[redacted]

[redacted]

Progress Notes Signed

Encounter Date: 2/8/2024

1 Year Follow Up Visit Post TAVR, F/U of HALT/HAM involving RCC
Date of Service: 2/8/2024

[redacted]

Assessment and Plan:

Mr. [redacted] is a 70 y.o. who has a history of severe aortic stenosis managed with a TAVR using a 26mm Medtronic CV Evolut FX device via transfemoral access on 12/28/2022. In 08/2023, he was admitted for an inferior STEMI related to distal RCA thromboembolism; while prosthetic valve function was normal on follow up TTE, poor flow through the prosthetic aortic valve was noted on fluoroscopy concerning for occult leaflet thrombosis. He was started on plavix 75 mg qd and eliquis 5 mg BID and referred to the structural heart team for further management. Prior to SH follow up visit, he underwent a gated chest CTA which showed HALT involving the RCC.

He was continued on eliqius for 6 mos as well as plavix due to recent inferior STEMI. He presents today for a 6 month follow up visit after starting eliqius, as well as for his 1 year s/p TAVR visit. A gated chest CTA was performed on 2/6/2024 showing resolution of RCC HALT but minimal thickening of NCC.

 # Severe symptomatic aortic stenosis s/p TAVR (26mm Medtronic CoreValve Evolut FX via transfemoral access on 12/28/2022)

[redacted]

[redacted]

 # Inferior STEMI 2/2 thromboembolism of distal RCA s/p POBA 08/03/2023
 # Prosthetic leaflet thrombosis involving the right prosthetic aortic valve cusp
- HALT&HAM involving the RCC of his prosthetic valve per gated chest CTA performed 8/11/2023; follow up imaging earlier this week showed resolution of HALT involving the RCC but ongoing (albeit minimal) thickening involving the NCC.
- Continue eliquis 5 mg BID x 3 mos (until ~05/2024); repeat CTA at that time to evaluate for resolution. If leaflet thrombosis has resolved, will stop eliquis at that time. Follow up with subsequent gated chest CTA in 3 mo to eval for recurrence. If there is evidence of recurrence of HALT, will need chronic anticoagulation with DOAC.
- He has taken plavix 75 mg daily for 6 mos, ok to discontinue at this time. He will replace it with aspirin 81 mg once daily
- He will need a formal repeat transthoracic echocardiogram as part of his 1 year follow up visit s/p TAVR. This was ordered today and I will follow up on the results with [redacted] directly following its completion
- He currently reports symptoms consistent with NYHA Class I

We have recommended that the patient continue ongoing care with regular team of healthcare providers (including PCP and cardiology).

I spent 25 minutes on this visit, greater than 50% of this time was spent counseling and coordinating care.

[redacted]

Reason for Visit:
1 year follow up visit s/p TAVR, follow up for HALT/HAM resulting in inferior STEMI

HPI: Mr [redacted] is a 70 y.o. who has a history of severe aortic stenosis. After evaluation by the Structural Cardiology team, the patient underwent transcatheter aortic valve replacement using 26mm Medtronic CoreValve Evolut FX via transfemoral access on 12/28/2022. He was doing well post-operatively until 08/03/2023 when he was admitted to [redacted] for chest pain, ultimately revealed to be an STEMI with RCA occlusion; he underwent mechanical thrombectomy using POBA of his distal RCA without need for formal PCI. No abnormalities of valve function noted on TTE, though during angiography poor flow through the prosthetic aortic valve noted concerning for occult leaflet thrombosis. He was started on plavix and eliquis on discharge, aspirin and antihypertensives discontinued. Follow up gated CTA on 8/11/2023 which was notable for HALT and mild HAM involving the RCC of his prosthetic aortic valve.

He was continued on eliqius and plavix for minimum 6 mos, and completed repeat gated chest CTA on 2/6/2024 which showed resolution of RCC HALT but minimal thickening of NCC.

