**Supplemental Table 2: Associations of patient and clinical factors with clinically significant abnormal BRIEF scores**

  **BRIEF SCORE**

 ***Abnormal\* Normal*** p-value§

 N=21 N=47

**Associated with clinically significant abnormal BRIEF scores:**

Male sex 10 (47.6) 35 (74.5) 0.03

Body mass index, kg/m2 26.2 ± 6.2 23.1 ± 4.8 0.03

Prior stroke 3 (14.3) 0 (0.0) 0.03

More than one prior surgery w/CPB 16 (76.2) 21 (44.7) 0.02

NYHA class ≥ II 16 (76.2) 15 (31.9) 0.001

Outflow tract type - non-transannular patch 15 (71.4) 20 (42.6) 0.03

***Not associated:***

*Current age, years 17.4 (15-22.8) 17.7 (14.6-23.2) 0.87*

*Weight, kg 72.8 ± 20.6 65.0 ± 16.6 0.10*

*Cardiac Diagnosis - Tetralogy of Fallot 13 (61.9) 27 (57.4) 0.73*

*Indication for re-intervention 0.35*

 *Stenosis 6 (28.6) 11 (23.4)*

 *Insufficiency 5 (23.8) 22 (46.8)*

 *Mixed disease 10 (47.5) 14 (29.8)*

*Prior neurologic injury/comorbidities*

 *Focal neurologic deficit(s) 1 (4.8) 0 (0.0) 0.31*

 *Developmental delay 5 (23.8) 4 (8.5) 0.12*

 *Psychiatric conditions 3 (14.3) 1 (2.1) 0.08*

 *Seizure disorders 2 (9.5) 1 (2.1) 0.22*

 *Rehabilitation services utilization 7 (33.3) 12 (25.5) 0.55*

*Highest level of education - none/elementary 5 (23.8) 15 (31.9) 0.47*

\*Abnormal BRIEF defined as a t-score ≥ 65 on one or more of the 3 main BRIEF subscales (Global Executive Composite, Behavioral Regulatory Index or Metacognition Index)

§ P-value from Chi-square test or Fisher’s exact test for categorical variables and two-sample t-test for continuous variable.