

Steps			YES/ NO		Weight of step (1-5)	Included in HOST-CHS Holistic Score
<b>1 Control of the Patent Ductus Arteriosus (PDA)</b>						
1	Has the PDA been ligated?		Y	N	2	KNOWLEDGE
2	Is the tie 2-3mm above the origin of the left pulmonary artery (LPA) [avoiding potential LPA stenosis]?		Y	N	3	RESPECT
<b>2 Atrial Septectomy</b>						
3	Has the atrial septum been resected?		Y	N	2	KNOWLEDGE
4	Has the delegate enlarged the ASD posteriorly [avoiding potential heart block]?		Y	N	3	RESPECT
<b>3 Isolation of the confluent branch pulmonary arteries</b>						
Is the cut on the main pulmonary artery (MPA):						
5	i) At the midpoint between the sinotubular junction (STJ) and base of the right pulmonary artery?		Y	N	4	RESPECT
6	ii) Clean? (i.e. not jagged or having sharp protruding points)		Y	N	3	RESPECT
7	iii) Avoids damaging the pulmonary artery orifices +/- pulmonary valve?		Y	N	5	KNOWLEDGE
<b>4 Resection of Ductal tissue</b>						
8	Has the PDA been transected?		Y	N	2	FLUENCY
9	Has all the ductal tissue been removed?		Y	N	4	KNOWLEDGE
10	<b>If the interdigitating technique used:</b> Has the aortic arch been divided at the isthmus AND has the descending aorta been divided 1-2mm below the level of the ductal tissue? <b>- Score 'Y' if alternative technique used</b>		Y	N	3	KNOWLEDGE
11	Are both cuts clean? (i.e. not jagged or having sharp protruding points)		Y	N	3	RESPECT
<b>5 Preparation for augmentation of the ascending aorta and aortic arch</b>						
12	Has the delegate cut along the lesser curvature of the aortic arch until 2-3mm above the STJ?		Y	N	4	KNOWLEDGE
13	Has the incision been extended to either of the coronary orifices? (i.e. compromising coronaries)		N	Y	5	RESPECT
<b>IF INTERDIGITATING TECHNIQUE USED: CONTINUE TO SECTION 6 IF ALTERNATIVE TECHNIQUE USED: SKIP TO SECTION 9</b>						
<b>6 Cutback incision into Pulmonary Root (Cutback 1) for DKS anastomosis</b>						
14	<b>Cutback 1</b> - Has the pulmonary root been cut parallel to the incision made in the ascending aorta?		Y	N	4	KNOWLEDGE
15	Is the cut 2-4mm in length?		Y	N	3	RESPECT
<b>7 Ascending aorta and Pulmonary root anastomosis (DKS)</b>						
16	Has the anastomosis begun at the bottom/apex of the incision? Suture assessment:		Y	N	3	FLUENCY
17	i) Are <b>all</b> sutures evenly spaced from one another <b>with</b> a gap of 1-2mm between suture bites?		Y	N	3	FLUENCY
18	ii) Are <b>all</b> sutures an adequate distance from the tissue edge (1-2mm)?		Y	N	3	FLUENCY
<b>8 Interdigitating anastomosis</b>						
19	<b>Cutback 2</b> - Has a cutback incision been made into the posterior wall of the descending aorta <b>and</b> is a length of 3-4mm?		Y	N	4	KNOWLEDGE
20	Has an anastomosis been completed between the posterior wall of the descending aorta and the distal aortic arch?		Y	N	3	FLUENCY
21	<b>Cutback 3</b> - Has a cutback incision been made into the anterolateral wall of the descending aorta? (i.e. not completely opposite Cutback 2)		Y	N	4	KNOWLEDGE
<b>9 Arch Reconstruction</b>						
22	Has the patch anastomosis commenced at the toe/apex of the anterior descending aorta?		Y	N	4	FLUENCY

