

Appendix 1 .The Analysis Results of the Test Indicators Included in this study

| Factors | Mild | Severe | Critical |
|---|---------------|---------------|----------------|
| 1 Temperature (°C) ^{ab} | 37.59 ± 0.02 | 38.28 ± 0.04 | 38.21 ± 0.09 |
| 2 SP (mmHg) ^{abc} | 89.57 ± 0.14 | 91.82 ± 0.25 | 94.41 ± 1.00 |
| 3 DP (mmHg) ^{abc} | 51.69 ± 0.15 | 53.59 ± 0.25 | 56.54 ± 0.89 |
| 4 NEUT# (×10 ⁹ /L) ^{abc} | 7.28 ± 0.09 | 6.95 ± 0.11 | 8.16 ± 0.33 |
| 5 NEUT% (%) ^{abc} | 52.54 ± 0.37 | 56.63 ± 0.51 | 66.01 ± 1.37 |
| 6 LYMPH# (×10 ⁹ /L) ^{abc} | 4.54 ± 0.07 | 3.98 ± 0.07 | 3.17 ± 0.18 |
| 7 LYMPH% (%) ^{abc} | 36.02 ± 0.35 | 33.84 ± 0.46 | 26.33 ± 1.20 |
| 8 MONO# (×10 ⁹ /L) ^{abc} | 1.36 ± 0.02 | 1.08 ± 0.02 | 0.89 ± 0.05 |
| 9 MONO% (%) ^{abc} | 10.28 ± 0.08 | 9.01 ± 0.13 | 7.35 ± 0.33 |
| 10 EO# (×10 ⁹ /L) ^{abc} | 0.11 ± 0.00 | 0.05 ± 0.00 | 0.03 ± 0.01 |
| 11 EO% (%) ^{abc} | 0.92 ± 0.03 | 0.46 ± 0.03 | 0.28 ± 0.06 |
| 12 BASO# (×10 ⁹ /L) ^{abc} | 0.03 ± 0.00 | 0.01 ± 0.00 | 0.00 ± 0.00 |
| 13 BASO% (%) ^{abc} | 0.23 ± 0.01 | 0.05 ± 0.00 | 0.02 ± 0.01 |
| 14 WBC (×10 ⁹ /L) ^{ab} | 13.29 ± 0.12 | 12.10 ± 0.15 | 12.27 ± 0.38 |
| 15 RBC (×10 ¹² /L) ^a | 4.53 ± 0.01 | 4.57 ± 0.01 | 4.58 ± 0.03 |
| 16 MCH (pg) ^{ab} | 25.87 ± 0.04 | 25.55 ± 0.07 | 25.29 ± 0.17 |
| 17 MCHC (g/L) ^{ab} | 326.62 ± 0.26 | 324.12 ± 0.46 | 322.32 ± 1.29 |
| 18 RDW-SD (fL) ^{ab} | 39.30 ± 0.07 | 39.69 ± 0.10 | 39.99 ± 0.26 |
| 19 PLT (×10 ⁹ /L) ^a | 302.07 ± 2.43 | 266.51 ± 3.70 | 285.68 ± 11.35 |
| 20 P-LCR (%) ^a | 27.82 ± 0.16 | 28.78 ± 0.22 | 27.95 ± 0.58 |
| 21 MPV (fL) ^a | 10.42 ± 0.02 | 10.51 ± 0.03 | 10.40 ± 0.07 |
| 22 PDW (fL) ^a | 11.72 ± 0.04 | 11.95 ± 0.06 | 11.68 ± 0.14 |
| 23 RDW-CV (%) ^{ab} | 13.94 ± 0.03 | 14.21 ± 0.05 | 14.35 ± 0.12 |
| 24 TP (g/L) ^{abc} | 68.44 ± 0.11 | 70.81 ± 0.18 | 72.02 ± 0.62 |
| 25 ALB (g/L) ^{ab} | 45.98 ± 0.07 | 46.84 ± 0.11 | 47.03 ± 0.34 |
| 26 GLB (g/L) ^{abc} | 22.45 ± 0.09 | 23.97 ± 0.16 | 24.99 ± 0.54 |
| 27 ALB/GLB ^{ab} | 2.13 ± 0.01 | 2.06 ± 0.03 | 1.97 ± 0.04 |
| 28 TBIL (μmol/L) ^{ab} | 7.21 ± 0.08 | 8.35 ± 0.10 | 8.02 ± 0.32 |
| 29 DBIL (μmol/L) ^{abc} | 2.49 ± 0.03 | 2.31 ± 0.03 | 2.03 ± 0.08 |
| 30 IDBL (μmol/L) ^{ab} | 4.73 ± 0.07 | 6.04 ± 0.08 | 5.99 ± 0.27 |
| 31 AST (U/L) ^a | 46.19 ± 0.53 | 48.32 ± 0.77 | 45.33 ± 1.53 |
| 32 ALP (U/L) ^a | 207.57 ± 2.82 | 222.65 ± 5.27 | 219.80 ± 6.34 |
| 33 5-NT (U/L) ^{ab} | 5.13 ± 0.06 | 6.05 ± 0.11 | 6.12 ± 0.22 |
| 34 LDH (U/L) ^{ab} | 392.75 ± 2.43 | 439.23 ± 4.04 | 439.05 ± 10.82 |
| 35 CnTI (ng/mL) ^{ab} | 0.47 ± 0.01 | 0.69 ± 0.01 | 0.72 ± 0.03 |
| 36 Mb (μg/L) ^{abc} | 27.73 ± 0.66 | 30.43 ± 0.85 | 43.77 ± 6.52 |
| 37 β-2MG (mg/L) ^{abc} | 2.60 ± 0.02 | 2.26 ± 0.02 | 1.92 ± 0.05 |
| 38 CRP (mg/L) ^{abc} | 23.19 ± 0.54 | 10.18 ± 0.57 | 5.85 ± 0.75 |

