# **Supplementary Table 6. Associations with Oral Feeding as a Dependent Variable**

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| Table 1. Preoperative Independent Variables | | | | | | | | | | | | | | | | | | | | | | | | |
| Study | **Ab-**  **normal**  **Pre-oper-ative feeding**  **Eval-**  **uation** | **Age** | **Age**  **at Surg-ery** | **Basic Aristotle score** | **Birth**  **Head Cir-cum-ference** | **Birth Weight** | **Cardiac Diagnosis** | **Chrom-**  **osomal**  **Ab-**  **normality**  **/Genetic Syndrome** | **Correct-ed GA for**  **Pre-operative**  **brain MRI** | **Cyanotic vs Acyan-otic** | **DOL**  **Pre-operative Brain**  **MRI** | **Gender** | **Gesta-tional**  **Age** | **Non-**  **cardiac**  **Ab-**  **Norm-ality** | **Prenatal Cardiac Diag-nosis** | **Pre-**  **operative Cardiac**  **Comp-lications** | **Pre-**  **operative Feeding Assistance** | **Pre-**  **operative Intu-bation** | **RACH Score** | **Single Ventricle**  **vs**  **Bi-**  **Ventricle CHD** | **Single Ventricle w/ Arch Obstruct-ion vs Bi-ventricle w/o Arch Ob-struction** | **STAT Category** | **Total Aristotle Score** | **Weight**  **at Surg-ery** |
| Chaves et al. (2020) |  |  |  |  |  | NS |  |  |  |  |  | NS |  |  |  |  |  |  |  |  |  |  |  | NS |
| Coker-Bolt et al. (2013) |  |  | NS |  |  | NS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Davies et al. (2014) | NS |  |  | S |  |  | NS | S |  |  |  |  | NS | NS |  | NS |  | S |  |  |  |  | S | S |
| de Souza et al. (2018) |  |  |  |  |  |  | NS |  |  |  |  |  |  |  |  |  | NS |  |  |  |  |  |  |  |
| Gakenheimer-Smith et al.  (2019) |  |  | S |  |  |  | S | NS |  |  |  |  | NS |  |  |  | NS |  |  |  | S |  |  |  |
| Harrison  (2011) |  | NS |  |  |  |  |  |  |  |  |  |  |  |  | NS |  |  |  |  |  |  |  |  | NS |
| Hsieh et al.  (2019) |  |  |  |  | NS | NS | NS |  | NS |  | NS |  | S |  | NS |  |  |  |  |  |  |  |  |  |
| Indramohan et al. (2017) |  |  |  |  |  |  | S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kogon et al. (2007) |  |  |  |  |  | NS | NS | NS |  |  |  |  | NS | NS |  |  |  | NS | S |  |  |  |  |  |
| Lambert et al. (2014) |  |  |  |  |  | NS |  | NS |  |  |  |  | NS |  |  |  |  | NS |  |  |  |  |  |  |
| McKean et al. (2017) |  |  | NS |  |  | NS |  | S |  |  |  |  | NS |  |  |  | S | NS |  |  |  |  |  | NS |
| Pereira et al. (2013) |  | NS |  |  |  |  | NS |  |  | NS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pham et al.  (2014) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pierick et al. (2020) |  |  |  |  |  |  |  | S |  |  |  |  | NS |  |  |  |  |  |  | NS |  |  |  |  |
| Piggott et al. (2018) |  |  | NS |  |  |  |  | NS |  |  |  |  | NS |  |  | NS | NS | NS |  |  |  |  |  |  |
| Pourmoghadam et al.  (2017) |  | NS |  |  |  | NS | S |  |  |  |  |  | NS |  |  |  |  |  |  |  |  | NS |  | NS |
| Sables-Bauset al. (2012) |  |  |  | NS |  | NS | NS | S |  |  |  |  | NS |  |  |  | NS |  |  |  |  |  | NS | NS |
| S.-H. et al.  (2014) |  |  | NS | S |  | NS | S | S |  |  |  |  | NS |  |  | NS | NS | NS |  |  |  |  |  | S |
| Key: CHD = congenital heart disease; DOL = day of life GA = gestational age; MRI = magnetic resonance imaging; NS = non-significant association/relationship as reported by primary study authors; S = statistically significant association/relationship as reported by primary study authors | | | | | | | | | | | | | | | | | | | | | | | | |

