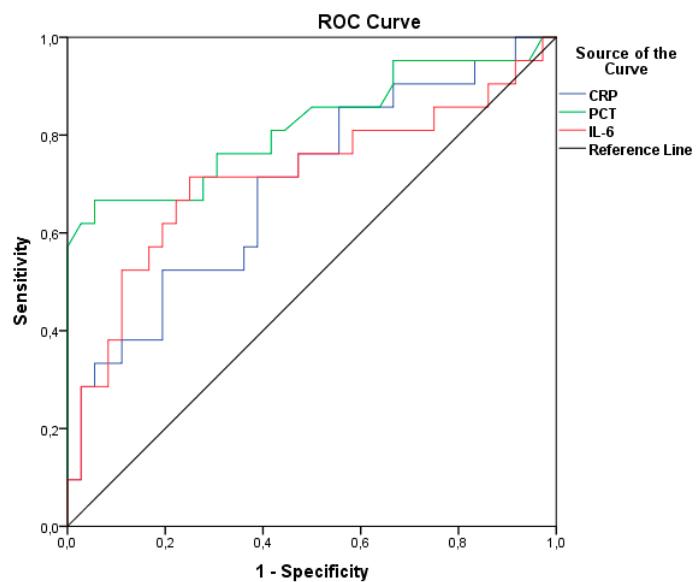


Supplement 1. The ability of inflammatory markers to predict CAP analysis.

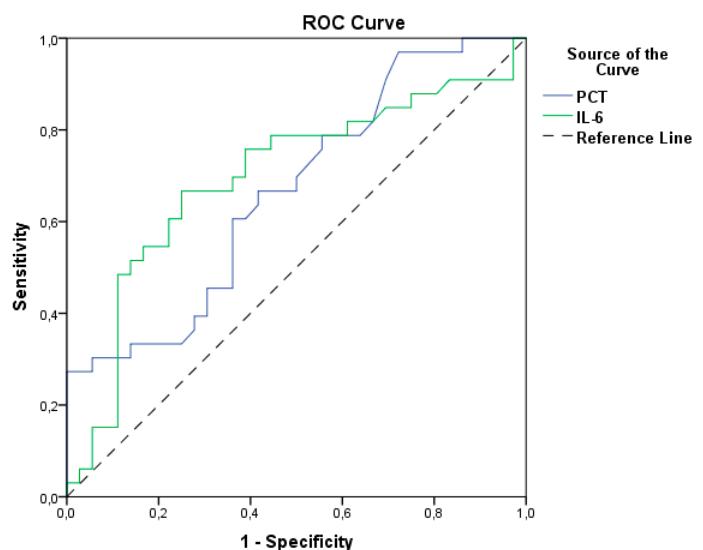


Area Under the Curve

Test Result Variable(s)	Area	$p^b$	Asymptotic 95% Confidence Interval	
			Lower Bound	Upper Bound
CRP	0.696	0.014	0.552	0.839
PCT	0.818	0.0001	0.690	0.946
IL-6	0.714	0.007	0.562	0.867

b. Null hypothesis: true area = 0.5

Supplement 2. The ability of initial values of PCT and IL-6 to predict HAP analysis.



**Area Under the Curve**

Test Result Variable(s)	Area	P <sup>b</sup>	95% CI for AUC	
			Lower Bound	Upper Bound
PCT	<b>0.665</b>	0.019	0.538	0.792
IL-6	<b>0.696</b>	0.005	0.566	0.826

