#### **SUPPLEMENTARY TABLES**

# Short- and long-term outcome after out-of-hospital cardiac arrest in patients aged 75 years and older

Bart Hiemstra<sup>\*1,</sup> MD, Remco Bergman<sup>\*1,2</sup> MD, Anthony R Absalom<sup>2</sup> MBChB, FRCA, MD, PhD, Joukje van der Naalt<sup>3</sup> MD, PhD, Pim van der Harst<sup>4</sup> MD, PhD, Ronald de Vos<sup>2,5</sup> MD, Wybe Nieuwland<sup>4</sup> MD, PhD, Maarten W Nijsten<sup>1</sup> MD, PhD, Iwan CC van der Horst<sup>1</sup> MD, PhD

- 1. Department of Critical Care,
- 2. Department of Anesthesiology,
- 3. Department of Neurology,
- 4. Department of Cardiology.
- 1-4 all affiliated to: University of Groningen, University Medical Center Groningen,
- 5. Regional Ambulance Services, Groningen, the Netherlands

#### INDEPENDENT PREDICTORS OF DIAGNOSTICS AND TREATMENT

### eTable1. Multivariable logistic regression with predictors for undergoing coronary angiography in elderly patients

| Variable                                  | Odds ratio | 95% CI      | P-value |
|---|------------|-------------|---------|
| Coronary angiography                      |            |             |         |
| Shockable rhythm as initial rhythm        | 4.14       | 1.20 – 14.3 | 0.024   |
| ST-segment elevation on electrocardiogram | 12.1       | 3.56 – 41.1 | <0.001  |
| pH at admission                           | 54.3       | 1.11 – 2643 | 0.044   |

Only elderly patients ( $\geq$  75 years) were included. The model included 112 patients of which 36 underwent coronary angiography. Logistic regression: R<sup>2</sup>=0.32 (Cox&Snell), 0.45 (Nagelkerke), Hosmer-Lemeshow goodness-of-fit test  $\chi^2$  3.66, P=0.887. Area under the receiver operation curve = 0.850. Abbreviations: CI, confidence interval.

### eTable2a. Multivariable logistic regression with predictors for percutaneous coronary intervention in younger patients

| Variable   | Odds ratio | 95% CI      | P-value |
|--|------------|-------------|---------|
| Coronary angiography                                 |            |             |         |
| ST-segment elevation on electrocardiogram            | 16.6       | 9.48 - 28.9 | <0.001  |
| Creatinine kinase-myocardial band level at admission | 1.00       | 1.00 – 1.00 | <0.001  |

Only younger patients (< 75 years) were included. The model included 400 patients of which 182 underwent percutaneous coronary intervention. Logistic regression:  $R^2$ = 0.39 (Cox&Snell), 0.53 (Nagelkerke), Hosmer-Lemeshow goodness-of-fit test  $\chi^2$  6.51, P=0.590. Area under the receiver operation curve = 0.866. Abbreviations: CI, confidence interval.

### eTable2b. Multivariable logistic regression with predictors for percutaneous coronary intervention in elderly patients

| Variable   | Odds ratio | 95% Cl      | P-value |
|--|------------|-------------|---------|
| Coronary angiography                                 |            |             |         |
| ST-segment elevation on electrocardiogram            | 21.9       | 6.15 – 77.7 | <0.001  |
| Creatinine kinase-myocardial band level at admission | 1.01       | 1.00 – 1.01 | 0.011   |

Only elderly patients ( $\geq$  75 years) were included. The model included 117 patients of which 30 underwent percutaneous coronary intervention. Logistic regression: R<sup>2</sup>= 0.39 (Cox&Snell), 0.57 (Nagelkerke), Hosmer-Lemeshow goodness-of-fit test  $\chi^2$  3.84, P=0.871. Area under the receiver operation curve = 0.892. Abbreviations: CI, confidence interval.

### eTable3. Multivariable logistic regression with predictors for receipt of mild therapeutic hypothermia in elderly patients

| Variable                                   | Odds ratio | 95% CI      | P-value |
|--|------------|-------------|---------|
| Mild therapeutic hypothermia               |            |             |         |
| Shockable rhythm as initial rhythm         | 3.94       | 1.52 – 10.3 | 0.005   |
| Creatinine kinase-myocardial band level at | 1.00       | 1.00 – 1.01 | 0.006   |
| admission                                  |            |             |         |

Only elderly patients ( $\geq$  75 years) were included. The model included 121 patients of which 40 underwent mild therapeutic hypothermia. Logistic regression: R<sup>2</sup>=0.19 (Cox&Snell), 0.27 (Nagelkerke), Hosmer-Lemeshow goodness-of-fit test  $\chi^2$  7.65, P=0.469. Area under the receiver operation curve = 0.788. Abbreviations: CI, confidence interval.

#### INDEPENDENT PREDICTORS OF IN-HOSPITAL MORTALITY

| Variable                          | Odds ratio | 95% CI      | P-value |
|-----------------------------------|------------|-------------|---------|
| Elderly patients (> 75 years)     | 2.76       | 1.60 – 4.79 | < 0.001 |
| Sex female                        | 1.03       | 0.64 – 1.66 | 0.910   |
| Initial rhythm of PEA or asystole | 2.44       | 1.39 – 4.27 | 0.002   |
| Received basic life support       | 0.43       | 0.27 – 0.68 | <0.001  |
| Witnessed arrest                  | 0.42       | 0.23 – 0.79 | 0.007   |
| Glucose at admission              | 1.09       | 1.04 – 1.14 | 0.001   |
| pH at admission                   | 0.06       | 0.01 – 0.23 | <0.001  |
| Prior cardiovascular disease      | 0.86       | 0.54 – 1.37 | 0.532   |

#### eTable4. Multivariable logistic regression with predictors of in-hospital mortality

All patients had return of spontaneous circulation. The model included 469 patients of which 226 died. Logistic regression:  $R^2$ =0.26 (Cox&Snell), 0.35 (Nagelkerke), Hosmer-Lemeshow goodness-of-fit test  $\chi^2$  12.64, P=0.125. Abbreviations: CI, confidence interval; PEA, pulseless electric activity.

## eTable5. Multivariable logistic regression with predictors of in-hospital mortality in elderly patients including Glasgow coma scale at admission

| Variable                          | Odds ratio | 95% CI             | P-value          |
|-----------------------------------|------------|--------------------|------------------|
| In-hospital mortality             |            |                    |                  |
| Sex female                        | 0.75       | 0.19 – 2.95        | 0.682            |
| Initial rhythm of PEA or asystole | 2.29       | 0.55 – 9.55        | 0.255            |
| Received basic life support       | 0.50       | 0.14 – 1.80        | 0.294            |
| Witnessed arrest                  | 0.18       | 0.02 - 1.90        | 0.153            |
| Glucose at admission              | 0.86       | 0.71 – 1.04        | 0.125            |
| pH at admission                   | 0.01       | 0.00 - 2.26        | 0.124            |
| Prior cardiovascular disease      | 0.53       | 0.12 – 2.26        | 0.389            |
| Glasgow coma scale                | 0.74       | <u>0.63 – 0.87</u> | <u>&lt;0.001</u> |

Only elderly patients ( $\geq$  75 years) were included. The model included 82 patients of which 53 died. Logistic regression: R<sup>2</sup>=0.37 (Cox&Snell), 0.51 (Nagelkerke), Hosmer-Lemeshow goodness-of-fit test  $\chi^2$  6.77, P=0.562. Abbreviations: CI, confidence interval; PEA, pulseless electric activity