

Supplementary material

*Sielski J, Kaziród-Wolski K, Siudak Z. Out-of-hospital cardiac arrest: data from the National Registry of Invasive Cardiology Procedures (ORPKI) in a long-term survival analysis of patients with acute coronary syndromes in a Polish region. Kardiol Pol. 2020; 78: 412-419.
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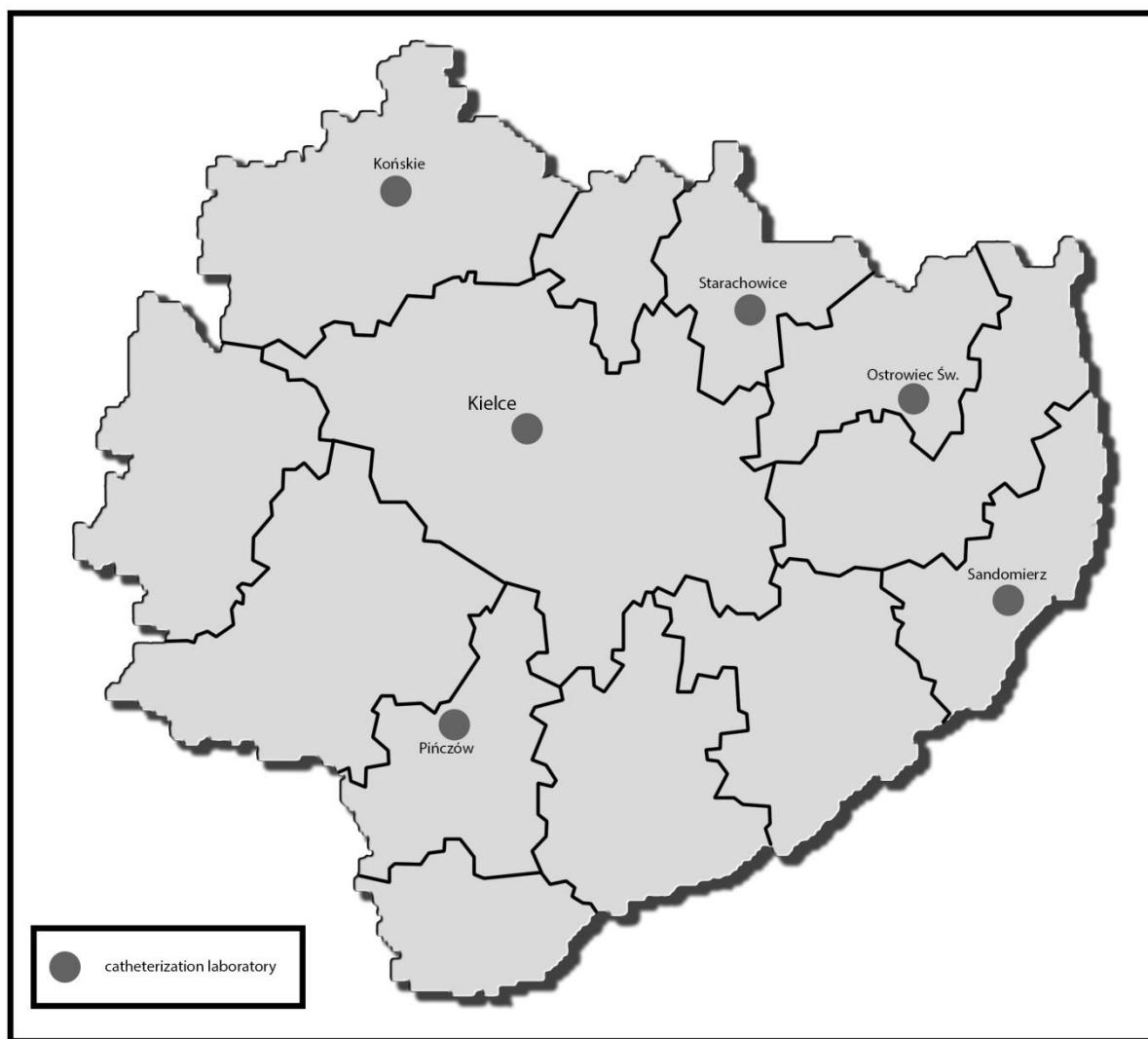


Figure S1. Map of Świętokrzyskie Province showing the location of catheterization laboratory