| | | | | |
|----|--|---------------|---------------|---------------|
| 39 | SAA (mg/L) ^{ab} | 154.39 ± 2.88 | 85.18 ± 3.62 | 68.45 ± 9.42 |
| 40 | RBP (mg/L) ^{abc} | 17.81 ± 0.14 | 20.71 ± 0.23 | 22.90 ± 0.75 |
| 41 | Glu (mmol/L) ^{abc} | 4.19 ± 0.03 | 4.44 ± 0.03 | 5.44 ± 0.20 |
| 42 | C1q (mg/L) ^a | 186.37 ± 0.96 | 191.97 ± 1.36 | 188.15 ± 3.86 |
| 43 | BUN (mmol/L) ^a | 3.71 ± 0.02 | 3.57 ± 0.03 | 3.57 ± 0.10 |
| 44 | CR (μmol/L) ^{ab} | 25.16 ± 0.16 | 29.78 ± 0.29 | 29.41 ± 0.84 |
| 45 | BUN/CR ^{ab} | 0.16 ± 0.00 | 0.13 ± 0.00 | 0.13 ± 0.01 |
| 46 | UA (μmol/L) ^a | 263.57 ± 1.84 | 271.63 ± 2.83 | 268.04 ± 7.97 |
| 47 | K (mmol/L) ^{abc} | 4.63 ± 0.01 | 4.59 ± 0.02 | 4.45 ± 0.05 |
| 48 | Ca (mmol/L) ^{ab} | 2.44 ± 0.00 | 2.42 ± 0.00 | 2.41 ± 0.02 |
| 49 | Na (mmol/L) ^a | 138.95 ± 0.06 | 138.71 ± 0.09 | 138.84 ± 0.29 |
| 50 | Mg (mmol/L) ^{ab} | 0.97 ± 0.00 | 0.93 ± 0.00 | 0.92 ± 0.01 |
| 51 | Cl (mmol/L) ^{ab} | 105.37 ± 0.07 | 103.69 ± 0.09 | 103.46 ± 0.30 |
| 52 | P (mmol/L) ^{ab} | 1.65 ± 0.01 | 1.57 ± 0.01 | 1.55 ± 0.03 |
| 53 | IgA (g/L) ^a | 0.55 ± 0.01 | 0.59 ± 0.01 | 0.55 ± 0.03 |
| 54 | IgG (g/L) ^{ab} | 6.84 ± 0.06 | 7.97 ± 0.13 | 8.49 ± 0.39 |
| 55 | IgM (g/L) ^{ab} | 1.06 ± 0.01 | 1.28 ± 0.01 | 1.27 ± 0.03 |
| 56 | RET# (×10 ⁹ /L) ^{ab} | 37.06 ± 0.42 | 27.89 ± 0.41 | 29.84 ± 1.09 |
| 57 | RET% (%) ^{ab} | 0.85 ± 0.02 | 0.61 ± 0.01 | 0.66 ± 0.02 |
| 58 | CHr (pg) ^{abc} | 22.21 ± 0.16 | 15.49 ± 0.22 | 13.13 ± 0.48 |
| 59 | %LRETIC (%) ^{ab} | 93.46 ± 0.1 | 96.63 ± 0.10 | 96.94 ± 0.29 |
| 60 | %MRETIC (%) ^{ab} | 5.55 ± 0.09 | 2.92 ± 0.09 | 2.71 ± 0.25 |
| 61 | %HRETIC (%) ^{ab} | 0.99 ± 0.03 | 0.45 ± 0.02 | 0.35 ± 0.06 |

