atheroma in the common femoral artery. There is calcific and soft atheroma in the superficial femoral artery creating a moderate stenosis at proximal and mid segment. Normal popliteal artery without evidence of hemodynamically significant stenosis. No Doppler flow detected in the posterior tribal artery, this appears occluded at distal calf. Photoplethysmography of all digits reveals damped tracings bowed toward baseline, with absent dicrotic notch =

On the left, the ankle/arm pressure ratios could not be obtained due to incompressible calcific vessels and inaudible signals. Duplex imaging reveals mild atheroma in the the common femoral, superficial femoral artery. Normal and popliteal artery without evidence of hemodynamically significant stenosis. Posterior tibial artery appears occluded at distal calf, with minimal flow reconstitution at the medial malleolus. Photoplethysmography reveals normal tracings of all digits.

CONCLUSIONS

1. 50 - 74% STENOSIS IN THE RIGHT SUPERFICIAL FEMORAL ARTERY.
2. BILATERAL TIBIAL ARTERY OCCLUSIVE DISEASE, WITH CHRONIC OCCLUSION OF THE POSTERIOR TIBIAL ARTERIES.
3. NO SIGNIFICANT CHANGES NOTED COMPARED TO EXAM DONE ON 09/28/2017.

SoCal Voice Regional Data Manager Webinar Minutes (cont.)

Regarding the IRR discussion on what numbers to use for ABI if it is above 1.3, see note below from Dr. Daniel Bertges for the full answer:

"We should stick with the range limits and help text in the system
Range is 0-2.0 but help text notes you can enter 2.0 if a lower ABI number is judged incompressible

For this case it is not correct that "anything over 1.3 is incompressible" for this case the fact that the impression says the 1.57 was incompressible indicates you can enter 2

Daniel J Bertges, MD, FACS
Associate Professor of Surgery and Medicine
Vascular Surgery Fellowship Program Director
University of Vermont Medical Center
Division of Vascular Surgery"

Utilizing #Hashtags for a VQI Regional Quality Improvement Project

HEALTH UNIVERSITY OF UTAH

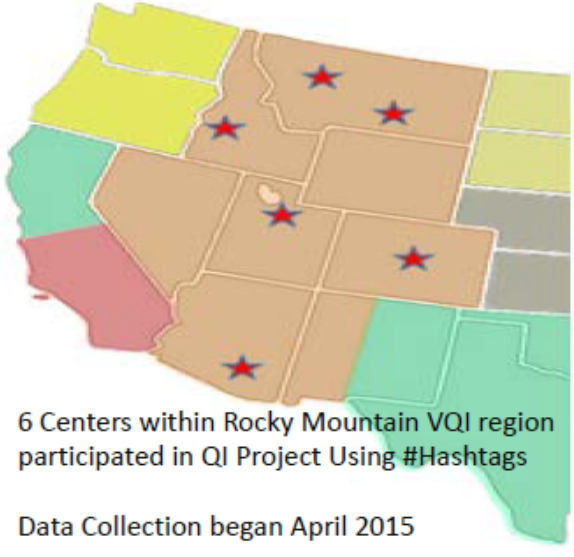
Julie Beckstrom, RN, MSN; Larry Kraiss, MD; Benjamin S. Brooke, MD, PhD

Department of Surgery - Division of Vascular Surgery
University of Utah School of Medicine, Salt Lake City, UT

SVS | VQI VASCULAR QUALITY INITIATIVE

Background:

- Patients undergoing endovascular aneurysm repair (EVAR) surgery data are at risk for developing contrast induced nephropathy (CIN) during the perioperative period.
- Variables needed to study CIN such as perioperative renal function indicators (e.g. creatinine levels), and renal protective measures (e.g. CO2 angiography, pre-op IV sodium bicarbonate, etc.) are NOT included within the SVS-VQI EVAR Registry.
- Data collection in the SVS-VQI EVAR registry outside of VQI pre-populated forms can occur via #hashtag data entry into the comment section of the form.



- 6 Centers within Rocky Mountain VQI region participated in QI Project Using #Hashtags
- Data Collection began April 2015

Goals/Objectives:

- To initiate a quality improvement (QI) project within the Rocky Mountain Region Vascular Quality Initiative (RMVQI).
- To evaluate the feasibility of #hashtag data collection and entry into the SVS PSO database for a multi-site project.
- To evaluate the usage and effectiveness of different renal protective strategies.

Improvement Process:

- Renal protective measures and pre/post-operative creatinine values were collected using pre-designed #hashtag character strings.
- #Hashtags were entered into the comment box of the VQI electronic case entry form.

#hashtag

Timepoint	Hashtags
Pre-op	#RP_pre_cr_x.x
Post-op day 1	#RP_POD1_cr_x.x
Post-op day 3	#RP_POD3_cr_x.x
Post-op month 1	#RP_POM1_cr_x.x
Pre-op	#RP_Bicarb
Pre-op	#RP_CO2
Pre-op	#RP_Mucomyst
Pre-op	#RP_Other

Results: N=163

Pre-Operative Creatinine Category	Mean Creatinine Pre-Op	Mean Creatinine POD #1	Mean Creatinine POD #3	Mean Creatinine 1 month Post-Op
Creatinine <1.3 (N = 101)	0.95	0.92	0.99	0.97
Creatinine 1.3–2.0 (N = 30)	1.48	1.43	1.40	1.54
Creatinine >2.0 (N = 19)	2.16	2.42	2.67	3.54

Challenges:

- 1-month post-operative creatinine values were missing approximately 40% of the time.
- Reasons for missingness included lab ordering errors and lack of patient follow up.

