**Supplementary Table 2**: **Pre-specified risk factors of de novo renal replacement therapy that were used in multivariable risk adjustment.**

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| **RRT Risk Factors** | **References** |
| Age | Birnie et al.1 (2014), Parolari et al.2 (2012) |
| Sex | Thakar et al.3 (2012) |
| Hypertension | Birnie et al.1 (2014), Gaudino et al.4 (2005), Ng et al.5 (2014) |
| LVEF < 35% | Birnie et al.1 (2014), Sato et al.6 (2015) |
| Heart Failure | Doddakula et al.7 (2007), Pannu et al.8 (2016) |
| Peripheral arterial disease | Birnie et al.1 (2014), Gaudino et al.4 (2005), D'Onofrio et al.9 (2010) |
| Renal insufficiency | Birnie et al.1 (2014), Ng et al.5 (2014), Pannu et al.8 (2016) |
| Diabetes | Birnie et al.1 (2014), Parolari at al.2 (2012), Pannu et al.8 (2016), Lombardi et al.10 (2008) |
| Obesity | Birnie et al.1 (2014), Billings et al.11 (2012), O'Sullivan et al.12 (2015) |
| Anemia | Birnie et al.1 (2014), Karkouti et al.13 (2015) |
| Active endocarditis | Legrand et al.14 (2013) |
| Emergent Surgery | Gaudino et al.4 (2005), Ng et al.5 (2014), Pannu et al.8 (2016), Karkouti et al.15 (2009) |
| Preoperative shock | Ng et al.5 (2014) |
| Reoperation | Bahar et al.16 (2005), Bove et al.17 (2004) |
| Surgery type | Birnie et al.1 (2014), Ng et al.5 (2014), Pannu et al.8 (2016) |
| CPB duration | Karkouti et al.15 (2009), Jorge-Monjas et al.18 (2016) |
| Lowest hematocrit on CPB | Karkouti et al.19 (2005), Mehta et al.20 (2013), Ranucci et al.21 (2015) |
| Intraoperative blood transfusion | Parolari at al.2 (2012), Ng et al.5 (2014), Legrand et al.14 (2013) |
| New onset postoperative atrial fibrillation | Kristovic et al.22 (2015), Mehta et al.23 (2006) |

Specific variable definitions are provided in Supplementary Table 2

RRT – renal replacement therapy, CPB – cardiopulmonary bypass, LVEF – left ventricular ejection fraction

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