	23	Are both suture ends continued until the interdigitating sutures and tied? - Score 'Y' if alternative technique used	Y	N	3	FLUENCY
	<b>Posterior edge suture of aortic arch (Inner curve):</b>					
	24	i) Has excess patch, which corresponds to the posterior edge (inner curve), been trimmed to the curvature of the aortic arch and the ascending aorta if required? (i.e. to avoid kinking/potential compression of LPA) - Score 'Y' if trimming not required – Score 'N' if patch too small	Y	N	5	KNOWLEDGE
	25	ii) Has the suture continued along the aortic arch and down the ascending aorta to either the DKS or aortic root?	Y	N	2	FLUENCY
	26	iii) <b>If the interdigitating technique:</b> Has the suture been continued along the lateral wall of the DKS (before the anterior edge suture is commenced)? <b>If alternative technique used score 'Y'</b>	Y	N	3	FLUENCY
	<b>Anterior edge suture of aortic arch (Outer curve):</b>					
	27	i) Has excess patch, which corresponds to the anterior edge (outer curve), been trimmed to the curvature of the aortic arch and the ascending aorta if required? (i.e. to avoid kinking/potential compression) – Score 'Yes' if trimming not required – Score 'N' if patch too small	Y	N	5	KNOWLEDGE
	28	ii) Has the suture continued along the aortic arch and ascending aorta?	Y	N	2	FLUENCY
	29	<b>If the interdigitating technique used:</b> Has the excess patch been trimmed to accommodate the DKS? <b>If the alternative technique used:</b> Has the excess patch been trimmed to accommodate the ascending aorta?	Y	N	4	KNOWLEDGE
	30	<b>If the interdigitating technique used:</b> Has the suture along the anterior wall of the DKS been completed? <b>If the alternative technique used:</b> Has the patch anastomosis been completed?	Y	N	3	FLUENCY
	Suture assessment					
	31	i) Are <b>all</b> sutures evenly spaced from one another <b>with</b> a gap of 2-3mm between suture bites?	Y	N	3	FLUENCY
	32	ii) Are <b>all</b> sutures an adequate distance from the tissue edge (2-3mm)?	Y	N	3	FLUENCY
	<b>IF ALTERNATIVE TECHNIQUE USED:CONTINUE TO SECTION 10 IF INTERDIGITATING TECHNIQUE USED: SKIP TO SECTION 11</b>					
10	33	Before the anterior edge suture line of the ascending aorta was completed was an incision made into the patch for the MPA anastomosis?	Y	N	4	KNOWLEDGE
	34	i) Is the proximal end of the incision at the same level of the cut MPA?	Y	N	3	KNOWLEDGE
	35	ii) Does the distal part of the incision end half way between the left common carotid and left subclavian artery?	Y	N	3	KNOWLEDGE
	Pulmonary root to reconstructed aorta anastomosis					
	36	i) Has the suture commenced along the posterior wall of the pulmonary root?	Y	N	3	FLUENCY
	37	ii)Has the anastomosis been completed? (i.e. completion of posterior and anterior walls)	Y	N	3	FLUENCY
	38	iii) Is the anastomosis kinked, twisted or stretched?	Y	N	5	RESPECT
	Suture assessment:					
	39	i) Are <b>all</b> sutures evenly spaced from one another <b>with</b> a gap of 2-3mm between suture bites?	Y	N	3	FLUENCY
	40	ii) Are <b>all</b> sutures an adequate distance from the tissue edge (2-3mm)?	Y	N	3	FLUENCY
<b>SCORE THIS SECTION FOR BOTH TECHNIQUES TO COMPLETE ASSESSMENT</b>						
11	<b>Patch assessment:</b>					
	41	Are there any visible holes within the patch?	N	Y	4	RESPECT
	42	Is the patch kinked at any point?	N	Y	5	RESPECT
	43	Is there any kinking of the ascending aorta that would compromise coronary flow?	N	Y	5	RESPECT
	44	Have any plication sutures been required to make the patch narrower or additional patch material used to fill a gap in the patch?	N	Y	4	RESPECT
	45	Is the arch reconstruction complete?	Y	N	3	FLUENCY

SCORE THIS SECTION IF RV-PA CONDUIT PERFORMED						
1	<b>Establishment of pulmonary circulation</b>					
2	46	Has the opening in the distal part of the MPA been closed? (i.e. with a patch)	Y	N	3	FLUENCY
	47	Has a small ventricular incision/ punch been made just inferior to the pulmonary annulus?	Y	N	4	RESPECT
	48	i) Is the hole cut cleanly and the appropriate size for the conduit (i.e. 5-8mm)?	Y	N	4	KNOWLEDGE
	49	Has the delegate anastomosed the proximal conduit to the RV and the distal conduit to the PA?	Y	N	3	FLUENCY
	Suture Assessment:					
	50	i) Are <b>all</b> the sutures evenly spaced from one another <b>WITH</b> a gap of 2-3mm between suture bites?	Y	N	3	FLUENCY
	51	ii) Are <b>all</b> the sutures an adequate distance from the tissue edge (2-3mm)?	Y	N	3	FLUENCY
	52	Is the conduit pushed too far and protruding into the ventricular chamber?	N	Y	4	RESPECT
	53	Is the conduit the appropriate length (i.e. not too short that would stretch +/- compress neo-aorta/coronaries or too long that would be liable to kinking) ?	Y	N	5	KNOWLEDGE
	<b>TOTAL SCORE</b>				<b>157</b>	