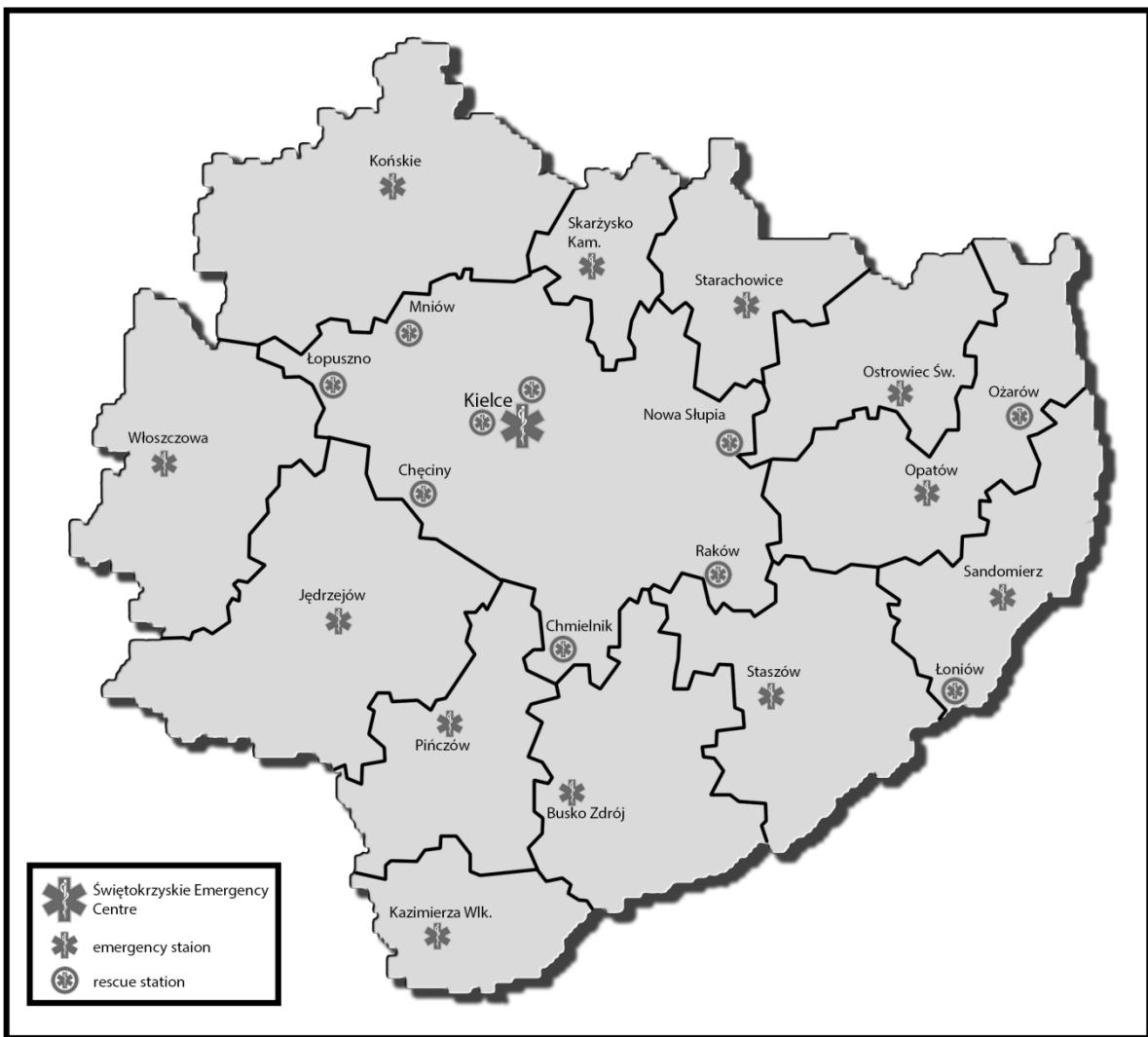


Figure S2. Map of Świętokrzyskie Province showing the location of emergency medical service stations.