Success Factors:

- #Hashtag data were accurately entered into the VQI database by study site personnel over 80% of the time.
- Upon data pull request, #hashtag data were returned in a timely manner by VQI database administrators.

Conclusions:

- Utilizing #hashtags within the existing infrastructure of the SVS-VQI registry is a valuable method to facilitate regional and national QI projects.

VQI Participation Award 2018

- VQI centers are eligible to receive up to 3 Stars
- 4 Categories scored on a weighted 0-6 point scale
  - LTFU (40%)
  - Meeting attendance (30%)
  - QI project involvement (20%)
  - Number of registry subscriptions (10%)
  - Total points = 4x LTFU score + 3x attendance score + 2x QI project score + 1x Registry score

VQI Quality Initiatives

- National: Discharge medications (AP + statin)
- National: EVAR Imaging LTFU
- Sharp Grossmont: Reduction in missing ABI results prior to peripheral vascular interventions for claudication

Sharp Grossmont Hospital: Reduction in missing ABI results

PVI: Percentage of Claudicants With ABI or Toe Pressure Reported Before Procedure

Procedures performed between Jan. 1 and Dec. 31, 2017

"ABI or toe pressure reported" indicates at least one measure was recorded for the side of the operation, or on both sides for bilateral and aortic procedures.

Data for this report include all cases with surgery date between Jan. 1 and Dec. 31, 2017, that had been entered into the VQI as of Jan. 31, 2018. The table below shows the number of PVI procedures with indication of claudication in the VQI, and the percentage of those cases in which ABI or toe pressure was recorded.

	Your center	Your Region	VQI Overall
Number of PVI procedures with indication of claudication	41	294	10986
Percentage with ABI/toe pressure recorded before procedure	63%	73%	76%

Data Definition: CEA/CABG Concomitant

- CEA/CABG inclusion/exclusion changes
  - Arterial Quality Committee
    - Understand the frequency of concomitant CEA + CABG
    - Same OR encounter
    - Same admission different days
    - Never done during same admission
  - Revisions
    - Update help text (concomitant =same OR encounter): QTR 2 revision priority
    - Exclude cases if CEA+CABG is planned on different days during the same admission
    - PSO staff will audit concomitant entries and work with sites for revisions

Data Definition: CEA/CABG Concomitant

Patient Information

Name: [redacted]
DOB: [redacted]

Carotid Endarterectomy
Sharp Grossmont Hospital

General | Demographics | History | Procedure | Post-Op

Procedure Information

Urgency	Elective	Anesthesia	General
Side	Left	Type	Eversion
Patch Type	None		
Shunt	No	Skin Prep	Iodine
Drain	No	Heparin	Yes
Protamine	Yes	Dextran	No
Re-explore artery after closure?	No	Total Procedure Time	69 minutes

Monitoring:

EEG	No		
Stump Pressure	No	Other	Yes

Heart Rate:

On Arrival in OR	0 bpm	Highest intra-op	0 bpm

Completion:

Completion Doppler	Yes	Completion Duplex	No
Completion Arteriogram	No		

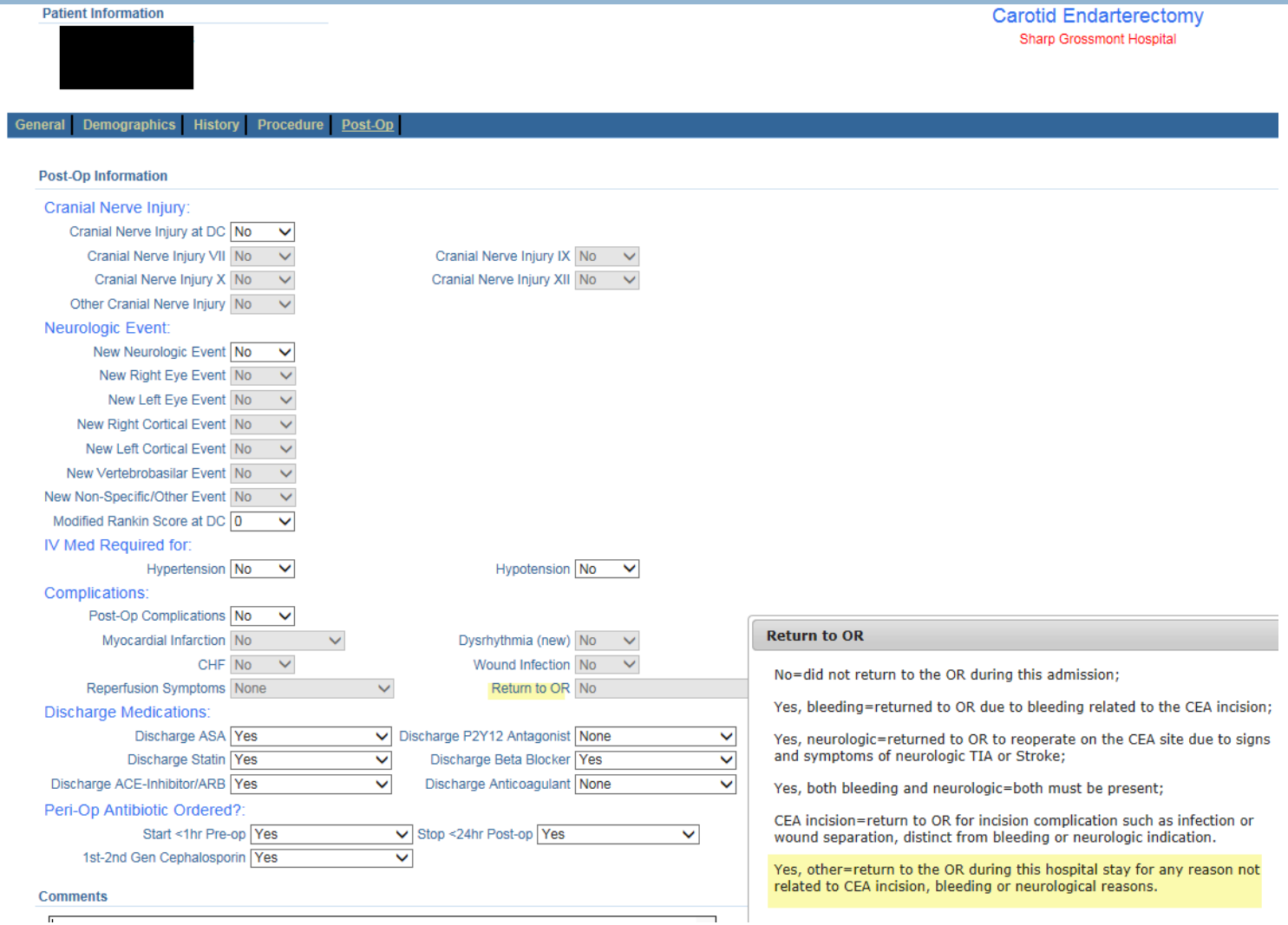
Concomitant Procedure:

