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| Supplemental Table 1. List of participating institutions |
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| Institutions |
| Akashi City Hospital |
| Asahikawa Medical University |
| Asahikawa Red Cross Hospital |
| Ehime University Hospital |
| Fukuoka University Hospital |
| Gifu University Hospital |
| Graduate School of Medicine, University of the Ryukyus |
| Gunma university |
| Hakodate Municipal Hospital |
| Hokkaido University Hospital |
| Hyogo College of Medicine |
| Ibaraki Prefectural Central Hospital |
| JA Hiroshima General Hospital |
| Japan Red Cross Maebashi Hospital |
| Jichi Medical University Saitama Medical Center |
| Jikei university school of medicine |
| Kameda Medical Center |
| KKR Sapporo Medical Center |
| Kyoto First Red-Cross Hospital |
| Kyushu University Hospital |
| Mie University Hospital |
| Nagasaki University Hospital |
| Nihon University School of Medicine |
| Nippon Medical School Chiba Hokusoh Hospital  |
| Ohta General Hospital Foundation Ohta Nishinouchi Hospital |
| Osaka General Medical Center |
| Osaka University Hospital |
| Saga University Hospital |
| Saiseikai Yokohamasi Tobu Hospital |
| Saitama Red Cross Hospital |
| Sapporo City General Hospital |
| Seirei Mikatahara General Hospital |
| Sendai City Hospital |
| Shonan Kamakura General Hospital |
| Steel Memorial Muroran Hospital |
| Tohoku University Hospital |
| Tokyo Medical University, Hachioji Medical Center |
| Tomishiro Central Hospital |
| University of Occupational and Environmental Health Hospital |
| Wakayama Medical University Hospital |

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| Supplemental Table 2. Characteristics of participating intensive care units (ICUs) |
| 　 | n = 42 |
| ICU characteristics |  |
| General ICU | 24 (57.1) |
| Emergency ICU | 18 (42.9) |
| ICU policy |  |
| Closed policy | 17 (40.5) |
| Open policy | 18 (42.9) |
| Other | 7 (16.7) |
| Number of beds | 11 (8–15) |
| Data are presented as the median (interquartile range) or n (%). |

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| Supplemental Table 3. Characteristics of DIC patients without heparin administration in the unmatched and propensity score-matched groups |
|  |  |  |  |  |  |  |
| 　 | Unmatched group | Unmatched | Matched group | Matched |
|  | Control | AT | standardized | Control | AT | standardized |
| 　 | n = 875 | n = 589 | difference (%) | n = 379 | n = 379 | difference (%) |
| White blood cell counts, 109/LMissing data, n (%) | 11.2 (5.1–17.9)0 (0.0%) | 10.5 (3.6–17.8)1 (0.2%) | -2.32  | 10.8 (3.9–18.1)0 (0.0%) | 11.4 (3.7–18.0)0 (0.0%) | 1.36  |