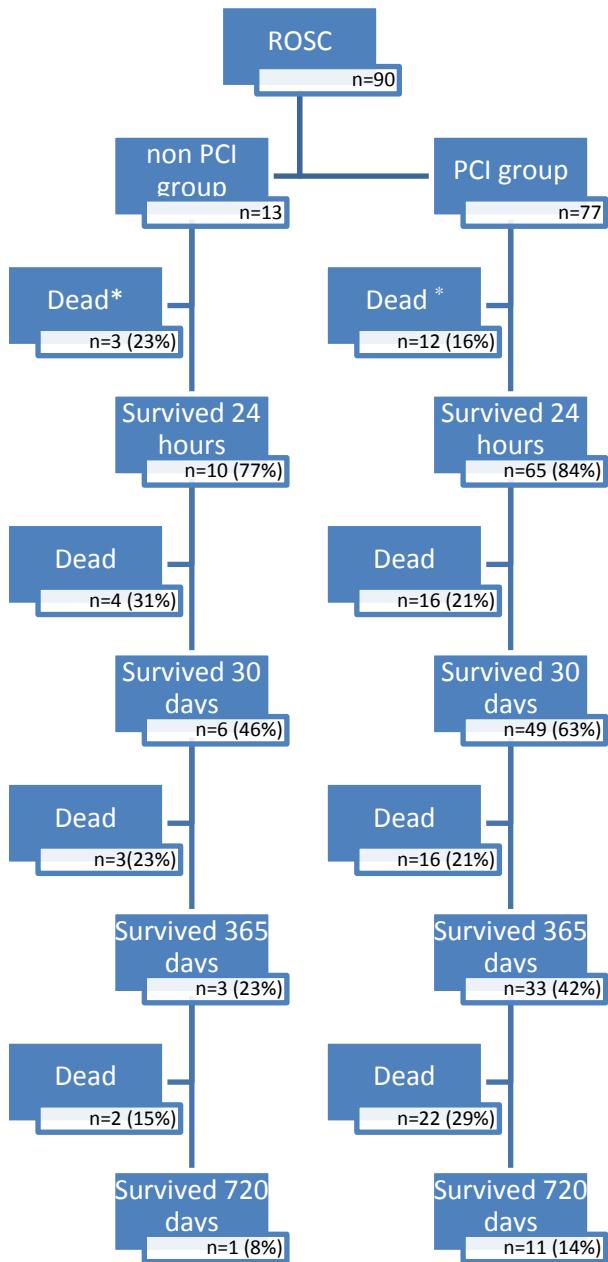


Figure S3. Study patient flow chart. ROSC – return of spontaneous circulation, PCI – percutaneous coronary intervention.

* Within 24h after admission

Table S1. Patients characteristics – registry data collected during three consecutive years.

| Variable | 2014 | 2015 | 2016 | P value |
|--|-------------------------------|-----------------------------|-----------------------------|---------|
| All patients | | | | |
| Number (n, %) | 741 (34.4%) | 785 (36.5%) | 626 (29.1%) | |
| Age, years (mean, [SD]; median, [Q ₁ -Q ₃]) | 68.1 (14.9); M 69 (59.8 - 80) | 67.9 (15.7); M 69 (58 - 80) | 68.3 (14.6); M 67 (60 - 81) | 0.93 |
| Time to arrival, min (mean, [SD]; median, [Q ₁ -Q ₃]) | 10.2 (6.1); M 10 (6 - 15) | 10.3 (6.1); M 10 (6 - 15) | 9.5 (5.9); M 9 (6 - 14) | 0.02 |
| Sex | | | | |
| Female (n, %) | 243 (32.8%) | 256 (32.6%) | 256 (40.5%) | 0.01 |
| Male (n, %) | 498 (67.2%) | 529 (67.4%) | 370 (59.5%) | |
| Area | | | | |
| Urban (n, %) | 244 (32.9%) | 257 (32.7%) | 277 (44.2%) | 0.0001 |
| Rural (n, %) | 497 (67.1%) | 528 (67.3%) | 349 (55.7%) | |
| Location of OHCA | | | | |
| Home (n, %) | 594 (80.2%) | 621 (79.1%) | 487 (77.8%) | 0.58 |
| Other (n, %) | 147 (19.8%) | 164 (20.9%) | 139 (22.2%) | |
| First eyewitness | | | | |
| Family (n, %) | 582 (78.5%) | 618 (78.7%) | 478 (76.3%) | 0.0001 |
| Other (n, %) | 159 (21.5%) | 167 (21.3%) | 148 (23.6%) | |
| Dead on arrival (n, %) | 182 (24.6%) | 254 (32.4%) | 191 (30.5%) | 0.01 |
| Patients with CPR | | | | |