Abbreviations: NEUT: Neutro cell count; NEUT%: Neutro cell ratio; LYMPH: Lymphocyte count; LYMPH%: Lymphocyte ratio; MONO: Monocyte count; MONO%: Mononuclear cell ratio; EO: Eosinophil ratio; EO% :Eosinophil ratio; BASO: Basophil count; BASO%: Basophil ratio; WBC: White blood cell count; RBC: Red blood cell count; MCH: Average hemoglobin volume; MCHC: Average hemoglobin concentration; RDW-SD: Red blood cell distribution width; PLT: Platelet; MPV: Mean platelet volume; PDW: Width of platelet distribution; TP: The total protein; ALB: Albumin; GLB: Globulin; TBIL: Total bilirubin; DBIL: Direct bilirubin; IDBL: Indirect bilirubin; AST: Aspartate aminotransferase; ALT: Alanine aminotransferase; 5-NT: 5'-nucleotide enzyme; LDH: Lactic dehydrogenase; CnTI: Troponin; Mb: Myoglobin; β-2MG: β-2MG microglobulin; CRP: C-reactive protein; SAA: Serum amyloid A; RBP: Retinol binding protein; Glu: Glucose; C1q: Complement C1q; BUN: Urea; CR: Creatinine; UA: Uric acid; RET: Reticulocyte; CHr: Average reticulocyte hemoglobin content; LRETIC: Ratio of reticulocytes with low nucleic acid concentration; MRETIC: Nucleic acid concentration reticulocyte ratio; HRETIC: Ratio of reticulocytes with high nucleic acid concentration

^a There is a significant difference between mild and severe.

^b There is a significant difference between severe and critical.

^c There is a significant difference between mild and critical.