Currently:
- Doing well, still playing golf regularly
- No chest pain, no shortness of breath
- Energy levels are ok. He had gotten himself down to 2 mg prednisone a day, now back up to 3 mg bc of cold
- No problems with bleeding aside from whether or not he accidentally cuts himself
- Blood pressures are well controlled

[redacted]

[redacted]

- Energy levels are markedly improved since his TAVR procedure, no longer getting short of breath or winded

Past Medical History:

Diagnosis	Date
• Allergic rhinitis	
• Anemia	
• Angina pectoris (CMS/HCC)	09/2021
• BPH (benign prostatic hyperplasia)	
• Coronary artery disease	
• COVID-19 *Treated w/ Paxlovid, no hospitalization required. All sx's fully resolved*	07/2022
• COVID-19 *Assymptomatic- subsequent home testing per patient were all negative*	12/13/2022
• Depression	
• ED (erectile dysfunction)	
• Heart murmur	
• History of lipoma	
• Hyperlipidemia	
• Hypertension	
• Nonrheumatic aortic (valve) stenosis	
• Nonrheumatic aortic valve stenosis *Note: aortic valve- moderate calcific stenosis and trace tricuspid regurge*	07/12/2021
• Peripheral neuropathy *BLE*	
• Psoriatic arthritis (CMS/HCC)	
• Pulmonary hypertension (CMS/HCC)	
• Spinal stenosis, lumbar region, with neurogenic claudication	02/2022

Past Surgical History:

Procedure	Laterality	Date
• ANGIOGRAM CORONARY ARTERY WITH LV & RIGHT HEART *Performed by* [redacted]	N/A	9/2/2021
• APPENDECTOMY		
• CATARACT EXTRACTION	Bilateral	
• CORONARY ANGIOGRAPHY W LEFT HEART CATH *Performed by* [redacted]	N/A	11/25/2022
• CORONARY ANGIOGRAPHY W LEFT HEART CATH *Performed by* [redacted]	N/A	8/3/2023
• FORAMINOTOMY MINIMALLY INVASIVE OF CERVICAL SPINE W/ C-ARM		
• NECK SURGERY *growth removed*		11/2020
• PERCUTANEOUS CORONARY INTERVENTION (PCI) *Performed by* [redacted]	N/A	8/3/2023
• REPLACEMENT TRANSCATHETER AORTIC VALVE ENDOVASCULAR (TAVR) WITH TEE *Performed by* [redacted]	N/A	12/28/2022
• SOFT TISSUE TUMOR RESECTION *benign tumor*		
• TONSILLECTOMY		

Family History

Problem	Relation	Age of Onset
• Rectal cancer	Mother	

[redacted]

[redacted]

- Other — Father's Brother
  valve surgery, ?BAV

Social History

Socioeconomic History	
• Marital status:	Married
Spouse name:	Not on file
• Number of children:	Not on file
• Years of education:	Not on file
• Highest education level:	Not on file
Occupational History	
• Not on file	
Tobacco Use	
• Smoking status:	Never
Passive exposure:	Past
• Smokeless tobacco:	Never
Vaping Use	
• Vaping Use:	Never used
Substance and Sexual Activity	
• Alcohol use:	Yes
Alcohol/week:	5.0 standard drinks of alcohol
Types:	5 Standard drinks or equivalent per week
• Drug use:	Never
• Sexual activity:	Yes
Partners:	Female
Birth control/protection:	Male Sterilization
Other Topics	**Concern**
• Not on file	
Social History Narrative	
• Not on file	

Social Determinants of Health

Financial Resource Strain: Not on file
Food Insecurity: Not on file
Transportation Needs: Not on file
Physical Activity: Not on file
Stress: Not on file
Social Connections: Not on file
Intimate Partner Violence: Not on file
Housing Stability: Not on file

Prior to Admission medications

Medication	Sig	Start Date	End Date	Taking ?	Authorizing Provider
acetaminophen (Tylenol) 325 mg tablet	**Take 2 (two) tablets (650 mg total) by mouth every 4 (four) hours as needed for moderate pain for up to 10 days.**	**12/29/22**	**1/8/23**		[redacted]
aspirin 81 mg tablet	**Take 1 (one) tablet (81 mg total) by mouth daily.**				**Historical Provider, MD**
atorvastatin (Lipitor) 40 mg tablet	**Take 1 (one) tablet (40 mg total) by mouth daily.**				**Historical Provider, MD**
escitalopram (Lexapro) 10 mg tablet	**Take 1 (one) tablet (10 mg total) by mouth daily.**	**4/28/21**			**Historical Provider, MD**
fluticasone propionate	**Administer 2 (two)**	**3/23/20**			**Historical Provider, MD**

