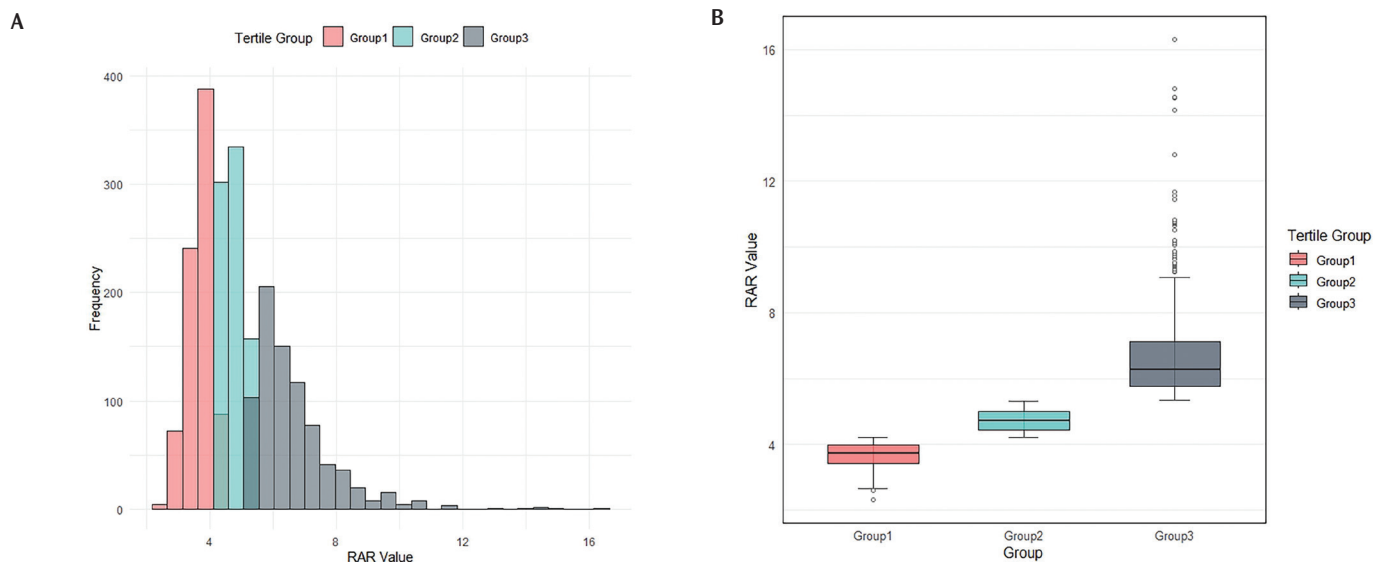




**SUP. FIG. 1.** Distribution of RAR Values according to the Tertile groups. Histogram depicting the RAR values (tertile cutoffs at 4.21 and 5.32) (A). Boxplot of RAR by tertile group (median, IQR, and outliers) (B). RAR, red blood cell distribution width-albumin ratio.

**SUPPLEMENTARY TABLE 1.** Missing Variables and their Proportions.

| Characteristics  | Hiatus | Ratios |
|------------------|--------|--------|
| Height           | 990    | 42%    |
| Weight           | 18     | 1%     |
| Heart rate       | 5      | 0%     |
| Respiratory rate | 5      | 0%     |
| Temperature      | 90     | 4%     |
| SBP              | 18     | 1%     |
| DBP              | 18     | 1%     |
| MBP              | 5      | 0%     |
| Platelet         | 1      | 0%     |
| SpO <sub>2</sub> | 5      | 0%     |
| Other variables  | 0      | 0%     |

SBP, systolic blood pressure; DBP, diastolic blood pressure; MBP, mean blood pressure

**SUPPLEMENTARY TABLE 2.** Comparison of the Variables Before and After Data Interpolation.

| Characteristics             | Before imputation      | After imputation       | <i>p</i> -value |
|-----------------------------|------------------------|------------------------|-----------------|
| Heart rate, beats/min       | 84.87 (75.36-97.17)    | 84.88 (75.34-97.11)    | 0.992           |
| Respiratory rate, beats/min | 19.47 (17.26-22.16)    | 19.48 (17.25-22.17)    | 0.96            |
| Temperature, °C             | 36.79 (36.58-37.06)    | 36.79 (36.58-37.06)    | 0.7             |
| SBP, mm Hg                  | 113.84 (104.91-124.90) | 113.75 (104.92-124.84) | 0.954           |
| DBP, mm Hg                  | 60.07 (53.88-67.23)    | 60.12 (53.85-67.27)    | 0.959           |
| MBP, mm Hg                  | 75.00 (69.36-82.07)    | 75.00 (69.36-82.10)    | 0.96            |
| Weight, Kg                  | 78.05 (64.19-94.55)    | 78.20 (64.22-94.60)    | 0.969           |
| Platelet, K/ $\mu$ L        | 194.67 (143.00-258.00) | 194.78 (143.18-258.20) | 0.909           |
| SpO <sub>2</sub> , %        | 96.50 (94.87-97.94)    | 96.48 (94.84-97.93)    | 0.799           |

SBP, systolic blood pressure; DBP, diastolic blood pressure; MBP, mean blood pressure; Min, minimum.

**SUPPLEMENTARY TABLE 3.** Association Between RAR and 1-Year, in-Hospital, and Intensive Care Unit All-Cause Mortality Events in the Pre-multiple Interpolation Dataset.

| Categories                     | Model 3          |         |             |
|--------------------------------|------------------|---------|-------------|
|                                | HR (95% CI)      | p-value | p for trend |
| 1-year mortality               |                  |         |             |
| Continuous variable per 1 unit | 1.22 (1.17-1.28) | < 0.001 |             |
| RAR, group                     |                  |         | < 0.001     |
| G1 (n = 793)                   | Ref.             |         |             |
| G2 (n = 793)                   | 1.33 (1.09-1.63) | 0.005   |             |
| G3 (n = 793)                   | 1.9 (1.55-2.32)  | < 0.001 |             |
| Hospital mortality             |                  |         |             |
| Continuous variable per 1 unit | 1.14 (1.06-1.22) | 0.001   |             |
| RAR, group                     |                  |         | 0.026       |
| G1 (n = 793)                   | Ref.             |         |             |
| G2 (n = 793)                   | 1.26 (0.89-1.8)  | 0.196   |             |
| G3 (n = 793)                   | 1.47 (1.04-2.07) | 0.027   |             |
| ICU mortality                  |                  |         |             |
| Continuous variable per 1 unit | 1.11 (1-1.23)    | 0.042   |             |
| RAR, group                     |                  |         | 0.099       |
| G1 (n = 793)                   | Ref.             |         |             |
| G2 (n = 793)                   | 1.3 (0.83-2.02)  | 0.253   |             |
| G3 (n = 793)                   | 1.45 (0.94-2.24) | 0.091   |             |

RAR, red blood cell distribution width-albumin ratio; ICU, Intensive Care Unit; HR, hazard ratio; CI, confidence interval; Ref, reference.

Model 3: adjusted for age, sex, ethnicity, weight, mean blood pressure, heart rate, respiratory rate, temperature, platelet level, neutrophils level, monocytes level, bicarbonate, anion gap, chloride, glucose, potassium levels, creatinine, blood urea nitrogen, SpO<sub>2</sub>, myocardial infarct, acute kidney injury, metastatic solid tumor, congestive heart failure, dementia, malignant cancer, anemia, hematological tumor, Simplified Acute Physiology Score II, Sequential Organ Failure Assessment score, Charlson comorbidity index, renal replacement therapy, Extracorporeal Membrane Oxygenation, vasopressor use.