Concomitant Proximal Endovascular	No	Concomitant Distal Endovascular	No
Concomitant CABG	No	Concomitant Other Arterial Op	No

Concomitant CABG ✖

CABG - Coronary Artery Bypass Graft

Data Definition: CEA/CABG Concomitant



Patient Information

[redacted]

Carotid Endarterectomy
Sharp Grossmont Hospital

General | Demographics | History | Procedure | Post-Op

Post-Op Information

Cranial Nerve Injury:

Cranial Nerve Injury at DC	No		
Cranial Nerve Injury VII	No	Cranial Nerve Injury IX	No
Cranial Nerve Injury X	No	Cranial Nerve Injury XII	No
Other Cranial Nerve Injury	No		

Neurologic Event:

New Neurologic Event	No
New Right Eye Event	No
New Left Eye Event	No
New Right Cortical Event	No
New Left Cortical Event	No
New Vertebrobasilar Event	No
New Non-Specific/Other Event	No
Modified Rankin Score at DC	0

IV Med Required for:

Hypertension	No	Hypotension	No

Complications:

Post-Op Complications	No		
Myocardial Infarction	No	Dysrhythmia (new)	No
CHF	No	Wound Infection	No
Reperfusion Symptoms	None	Return to OR	No

Discharge Medications:

Discharge ASA	Yes	Discharge P2Y12 Antagonist	None
Discharge Statin	Yes	Discharge Beta Blocker	Yes
Discharge ACE-Inhibitor/ARB	Yes	Discharge Anticoagulant	None

Peri-Op Antibiotic Ordered?:

Start <1hr Pre-op	Yes	Stop <24hr Post-op	Yes
1st-2nd Gen Cephalosporin	Yes		

Comments

Return to OR

No=did not return to the OR during this admission;

Yes, bleeding=returned to OR due to bleeding related to the CEA incision;

Yes, neurologic=returned to OR to reoperate on the CEA site due to signs and symptoms of neurologic TIA or Stroke;

Yes, both bleeding and neurologic=both must be present;

CEA incision=return to OR for incision complication such as infection or wound separation, distinct from bleeding or neurologic indication.

Yes, other=return to the OR during this hospital stay for any reason not related to CEA incision, bleeding or neurological reasons.

30 Day Readmission Variables

- Ongoing Discussion (Q2 development priority)
- Proposed readmission categories
  - Unplanned, unrelated to procedure (motor vehicle accident)
  - Unplanned, related to procedure (amputation)
  - Planned, unrelated to procedure (cholecystectomy)
  - Planned, related to procedure (staged PVI)
- Refining reasons for readmission (CMS targets)
  - Wound infection, sepsis, UTI
  - MI, heart failure, other cardiac
  - COPD, PNA
  - Stroke
  - Vascular complication
  - Renal, GI
  - Other (+free text)
- Include discharge date, mortality

Regional Reports: What's in and what's out?

Discharge Medications

Procedures performed between Jan. 1 and Dec. 31, 2017

Excludes patients who died in hospital and patients who were not treated for medical reason or non-compliant

Data for this report include all cases with surgery date between Jan. 1 and Dec. 31, 2017, that had been entered into the VQI as of Jan. 31, 2018. The table below shows the number of procedures in the VQI, and the percentage of patients receiving discharge medications.

	Number of Procedures at Your Center	Antiplatelet+Statin	Antiplatelet Only	Statin Only	Neither
CAS					
CEA					
EVAR					
INFRA					
LEAMP					
OAAA					
PVI					
SUPRA					
TEVAR					
Overall					
Your Region	2470	77%	13%	5%	5%
VQI overall	66673	80%	13%	4%	3%

Regional Reports: What's in and what's out?

Carotid Endarterectomy: Percentage of Patients with LOS>1 Day

Procedures performed between Jan. 1 and Dec. 31, 2017

Elective procedures, excluding prior ipsilateral CEA, concomitant CABG, proximal enodvascular or other arterial operation, in-hospital death with LOS<=1 day, procedures done on weekends or not done on admission day.

