**Appendix 2. Additional Tables.**

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| **A. Baseline Characteristics** | | |
| Total number of patients meeting inclusion criteria; from total cardiac arrests | n/N | 180/264 |
| Age (years) | Mean +/- SD (N) | 65.27 ± 15.02 (180) [63.1- 67.5] |
| Male Gender | n/N (%) | 120/180 (66.6%) [59.8 - 73.5%] |
| Recorded as Witnessed Arrest | n/N (%) | 116/179 (64.8%) [57.8 -71.8%] |
| Bystander CPR recorded | n/N (%) | 119/170 (68.8%) [61.9 - 75.8%] |
| Arrived by ambulance | n/N (%) | 178/180 (98.8%) [97.4 - 100.4%] |
| Electrical activity on initial ECG (Pulseless electrical activity) | n/N (%) | 45/180 (25%) [18.7 - 31.3%] |

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| **B: Diagnostic test results for initial ECG rhythm alone for No Return of Spontaneous Circulation (ROSC); No Survival to Hospital Admission; and No Survival to Hospital Discharge.** | | | | | | | | | |
|  | **No ROSC** | **ROSC** | **Total** | **No Survival to**  **Hospital Admission** | **Survival to**  **Hospital Admission** | **Total** | **No Survival to**  **Hospital Discharge** | **Survival to**  **Hospital Discharge** | **Total** |
| Asystole on ECG | 110 | 25 | 135 | 125 | 10 | 135 | 133 | 2 | 135 |
| PEA on ECG | 23 | 22 | 45 | 37 | 8 | 45 | 44 | 1 | 45 |
| Total | 47 | 133 | 180 | 18 | 162 | 180 | 3 | 177 | 180 |
| Sensitivity (95% CI) | 82.7% (75.19% to 88.71%) | | | 77.16% (69.92% to 83.38%) | | | 75.14% (68.10% to 81.32%) | | |
| Specificity (95% CI) | 46.81% (32.11% to 61.92%) | | | 44.44% (21.53% to 69.24%) | | | 33.33% (0.84% to 90.57%) | | |
| Positive Likelihood Ratio (95% CI) | 1.55 (1.18 to 2.06) | | | 1.39 (0.91 to 2.12) | | | 1.13 (0.50 to 2.52) | | |
| Negative Likelihood Ratio (95% CI) | 0.37 (0.23 to 0.6) | | | 0.51 (0.29 to 0.93) | | | 0.75 (0.15 to 3.77) | | |
| Disease prevalence (95% CI) | 73.89% (66.83% to 80.14%) | | | 90.00% (84.66% to 93.96%) | | | 98.33% (95.21% to 99.65%) | | |
| Positive Predictive Value (95% CI) | 81.48 % (76.89% to 85.33%) | | | 92.59 % (89.13% to 95.01%) | | | 98.52 % (96.75% to 99.33%) | | |
| Negative Predictive Value (95% CI) | 48.89% (37.17% to 60.74%) | | | 17.78% (10.71% to 28.04%) | | | 2.22% (0.45% to 10.31%) | | |
| Accuracy (95% CI) | 73.33% (66.24% to 79.64%) | | | 73.89% (66.83% to 80.14%) | | | 74.44% (67.42% to 80.64%) | | |
| Odds Ratio | 4.21 (2.03 to 8.72) | | | 2.70 (0.99 to 7.34) | | | 1.51 (0.13 to 17.07) | | |

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| **C. Diagnostic test results for PoCUS alone as a predictor of No Return of Spontaneous Circulation (ROSC); No Survival to Hospital Admission; and No Survival to Hospital Discharge.** | | | | | | | | | |
|  | **No ROSC** | **ROSC** | **Total** | **No Survival to**  **Hospital Admission** | **Survival to**  **Hospital Admission** | **Total** | **No Survival to**  **Hospital Discharge** | **Survival to**  **Hospital Discharge** | **Total** |
| No PoCUS activity | 128 | 31 | 159 | 148 | 11 | 159 | 158 | 1 | 159 |
| PoCUS activity | 5 | 16 | 21 | 14 | 7 | 21 | 19 | 2 | 21 |
| Total | 133 | 47 | 180 | 162 | 18 | 180 | 177 | 3 | 180 |
| Sensitivity (95% CI) | 96.24% (91.44% to 98.77%) | | | 91.36% (85.93% to 95.19%) | | | 89.27% (83.75% to 93.41%) | | |
| Specificity (95% CI) | 34.04% (20.86% to 49.31%) | | | 38.89% (17.30% to 64.25%) | | | 66.67% (9.43% to 99.16%) | | |
| Positive Likelihood Ratio (95% CI) | 1.46 (1.18 to 1.80) | | | 1.49 (1.03 to 2.17) | | | 2.68(0.54 to 13.28) | | |
| Negative Likelihood Ratio (95% CI) | 0.11 (0.04 to 0.28) | | | 0.22 (0.10 to 0.48) | | | 0.16 (0.07 to 0.40) | | |
| Disease prevalence (95% CI) | 73.89% (66.83% to 80.14%) | | | 90.00% (84.66% to 93.96%) | | | 98.33% (95.21% to 99.65%) | | |
| Positive Predictive Value (95% CI) | 80.50 % (77.03% to 83.56%) | | | 93.08 % (90.27% to 95.12%) | | | 99.37% (96.52% to 99.97%) | | |
| Negative Predictive Value (95% CI) | 76.19% (55.37% to 89.19%) | | | 33.33% (18.87% to 51.81%) | | | 9.52% (1.69% to 28.91%) | | |
| Accuracy (95% CI) | 80.00% (73.40% to 85.58%) | | | 86.11% (80.18% to 90.81%) | | | 88.89% (83.36% to 93.08%) | | |
| Odds Ratio | 13.21 (4.49 to 38.83) | | | 6.73 (2.25 to 20.10) | | | 16.63 (1.44 to 192.20) | | |