| Platelet counts , 109/LMissing data, n (%) | 106 (63–170)0 (0.0%) | 88 (51–151)0 (0.0%) | -17.14  | 97 (55–152)0 (0.0%) | 93 (55–159)0 (0.0%) | -1.73  |
| Hemoglobin, mmol/LMissing data, n (%) | 6.7 (5.6–7.8)0 (0.0%) | 6.5 (5.5–7.7)1 (0.2%) | -9.17  | 6.7 (5.6–7.7)0 (0.0%) | 6.5 (5.6–7.8)0 (0.0%) | -0.48  |
| PT-INRMissing data, n (%) | 1.31 (1.17–1.57)26 (3.0%) | 1.41 (1.25–1.68)12 (2.0%) | 9.84  | 1.36 (1.20–1.60)0 (0.0%) | 1.40 (1.23–1.63)0 (0.0%) | -1.54  |
| Fibrinogen, g/LMissing data, n (%) | 3.97 (2.63–5.47)176 (21.0%) | 3.37 (2.20–4.98)70 (11.9%) | -22.19  | 4.00 (2.53–5.47)52 (13.7%) | 3.63 (2.42–5.12)42 (11.1%) | -9.75  |
| FDP, mg/LMissing data, n (%) | 24.2 (13.0–51.0)277 (31.7%) | 25.3 (12.9–54.7)125 (21.2%) | 9.61  | 25.3 (13.0–60.3)92 (24.3%) | 21.8 (11.9–42.8)80 (21.1%) | -5.72  |
| D-dimer, mg/LMissing data, n (%) | 11.9 (5.4–25.0)184 (21.0%) | 12.4 (5.7–25.9)123 (20.9%) | 9.62  | 11.4 (5.7–28.6)79 (20.8%) | 10.6 (5.1–22.3)80 (211%) | -2.39  |
| Antithrombin, %Missing data, n (%) | 60 (48–74)442 (50.5%) | 51 (40–62)172 (29.2%) | -52.30  | 58 (45–71)177 (46.75) | 51 (40–62)116 (30.6%) | -33.81  |
| Lactate, mmol/LMissing data, n (%) | 3.0 (1.7–6.1)107 (12.2%) | 3.9 (2.3–7.2)39 (6.6%) | 14.48  | 3.3 (1.9–6.4)44 (11.6%) | 3.9 (2.2–6.7)29 (7.7%) | 5.54  |
| Co-administered anti-DIC drug |  |  |  |  |  |  |
| Recombinant thrombomodulin | 230 (26.3%) | 330 (56.0%) | 63.40  | 183 (48.3%) | 187 (49.3%) | 2.11  |
| Protease inhibitors | 64 (7.3%) | 138 (23.4%) | 45.84  | 56 (14.8%) | 60 (15.8%) | 2.93  |
| Co-administered anticoagulants not for DIC |  |  |  |  |  |
| Nafamostat mesilate | 251 (28.7%) | 261 (44.3%) | 32.90  | 154 (40.6%) | 150 (39.6%) | -2.15  |
| Warfarin | 4 (0.5%) | 2 (0.3%) | -1.87  | 3 (0.8%) | 2 (0.5%) | -3.26  |
| Anti-platelet drugs | 9 (1.0%) | 6 (1.0%) | -0.10  | 2 (0.5%) | 3 (0.8%) | 3.26  |
| Others | 2 (0.2%) | 3 (0.5%) | 4.63  | 2 (0.5%) | 2 (0.5%) | 0.00  |
| Other therapeutic intervention |  |  |  |  |  |  |
| Surgical intervention | 385 (44.0%) | 316 (53.7%) | 19.40  | 187 (49.3%) | 202 (53.3%) | 7.92  |
| Immunoglobulin | 202 (23.1%) | 313 (53.1%) | 65.08  | 158 (41.7%) | 167 (44.1%) | 4.80  |
| Low-dose steroid | 198 (22.6%) | 213 (36.2%) | 30.04  | 135 (35.6%) | 127 (33.5%) | -4.44  |
| RRT | 232 (26.5%) | 230 (39.0%) | 26.94  | 137 (36.1%) | 138 (36.4%) | 0.55  |
| Non-renal indication RRT | 58 (6.6%) | 99 (16.8%) | 32.05  | 50 (13.2%) | 55 (14.5%) | 3.82  |
| PMX-DHP | 164 (18.7%) | 250 (42.4%) | 53.23  | 124 (32.7%) | 134 (35.4%) | 5.57  |
| Plasma exchange | 4 (0.5%) | 7 (1.2%) | 8.10  | 4 (1.1%) | 3 (0.8%) | -2.76  |