[redacted]

[redacted]

(Flonase) 50 mcg/actuation nasal spray	sprays into each nostril 2 (two) times a day as needed for rhinitis or allergies.			
folic acid (Folvite) 1 mg tablet	Take 1 (one) tablet (1 mg total) by mouth daily.	6/9/21		Historical Provider, MD
Humira,CF, Pen 40 mg/0.4 mL pen injector kit	1 Dose once a week. Sundays	8/24/21		Historical Provider, MD
hydroCHLOROthiazide (Hydrodiuril) 25 mg tablet	Take 1 (one) tablet (25 mg total) by mouth daily.	7/5/21		Historical Provider, MD
lisinopriL (Zestril) 40 mg tablet	Take 1 (one) tablet (40 mg total) by mouth daily.	7/10/21		Historical Provider, MD
methotrexate (Rheumatrex) 25 mg/mL injection	once a week. Sunday.	8/20/21		Historical Provider, MD
metoprolol succinate XL (Toprol-XL) 50 mg 24 hr tablet	Take 1 (one) tablet (50 mg total) by mouth daily. Hold until after you are seen at your one week follow up appointment with Structural Heart clinic	12/29/22	1/28/23	[redacted]
montelukast (Singulair) 10 mg tablet	Take 1 (one) tablet (10 mg total) by mouth daily.	7/5/21		Historical Provider, MD
naproxen sodium (Aleve) 220 mg tablet	Take 1 (one) tablet (220 mg total) by mouth every 12 (twelve) hours as needed for mild pain.			Historical Provider, MD
nitroglycerin (Nitrostat) 0.4 mg SL tablet	Place 1 (one) tablet (0.4 mg total) under the tongue every 5 (five) minutes as needed for chest pain.	8/31/21	12/27/22	[redacted]
predniSONE (Deltasone) 1 mg tablet	Take 3 (three) tablets (3 mg total) by mouth daily.	8/20/21		Historical Provider, MD
tadalafiL (Cialis) 5 mg tablet	Take 1 (one) tablet (5 mg total) by mouth daily as needed for erectile dysfunction.	7/1/21		Historical Provider, MD

Allergies

Allergen	Reactions
• Penicillins *Tolerated Ancef 12/28/22*	Hives and Rash

Current Outpatient Medications:

• apixaban (Eliquis) 5 mg tablet, Take 1 (one) tablet (5 mg total) by mouth 2 (two) times a day., Disp: 180 tablet, Rfl: 1

• atorvastatin (Lipitor) 40 mg tablet, Take 1 (one) tablet (40 mg total) by mouth daily., Disp: , Rfl:

• carboxymethylcellulose sodium (REFRESH TEARS OPHT), Administer 2 drops into both eyes daily., Disp: , Rfl:

• clindamycin (Cleocin HCL) 300 mg capsule, Take 2 (two) capsules (600 mg total) by mouth once as needed (30-60 mins prior to dental work) for up to 1 dose., Disp: 10 capsule, Rfl: 2

[redacted]

[redacted]