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| Table 2. Intraoperative Independent Variables | | | | | | | | | | | |
| Study | **Bypass (yes/no)** | **Bypass Time (mins)** | **Aortic Cross-clamp Time (mins)** | **DHCA time (mins)** | **Palliation Prior to Biventricle Repair** | **Selective Cerebral Perfusion (mins)** | **Stage I Norwood vs Aortic Arch Repair** | **Surgical Repair** | **Surgical Proximity to Recurrent Laryngeal Nerve** | **Surgical Times** | **Type of Cardiac Surgery** |
| Chaves et al. (2020) |  | NS |  |  |  |  |  |  |  |  |  |
| Coker-Bolt et al. (2013) |  |  |  |  |  |  |  |  |  |  |  |
| Davies et al. (2014) |  | NS |  | NS |  |  |  | NS |  | NS |  |
| de Souza et al. (2018) |  |  |  |  |  |  |  |  |  |  |  |
| Gakenheimer-Smith et al. (2019) |  |  |  |  |  |  |  |  |  |  |  |
| Harrison (2011) |  |  |  |  |  |  |  |  |  |  |  |
| Hsieh et al. (2019) |  |  |  |  |  |  |  |  |  |  |  |
| Indramohan et al. (2017) |  |  |  |  |  |  |  |  |  |  |  |
| Kogon et al. (2007) | NS | NS |  |  |  |  |  |  | NS | NS |  |
| Lambert et al. (2014) |  |  |  |  |  |  |  |  |  |  |  |
| McKean et al. (2017) |  | NS | NS | NS | S |  |  |  | NS | NS | NS |
| Pereira et al. (2013) |  |  |  |  |  |  |  | NS |  |  |  |
| Pham et al. (2014) |  |  |  |  |  |  | S |  |  |  |  |
| Pierick et al. (2020) |  |  |  |  |  |  |  |  |  |  |  |
| Piggott et al. (2018) |  |  | NS | NS |  |  |  |  |  | NS |  |
| Pourmoghadam et al. (2017) |  | NS | NS | NS |  | NS |  |  |  | NS |  |
| Sables-Bauset al. (2012) | NS | NS | NS | S |  |  |  |  |  |  |  |
| S.-H. et al. (2014) |  |  |  |  |  |  |  |  |  | S |  |
| Key: DHCA = deep hypothermic cardiac arrest; NS = non-significant association/relationship as reported by primary study authors; S = statistically significant association/relationship as reported by primary study authors | | | | | | | | | | | |

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| Table 3. Postoperative Independent Variables | | | | | | | | | | | | | | | | | | | |
| Study | **Abnormal ENT Evaluation** | **Abnormal Post-operative Feeding Evaluation** | **Abnormal Swallow Study** | **Brain MRI Maturity Score** | **Changes in**  **Bottle Feeding** | **Changes**  **in**  **Breast-feeding** | **Days to Initiation of Post-operative Oral Feeding** | **Diagnosis**  **of**  **Gastro-**  **esophageal**  **Reflux** | **Discharged**  **Prior to**  **Full Oral**  **Feeding** | **Discharge Weight** | **DOL**  **Post-operative**  **Brain**  **MRI** | **Duration of Sedative/**  **Narcotic**  **Infusions** | **Duration of Withholding Feeds Post-operatively** | **Corrected GA at Post-operative**  **Brain MRI** | **Enteral Sedation Wean** | **Failed Extubation** | **Feeding Type (breast vs bottle)** | **Gastrostomy Tube**  **Placement** | **Gastrointestinal Complications** |
| Chaves et al.  (2020) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Coker-Bolt et al.  (2013) | NS |  | NS |  |  |  | NS |  |  | NS |  |  |  |  |  |  |  | NS |  |
| Davies et al.  (2014) |  | NS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| de Souza et al.  (2018) |  |  |  |  | S | NS |  |  |  |  |  |  |  |  |  |  | S |  |  |
| Gakenheimer-Smith et al. (2019) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | NS |  |  | NS |
| Harrison  (2011) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | S |  |  |
| Hsieh et al.  (2019) |  |  |  | S |  |  |  |  |  | NS | NS |  |  | NS |  |  |  |  |  |
| Indramohan et al.  (2017) |  |  |  |  |  |  |  | NS | NS |  |  |  | S |  |  |  |  |  |  |
| Kogon et al.  (2007) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lambert et al.  (2014) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| McKean et al.  (2017) |  |  |  |  |  |  |  |  |  | NS |  |  |  |  |  |  |  |  |  |
| Pereira et al.  (2013) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | NS |  |  |  |
| Pham et al.  (2014) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pierick et al.  (2020) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Piggott et al.  (2018) |  |  |  |  |  |  |  |  |  |  |  | S |  |  | S | S |  |  |  |
| Pourmoghadam et al.  (2017) |  |  |  |  |  |  |  | NS |  |  |  |  |  |  |  | NS |  | NS | S |
| Sables-Bauset al.  (2012) |  |  |  |  |  |  | S |  |  | S |  |  |  |  |  |  |  |  |  |
| S.-H. et al.  (2014) |  |  |  |  |  |  | S |  |  |  |  |  |  |  |  |  |  |  |  |
| Key: DOL = day of life GA = gestational age; MRI = magnetic resonance imaging; NS = non-significant association/relationship as reported by primary study authors; S = statistically significant association/relationship as reported by primary study authors | | | | | | | | | | | | | | | | | | | |