| Veno-arterial ECMO | 6 (0.7%) | 3 (0.5%) | -2.29  | 2 (0.5%) | 2 (0.5%) | 0.00  |
| Veno-venous ECMO | 3 (0.3%) | 5 (0.8%) | 6.58  | 2 (0.5%) | 2 (0.5%) | 0.00  |
| IABP | 2 (0.2%) | 2 (0.3%) | 2.09  | 2 (0.5%) | 2 (0.5%) | 0.00  |
| ICU characteristics |  |  |  |  |  |  |
| General ICU | 409 (46.7%) | 271 (46.0%) | 1.47  | 180 (47.5%) | 165 (43.5%) | 7.95  |
| Emergency ICU | 466 (53.3%) | 318 (54.0%) | 199 (52.5%) | 214 (56.5%) |
| ICU policy |  |  |  |  |  |  |
| Closed policy | 492 (56.2%) | 300 (50.9%) | -10.63  | 189 (49.9%) | 196 (51.7%) | 3.70  |
| Open policy | 286 (32.7%) | 171 (29.0%) | -7.92  | 120 (31.7%) | 110 (29.0%) | -5.74  |
| Other | 97 (11.1%) | 118 (20.0%) | 24.88  | 70 (18.5%) | 73 (19.3%) | 2.02  |
| Bed number | 12 (10–20) | 11 (8–16) | -33.65  | 12 (8–18) | 12 (8–16) | 0.72  |
| AT, antithrombin; ICU, intensive care unit; APACHE, Acute Physiology and Chronic Health Evaluation; SOFA, Sequential Organ Failure Assessment; SIRS, systemic inflammatory response syndrome; DIC, disseminated intravascular coagulation; PT-INR, prothrombin time-international normalized ratio; FDP, fibrin/fibrinogen degradation products; RRT, renal replacement therapy; PMX-DHP, Polymixin B-direct hemoperfusion; ECMO, extracorporeal membrane oxygenation system; IABP, intra-aortic balloon pumping system.Data are expressed as the number (%), mean ± standard deviation, or median (interquartile range). |

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| Table 1. Characteristics of ICUs that admitted DIC patients in the unmatched and propensity score-matched groups |
|  |  |  |  |  |  |  |
| 　 | Unmatched group | Unmatched | Matched group | Matched |
|  | Control | AT | standardized | Control | AT | standardized |
| 　 | n = 1069 | n = 715 | difference (%) | n = 461 | n = 461 | difference (%) |
| ICU characteristics |  |  |  |  |  |  |
| General ICU | 526 (49.2%) | 358 (50.1%) | -1.73  | 226 (49.0%) | 228 (49.5%) | -0.87  |
| Emergency ICU | 543 (50.8%) | 357 (49.9%) | 235 (51.0%) | 233 (50.5%) |
| ICU policy |  |  |  |  |  |  |
| Closed policy | 584 (54.6%) | 342 (47.8%) | -13.63  | 224 (48.6%) | 231 (50.1%) | 3.04  |
| Open policy | 365 (34.1%) | 231 (32.3%) | -3.90  | 151 (32.8%) | 143 (31.0%) | -3.72  |
| Other | 120 (11.2%) | 142 (19.9%) | 24.00  | 86 (18.7%) | 87 (18.9%) | 0.56  |
| Bed number | 12 (8–19) | 10 (7–15) | -33.11  | 10 (8–18) | 11 (8–16) | -1.59  |
| AT, antithrombin; DIC, disseminated intravascular coagulation; ICU, intensive care unit.Data are presented as the median (interquartile range) or number (%). |