- diclofenac sodium (Voltaren) 1 % gel, Apply 2.25 (two and one-quarter) inches (2 g total) topically daily as needed for pain. Up to 4x daily, Disp: , Rfl:
- escitalopram (Lexapro) 10 mg tablet, Take 1 (one) tablet (10 mg total) by mouth daily., Disp: , Rfl:
- fluticasone propionate (Flonase) 50 mcg/actuation nasal spray, Administer 2 (two) sprays into each nostril 2 (two) times a day as needed for rhinitis or allergies., Disp: , Rfl:
- folic acid (Folvite) 1 mg tablet, Take 1 (one) tablet (1 mg total) by mouth daily., Disp: 90 tablet, Rfl: 3
- Humira,CF, Pen 40 mg/0.4 mL pen injector kit, Inject 0.4 mL (40 mg total) under the skin once a week. Sundays, Disp: 6 kit, Rfl: 1
- hydroCHLOROthiazide (Hydrodiuril) 25 mg tablet, , Disp: , Rfl:
- lisinopriL (Zestril) 40 mg tablet, Take 1 (one) tablet (40 mg total) by mouth daily., Disp: , Rfl:
- methotrexate (Rheumatrex) 25 mg/mL injection, INJECT 1 ML UNDER THE SKIN ONCE A WEEK (SUNDAY), Disp: 12 mL, Rfl: 0
- metoprolol succinate XL (Toprol-XL) 50 mg 24 hr tablet, Take 1 (one) tablet (50 mg total) by mouth daily. Hold until after you are seen at your one week follow up appointment with Structural Heart clinic, Disp: 30 tablet, Rfl: 0
- montelukast (Singulair) 10 mg tablet, Take 1 (one) tablet (10 mg total) by mouth daily., Disp: , Rfl:
- multivitamin capsule, Take 1 (one) capsule by mouth daily., Disp: , Rfl:
- nitroglycerin (Nitrostat) 0.4 mg SL tablet, Place 1 (one) tablet (0.4 mg total) under the tongue every 5 (five) minutes as needed for chest pain., Disp: 25 tablet, Rfl: 11
- predniSONE (Deltasone) 1 mg tablet, Take 3 (three) tablets (3 mg total) by mouth daily., Disp: , Rfl:
- syringe with needle (Tuberculin Syringe) 1 mL 27 x 1/2" syringe, Use for weekly methotrexate injections, Disp: 100 each, Rfl: 11
- aspirin 81 mg tablet, Take 1 (one) tablet (81 mg total) by mouth daily., Disp: , Rfl:

PHYSICAL EXAM

height is 1.702 m (5' 7") and weight is 102 kg (224 lb 12.8 oz). His blood pressure is 106/68 and his pulse is 87. His oxygen saturation is 97%.

Body mass index is 35.21 kg/m^2.

General: Well appearing, well nourished adult male appearing stated age in NAD.

HEENT: Sclera anicteric. MMM. Oropharynx pink and moist, dentition fair.

Neck: Supple. No thyromegaly. Jugular venous distention at 5 cm H2O. There is no cervical lymphadenopathy.

Respiratory: Vesicular breath sounds bilaterally throughout posterior fields. No wheezes, rhonchi, or rales.

Cardiac: PMI normal. Regular rate and rhythm. No lifts, heaves, or thrills. Normal S1 and S2. No clicks, gallops or rub. There are no audible murmurs. No peripheral edema. Pedal pulses 2+/2 bilat.

Gastrointestinal: Not distended. +BS. Soft, nontender to palpation. No hepatosplenomegaly, no masses, aorta not grossly enlarged.

Psych: Cooperative and appropriate.

Neuro: Grossly intact.

Skin: Groin incision sites well healed. Mild ecchymoses. No bruits, hematomas, erythema, or exudates.

Lab Review:

Lab Results

Component	Value	Date
WBC	8.0	11/06/2023
HGB	14.3	11/06/2023
HCT	41.4	11/06/2023
MCV	104.5 (H)	11/06/2023
PLT	175	11/06/2023

Lab Results

[redacted]

Component	Value	Date
GLUCOSE	122 (H)	08/04/2023
CALCIUM	8.0 (L)	08/04/2023
NA	136	08/04/2023
K	4.1	08/04/2023
CO2	27	08/04/2023
CL	100	08/04/2023
BUN	18	08/04/2023
CREATININE	0.9	11/06/2023

TTE 12/28/2022 SCMC (Intraop for TAVR)

- Limited echo for peri-procedural guidance for Transcatheter aortic valve replacement (TAVR)
- At baseline there is severe aortic stenosis and no aortic insufficiency. The LV systolic function is normal
- After deployment of 29 mm Evlout Fx Transcatheter Heart Valve (THV), no mechanical complications are noted. The valve is well seated and well positioned. The LV function remains unchanged. The gradients are as expected for the valve type. There is trace paravalvular aortic insufficiency.

Aortic Valve There is a TAVR bioprosthetic valve. The prosthetic valve appears well-seated and appears to be functioning normally. There is trace paravalvular regurgitation.