Appendix 2. Information Sheet of Different Substances in Mild/Severe

| | Factors | P-value | Fold change | AUROC | 95% CI | OR | 95% CI |
|----|-------------|---------|-------------|-------|-----------|------|-----------|
| 1 | Temperature | 0.00 | 1.02 | 0.74 | 0.72-0.75 | 2.56 | 2.32-2.83 |
| 2 | SP | 0.00 | 1.03 | 0.60 | 0.58-0.62 | 1.05 | 1.04-1.06 |
| 3 | DP | 0.00 | 1.04 | 0.57 | 0.55-0.59 | 1.04 | 1.02-1.05 |
| 4 | NEUT# | 0.03 | 0.96 | 0.51 | 0.49-0.53 | 0.98 | 0.96-1.00 |
| 5 | NEUT% | 0.00 | 1.08 | 0.57 | 0.54-0.59 | 1.01 | 1.01-1.02 |
| 6 | LYMPH# | 0.00 | 0.88 | 0.58 | 0.56-0.60 | 0.90 | 0.87-0.94 |
| 7 | LYMPH% | 0.00 | 0.94 | 0.53 | 0.51-0.56 | 0.99 | 0.99-1.00 |
| 8 | MONO# | 0.00 | 0.79 | 0.62 | 0.60-0.64 | 0.55 | 0.48-0.62 |
| 9 | MONO% | 0.00 | 0.88 | 0.61 | 0.59-0.63 | 0.92 | 0.90-0.94 |
| 10 | EO# | 0.00 | 0.49 | 0.65 | 0.63-0.67 | 0.02 | 0.01-0.06 |
| 11 | EO% | 0.00 | 0.50 | 0.63 | 0.61-0.65 | 0.65 | 0.58-0.71 |
| 12 | BASO# | 0.00 | 0.22 | 0.74 | 0.72-0.76 | 0.00 | 0.00-0.00 |
| 13 | BASO% | 0.00 | 0.23 | 0.74 | 0.72-0.75 | 0.00 | 0.00-0.01 |
| 14 | WBC | 0.00 | 0.91 | 0.56 | 0.54-0.58 | 0.95 | 0.94-0.97 |
| 15 | RBC | 0.01 | 1.01 | 0.53 | 0.51-0.55 | 1.29 | 1.06-1.57 |
| 16 | MCH | 0.00 | 0.99 | 0.56 | 0.54-0.58 | 0.93 | 0.89-0.96 |
| 17 | MCHC | 0.00 | 0.99 | 0.57 | 0.55-0.59 | 0.98 | 0.98-0.99 |
| 18 | RDW-SD | 0.00 | 1.01 | 0.55 | 0.52-0.57 | 1.04 | 1.01-1.06 |
| 19 | PLT | 0.00 | 0.88 | 0.59 | 0.56-0.61 | 1.00 | 1.00-1.00 |
| 20 | P-LCR | 0.00 | 1.03 | 0.54 | 0.52-0.56 | 1.02 | 1.01-1.03 |
| 21 | MPV | 0.01 | 1.01 | 0.53 | 0.51-0.55 | 1.11 | 1.02-1.20 |
| 22 | PDW | 0.00 | 1.02 | 0.54 | 0.52-0.56 | 1.07 | 1.02-1.11 |
| 23 | RDW-CV | 0.00 | 1.02 | 0.57 | 0.55-0.59 | 1.12 | 1.07-1.18 |
| 24 | TP | 0.00 | 1.03 | 0.63 | 0.61-0.65 | 1.09 | 1.08-1.11 |
| 25 | ALB | 0.00 | 1.02 | 0.58 | 0.56-0.60 | 1.08 | 1.06-1.11 |
| 26 | GLB | 0.00 | 1.07 | 0.59 | 0.57-0.61 | 1.08 | 1.06-1.10 |
| 27 | ALB/GLB | 0.02 | 0.97 | 0.55 | 0.53-0.57 | 0.79 | 0.66-0.93 |
| 28 | TBIL | 0.00 | 1.16 | 0.63 | 0.60-0.65 | 1.11 | 1.08-1.13 |
| 29 | DBIL | 0.00 | 0.93 | 0.54 | 0.51-0.56 | 0.85 | 0.79-0.92 |
| 30 | IDBL | 0.00 | 1.28 | 0.66 | 0.64-0.68 | 1.20 | 1.16-1.24 |
| 31 | AST | 0.02 | 1.05 | 0.55 | 0.52-0.57 | 1.00 | 1.00-1.01 |
| 32 | ALP | 0.01 | 1.07 | 0.53 | 0.51-0.55 | 1.00 | 1.00-1.00 |
| 33 | 5-NT | 0.00 | 1.18 | 0.60 | 0.58-0.62 | 1.11 | 1.08-1.14 |
| 34 | LDH | 0.00 | 1.12 | 0.63 | 0.61-0.65 | 1.00 | 1.00-1.00 |
| 35 | CnTI | 0.00 | 1.45 | 0.67 | 0.65-0.69 | 5.05 | 4.07-6.26 |
| 36 | Mb | 0.02 | 1.10 | 0.55 | 0.53-0.57 | 1.00 | 1.00-1.01 |
| 37 | β-2MG | 0.00 | 0.87 | 0.64 | 0.62-0.67 | 0.50 | 0.44-0.56 |
| 38 | CRP | 0.00 | 0.44 | 0.71 | 0.69-0.73 | 0.96 | 0.96-0.97 |
| 39 | SAA | 0.00 | 0.55 | 0.70 | 0.68-0.72 | 0.99 | 0.99-0.99 |
| 40 | RBP | 0.00 | 1.16 | 0.62 | 0.60-0.65 | 1.07 | 1.05-1.08 |
| 41 | Glu | 0.00 | 1.06 | 0.60 | 0.57-0.62 | 1.19 | 1.12-1.27 |