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| --- | --- | --- | --- | --- |
| 　 | Unmatched group | Unmatched | Matched group | Matched |
|  | Control | AT | standardized | Control | AT | standardized |
| 　 | n = 1069 | n = 715 | difference (%) | n = 461 | n = 461 | difference (%) |
| Age, year | 70 ± 14 | 70 ± 14 | -5.01  | 69 ± 15 | 70 ± 14 | 4.26  |
| Male | 610 (57.1%) | 403 (56.4%) | 1.41  | 265 (57.5%) | 268 (58.1%) | 1.32  |
| Body weight, kg | 55.5 ± 14.1 | 56.2 ± 13.5 | 4.94  | 56.5 ± 14.0 | 56.2 ± 14.1 | -1.88  |
| Admission route to ICU |  |  |  |  |  |  |
| Emergency department | 494 (46.2%) | 316 (44.2%) | -4.05  | 196 (42.5%) | 201 (43.6%) | 2.19  |
| Other hospital | 314 (29.4%) | 202 (28.3%) | -2.48  | 147 (31.9%) | 146 (31.7%) | -0.47  |
| Hospital ward  | 261 (24.4%) | 197 (27.6%) | 7.16  | 118 (25.6%) | 114 (24.7%) | -2.00  |
| Pre-existing organ dysfunction |  |  |  |  |  |  |
| Liver insufficiency | 10 (0.9%) | 7 (1.0%) | 0.45  | 4 (0.9%) | 4 (0.9%) | 0.00  |
| Chronic respiratory disorder | 44 (4.1%) | 20 (2.8%) | -7.22  | 15 (3.3%) | 17 (3.7%) | 2.37  |
| Chronic heart failure | 57 (5.3%) | 32 (4.5%) | -3.97  | 26 (5.6%) | 26 (5.6%) | 0.00  |
| Chronic hemodialysis | 109 (10.2%) | 47 (6.6%) | -13.10  | 34 (7.4%) | 32 (6.9%) | -1.68  |
| Immunocompromised | 115 (10.8%) | 75 (10.5%) | -0.87  | 54 (11.7%) | 50 (10.8%) | -2.74  |
| Severity |  |  |  |  |  |  |
| APACHE II score | 23 (17–29) | 24 (18–29) | 2.99  | 23 (17–29) | 24 (18–29) | -0.76  |
| SOFA score, total | 10 (7–12) | 11 (8–13) | 26.54  | 10 (8–13) | 11 (8–13) | -0.18  |
| Respiratory | 2 (1–3) | 2 (1–3) | 5.86  | 2 (1–3) | 2 (1–3) | 1.28  |
| Renal | 2 (0–3) | 2 (1–3) | 18.15  | 2 (0–3) | 2 (1–3) | 2.90  |
| Liver | 0 (0–1) | 0 (0–1) | 12.71  | 0 (0–1) | 0 (0–1) | -0.69  |
| Cardiovascular | 3 (1–4) | 3 (2–4) | 27.24  | 3 (1–4) | 3 (2–4) | 6.08  |
| Coagulation | 1 (0–2) | 2 (0–2) | 15.72  | 2 (1–2) | 1 (0–2) | -9.11  |
| Central nervous  | 1 (0–3) | 1 (0–3) | -3.79  | 1 (0–3) | 1 (1–3) | -2.78  |
| SIRS score | 3 (3–4) | 3 (2–4) | -4.69  | 3 (3–4) | 3 (2–4) | 1.01  |
| DIC score | 5 (4–6) | 5 (4–7) | 24.90  | 5 (4–7) | 5 (4–7) | -2.20  |
| Primary infection site |  |  |  |  |  |  |
| Abdomen | 370 (34.6%) | 283 (39.6%) | 10.30  | 176 (38.2%) | 181 (39.3%) | 2.23  |
| Lung/thoracic | 247 (23.1%) | 128 (17.9%) | -12.92  | 90 (19.5%) | 85 (18.4%) | -2.77  |
| Urinary tract | 196 (18.3%) | 129 (18.0%) | -0.76  | 74 (16.1%) | 83 (18.0%) | 5.20  |
| Bone/soft tissue | 103 (9.6%) | 91 (12.7%) | 9.82  | 58 (12.6%) | 55 (11.9%) | -1.98  |
| Cardiovascular | 30 (2.8%) | 14 (2.0%) | -5.57  | 13 (2.8%) | 12 (2.6%) | -1.34  |
