



Structural Heart Planning Readiness Checklist

A practical worksheet for reviewing the imaging, anatomy, access, device considerations, and team decisions that shape a case before the procedure.

At the **Heart** of
IMAGING

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A practical worksheet for reviewing the imaging, anatomy, access, device considerations, and team decisions that shape a case before the procedure.

How to use: Mark each item Complete, N/A, or Action required. Record the relevant measurement, reviewer, date, image series or phase, limitation, and follow-up action where applicable.

Patient / case ID:		Review date:	
Planned procedure:		Procedure date:	
Referring physician:		Primary reviewer:	
Team / institution:		Case conference date:	

Status key: Complete = reviewed and sufficient **N/A** = does not apply **Action required** = missing, limited, or unresolved

1. Patient and procedure profile

Case context

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Patient identifier and date of review confirmed.			
☐	Procedure and indication documented.			
☐	Native versus prosthetic anatomy identified.			
☐	Relevant prior cardiac surgery, valve intervention, device, or coronary intervention documented.			
☐	Renal function, contrast concerns, rhythm, heart rate, anticoagulation, and allergies reviewed.			
☐	Procedure urgency and target date documented.			

2. Imaging acquisition quality

Quality control

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Correct patient and scan date confirmed.			

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	ECG-gated acquisition available where required.			
☐	Appropriate cardiac phase or phases reconstructed.			
☐	Thin-slice images available for multiplanar and 3D analysis.			
☐	Contrast opacification adequate in the target anatomy.			
☐	Coverage includes the heart, aorta, and relevant access vessels.			
☐	Motion, stair-step, metal, or blooming artifacts assessed.			
☐	Delayed phase available when thrombus evaluation is required.			
☐	Image quality is sufficient for intended measurements and planning.			
☐	Limitations documented clearly.			

3. TAVR planning

Aortic root and annulus

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Annular area, perimeter, maximum diameter, and minimum diameter recorded.			
☐	Annular phase and measurement plane documented.			
☐	Aortic root, sinus of Valsalva, sinotubular junction, and ascending aorta assessed.			
☐	Aortic valve morphology documented.			
☐	Leaflet mobility and calcification assessed.			
☐	Annular, leaflet, and LVOT calcium distribution and severity documented.			

Coronary and obstruction risk

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Left and right coronary artery heights recorded.			
☐	Sinus width and root anatomy assessed.			
☐	Virtual valve-to-coronary and valve-to-sinotubular-junction considerations reviewed when relevant.			
☐	Potential coronary obstruction risk documented.			
☐	Commissural or cusp alignment considerations reviewed.			
☐	Prior surgical valve or coronary anatomy considered.			

Device and access strategy

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Candidate device family or size range documented, if applicable.			
☐	Implantation-depth considerations reviewed.			
☐	Risk of annular rupture, root injury, conduction disturbance, or coronary obstruction discussed.			
☐	Recommended coplanar or fluoroscopic projection recorded.			
☐	Preferred access route identified.			
☐	Alternative access route documented if needed.			
☐	Additional multidisciplinary review requested where indicated.			

4. TMVR planning

Anatomy and procedural feasibility

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Native mitral annular morphology assessed.			
☐	Annular area, perimeter, and diameters recorded.			

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Mitral annular calcification location, thickness, and extent documented.			
☐	Existing prosthesis or annuloplasty ring type, size, and orientation documented.			
☐	Leaflet and subvalvular anatomy assessed.			
☐	Left ventricular size and geometry assessed.			
☐	Aorto-mitral continuity reviewed.			
☐	Candidate landing zone documented.			
☐	Device anchoring considerations reviewed.			
☐	Predicted neo-LVOT assessed with the device and deployment assumptions documented.			
☐	Risk of LVOT obstruction documented.			
☐	Risk of embolization, migration, or paravalvular leak considered.			
☐	Transseptal access and puncture considerations reviewed.			
☐	Additional imaging or adjunctive procedure needs documented.			