| | | | | | | | |
|----|---------|------|------|------|-----------|------|-----------|
| 42 | C1q | 0.00 | 1.03 | 0.55 | 0.53-0.57 | 1.00 | 1.00-1.00 |
| 43 | BUN | 0.00 | 0.96 | 0.54 | 0.52-0.56 | 0.89 | 0.83-0.95 |
| 44 | CR | 0.00 | 1.18 | 0.66 | 0.63-0.68 | 1.07 | 1.06-1.09 |
| 45 | BUN/CR | 0.00 | 0.83 | 0.64 | 0.62-0.66 | 0.00 | 0.00-0.00 |
| 46 | UA | 0.02 | 1.03 | 0.53 | 0.51-0.55 | 1.00 | 1.00-1.00 |
| 47 | K | 0.02 | 0.99 | 0.52 | 0.50-0.54 | 0.86 | 0.75-0.99 |
| 48 | Ca | 0.00 | 0.99 | 0.54 | 0.52-0.56 | 0.43 | 0.25-0.72 |
| 49 | Na | 0.04 | 1.00 | 0.51 | 0.49-0.54 | 0.97 | 0.95-1.00 |
| 50 | Mg | 0.00 | 0.96 | 0.61 | 0.59-0.63 | 0.04 | 0.02-0.08 |
| 51 | Cl | 0.00 | 0.98 | 0.66 | 0.64-0.68 | 0.83 | 0.81-0.85 |
| 52 | P | 0.00 | 0.95 | 0.58 | 0.56-0.60 | 0.42 | 0.32-0.55 |
| 53 | IgA | 0.00 | 1.08 | 0.57 | 0.55-0.59 | 1.40 | 1.13-1.73 |
| 54 | IgG | 0.00 | 1.16 | 0.61 | 0.59-0.63 | 1.13 | 1.10-1.16 |
| 55 | IgM | 0.00 | 1.21 | 0.68 | 0.66-0.70 | 2.58 | 2.18-3.05 |
| 56 | RET# | 0.00 | 0.75 | 0.64 | 0.62-0.65 | 0.97 | 0.96-0.97 |
| 57 | RET% | 0.00 | 0.72 | 0.64 | 0.62-0.66 | 0.20 | 0.16-0.26 |
| 58 | CHr | 0.00 | 0.70 | 0.73 | 0.71-0.75 | 0.89 | 0.88-0.90 |
| 59 | %LRETIC | 0.00 | 1.03 | 0.71 | 0.69-0.73 | 1.23 | 1.20-1.26 |
| 60 | %MRETIC | 0.00 | 0.53 | 0.70 | 0.68-0.72 | 0.80 | 0.78-0.82 |
| 61 | %HRETIC | 0.00 | 0.46 | 0.65 | 0.63-0.67 | 0.52 | 0.47-0.58 |

Abbreviations: NEUT: Neutro cell count; NEUT%: Neutro cell ratio; LYMPH: Lymphocyte count; LYMPH%: Lymphocyte ratio; MONO: Monocyte count; MONO%: Mononuclear cell ratio; EO: Eosinophil ratio; EO% :Eosinophil ratio; BASO: Basophil count; BASO%: Basophil ratio; WBC: White blood cell count; RBC: Red blood cell count; MCH: Average hemoglobin volume; MCHC: Average hemoglobin concentration; RDW-SD: Red blood cell distribution width; PLT: Platelet; MPV: Mean platelet volume; PDW: Width of platelet distribution; TP: The total protein; ALB: Albumin; GLB: Globulin; TBIL: Total bilirubin; DBIL: Direct bilirubin; IDBL: Indirect bilirubin; AST: Aspertate aminotransferase; ALT: Alanine aminotransferase; 5-NT: 5 '-nucleotide enzyme; LDH: Lactic dehydrogenase; CnTI: Troponin; Mb: Myoglobin; β -2MG: β -2MG microglobulin; CRP: C-reactive protein; SAA: Serum amyloid A; RBP: Retinol binding protein; Glu: Glucose; C1q: Complement C1q; BUN: Urea; CR: Creatinine; UA: Uric acid; RET: Reticulocyte; CHr: Average reticulocyte hemoglobin content; LRETIC: Ratio of reticulocytes with low nucleic acid concentration; MRETIC: Nucleic acid concentration reticulocyte ratio; HRETIC: Ratio of reticulocytes with high nucleic acid concentration

