[redacted]

[redacted]

Progress Notes
Signed

Encounter Date: 8/14/2023

Follow Up Visit Post TAVR
Date of Service: 8/14/2023

[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. He was recently 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. In anticipation of today's visit, he underwent a gated chest CTA which showed HALT involving the RCC.

 # Severe symptomatic aortic stenosis s/p TAVR (26mm Medtronic CoreValve Evolut FX via transfemoral access on 12/28/2022)
 # Inferior STEMI 2/2 thromboembolism of distal RCA s/p POBA 08/03/2023
 # Prosthetic leaflet thrombosis involving the right prosthetic aortic valve cusp
- There is evidence of HALT&HAM involving the RCC of his prosthetic valve on CTA performed 8/11/2023
- Continue eliquis 5 mg BID x 6 mos; repeat CTA at that time to evaluate for resolution. If leaflet

[redacted]

[redacted]

thrombosis has resolved, will stop eliquis at that time. Follow up with subsequent gated chest CTA in 2 mo to eval for recurrence. If there is evidence of recurrence of HALT, will need chronic anticoagulation with DOAC.
- Continue plavix 75 mg qd as recommended by general cardiology team following POBA. Anticipate plavix daily x 6 months. Once this is discontinued, start aspirin 81 mg once daily.

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

I spent 35 minutes on this visit, greater than 50% of this time was spent counseling and coordinating care.

[redacted]

Reason for Visit:
Follow up visit s/p TAVR - concern for prosthetic valve dysfunction

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 NSTEMI 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.

In anticipation of today's visit, he underwent a gated chest CTA on 8/11/2023 which was notable for HALT and mild HAM involving the RCC of his prosthetic aortic valve.

Currently:
- He had been having intermittent mild chest pains prior to his event. Near syncope on 8/1/2023 while golfing.
- Wed 8/3/2023 played golf, felt fine. Went to bed, woke up with 10/10 chest pain at 1130AM. Left arm went numb, started feeling nauseated and SOB. His wife drove him to the ER. Chest pain largely resolved after POBA.
- Pain free at present for the most part, no SOB. Has not yet re-attempted golf

Past Medical History:

Diagnosis	Date
• Allergic rhinitis	
• Anemia	
• Angina pectoris (CMS/HCC)	09/2021
• BPH (benign prostatic hyperplasia)	
• Coronary artery disease	
• COVID-19	07/2022
Treated w/ Paxlovid, no hospitalization required. All sx's fully resolved	
• COVID-19	12/13/2022
Assymptomatic- subsequent home testing per patient	

[redacted]

[redacted]

were all negative
- Depression
- ED (erectile dysfunction)
- Heart murmur
- History of lipoma
- Hyperlipidemia
- Hypertension
- Nonrheumatic aortic (valve) stenosis
- Nonrheumatic aortic valve stenosis 07/12/2021
  Note: aortic valve- moderate calcific stenosis and trace tricuspid regurge
- 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	
• Other *valve surgery, ?BAV*	Father's Brother	

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
• Smokeless tobacco:	Never

[redacted]

[redacted]

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 (Flonase) 50 mcg/actuation nasal spray	Administer 2 (two) sprays into each nostril 2 (two) times a day as needed for rhinitis or allergies.	3/23/20			Historical Provider, MD
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	once a week. Sunday.	8/20/21			Historical Provider, MD

[redacted]

[redacted]

mg/mL injection				
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: 60 tablet, Rfl: 0

• 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

• clopidogreL (Plavix) 75 mg tablet, Take 1 (one) tablet (75 mg total) by mouth daily., Disp: 30 tablet, Rfl: 0

• 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 1 Dose under the skin once a week. Sundays, Disp: 6 kit, Rfl: 3

• methotrexate (Rheumatrex) 25 mg/mL injection, INJECT 1 ML UNDER THE SKIN ONCE A WEEK SUNDAY, Disp: 12 mL, Rfl: 0

• methotrexate 2.5 mg tablet, Take 8 (eight) tablets (20 mg total) by mouth once a week. LABS DUE; 8/31/2023, Disp: 40 tablet, 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

[redacted]

[redacted]

- 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: 270 tablet, Rfl: 1
- syringe with needle (Tuberculin Syringe) 1 mL 27 x 1/2" syringe, Use for weekly methotrexate injections, Disp: 100 each, Rfl: 11

PHYSICAL EXAM

vitals were not taken for this visit.

There is no height or weight on file to calculate BMI.

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. Tachycardic, regular 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	8.1	08/04/2023
HGB	12.2 (L)	08/04/2023
HCT	35.8 (L)	08/04/2023
MCV	102.9 (H)	08/04/2023
PLT	176	08/04/2023

Lab Results

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	0.8	08/04/2023

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.