Procedure type

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Native-valve TMVR.			
☐	Mitral valve-in-valve.			
☐	Mitral valve-in-ring.			
☐	Mitral valve-in-MAC.			
☐	Other specialized or investigational scenario documented.			

5. LAAC / LAAO planning

Thrombus and image phase

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	LAA fully visualized.			
☐	Filling defect assessed.			
☐	Delayed imaging performed when clinically indicated.			
☐	Finding characterized as thrombus, slow flow, or indeterminate.			
☐	Additional TEE or other evaluation required, if applicable.			
☐	Anticoagulation and procedural timing reviewed by the clinical team.			

LAA anatomy

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	LAA morphology documented.			
☐	Ostium and landing-zone measurements recorded.			
☐	Maximum depth recorded.			
☐	Orientation, angulation, lobes, bends, and trabeculations assessed.			
☐	Landing-zone eccentricity documented.			
☐	Ridge and pulmonary-vein relationships assessed.			
☐	Adjacent-structure considerations documented.			

Device and access planning

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Candidate device family and size range documented, if applicable.			
☐	Adequate depth for proposed device assessed.			

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Landing-zone coverage assessed.			
☐	Risk of impingement or embolization considered.			
☐	Transseptal puncture location considered.			
☐	Preferred sheath orientation or approach documented.			
☐	Residual leak or incomplete seal risk considered.			

6. Access and vascular assessment

Access route

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Iliofemoral vessel diameters recorded.			
☐	Minimum luminal diameter on both sides recorded.			
☐	Calcification and circumferential calcium assessed.			
☐	Tortuosity and stenosis assessed.			
☐	Dissection, aneurysm, thrombus, or occlusion assessed.			
☐	Aortic and arch anatomy reviewed.			
☐	Vessel suitability for the planned sheath assessed.			
☐	Preferred access side selected.			
☐	Alternative access route documented.			
☐	Prior vascular intervention or peripheral arterial disease considered.			
☐	Access-related risks flagged for team discussion.			

7. Team review and decision documentation

Decision readiness

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Case presented at structural heart conference or equivalent review.			
☐	Cardiology review completed.			
☐	Cardiac imaging review completed.			
☐	Cardiac surgery review completed when indicated.			
☐	Anesthesia or procedural planning review completed when indicated.			
☐	Procedure and access strategy selected.			
☐	Device strategy selected or narrowed.			
☐	Additional imaging or testing requirements documented.			
☐	Contraindications or unresolved risks documented.			
☐	Patient-specific contingencies discussed.			
☐	Final plan approved by appropriate clinical decision-makers.			
☐	Patient communication and consent pathway initiated.			

8. Reporting and handoff

Final communication

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Standardized measurements completed.			
☐	Key findings summarized.			
☐	Representative images selected for review.			
☐	Device and access assumptions documented.			

Check	Review item	Finding / measurement / notes	Status	Owner / follow-up
☐	Preferred procedural view or orientation recorded.			
☐	High-risk findings clearly flagged.			
☐	Limitations and uncertainty stated.			
☐	Report distributed to relevant team members.			
☐	Questions assigned to an owner.			
☐	Final report version and date recorded.			

9. Final readiness review

Check	Readiness item	Notes / action
☐	All required imaging is available and technically adequate.	
☐	Procedure-specific measurements are complete.	
☐	Device, access, and procedural assumptions are documented.	
☐	High-risk anatomy and unresolved questions are clearly flagged.	
☐	The heart team has reviewed and agreed on the next step.	
☐	The final report or planning summary has been distributed.	

Final plan:		Date:	
Primary reviewer:		Second reviewer / approver:	
Outstanding action owner:		Due date:	

Important: This checklist is intended for educational and workflow-planning purposes. It does not replace applicable clinical guidelines, device instructions for use, institutional protocols, or the judgment of qualified healthcare professionals. Measurement requirements and device suitability may vary by procedure, device, patient, and region.