Appendix 3. Information Sheet of Different Substances in Mild/Critical

| | Factors | P-value | Fold change | AUROC | 95% CI | OR | 95% CI |
|----|--------------|---------|-------------|-------|-----------|------|-----------|
| 1 | Temperature | 0.00 | 1.02 | 0.70 | 0.64-0.75 | 2.37 | 1.89-2.98 |
| 2 | SP | 0.00 | 1.05 | 0.66 | 0.59-0.72 | 1.09 | 1.07-1.12 |
| 3 | DP | 0.00 | 1.09 | 0.65 | 0.60-0.71 | 1.08 | 1.06-1.11 |
| 4 | NEUT# | 0.01 | 1.12 | 0.59 | 0.54-0.63 | 1.05 | 1.00-1.09 |
| 5 | NEUT% | 0.00 | 1.26 | 0.72 | 0.67-0.77 | 1.06 | 1.04-1.07 |
| 6 | LYMPH# | 0.00 | 0.70 | 0.69 | 0.64-0.74 | 0.70 | 0.62-0.79 |
| 7 | LYMPH% | 0.00 | 0.73 | 0.68 | 0.63-0.73 | 0.95 | 0.94-0.97 |
| 8 | MONO# | 0.00 | 0.65 | 0.70 | 0.65-0.75 | 0.28 | 0.19-0.41 |
| 9 | MONO% | 0.00 | 0.71 | 0.73 | 0.68-0.78 | 0.79 | 0.75-0.84 |
| 10 | EO# | 0.00 | 0.30 | 0.72 | 0.68-0.76 | 0.00 | 0.00-0.00 |
| 11 | EO% | 0.00 | 0.30 | 0.71 | 0.67-0.75 | 0.32 | 0.20-0.51 |
| 12 | BASO# | 0.00 | 0.08 | 0.78 | 0.75-0.81 | 0.00 | 0.00-0.00 |
| 13 | BASO% | 0.00 | 0.08 | 0.78 | 0.75-0.81 | 0.00 | 0.00-0.00 |
| 14 | WBC | 0.01 | 0.92 | 0.54 | 0.50-0.59 | 0.96 | 0.93-1.00 |
| 15 | MCH | 0.00 | 0.98 | 0.61 | 0.56-0.66 | 0.88 | 0.81-0.96 |
| 16 | MCHC | 0.00 | 0.99 | 0.60 | 0.55-0.65 | 0.97 | 0.96-0.99 |
| 17 | RDW-SD | 0.03 | 1.02 | 0.59 | 0.54-0.64 | 1.06 | 1.01-1.12 |
| 18 | RDW-CV | 0.00 | 1.03 | 0.63 | 0.59-0.68 | 1.16 | 1.05-1.29 |
| 19 | TP | 0.00 | 1.05 | 0.69 | 0.63-0.74 | 1.14 | 1.10-1.19 |
| 20 | ALB | 0.00 | 1.02 | 0.61 | 0.56-0.67 | 1.11 | 1.04-1.17 |
| 21 | GLB | 0.00 | 1.11 | 0.64 | 0.58-0.69 | 1.12 | 1.08-1.16 |
| 22 | ALB/GLB | 0.00 | 0.93 | 0.58 | 0.53-0.64 | 0.43 | 0.27-0.69 |
| 23 | TBIL | 0.03 | 1.11 | 0.58 | 0.52-0.64 | 1.03 | 1.00-1.07 |
| 24 | DBIL | 0.00 | 0.81 | 0.61 | 0.56-0.67 | 0.61 | 0.49-0.77 |
| 25 | IDBL | 0.00 | 1.27 | 0.64 | 0.59-0.70 | 1.08 | 1.01-1.15 |
| 26 | 5-NT | 0.00 | 1.19 | 0.63 | 0.58-0.68 | 1.08 | 1.03-1.13 |
| 27 | LDH | 0.00 | 1.12 | 0.63 | 0.58-0.68 | 1.00 | 1.00-1.00 |
| 28 | CnTI | 0.00 | 1.53 | 0.70 | 0.65-0.75 | 5.89 | 3.56-9.74 |
| 29 | Mb | 0.02 | 1.58 | 0.64 | 0.59-0.70 | 1.01 | 1.00-1.01 |
| 30 | β -2MG | 0.00 | 0.74 | 0.79 | 0.75-0.83 | 0.16 | 0.11-0.23 |
| 31 | CRP | 0.00 | 0.25 | 0.77 | 0.73-0.80 | 0.91 | 0.89-0.94 |
| 32 | SAA | 0.00 | 0.44 | 0.75 | 0.71-0.80 | 0.99 | 0.99-0.99 |
| 33 | RBP | 0.00 | 1.29 | 0.69 | 0.64-0.74 | 1.09 | 1.06-1.11 |
| 34 | Glu | 0.00 | 1.30 | 0.77 | 0.72-0.82 | 1.49 | 1.34-1.65 |
| 35 | CR | 0.00 | 1.17 | 0.64 | 0.58-0.70 | 1.06 | 1.04-1.09 |
| 36 | BUN/CR | 0.00 | 0.85 | 0.64 | 0.58-0.69 | 0.00 | 0.00-0.01 |
| 37 | K | 0.00 | 0.96 | 0.58 | 0.53-0.64 | 0.54 | 0.37-0.78 |
| 38 | Ca | 0.04 | 0.99 | 0.55 | 0.50-0.61 | 0.28 | 0.08-0.93 |
| 39 | Mg | 0.00 | 0.95 | 0.64 | 0.58-0.69 | 0.01 | 0.00-0.07 |
| 40 | Cl | 0.00 | 0.98 | 0.67 | 0.62-0.72 | 0.83 | 0.78-0.88 |