TAVR Intra-Op Echo Measurements
Pre Valve Deployment:
? EF : 60-65 %
? LVOT diameter 1.9 cm
? Annulus diameter 3.3 cm x 2.9 cm
? Ao Sinus 3.3 cm
? ST Junction 2.9 cm
? Ascending Ao 3.6 cm
? Peak AoV velocity 364 cm/s
? Peak AoV gradient 53 mmHg
? Mean AoV gradient 30 mmHg
? AVA 0.7 cm^2
? AI severity None
? MR severity None

Post Valve Deployment:
? EF : 50-55 %
? There is a using 29mm Evolut Fx transcatheter heart valve in the aortic position with normal appearing fxn
? Peak AoV velocity 100 cm/s
? Peak AoV gradient 4 mmHg
? Mean AoV gradient 2 mmHg
? AVA 2.8 cm^2
? Central AI severity None
? Paravalvular AI severity Trace
? MR severity None
? Pericardial effusion None

TTE 2/6/2023 SCMC (30 day s/p TAVR)

[redacted]

Normal LV size and systolic function. LVEF 60-65%
Normal RV size and systolic function
There is a well seated TAVR aortic valve in place, without stenosis or regurgitation

In comparison to prior periprocedural TTE 12/28/2022, there are no significant changes

LVOT diameter	1.9 cm
LVOT area	2.83 cm2
LVOT peak vel	1.11 m/s
LVOT peak VTI	19.8 cm
AV peak vel	1.2 m/s
AV VTI	22.8 cm
AV VTI ratio	0.87
AV area	2.6 cm2
AV area index	1.1 cm2/m2
AV mean gradient	2 mmHg
AV peak gradient	6 mmHg

TTE 8/3/2023 SCMC

- Normal LV cavity size and wall thickness. Systolic function is normal with an ejection fraction of 60-65%. Akinesis of the basal inferior wall. Left atrial pressure is elevated.
- Normal RV cavity size with normal RV systolic function.
- Well-seated TAVR bioprosthetic valve with normal prosthetic valve function. The gradient recorded across the prosthetic aortic valve is within the expected range 13 mmHg.
- No pericardial effusion.

Compared with prior study report 2/6/2023, basal inferior akinesis is now noted.

[redacted]

LVOT diameter	2 cm
LVOT area	3.14 cm2
LVOT peak vel	0.96 m/s
LVOT peak VTI	19.1 cm
AV peak vel	2.4 m/s
AV VTI	46.5 cm
AV VTI ratio	0.41
AV area	1.5 cm2
AV area index	0.7 cm2/m2
AV mean gradient	13 mmHg
AV peak gradient	16 mmHg

GATED CHEST CTA 8/11/2023 SCMC

FINDINGS:
CARDIAC MORPHOLOGY:
Normal chamber size. No pericardial effusion.

VALVES:
A prosthetic aortic valve is in place. There is hypoattenuated leaflet thickening of the right valve with mildly decreased motion. There is normal coaptation of the valve leaflets.

Unremarkable CT appearance of the tricuspid, mitral, and pulmonic valves.

[redacted]

PULMONARY VEINS: Standard pulmonary venous anatomy. No accessory pulmonary veins are identified. Chicken wing left atrial appendage morphology with no filling defect.

CORONARY ARTERIES:
Moderate calcified coronary atherosclerosis.

Non-Cardiac:

AIRWAYS: The visualized airways are normal.

LUNGS: Bilateral dependent atelectasis is present. The visualized lung is otherwise clear.

PLEURA: No large pleural effusion or pneumothorax.

MEDIASTINUM: No mass or significant adenopathy. Unremarkable esophagus.

AORTA: The visualized portion is normal in caliber with no acute abnormality. There is mild atherosclerosis.

PULMONARY ARTERIES: Normal caliber. No central intraluminal filling defects.

UPPER ABDOMEN: Unremarkable.

AXILLA/CHEST WALL: No acute abnormality in chest wall soft tissues. No acute fracture or suspicious focal osseous lesion is identified. Advanced multilevel degenerative osteophytosis in the thoracic spine

IMPRESSION:

[redacted]

[redacted]

GATED CHEST CTA 2/6/2024 SCMC
FINDINGS:
CARDIAC MORPHOLOGY AND FUNCTION:
Normal chamber size. No pericardial effusion.

VALVES: A prosthetic aortic valve is present. The previously seen thickening of the right leaflet has resolved. There is minimal thickening of the noncoronary leaflet. There is no thickening of the left leaflet.

Unremarkable CT appearance of the tricuspid, mitral, and pulmonic valves.

