

HOST-CHS assessment tool – Senning procedure

Steps		Yes/No		Weight of step (1-5)
1	Preparation			
	Cannulation:			
1	SVC cannulation above the level of azygos vein ?	Y	N	3
2	Azygos vein is snared to avoid the blood into operative field?	Y	N	3
3	IVC cannulation below the level of Eustachian valve?	Y	N	5
	Develop interatrial groove:			
4	The interatrial groove (Waterston's groove, or Sondegaard's groove) is developed as much as possible?	Y	N	5
2	First incision			
5	Incision is made in the right atrium parallel to interatrial groove?	Y	N	5
	Inspect for size and extent of eustachian valve before completing			4
6	Anterior to crista?	Y	N	4
7	Begin at the root of right atrial appendage and leave the adequate distance from origin of SVC (approximately one diameter of the SVC)?	Y	N	3
8	Leave the adequate distance from origin of IVC (approximately one diameter of the IVC)?	Y	N	3
3	Second incision (create the small atrial tissue flap)			
9	Incision is made in the medial aspect of the fossa ovalis?	Y	N	4
10	Extend inferiorly across floor of heart toward lateral wall of the atrium?	Y	N	4
11	Extend superiorly beneath the limbus?	Y	N	4
4	Third incision (create the lateral opening into the pulmonary venous chamber)			
12	Incision is made from the upper end of atrial tissue flap, crossing the limbus?	Y	N	5
13	Extend inferiorly along full length of the interatrial groove?	Y	N	5
14	Incision is immediately deep to the hinged flap of atrial septum?	Y	N	5
15	Assistant places traction on the flap to ensure incision remains immediately posterior to it.	Y	N	3
5	First layer (isolate the pulmonary veins from the posterior AV valve)			

	Utilized the small hinged flap of interatrial septum:				
16	Suture line start deep into the roof of the left atrial appendage?	Y	N	5	
17	Two third of the perimeter flap is used for the superior half of the suture line?	Y	N	5	
18	one third of the flap is used to complete inferior half of the suture line?	Y	N	5	
19	Inferior half of the suture line gathers the floor of the LA to compensate for the difference in lengths	Y	N	4	
	Inspection of the depth of superior suture line				
20	Is the superior suture line allow enough depth for the SVC pathway	Y	N	5	
21	Is the ridge under the SVC flattened out, cutting up and then sealing up with a horizontal sutureline (optional)	Y	N	3	
22	Is the ridge in the inferior septum cut away and the coronary sinus laid open into the floor of the LA (optional)	Y	N	4	
6	Second layer (create the Y-shaped systemic venous pathway)				
	Utilized the inferolateral component of the right atrium free wall:				
23	Suture start from the mid-point to the remnant of the atrium septum, immediately deep to the mitral valve annulus?	Y	N	5	
24	Extend suture line superiorly to meet the origin of the SVC?	Y	N	4	
25	Extend suture line inferiorly to meet the origin of the IVC?	Y	N	4	
26	Coronary sinus is incorporated into the IVC baffle	Y	N	4	
27	(Optional) Eustachian valve is utilized to provide additional tissue for inferior suture line?	Y	N	3	
	Inspection of the systemic venous pathway				
28	No obstruction of the SVC pathway?	Y	N	5	
29	No obstruction of the IVC pathway?	Y	N	5	
7	Third layer (complete C-shaped pulmonary venous pathway)				
	Utilized the superior component of the right atrium free wall:				
30	Is the length of superior free edge enough to run around external component of the SVC (length should be equal to the external dimension of the SVC)?	Y	N	5	
31	Is the length of inferior free edge enough to run around external component of the IVC (length should be equal to the external dimension of the IVC)?	Y	N	5	

32	(Optional) Is the augmented patch used when there is insufficient length in the free edge?	Y	N	3
33	Matress suture placed appropriately at the inferior corner and attached to the appropriate point along the free edge of the RA flap	Y	N	5
34	Matress suture placed appropriately at the superior corner and attached to the appropriate point along the free edge of the RA flap	Y	N	5
35	(Optional) Incision made between the RUPV and RLPL to open up the LA	Y	N	3
	Inspection of the pulmonary venous pathway			
36	No obstruction/kinking/folding of the pathway?	Y	N	4
37	adequate width at the mid-point of the C-shaped pathway	Y	N	5
				161