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| **D. Diagnostic test results for PoCUS alone as a predictor of No Return of Spontaneous Circulation (ROSC); No Survival to Hospital Admission; and No Survival to Hospital Discharge for individuals with Asystole on ECG** | | | | | | | | | |
|  | **No ROSC** | **ROSC** | **Total** | **No Survival to**  **Hospital Admission** | **Survival to**  **Hospital Admission** | **Total** | **No Survival to**  **Hospital Discharge** | **Survival to**  **Hospital Discharge** | **Total** |
| No PoCUS activity | 108 | 21 | 129 | 121 | 8 | 129 | 128 | 1 | 129 |
| PoCUS activity | 2 | 4 | 6 | 4 | 2 | 6 | 5 | 1 | 6 |
| Total | 110 | 25 | 135 | 125 | 10 | 135 | 133 | 2 | 135 |
| Sensitivity (95% CI) | 98.18% (93.59% to 99.78%) | | | 96.80% (92.01% to 99.12%) | | | 96.24% (91.44% to 98.77%) | | |
| Specificity (95% CI) | 16.00% (4.54% to 36.08%) | | | 20.00% (2.52% to 55.61%) | | | 50% (1.26% to 98.74%) | | |
| Positive Likelihood Ratio (95% CI) | 1.17(0.98 to 1.39) | | | 1.21 (0.89 to 1.65) | | | 1.92 (0.48 to 7.70) | | |
| Negative Likelihood Ratio (95% CI) | 0.11 (0.02 to 0.59) | | | 0.16 (0.03 to 0.77) | | | 0.08 (0.01 to 0.38) | | |
| Disease prevalence (95% CI) | 81.48% (73.89% to 87.64%) | | | 92.59% (86.80% to 96.39%) | | | 98.52% (94.75% to 99.82%) | | |
| Positive Predictive Value (95% CI) | 83.72% (81.22% to 85.94%) | | | 93.80 % (91.72% to 95.38%) | | | 99.22% (96.97% to 99.81%) | | |
| Negative Predictive Value (95% CI) | 66.67% (27.93% to 91.17%) | | | 33.33% (9.42% to 70.63%) | | | 16.67% (3.77% to 50.54%) | | |
| Accuracy (95% CI) | 82.96% (75.54% to 88.88%) | | | 91.11% (84.99% to 95.32%) | | | 95.56% (90.58% to 98.35%) | | |
| Odds Ratio | 10.28 (1.77 to 59.82) | | | 7.56 (1.20 to 47.71) | | | 25.6 (1.39 to 471.02) | | |

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| **E. Diagnostic test results for PoCUS alone as a predictor of No Return of Spontaneous Circulation (ROSC); No Survival to Hospital Admission; and No Survival to Hospital Discharge for individuals with PEA on ECG** | | | | | | | | | |
|  | **No ROSC** | **ROSC** | **Total** | **No Survival to**  **Hospital Admission** | **Survival to**  **Hospital Admission** | **Total** | **No Survival to**  **Hospital Discharge** | **Survival to**  **Hospital Discharge** | **Total** |
| No PoCUS activity | 20 | 10 | 30 | 27 | 3 | 30 | 30 | 0 | 30 |
| PoCUS activity | 3 | 12 | 15 | 10 | 5 | 15 | 14 | 1 | 15 |
| Total | 23 | 22 | 45 | 37 | 8 | 45 | 44 | 1 | 45 |
| Sensitivity (95% CI) | 86.96% (66.41% to 97.22%) | | | 72.97% (55.88% to 86.21%) | | | 68.18% (52.42% to 81.39%) | | |
| Specificity (95% CI) | 54.55% (32.21% to 75.61%) | | | 62.50% (24.49% to 91.48%) | | | 100% (2.5% to 100%) | | |
| Positive Likelihood Ratio (95% CI) | 1.91(1.18 to 3.11) | | | 1.95 (0.78 to 4.86) | | | NA | | |
| Negative Likelihood Ratio (95% CI) | 0.24 (0.08 to 0.73) | | | 0.43 (0.20 to 0.92) | | | 0.32 (0.21 to 0.49) | | |
| Disease prevalence (95% CI) | 51.11% (35.77% to 66.30%) | | | 82.22% (67.95% to 92.00%) | | | 97.78% (88.23% to 99.94%) | | |
| Positive Predictive Value (95% CI) | 66.67 % (55.20% to 76.45%) | | | 90.00 % (78.27% to 95.74%) | | | 100% | | |
| Negative Predictive Value (95% CI) | 80.00% (56.57% to 92.47%) | | | 33.33% (19.04% to 51.52%) | | | 6.67% (4.43% to 9.92%) | | |
| Accuracy (95% CI) | 71.11% (55.69% to 83.63%) | | | 71.11% (55.69% to 83.63%) | | | 68.89% (53.35% to 81.83%) | | |
| Odds Ratio | 8 (1.83 to 34.98) | | | 4.5 (0.9 to 22.39) | | | 6.31 (0.24 to 164.57) | | |