| Central nervous system | 29 (2.7%) | 15 (2.1%) | -4.01  | 16 (3.5%) | 12 (2.6%) | -5.06  |
| Catheter-related | 13 (1.2%) | 8 (1.1%) | -0.90  | 7 (1.5%) | 7 (1.5%) | 0.00  |
| Others | 15 (1.4%) | 17 (2.4%) | 7.16  | 7 (1.5%) | 8 (1.7%) | 1.71  |
| Unknown | 66 (6.2%) | 30 (4.2%) | -8.93  | 20 (4.3%) | 18 (3.9%) | -2.18  |
| Blood culture |  |  |  |  |  |  |
| Positive | 502 (47.0%) | 385 (53.8%) | 13.81  | 246 (53.4%) | 248 (53.8%) | 0.87  |
| Negative | 500 (46.8%) | 308 (43.1%) | -7.44  | 194 (42.1%) | 196 (42.5%) | 0.88  |
| Not taken | 67 (6.3%) | 22 (3.1%) | -15.16  | 21 (4.6%) | 17 (3.7%) | -4.37  |
| Microorganisms caused sepsis |  |  |  |  |  |  |
| Gram-negative rod | 406 (38.0%) | 320 (44.8%) | 13.79  | 188 (40.8%) | 200 (43.4%) | 5.27  |
| Gram-positive-coccus  | 243 (22.7%) | 178 (24.9%) | 5.08  | 124 (26.9%) | 118 (25.6%) | -2.96  |
| Fungus | 20 (1.9%) | 4 (0.6%) | -11.99  | 5 (1.1%) | 4 (0.9%) | -2.21  |
| Virus | 9 (0.8%) | 4 (0.6%) | -3.39  | 4 (0.9%) | 3 (0.7%) | -2.50  |
| Mixed infection | 141 (13.2%) | 86 (12.0%) | -3.50  | 60 (13.0%) | 64 (13.9%) | 2.54  |
| Others | 23 (2.2%) | 4 (0.6%) | -13.80  | 3 (0.7%) | 3 (0.7%) | 0.00  |
| Unknown | 227 (21.2%) | 119 (16.6%) | -11.74  | 77 (16.7%) | 69 (15.0%) | -4.75  |
| Laboratory test on admission to ICU |  |  |  |  |  |  |
| White blood cell counts, 109/LMissing data, n (%) | 11.2 (5.2–18.3)0 (0.0%) | 11.2 (3.7–18.0)1 (0.1%) | -1.72  | 11.2 (4.6–18.5)0 (0.0%) | 11.2 (3.6–18.1)0 (0.0%) | -2.07  |
| Platelet counts , 109/LMissing data, n (%) | 106 (60–68)0 (0.0%) | 88 (51–149)0 (0.0%) | -15.76  | 97 (54–149)0 (0.0%) | 95 (57–160)0 (0.0%) | 3.71  |
| Hemoglobin, mmol/LMissing data, n (%) | 6.7 (5.6–7.8)0 (0.0%) | 6.5 (5.6–7.7)1 (0.1%) | -8.51  | 6.7 (5.6–7.8)0 (0.0%) | 6.5 (5.6–7.8)0 (0.0%) | -2.10  |
| PT-INRMissing data, n (%) | 1.31 (1.17–1.56)32 (3.%) | 1.41 (1.25–1.68)19 (2.7%) | 10.94  | 1.36 (1.19–1.60)0 (0.0%) | 1.41 (1.24–1.64)0 (0.0%) | 0.97  |
| Fibrinogen, g/LMissing data, n (%) | 4.00 (2.72–5.59)228 (21.3%) | 3.54 (2.26–5.13)94 (13.1%) | -19.68  | 3.99 (2.63–5.51)59 (12.8%) | 3.60 (2.80–5.05)58 (12.6%) | -16.54  |
| FDP, mg/LMissing data, n (%) | 25.6 (13.5–55.0)334 (31.2%) | 25.5 (13.6–29.5)154 (21.5%) | 7.64  | 27.0 (14.5–62.4)112 (24.3%) | 23.8 (13.0–51.5)102 (22.1%) | 2.14  |
| D-dimer, mg/LMissing data, n (%) | 12.8 (5.7–27.3)220 (20.6%) | 12.4 (5.8–27.1)156 (21.8%) | 8.69  | 13.1 (6.1–29.8)91 (19.7%) | 11.0 (5.7–24.7)102 (22.1%) | 7.76  |
| Antithrombin, %Missing data, n (%) | 60 (48–75)540 (50.8%) | 51 (40–61)206 (28.8%) | -53.82  | 60 (47–74)200 (43.4%) | 51 (41–62)139 (30.2%) | -43.73  |