Data for this report include all cases with surgery date between Jan. 1 and Dec. 31, 2017, that had been entered into the VQI as of Jan. 31, 2018. The table below shows the number of CEA procedures meeting inclusion criteria in the VQI, and the observed and expected rates of those cases with LOS>1 Day.

	Your center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria	33	349	12564
Observed rate of LOS>1 day among procedures meeting inclusion criteria	27%	27%	25%
Number of procedures with complete data*	33	316	12037
Observed rate of LOS>1 among cases with complete data	27%	27%	24%
Expected rate of LOS>1 among cases with complete data*	25%	23%	NA
P-value for comparison of observed and expected rates	0.84	0.18	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

Regional Reports: What's in and what's out?

Carotid Endarterectomy: Stroke or Death in Hospital

Procedures performed between Jan. 1 and Dec. 31, 2017

Elective procedures, excluding prior ipsilateral CEA and concomitant CABG, endovascular or other arterial procedure

Data for this report include all cases with surgery date between Jan. 1 and Dec. 31, 2017, that had been entered into the VQI as of Jan. 31, 2018. The table below shows the number of CEA procedures meeting the inclusion criteria in the VQI, and the observed and expected rates of in-hospital stroke or death for those cases.

	Your center	Your Region	VQI Overall
Number of CEA procedures meeting inclusion criteria	[redacted]	508	13967
Observed rate of stroke or death among procedures meeting inclusion criteria		0.4%	1.1%
Number of procedures with complete data*		464	13234
Observed rate of stroke or death among cases with complete data		0.4%	1.1%
Expected rate of stroke or death among cases with complete data*		1.2%	NA
P-value for comparison of observed and expected rates		0.19	NA

*"Expected rate" is the rate estimated by a statistical model that accounts for patient characteristics, including age, gender, race, BMI, comorbidities, medication and stroke and vascular history. "Cases with complete data" include patients who have data on all of those factors.

Regional Reports: What's in and what's out?

Endovascular AAA Repair: Percentage of Patients with LOS>2 Days

Procedures performed between Jan. 1 and Dec. 31, 2017

Excludes ruptured aneurysms and in-hospital deaths with LOS<=2 days, patients with prior aortic surgery, procedures not done on day of admission and weekend procedures

Infrainguinal Bypass: Rate of Major Complications

Procedures performed between Jan. 1 and Dec. 31, 2017

Includes only patients with indication of rest pain or tissue loss. Major complications are defined as in-hospital death, ipsilateral BK or AK amputation or graft occlusion.

Data Management IRR: Insurance

INSURANCE INFO

1. AARP/SEC HORIZONS/SRS Y 585
PO BOX 939035 SAN DIEGO,CA 92193

Patient Information

Name: Test Grossmont
DOB: 04/18/1940

Carotid Endarterectomy
Sharp Grossmont Hospital

General | Demographics | History | Procedure | Post-Op

General Information

Patient Data:

Zip/Postal Code [ ] Gender [Select]
Hispanic or Latino [Select] Race [Select]
Height [ ] inches [ ] cm
Weight [ ] lbs [ ] kg

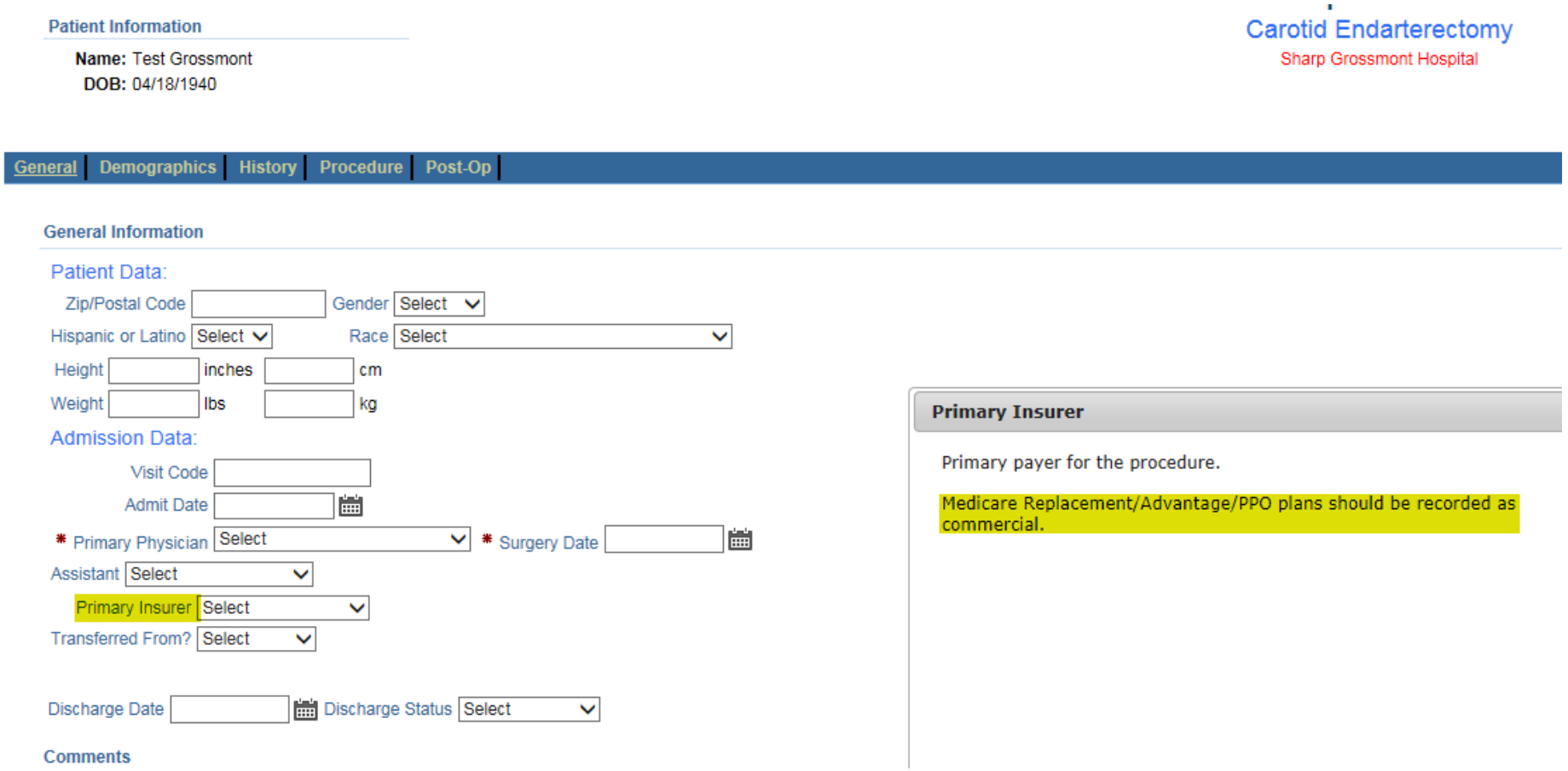
Admission Data:

Visit Code [ ]
Admit Date [ ]
* Primary Physician [Select] * Surgery Date [ ]
Assistant [Select]
Primary Insurer [Select]
Transferred From?
Discharge Date [ ] arge Status [Select]

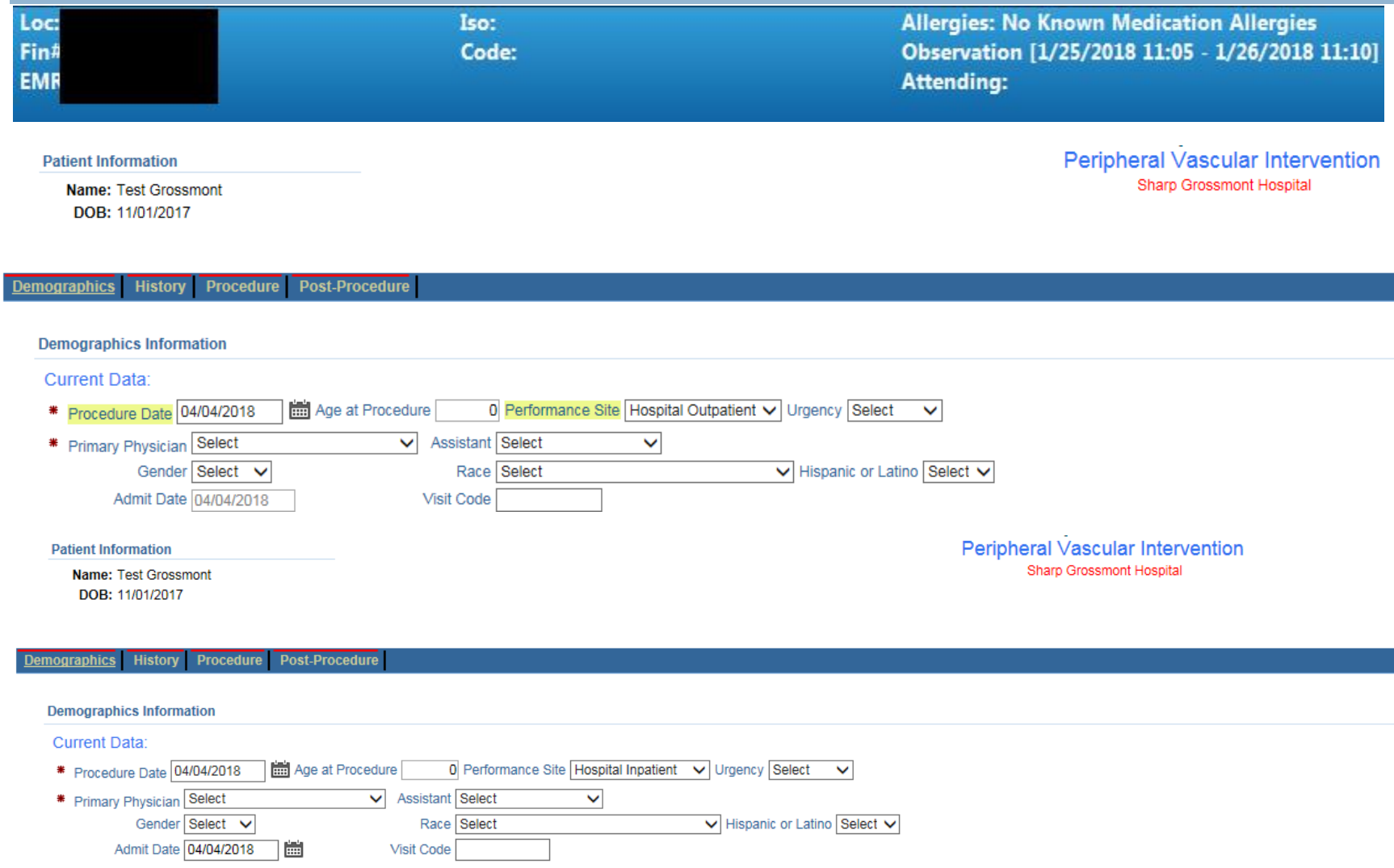
- Select
- Medicare
- Medicaid
- Commercial
- Military/VA
- Non US Insurance
- Self Pay

