### Supplemental Table 2: Odds Ratio of CA for Various Models at Hours 1 through 15 prior to CA

| Variable     | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value |
|--------------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|
| SaO2-rSO2s difference | 1.40(1.18,1.67) | <0.001  | 1.34(1.13,1.58) | <0.001  | 1.42(1.18,1.69) | <0.001  | 1.31(1.10,1.55) | <0.001  | 1.33(1.12,1.58) | <0.001  | 1.45(1.23,1.72) | <0.001  | 1.48(1.25,1.75) | <0.001  |
| SaO2-rSO2c difference | 1.12(0.90,1.38) | 0.30   | 1.12(0.91,1.37) | 0.25   | 1.09(0.89,1.35) | 0.40   | 1.29(1.04,1.59) | 0.029  | 1.22(0.98,1.52) | 0.063  | 1.08(0.88,1.33) | 0.46   | 1.11(0.9,1.36) | 0.33   |
| HR           | 1.17(1.08,1.27) | <0.001  | 1.13(1.07,1.36) | <0.001  | 1.12(1.03,1.21) | 0.005  | 1.16(1.02,1.19) | 0.016  | 1.10(1.01,1.19) | 0.02   | 1.11(1.02,1.19) | 0.01   | 1.11(1.03,1.20) | 0.008  |
| DBP          | 10.01(6.12,16.36) | <0.001  | 0.95(0.90,0.998) | 0.044  | 0.92(0.88,0.97) | <0.001  | 0.96(0.91,1.01) | 0.13   | 0.97(0.93,1.02) | 0.24   | 0.96(0.91,1.01) | 0.09   | 0.95(0.91,1.01) | 0.079  |
| VIS          | 0.95(0.90,0.997) | 0.037   | 9.29(5.76,14.97) | <0.001  | 8.56(5.29,13.85) | <0.001  | 8.25(5.010,13.33) | <0.001  | 7.39(4.61,11.85) | <0.001  | 7.00(4.38,11.16) | <0.001  | 5.66(3.58,8.97) | <0.001  |

| Variable     | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value | OR [CI]      | P value |
|--------------|--------------|---------|--------------|---------|--------------|---------|--------------|---------|
| SaO2-rSO2s difference | 1.48(1.12,1.75) | <0.001  | 1.28(1.09,1.5) | 0.002  | 1.35(1.15,1.59) | <0.001  | 1.47(1.24,1.73) | <0.001  |
| SaO2-rSO2c difference | 1.03(0.84,1.26) | 0.79   | 1.13(0.93,1.38) | 0.190  | 1.14(0.94,1.38) | 0.178  | 1.08(0.89,1.32) | 0.43   |
| HR           | 1.13(1.05,1.22) | <0.001  | 1.10(1.02,1.19) | 0.013  | 1.10(1.02,1.18) | 0.018  | 1.11(1.04,1.20) | 0.002  |
| DBP          | 0.93(0.88,0.98) | 0.008   | 0.98(0.93,1.03) | 0.215  | 0.94(0.94,1.04) | 0.67   | 0.99(0.93,1.02) | 0.367  |
| VIS          | 4.16(2.64,6.54) | <0.001  | 3.45(2.22,5.38) | <0.001  | 3.26(2.09,5.08) | <0.001  | 3.09(1.98,4.84) | <0.001  |

Units of changes for HR are 5 bpm; Units of change for DBP are 5 mm Hg; SaO2-rSO2c difference and SaO2-rSO2s difference are 10% points

### Supplemental Table 2: Odds Ratio of CA for Various Models at Hours 1 through 15 prior to CA