| Lactate, mmol/LMissing data, n (%) | 3.0 (1.7–6.0)148 (13.8%) | 3.9 (2.2–6.8)52 (7.2%) | 12.30  | 3.2 (2.0–6.0)55 (11.9%) | 3.9 (2.2–6.6)31 (6.7%) | 6.22  |
| Co-administered anti-DIC drug |  |  |  |  |  |  |
| Recombinant thrombomodulin | 266 (24.9%) | 379 (53.0%) | 60.23  | 221 (47.9%) | 216 (46.9%) | -2.17  |
| Protease inhibitors | 83 (7.8%) | 184 (25.7%) | 49.58  | 72 (15.6%) | 86 (18.7%) | 8.07  |
| Heparinoids | 47 (4.4%) | 63 (8.8%) | 17.85  | 31 (6.7%) | 29 (6.3%) | -1.76  |
| Co-administered anticoagulants not for DIC |  |  |  |  |  |
| Nafamostat mesilate | 294 (27.5%) | 311 (43.5%) | 33.90  | 178 (38.6%) | 188 (40.8%) | 4.43  |
| Heparin | 156 (14.6%) | 71 (9.9%) | -14.25  | 50 (10.8%) | 48 (10.4%) | -1.41  |
| Warfarin | 8 (0.7%) | 2 (0.3%) | -6.56  | 3 (0.7%) | 2 (0.4%) | -2.95  |
| Anti-platelet drugs | 12 (1.1%) | 8 (1.1%) | -0.03  | 4 (0.9%) | 4 (0.9%) | 0.00  |
| Others | 3 (0.3%) | 4 (0.6%) | 4.31  | 3 (0.7%) | 2 (0.4%) | -2.95  |
| Other therapeutic intervention |  |  |  |  |  |  |
| Surgical intervention | 438 (41.0%) | 374 (52.3%) | 22.87  | 216 (46.9%) | 227 (49.2%) | 4.78  |
| Immunoglobulin | 230 (21.5%) | 379 (53.0%) | 68.89  | 190 (41.2%) | 200 (43.4%) | 4.39  |
| Low-dose steroid | 247 (23.1%) | 245 (34.3%) | 24.86  | 150 (32.5%) | 159 (34.5%) | 4.14  |
| RRT | 298 (27.9%) | 294 (41.1%) | 28.13  | 166 (36.0%) | 176 (38.2%) | 4.49  |
| Non-renal indication RRT | 69 (6.5%) | 108 (15.1%) | 28.17  | 54 (11.7%) | 62 (13.4%) | 5.23  |
| PMX-DHP | 194 (18.1%) | 289 (40.4%) | 50.48  | 141 (30.6%) | 152 (33.0%) | 5.13  |
| Plasma exchange | 7 (0.7%) | 10 (1.4%) | 7.38  | 6 (1.3%) | 3 (0.7%) | -6.62  |
| veno-arterial ECMO | 15 (1.4%) | 7 (1.0%) | -3.91  | 5 (1.1%) | 5 (1.1%) | 0.00  |
| veno-venous ECMO | 438 (41.0%) | 374 (52.3%) | 22.87  | 216 (46.9%) | 227 (49.2%) | 4.78  |
| IABP | 6 (0.6%) | 4 (0.6%) | -0.02  | 3 (0.7%) | 4 (0.9%) |  |
| AT, antithrombin; ICU, intensive care unit; APACHE, Acute Physiology and Chronic Health Evaluation; SOFA, Sequential Organ Failure Assessment; SIRS, systemic inflammatory response syndrome; DIC, disseminated intravascular coagulation; PT-INR, prothrombin time-international normalized ratio; FDP, fibrin/fibrinogen degradation products; RRT, renal replacement therapy; PMX-DHP, Polymixin B-direct hemoperfusion; ECMO, extracorporeal membrane oxygenation system; IABP, intra-aortic balloon pumping system.Data are expressed as the number (%), mean ± standard deviation, or median (interquartile range). |

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| Table 3. Event-free days over 28 days in the propensity score-matched groups |