Comments

Data Management IRR: Insurance



Data Management IRR: Admission and discharge dates



Admission and discharge dates

- Currently the status has to be entered as “Hospital Inpatient”, not outpatient
- Pathways is addressing this issue as an enhancement to PVI module

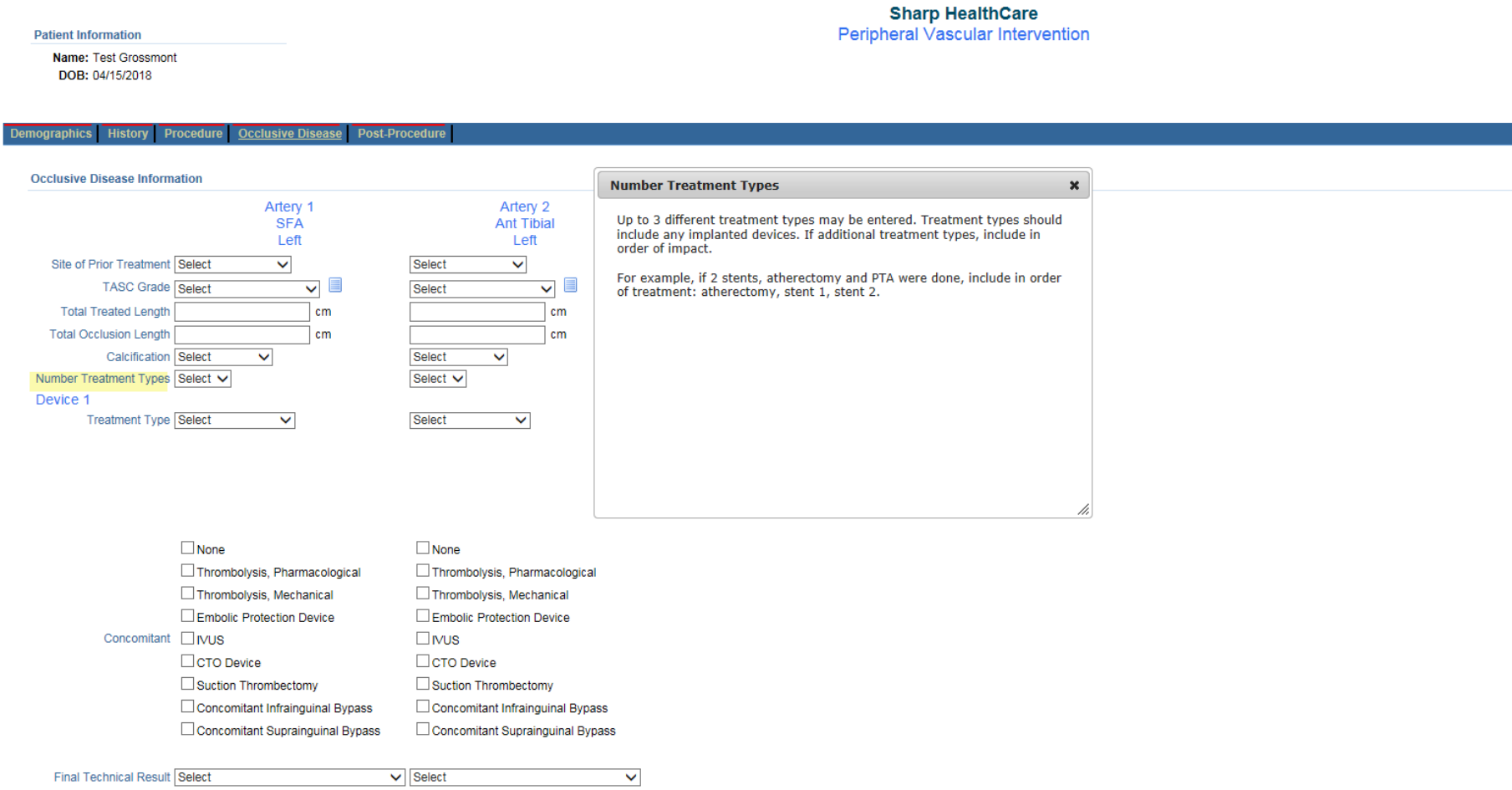
Data Management IRR: PVI

Case review: 62yF History of successful RLE PVI for claudication. Presents with progressive lifestyle limiting progressive LLE claudication for elective angiography.

Findings and Procedure details:

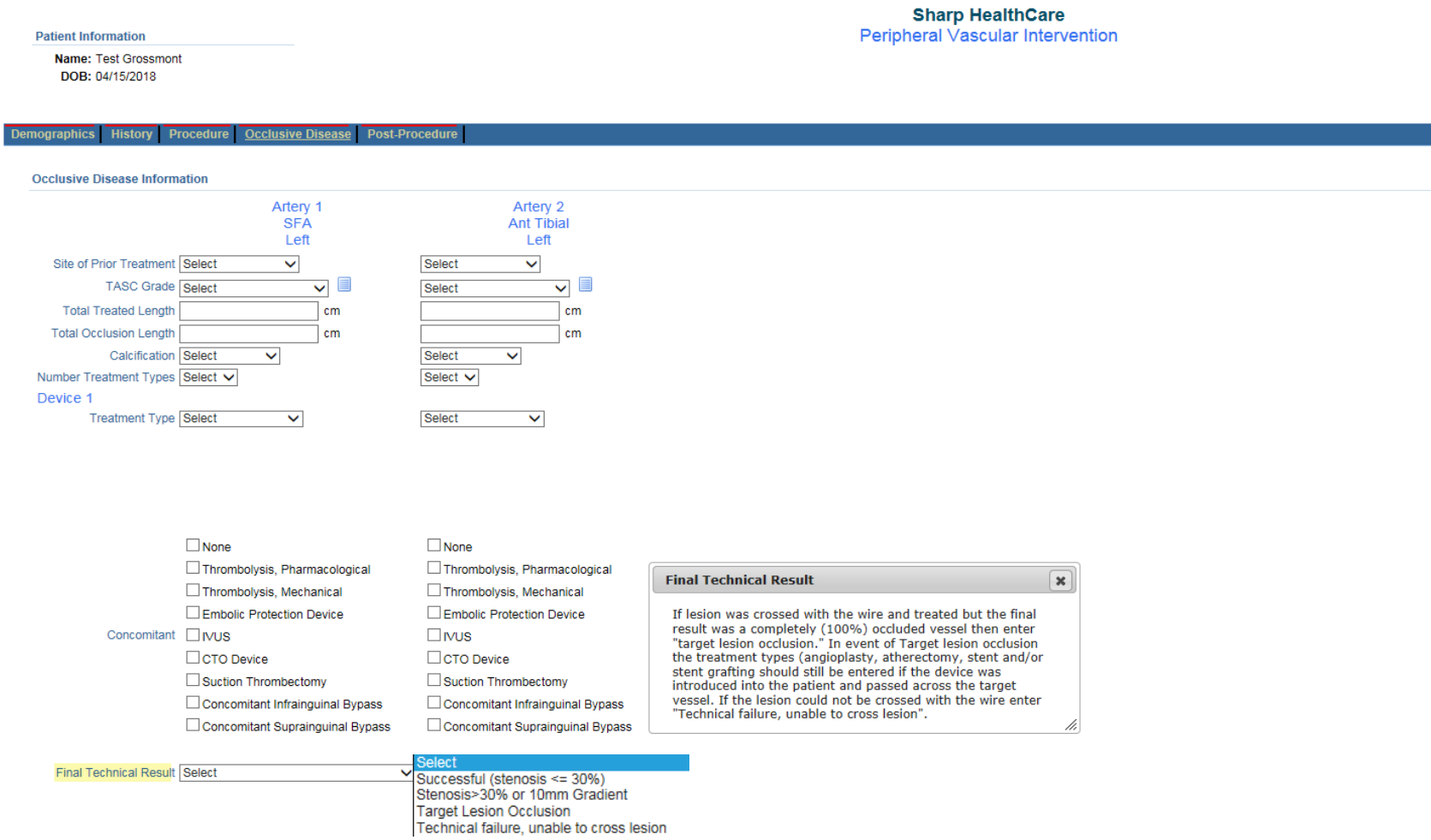
1. Serial diffuse stenoses in the distal SFA. Moderate tibial artery disease with diffuse disease of the posterior tibial and mid distal anterior tibial artery.
2. Treatment: 4mmx120 balloon angioplasty and 5x120 DCB+5x60DCB (InPact) of distal SFA resulting in <10% residual stenosis with evidence of distal occlusion of the anterior tibial artery on follow up arteriogram.
3. Distal AT suction thrombectomy was performed followed by infusion of TPA into the distal AT/DP artery.
4. 2x80 NanoCross balloon angioplasty of AT was performed.
5. AT flow was improved after thrombectomy and TPA infusion. Patient had Doppler signals in the dorsal, pedal and PT arteries at end of procedure.

Data Management IRR: PVI



Data Management IRR: PVI

Data Management IRR: PVI



Data Management IRR: PVI

	Artery 1 SFA Left	Artery 2 Ant Tibial Left
Site of Prior Treatment	No	No
TASC Grade	B	B
Total Treated Length	12 cm	8 cm
Total Occlusion Length	0 cm	cm
Calcification	Not Evaluated	Not Evaluated
Number Treatment Types	3	1
Device 1		
Treatment Type	Plain Balloon	Plain Balloon
Diameter	4 mm	2 mm
Length	120 mm	80 mm
Device 2		
Treatment Type	Special Balloon	
Manufacturer	MEDTRONIC, INC.	
Type	In. PACT Admiral	
Diameter	5 mm	
Length	120 mm	
Device 3		
Treatment Type	Special Balloon	
Manufacturer	MEDTRONIC, INC.	
Type	In. PACT Admiral	
Diameter	5 mm	
Length	60 mm	
Concomitant	☑ None	☐ None
	☐ Thrombolysis, Pharmacological	☑ Thrombolysis, Pharmacological
	☐ Thrombolysis, Mechanical	☐ Thrombolysis, Mechanical
	☐ Embolic Protection Device	☐ Embolic Protection Device
	☐ IVUS	☐ IVUS
	☐ CTO Device	☐ CTO Device
	☐ Suction Thrombectomy	☑ Suction Thrombectomy
	☐ Concomitant Infrainguinal Bypass	☐ Concomitant Infrainguinal Bypass
	☐ Concomitant Suprainguinal Bypass	☐ Concomitant Suprainguinal Bypass
Thrombolysis Timing		For Complication Current Procedure
Suction Thrombectomy		For Complication Current Procedure
Final Technical Result	Successful (stenosis <= 30%)	Successful (stenosis <= 30%)

Suction Thrombectomy

Planned suction of pre-existing thrombus or embolus prior to PVI treatment, To treat complication if suction thrombectomy was done to treat thrombotic or embolic complication of PVI procedure.