[redacted]

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)
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	19.8

peak VTI	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/m 2
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.

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

[redacted]

	cm
AV VTI ratio	0.41
AV area	1.5 cm2
AV area index	0.7 cm2/m 2
AV mean gradient	13 mmHg
AV peak gradient	16 mmHg

GATED CHEST CTA 8/11/2023 [redacted]

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.

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.

[redacted]

[redacted]

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.

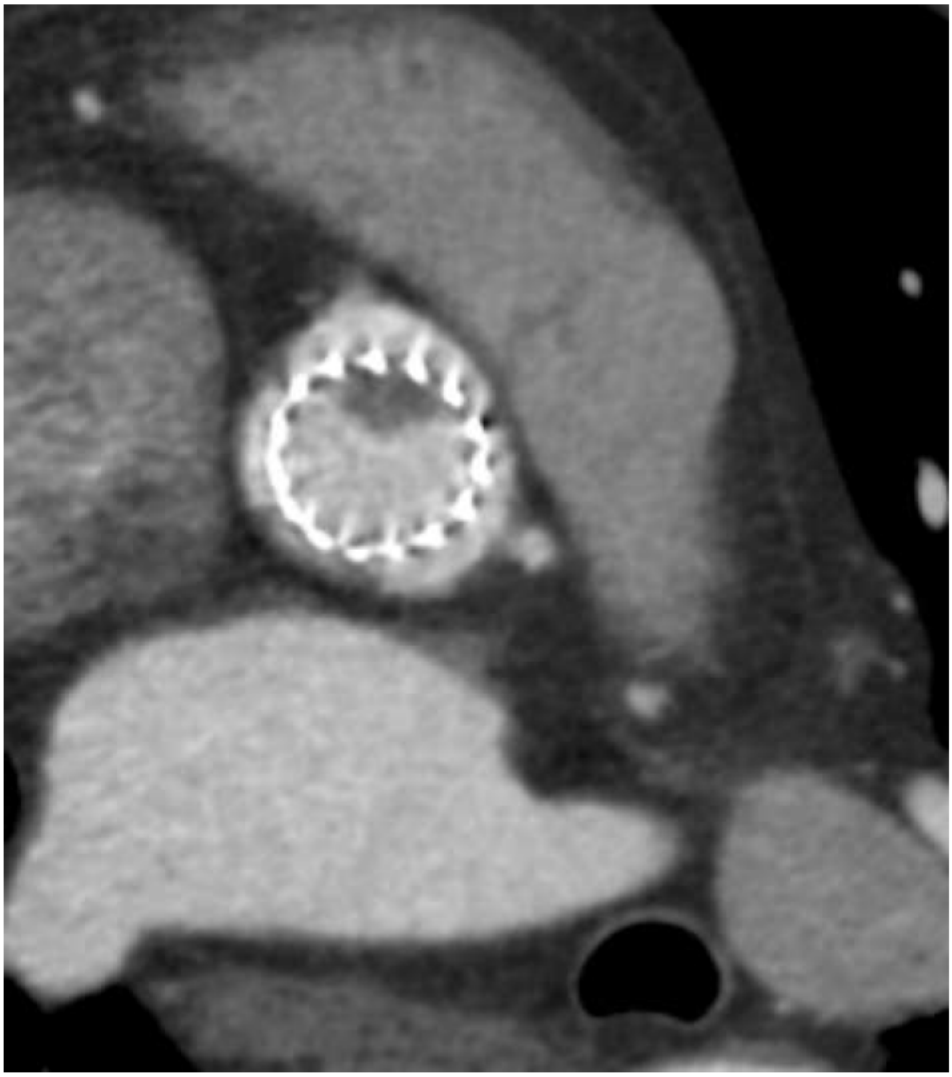
UPPER ABDOMEN: Unremarkable.

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]



Follow-Up on 8/14/2023 *Note viewed by patient*

Additional Documentation

Vitals: BP 120/72 (BP Location: Right arm, Patient Position: Sitting) Pulse 86 Ht 1.753 m (5' 9")
Wt 102 kg (224 lb 6.4 oz) SpO2 97% BMI 33.14 kg/m² BSA 2.17 m²

Orders Placed

CT cardiac morphology (Resulted 2/6/2024)

Medication Changes

As of 8/14/2023 9:58 AM

None

Visit Diagnoses

Primary: **Thrombosis of prosthetic heart valve, initial encounter** T82.867A
Acute ST elevation myocardial infarction (STEMI) involving right coronary artery (CMS/HCC) I21.11

[redacted]

[redacted]

S/p TAVR (transcatheter aortic valve replacement), bioprosthetic Z95.3

[redacted]