CORONARY ARTERIES:
Moderate calcified coronary atherosclerosis.

PULMONARY VEINS: Standard pulmonary venous anatomy. No accessory pulmonary veins are identified.

LEFT ATRIAL APPENDAGE:

[redacted]

[redacted]

Morphology: Chicken wing (dominant lobe with an acute folded angle).

There is not a filling defect in the left atrial appendage.

Non-Cardiac:

AIRWAYS: The visualized airways are normal in caliber with no endoluminal filling defect.

LUNGS: The visualized lung is clear.

PLEURA: No pleural effusion or pneumothorax.

MEDIASTINUM: No mass or significant adenopathy. Unremarkable esophagus.

AORTA: The visualized portion of the thoracic aorta is normal in caliber with no acute abnormality.

PULMONARY ARTERIES: Normal caliber. No intraluminal filling defects.

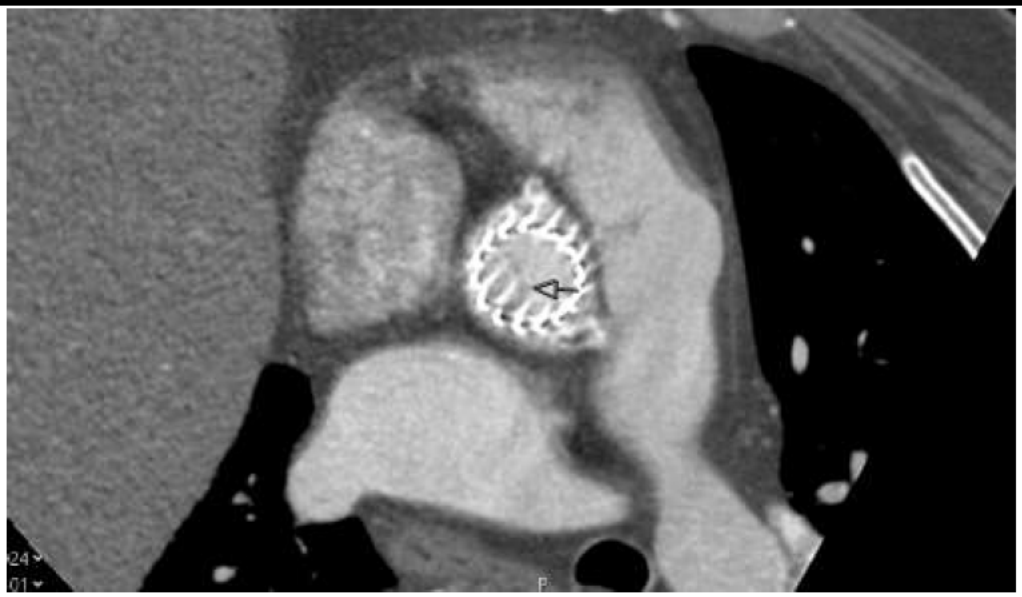
UPPER ABDOMEN: Unremarkable.

AXILLA/CHEST WALL: No acute abnormality in chest wall soft tissues. No acute fracture or suspicious focal osseous lesion is identified.

IMPRESSION:
The previously seen thickening of the right leaflet of the aortic valve prosthesis has resolved. There is minimal thickening of the noncoronary leaflet.

[redacted]

[redacted]



Follow-Up on 2/8/2024 *Note shared with patient*

Additional Documentation

Vitals: BP 106/68 (BP Location: Left arm, Patient Position: Sitting, BP Cuff Size: Adult) Pulse 87 Ht 1.702 m (5' 7")
Wt 102 kg (224 lb 12.8 oz) SpO2 97% BMI 35.21 kg/m² BSA 2.13 m²

Orders Placed

CT cardiac morphology (Resulted 5/8/2024)
Transthoracic echo (TTE) complete with or without micro-bubble contrast as needed per protocol (Resulted 5/23/2024)

Medication Changes

As of 6/4/2024 12:35 PM

	Refills	Start Date	End Date
Discontinued or Completed: clopidogreL (Plavix) 75 mg tablet			

Visit Diagnoses

Primary: **S/P TAVR (transcatheter aortic valve replacement)** Z95.2
Thrombosis of prosthetic heart valve, subsequent encounter T82.867D

[redacted]