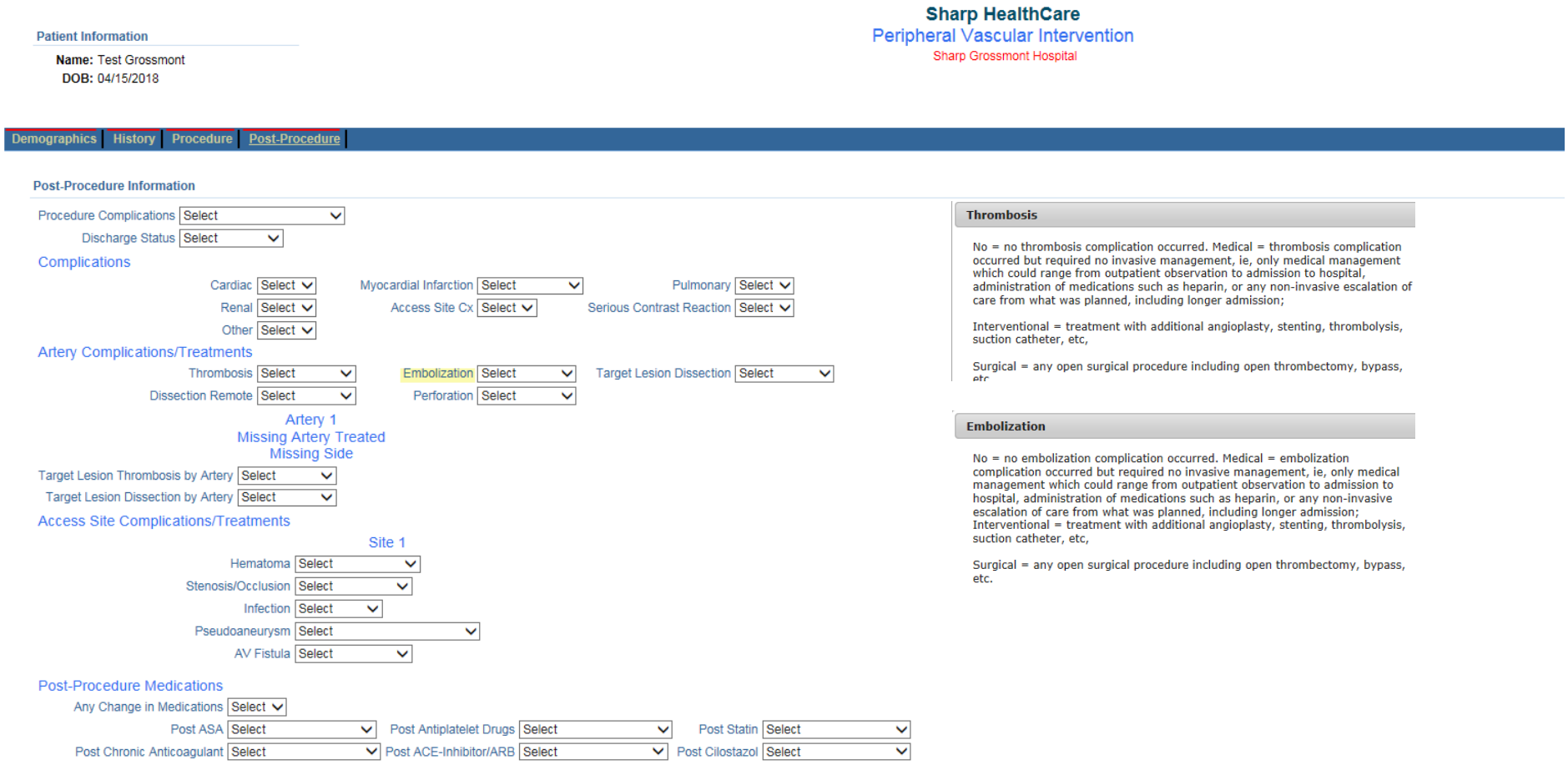
Thrombolysis Timing

Prior procedure indicates that thrombolysis had been used to treat thrombus during a recent prior procedure, which revealed a lesion treated with PVI in current procedure. Planned, current indicates that thrombolysis was used as planned during current procedure to treat thrombus associated with lesion treated with PVI. For complication current procedure indicates that thrombolysis was not planned, but was done to treat a thrombotic complication of the current PVI procedure.

Final Technical Result

If lesion was crossed with the wire and treated but the final result was a completely (100%) occluded vessel then enter "target lesion occlusion." In event of Target lesion occlusion the treatment types (angioplasty, atherectomy, stent and/or stent grafting should still be entered if the device was introduced into the patient and passed across the target vessel. If the lesion could not be crossed with the wire enter "Technical failure, unable to cross lesion".

Data Management IRR: PVI



Next Meeting/Educational Opportunities

- SoCal Voice Meeting
  - May 4, 2018 Laguna Beach, CA: Prior to Southern California Vascular Society Annual Meeting May4-6, 2018
- Regional meeting DM breakout sessions at VAM
  - June 20-23, 2018 Boston, MA
- 3rd Annual UCLA/SVS Course: A Comprehensive Review and Update of What's New in Vascular and Endovascular Surgery
  - August 25-27, 2018 Beverly Hills, CA
- Sharp Grossmont Hospital Heart and Vascular Conference
  - October 6-7, 2018, San Diego, CA
- Next DM Webinar Call July 2018