

**HOST-CHS assessment tool - CoA repair: Extended End-to-Side anastomosis with patch
(Median sternotomy model)**

Steps		YES/ NO		Weight of step (1-5)	Included in HOST-CHS Holistic Score
1	Ligation and Transection of PDA				
1	Has the proximal and distal PDA been ligated?	Y	N	4	FLUENCY
2	Have the clamps been placed before the PDA has been ligated?	Y	N	4	KNOWLEDGE
3	Has the end of the PDA been oversewn?	Y	N	2	RESPECT
2	Removal of ductal tissue:				
4	Has the aorta been ligated and transected at the level of the isthmus?	Y	N	4	KNOWLEDGE
5	Has the cut isthmus end been oversewn?	Y	N	2	RESPECT
6	Has the ductal tissue been completely removed?	Y	N	4	FLUENCY
7	Are all incisions clean? (i.e. no jagged/sharp edges)	Y	N	3	RESPECT
3	Incisions on Aortic arch and descending aorta:				
8	Has an anterolateral incision been made from the ascending aorta and along the lesser curvature of the aortic arch?	Y	N	3	FLUENCY
9	i) Does this incision end ~5mm away from the tie at isthmus?	Y	N	3	KNOWLEDGE
10	Has a 3-5mm cutback incision been made on the posterior wall of the descending aorta? (Cutback 1)	Y	N	3	FLUENCY
4	Extended End-to-Side anastomosis (1)				
11	Has an end-to-side anastomosis been completed between the descending aorta and aortic arch?	Y	N	3	FLUENCY
12	Has the suture started one stitch away from the heel of the anastomosis?	Y	N	4	KNOWLEDGE
13	Has the suture continued along the posterior wall until the most distal neck vessel (LSCA)?	Y	N	3	FLUENCY
14	Has other end of suture been used to complete heel of the anastomosis and continued until the anterior wall of descending aorta?	Y	N	3	FLUENCY
15	Has a cutback incision been made along the anterior wall of the descending aorta (length 8-10mm)? (Cutback 2)	Y	N	4	FLUENCY
5	Patch preparation				
16	Has the patch been trimmed to correspond to the shape of the defect?	Y	N	3	FLUENCY
17	i) Has a small notch been cut in the patch that corresponds with the inferior edge of the anastomosis?	Y	N	4	KNOWLEDGE
6	Extended End-to-Side anastomosis (2) – Patch anastomosis				
18	Has the anastomosis commenced at the cutback incision (Cutback 2) and continued to previous suture and tied?	Y	N	2	FLUENCY
19	i) Has this been repeated with the other suture end?	Y	N	2	FLUENCY
20	Has suture been continued along the posterior wall of the lesser curvature to the end of the incision at ascending aorta?	Y	N	3	FLUENCY
21	Has a cutback incision (2-3mm) on the ascending aorta been made to widen the toe of the anastomosis? (Cutback 3)	Y	N	4	KNOWLEDGE
22	i) Has suture continued around the toe of anastomosis?	Y	N	3	FLUENCY
23	Has the anastomosis been completed along the anterior wall of the lesser curvature?	Y	N	3	FLUENCY
	Suture assessment:				
24	i) Are all the sutures evenly spaced from one another WITH a gap of 1-2mm between suture bites?	Y	N	3	FLUENCY
25	ii) Are all the sutures an adequate distance from the tissue edge (1-2mm)?	Y	N	3	FLUENCY
7	Patch assessment				
26	Are there any visible holes within the patch?	N	Y	5	RESPECT
27	Is the patch too large that it would likely compress local structures?	N	Y	5	RESPECT
28	i) Have any plication sutures been needed to make the patch smaller?	N	Y	4	RESPECT
29	Is the patch too small? (i.e. unlikely to bulge slightly if pressurized causing a gradient)	N	Y	4	RESPECT
TOTAL SCORE				97	