| | | | | | | | |
|----|---------|------|------|------|-----------|------|-----------|
| 41 | P | 0.01 | 0.94 | 0.59 | 0.53-0.64 | 0.34 | 0.17-0.67 |
| 42 | IgG | 0.00 | 1.24 | 0.68 | 0.64-0.73 | 1.13 | 1.08-1.19 |
| 43 | IgM | 0.00 | 1.20 | 0.69 | 0.65-0.73 | 1.84 | 1.38-2.45 |
| 44 | RET# | 0.00 | 0.81 | 0.59 | 0.55-0.63 | 0.98 | 0.96-0.99 |
| 45 | RET% | 0.00 | 0.78 | 0.59 | 0.55-0.64 | 0.34 | 0.20-0.60 |
| 46 | CHr | 0.00 | 0.59 | 0.80 | 0.76-0.84 | 0.82 | 0.79-0.86 |
| 47 | %LRETIC | 0.00 | 1.04 | 0.73 | 0.69-0.77 | 1.27 | 1.19-1.35 |
| 48 | %MRETIC | 0.00 | 0.49 | 0.72 | 0.68-0.76 | 0.78 | 0.73-0.84 |
| 49 | %HRETIC | 0.00 | 0.35 | 0.69 | 0.65-0.73 | 0.37 | 0.26-0.53 |

Abbreviations: NEUT: Neutro cell count; NEUT%: Neutro cell ratio; LYMPH: Lymphocyte count; LYMPH%: Lymphocyte ratio; MONO: Monocyte count; MONO%: Mononuclear cell ratio; EO: Eosinophil ratio; EO% :Eosinophil ratio; BASO: Basophil count; BASO%: Basophil ratio; WBC: White blood cell count; RBC: Red blood cell count; MCH: Average hemoglobin volume; MCHC: Average hemoglobin concentration; RDW-SD: Red blood cell distribution width; PLT: Platelet; MPV: Mean platelet volume; PDW: Width of platelet distribution; TP: The total protein; ALB: Albumin; GLB: Globulin; TBIL: Total bilirubin; DBIL: Direct bilirubin; IDBL: Indirect bilirubin; AST: Aspartate aminotransferase; ALT: Alanine aminotransferase; 5-NT: 5'-nucleotide enzyme; LDH: Lactic dehydrogenase; CnTI: Troponin; Mb: Myoglobin; β -2MG: β -2MG microglobulin; CRP: C-reactive protein; SAA: Serum amyloid A; RBP: Retinol binding protein; Glu: Glucose; C1q: Complement C1q; BUN: Urea; CR: Creatinine; UA: Uric acid; RET: Reticulocyte; CHr: Average reticulocyte hemoglobin content; LRETIC: Ratio of reticulocytes with low nucleic acid concentration; MRETIC: Nucleic acid concentration reticulocyte ratio; HRETIC: Ratio of reticulocytes with high nucleic acid concentration

