**Supplemental Data**

Serum sST2 levels predict severe exacerbation of asthma

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## Methods

## Statistics

Two groups were compared using the Mann-Whitney U test. Using receiver operating characteristic (ROC) curve analysis, the area under curve (AUC) with cut-off values and corresponding sensitivity, specificity, and negative and positive likelihood ratios were calculated. Statistical analyses were performed using SPSS statistics version 19.0.0 (IBM, New York, USA), SigmaProt version 11.0 (Systat Software Inc., Illinois, USA), and GraphPad Prism version 7 (GraphPad Software Inc, California USA).

## Table S1 The exacerbation scores and their predictive values for worsening asthma.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cut off value | Sensitivity  (95% CI) | Specificity  (95% CI) | Positive  LR | Negative  LR |
| 0.5 | 0.91 (0.59–1.00) | 0.76 (0.66–0.85) | 3.8 | 0.1 |
| 1.5 | 0.73 (0.39–0.94) | 0.95 (0.88–0.98) | 13.5 | 0.3 |
| 2.5 | 0.55 (0.23–0.83) | 0.99 (0.94–1.00) | 59.5 | 0.5 |

CI = confidence interval, LR = likelihood ratio.

**Figure S1 Relationship between oral corticosteroid usage and biomarkers.**

(A) Serum sST2 levels, (B) WBC, and (C) blood neutrophil counts were compared in asthmatics with or without oral corticosteroid usage (n = 10 and 94, respectively). Horizontal and error bars show median and interquartile ranges, respectively.