| | | | | |
|--|-----------------------------|-------------------------------|-----------------------------|--------|
| Number (n, %) | 559 (36.7%) | 531 (34.8%) | 435 (28.5%) | |
| Age, years (mean, [SD]; median, [Q ₁ -Q ₃]) | 66.9 (14.3); M 67 (59 - 78) | 66.4 (15.3); M 67 (57.5 - 79) | 67.8 (14.2); M 68 (60 - 80) | 0.37 |
| Time to arrival, min (mean, [SD]; median, [Q ₁ -Q ₃]) | 9.7 (6.0); M 10 (6 - 14) | 9.6 (6.1); M 9 (6 - 14) | 9.17 (5.7); M 9 (6 - 14) | 0.36 |
| Sex | | | | |
| Female (n, %) | 183 (32.7%) | 172 (32.4%) | 256 (39.1%) | 0.06 |
| Male (n, %) | 376 (68.3%) | 359 (67.6%) | 179 (60.9%) | |
| Witnessed | | | | |
| Yes (n, %) | 146 (26.1%) | 123 (23.2%) | 171 (39.3%) | 0.0001 |
| No (n, %) | 413 (73.9%) | 408 (76.8%) | 264 (60.9%) | |
| Cause of OHCA | | | | |
| Cardiac (n, %) | 375 (67.1%) | 313(58.9%) | 208(47.8%) | 0.0001 |
| Others (n, %) | 184 (32.9%) | 218(41.0%) | 227(52.2%) | |
| Initial rhythm | | | | |
| VT/VF (n, %) | 98 (17.53%) | 93 (17.51%) | 68 (15.6%) | 0.63 |
| Other (n, %) | 461 (82.5%) | 438 (82.5%) | 367 (84.4%) | |
| Transport destination | | | | |
| CCU (n, %) | 11 (4.5%) | 17 (7.9%) | 13 (7.4%) | 0.15 |
| ER (n, %) | 236 (95.5%) | 197 (92.1%) | 162 (92.6%) | |
| ROSC (n, %) | 247 (44.2%) | 214 (40.3%) | 175 (40.2%) | 0.32 |
| Overall mortality (n, %) | 494 (66.8%) | 571 (72.7%) | 451 (72.0%) | 0.02 |

CCU – coronary care unit; CPR – cardiopulmonary resuscitation; ER – emergency department; OHCA - out-of-hospital cardiac arrest; Q₁-Q₃ - interquartile range; ROSC – return of spontaneous circulation; SD – standard deviation; VT/F – ventricular tachycardia/fibrillation.

Table S2. Survival probability for statistical significant clinical factors after out of hospital cardiac arrest

| Factor | | Survival probability (%) (95% CI) | | | <i>P</i> value | HR 95% CI |
|----------------------|-----------|--------------------------------------|-----------------|-----------------|----------------|---------------------|
| | | 30 days | 1 year | 2 years | | |
| Age (Fig.1) | ≤66 years | 70 (57 – 83) | 59 (44 – 73) | 51 (36 – 67) | 0.02 | 1.99 1.10 – 3.59 |
| | >66 years | 51 (36 – 66) | 40 (25 – 56) | 27 (11 – 43) | | |
| Diabetes (Fig.2) | No | 67 (56 – 78) | 56 (45 – 68) | 45 (32 – 59) | 0.03 | 2.36 1.12 – 4.98 |
| | Yes | 40 (18 – 62) | 28 (8 – 49) | 22 (4 – 42) | | |
| CASVD (Fig.3) | Single | 78 (65 – 92) | 67 (52 – 83) | 62 (46 – 79) | 0.001 | 2.76 1.51 – 5.06 |
| | Multi | 48 (34 – 64) | 39 (25 – 54) | 22 (6 – 39) | | |
| Any PCI (Fig. 4.) | No | 46 (19 – 73) | 31 (5 – 56) | 21 (3 – 44) | 0.1 | 2.10 0.88 – 5.03 |
| | Yes | 64 (53 – 74) | 52 (41 – 64) | 44 (31 – 57) | | |

CASVD - coronary arteries status of vessel diseases; HR – hazard ratio; PCI – percutaneous coronary intervention.