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| Table 3. Postoperative Independent Variables (cont.) | | | | | | | | | | | | | | | | | |
| Study | **Heart Failure Score at Discharge** | **Length of Hospital Stay** | **Length of ICU Stay** | **Maximum White Matter Injury**  **Score** | **Modified Feeding Regimen** | **Mortality** | **Neurologic**  **Complications** | **Number**  **of**  **Discharge**  **Medications** | **Nutritional Status**  **(low weight for age vs normal weight for age)** | **OT/ST Consult** | **Oxygenation Saturation at Discharge** | **Peri-operative Brain Injury** | **Post-operative Cardiac Arrest** | **Post-**  **operative Complications** | **Duration of Post-**  **operative**  **Intubation** | **Post-**  **operative**  **Reoperation/**  **Reintervention** | **Post-operative Vocal Cord Dysfunction/**  **Paralysis** |
| Chaves et al.  (2020) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | S |  |
| Coker-Bolt et al.  (2013) |  | S |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Davies et al.  (2014) |  | S | S |  |  |  |  |  |  |  |  |  |  |  | S |  | NS |
| de Souza et al.  (2018) |  |  |  |  |  |  |  |  | NS |  |  |  |  |  | S |  |  |
| Gakenheimer-Smith et al.  (2019) |  | S |  |  |  |  | NS |  |  |  |  |  |  |  | S |  |  |
| Harrison  (2011) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hsieh et al.  (2019) | NS | S |  | NS |  |  |  | NS |  |  |  | NS | NS | NS | NS |  | NS |
| Indramohan et al.  (2017) |  | NS |  |  |  |  |  |  |  |  |  |  |  |  | S |  |  |
| Kogon et al.  (2007) |  |  |  |  |  |  |  |  |  |  |  |  |  | NS | S |  |  |
| Lambert et al.  (2014) |  | S |  |  |  |  |  | S |  |  |  |  |  |  |  |  |  |
| McKean et al.  (2017) |  | S | S |  |  |  |  |  |  |  | NS |  |  | NS | NS |  | NS |
| Pereira et al.  (2013) |  |  |  |  |  |  |  |  |  |  |  |  |  |  | NS |  |  |
| Pham et al.  (2014) |  |  |  |  | S | S |  |  |  |  |  |  |  |  |  |  |  |
| Pierick et al.  (2020) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | NS |
| Piggott et al.  (2018) |  |  | S |  |  |  | NS |  |  |  |  |  | NS | NS | NS | NS | S |
| Pourmoghadam et al.  (2017) |  | S |  |  |  | NS | NS |  |  |  |  |  | NS | NS | NS |  | S |
| Sables-Bauset al.  (2012) |  | S |  |  |  |  |  |  |  | S |  |  |  |  | S |  |  |
| S.-H. et al.  (2014) |  | S | NS |  |  |  | NS |  |  |  |  |  |  |  | NS |  |  |

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| Table 3. Postoperative Independent Variables (cont.) | | | | | | | |
| Study | **Presence of Cardiac shunt** | **Readmission** | **Time on Non-invasive Respiratory Support** | **Time to Full Postoperative**  **Oral Feeding** | **Total Gavage Amount** | **Use of Alternative Feeding Route** | **Weight Change Birth to Discharge** |
| Chaves et al. (2020) |  |  |  | S |  |  |  |
| Coker-Bolt et al. (2013) |  |  |  | NS |  |  |  |
| Davies et al. (2014) |  |  |  |  |  |  |  |
| de Souza et al. (2018) |  |  |  |  |  | NS |  |
| Gakenheimer-Smith et al. (2019) |  |  |  |  |  |  |  |
| Harrison (2011) |  |  |  |  |  |  |  |
| Hsieh et al. (2019) |  |  |  |  |  |  | NS |
| Indramohan et al. (2017) |  |  |  |  |  |  |  |
| Kogon et al. (2007) | NS |  |  |  |  |  |  |
| Lambert et al. (2014) |  |  |  |  |  |  |  |
| McKean et al. (2017) |  |  |  |  |  |  |  |
| Pereira et al. (2013) |  |  |  |  |  |  |  |
| Pham et al. (2014) |  |  |  |  |  |  |  |
| Pierick et al. (2020) |  |  |  |  |  |  |  |
| Piggott et al. (2018) |  |  |  |  |  |  |  |
| Pourmoghadam et al. (2017) |  | NS |  |  |  |  |  |
| Sables-Bauset al. (2012) |  |  | S |  | S |  |  |
| S.-H. et al. (2014) |  |  |  | S |  |  |  |
| Key: ICU = intensive care unit; NS = non-significant association/relationship as reported by primary study authors; OT = occupational therapy; S = statistically significant association/relationship as reported by primary study authors; ST = speech therapy | | | | | | | |