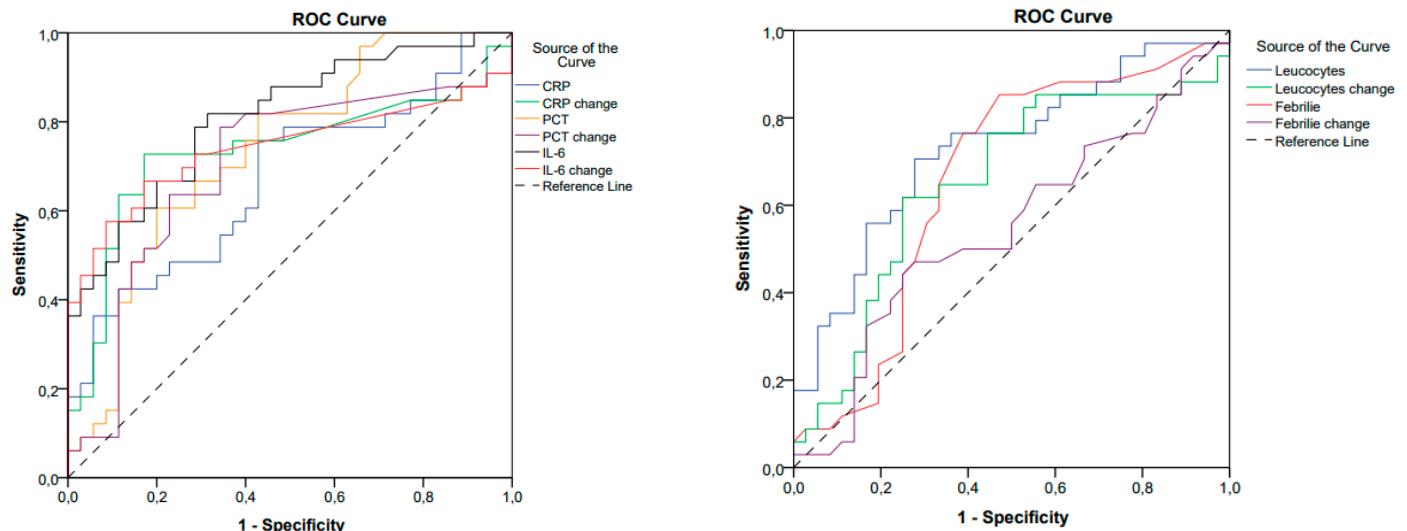
b. Null hypothesis: true area = 0.5

Supplement 3. Peak inflammatory markers in HAP-only and the No Bacterial Infection groups.

Variables peak values	HAP-only (n = 34)	NO BACTERIAL INFECTIONS (n = 36)	<i>p</i> -Value
CRP, mean (SD)	224.3 ( $\pm$ 111.6)	154.7 ( $\pm$ 85.8)	<b>0.007</b>
CRP change*, mean (SD)	83.8 ( $\pm$ 103.9)	6.76 ( $\pm$ 64.24)	<b>0.0004</b>
PCT, mean (SD)	8.6 ( $\pm$ 21.3)	3.2 ( $\pm$ 10.1)	<b>0.0005</b>
PCT change*, mean (SD)	7.6 ( $\pm$ 21.41)	2.89 ( $\pm$ 9.9)	<b>0.003</b>
IL-6, mean (SD)	1711.3 ( $\pm$ 4089.1)	90.1 ( $\pm$ 142.8)	<b>&lt;0.0001</b>
IL-6 change*, mean (SD)	1473.87 ( $\pm$ 4032.9)	29.9 ( $\pm$ 75.1)	<b>0.001</b>
WBC $\times 10^9$ , mean (SD)	20.1 ( $\pm$ 9.2)	13.5 ( $\pm$ 5.8)	<b>0.001</b>
WBC $\times 10^9$ change*, mean (SD)	7.46 ( $\pm$ 7.55)	4.28 ( $\pm$ 5.8)	<b>0.026</b>
temperature, mean (SD)	37.9 ( $\pm$ 1.0)	37.4 ( $\pm$ 1.0)	<b>0.022</b>
temp. change*, mean (SD)	0.7 ( $\pm$ 1.4)	0.53 ( $\pm$ 1.2)	0.503

\* = peak value minus initial value

Supplement 4. The ability of peak values of PCT and IL-6 and their changes to predict HAP.



Test Result Variable(s)	Area	$p^b$	95% Confidence Interval	
			Lower Bound	Upper Bound
CRP (poor)	.671	.015	.541	.801
Change (fair)	.733	.001	.604	.863
PCT (fair)	.734	.001	.615	.854
Change (poor)	.697	.005	.564	.829
IL-6 (good)	.810	.000	.708	.912
Change (fair)	.741	.001	.613	.870

b. Null hypothesis: true area = 0.5

Test Result Variable(s)	Area	$p^b$	95% Confidence Interval	
			Lower Bound	Upper Bound
WBC (fair)	.730	.001	.610	.849
Change (poor)	.654	.026	.522	.787
Temperature (poor)	.659	.022	.526	.792

b. Null hypothesis: true area = 0.5