Appendix 4. Information Sheet of Different Substances in Severe/Critical.

| | Factors | P-value | Fold change | AUROC | 95% CI | OR | 95% CI |
|----|--------------|---------|-------------|-------|-----------|------|-----------|
| 1 | SP | 0.01 | 1.03 | 0.58 | 0.52-0.64 | 1.04 | 1.01-1.06 |
| 2 | DP | 0.00 | 1.06 | 0.59 | 0.53-0.65 | 1.04 | 1.02-1.07 |
| 3 | NEUT# | 0.00 | 1.17 | 0.61 | 0.56-0.66 | 1.09 | 1.04-1.15 |
| 4 | NEUT% | 0.00 | 1.17 | 0.67 | 0.62-0.72 | 1.04 | 1.03-1.06 |
| 5 | LYMPH# | 0.00 | 0.80 | 0.62 | 0.56-0.67 | 0.81 | 0.72-0.91 |
| 6 | LYMPH% | 0.00 | 0.78 | 0.66 | 0.60-0.71 | 0.96 | 0.94-0.97 |
| 7 | MONO# | 0.00 | 0.82 | 0.59 | 0.54-0.64 | 0.55 | 0.37-0.82 |
| 8 | MONO% | 0.00 | 0.82 | 0.63 | 0.58-0.68 | 0.89 | 0.84-0.94 |
| 9 | EO# | 0.01 | 0.62 | 0.58 | 0.52-0.63 | 0.04 | 0.00-1.08 |
| 10 | EO% | 0.01 | 0.61 | 0.58 | 0.53-0.63 | 0.65 | 0.44-0.97 |
| 11 | BASO# | 0.00 | 0.36 | 0.56 | 0.50-0.61 | 0.00 | 0.00-0.02 |
| 12 | BASO% | 0.00 | 0.37 | 0.56 | 0.50-0.61 | 0.03 | 0.00-0.59 |
| 13 | TP | 0.04 | 1.02 | 0.57 | 0.51-0.63 | 1.04 | 1.00-1.07 |
| 14 | GLB | 0.04 | 1.04 | 0.55 | 0.50-0.61 | 1.04 | 1.00-1.08 |
| 15 | DBIL | 0.00 | 0.88 | 0.58 | 0.52-0.64 | 0.69 | 0.54-0.88 |
| 16 | Mb | 0.04 | 1.44 | 0.59 | 0.53-0.64 | 1.01 | 1.00-1.01 |
| 17 | β -2MG | 0.00 | 0.85 | 0.64 | 0.59-0.69 | 0.47 | 0.33-0.65 |
| 18 | CRP | 0.00 | 0.57 | 0.54 | 0.49-0.59 | 0.97 | 0.95-0.99 |
| 19 | RBP | 0.01 | 1.11 | 0.57 | 0.52-0.63 | 1.04 | 1.01-1.07 |
| 20 | Glu | 0.00 | 1.22 | 0.73 | 0.67-0.79 | 1.83 | 1.55-2.17 |
| 21 | K | 0.01 | 0.97 | 0.56 | 0.51-0.62 | 0.61 | 0.41-0.90 |
| 22 | CHr | 0.00 | 0.85 | 0.58 | 0.53-0.63 | 0.94 | 0.90-0.97 |

Abbreviations: NEUT: Neutro cell count; NEUT%: Neutro cell ratio; LYMPH: Lymphocyte count; LYMPH%: Lymphocyte ratio; MONO: Monocyte count; MONO%: Mononuclear cell ratio; EO: Eosinophil ratio; EO% :Eosinophil ratio; BASO: Basophil count; BASO%: Basophil ratio; TP: The total protein; ALB: Albumin; GLB: Globulin; TBIL: Total bilirubin; DBIL: Direct bilirubin; IDBL: Indirect bilirubin; Mb: Myoglobin; β -2MG: β -2MG microglobulin; CRP: C-reactive protein; RBP: Retinol binding protein; Glu: Glucose; CHr: Average reticulocyte hemoglobin content;