Appendix C – Multi-variable logistic regression model AUC’s

Multi-Variable Logistic Regression Analysis - IMPACT Core and Core “+” Models – Patients with Identifiable Individual ICP Threshold

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| **Model** | **AUC A/D (95% CI)** | **AIC** | **p-value** | **AUC F/U (95% CI)** | **AIC** | **p-value** |
| ***CORE*** | 0.820 (0.735-0.904) | 94.2 | **<0.0001** | 0.698 (0.606-0.789) | 160.5 | **<0.0001** |
| ***CORE + Mean Hourly Dose of ICP > 20 mm Hg*** | 0.775 (0.677-0.0.874) | 88.7 | **<0.0001** | 0.675 (0.582-0.769) | 159.9 | **<0.0001** |
| ***CORE + Mean Hourly Dose of ICP > 20 mm Hg*** | 0.781 (0.685-0.877) | 88.8 | **0.0001** | 0.677 (0.584-0.770) | 160.0 | **0.0001** |
| ***CORE + Mean Hourly Dose of ICP Above Individual Threshold*** | 0.786 (0.692-0.881) | 91.9 | **0.0001** | 0.692 (0.600-0.786) | 158.6 | **0.0001** |

A/D = alive/dead, AIC = Akaike Information Criterion, AMP = pulse amplitude of ICP, AUC = area under the receiver operating curve, CI = confidence interval, F/U = Favourable/Unfavourable outcome (ie. Favourable = Glasgow Outcome Scale of 5 to 8; Unfavourable = Glasgow Outcome Scale of 1 to 4), ICP = intra-cranial pressure, IMPACT = International Mission for Prognosis and Analysis of Clinical Trials, CORE model consisted of age, admission Glasgow Coma Scale motor score and pupil response (normal bilaterally, unilateral unreactive, or bilaterally unreactive)..