|  |  |  |  |
| 　 | Control | AT | P value |
| DIC patients | n = 461 | n = 461 |
| ICU-free days | 15 (0–22) | 17 (0–22) | 0.372  |
| Ventilator-free days, days | 19 (1–26) | 20 (3–26) | 0.520  |
| RRT-free days, days | 25 (5–28) | 26 (16–28) | 0.006  |
| Vasopressor-free days, days | 22 (10–26) | 23 (15–26) | 0.075  |
| DIC patients without heparin administration | n = 379 | n = 379 | 　 |
| ICU-free days | 15 (0–22) | 17 (0–22) | 0.557  |
| Ventilator-free days, days | 20 (1–26) | 20 (2–26) | 0.912  |
| RRT-free days, days | 25 (3–28) | 26 (12–28) | 0.009  |
| Vasopressor-free days, days | 23 (8–26) | 23 (12–26) | 0.382  |
| AT, antithrombin; DIC, disseminated intravascular coagulation; ICU, intensive care unit; RRT, renal replacement therapyData are presented as the median (interquartile range). |

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| Table 4. Bleeding complications in the propensity score-matched groups |  |
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| 　 | Control | AT | P value |
| DIC patients | n = 461 | n = 461 |
| Bleeding needed transfusion | 53 (11.5%) | 82 (17.8%) | 0.007  |
| Bleeding needed therapeutic intervention | 5 (1.1%) | 11 (2.4%) | 0.210  |
| Intracranial hemorrhage | 1 (0.2%) | 2 (0.4%) | 1.000  |
| Bleeding to death  | 2 (0.4%) | 1 (0.2%) | 1.000  |
| DIC patients without heparin administration | n = 379 | n = 379 | 　 |
| Bleeding needed transfusion | 38 (10.0%) | 68 (17.9%) | 0.002  |
| Bleeding needed therapeutic intervention | 5 (1.3%) | 10 (2.6%) | 0.267  |
| Intracranial hemorrhage | 2 (0.5%) | 3 (0.8%) | 1.000  |
| Bleeding to death  | 2 (0.5%) | 0 (0.0%) | NA |
| AT, antithrombin; DIC, disseminated intravascular coagulation; NA, not available.Data are presented as the median (interquartile range) or number (%). |  |

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| Table 5. Transfusion amounts in the propensity score-matched groups |  |
|  |  |  |  |
| 　 | Control | AT | P value |
| DIC patients | n = 461 | n = 461 |
| Red blood cell concentration, units | 0 (0–4) | 2 (0–6) | 0.020  |
| Fresh frozen plasma, units | 0 (0–5) | 0 (0–10) | 0.002  |
| Platelet concentration, units | 0 (0–10) | 0 (0–20) | 0.003  |
| DIC patients without heparin administration | n = 379 | n = 379 | 　 |
| Red blood cell concentration, units | 0 (0–4) | 2 (0–6) | 0.005  |
| Fresh frozen plasma, units | 0 (0–6) | 0 (0–10) | 0.006  |
| Platelet concentration, units | 0 (0–10) | 0 (0–20) | 0.003  |
| AT, antithrombin; DIC, disseminated intravascular coagulation.Data are presented as the median (interquartile range) or number (%). |  |