**Supplemental Digital Content 2.** Features of patients according to training and testing groups.

|  |  **[ALL]**  |  **Test**  |  **Train**  | **p. overall** |
| --- | --- | --- | --- | --- |
|  |  ***N=262***  |  ***N=78***  |  ***N=184***  |  |
| Age at admission (years) -Median (IQR) | 2.00 [1.00;5.00] | 2.00 [1.00;4.00] | 3.00 [1.00;5.00] |  0.338  |
| Gender |   |   |   |  0.463  |
|  Male – n (%) |  137 (52.3%)  |  44 (56.4%)  |  93 (50.5%)  |   |
|  Female– n (%) |  125 (47.7%)  |  34 (43.6%)  |  91 (49.5%)  |   |
| Influenza vaccine |   |   |   |  1.000  |
|  Yes – n (%) |  13 (4.96%)  |  4 (5.13%)  |  9 (4.89%)  |   |
|  No – n (%) |  249 (95.0%)  |  74 (94.9%)  |  175 (95.1%)  |   |
| Days of Fever - Median (IQR) | 4.00 [2.00;5.00] | 4.00 [2.00;6.00] | 4.00 [2.00;5.00] |  0.277  |
| Vomits |   |   |   |  0.196  |
|  Yes – n (%) |  97 (37.0%)  |  34 (43.6%)  |  63 (34.2%)  |   |
|  No – n (%) |  165 (63.0%)  |  44 (56.4%)  |  121 (65.8%)  |   |
| Maximum Temperature Median (IQR) | 39.0 [38.1;39.6] | 39.0 [38.4;39.5] | 39.0 [38.1;39.6] |  0.808  |
| Pneumococcal Conjugate Vaccine |   |   |   |  0.156  |
|  Any doses – n (%) |  245 (94.2%)  |  71 (91.0%)  |  174 (95.6%)  |   |
|  Zero doses – n (%) |  15 (5.77%)  |  7 (8.97%)  |  8 (4.40%)  |   |
| Respiratory frequency Median (IQR) | 38.0 [28.0;48.0] | 40.0 [30.2;50.0] | 37.0 [28.0;45.5] |  0.107  |
| Work of Breathing |   |   |   |  0.152  |
|  No – n (%) |  82 (31.3%)  |  19 (24.4%)  |  63 (34.2%)  |   |
|  Yes – n (%) |  180 (68.7%)  |  59 (75.6%)  |  121 (65.8%)  |   |
| Wheezing |   |   |   |  0.940  |
|  Yes – n (%) |  100 (38.2%)  |  29 (37.2%)  |  71 (38.6%)  |   |
|  No – n (%) |  162 (61.8%)  |  49 (62.8%)  |  113 (61.4%)  |   |
| Oxygen saturation (%) - Median (IQR) | 94.0 [91.0;96.0] | 94.0 [92.0;96.0] | 94.0 [91.0;96.0] |  0.986  |
| Radiograph |   |   |   |  0.504  |
|  Consolidation – n (%) |  203 (77.5%)  |  63 (80.8%)  |  140 (76.1%)  |   |
|  Other infiltrates – n (%) |  59 (22.5%)  |  15 (19.2%)  |  44 (23.9%)  |   |
| Hemoglobin - Median (IQR) | 11.9 [10.9;12.7] | 11.5 [10.9;12.4] | 12.1 [11.0;12.9] |  0.032  |
| Lymphocytes - Median (IQR) | 2400 [1500;3822] | 2425 [1564;4025] | 2400 [1400;3808] |  0.720  |
| Leukocytosis or Leukopenia |   |   |   |  1.000  |
|  No – n (%) |  172 (65.6%)  |  51 (65.4%)  |  121 (65.8%)  |   |
|  Yes – n (%) |  90 (34.4%)  |  27 (34.6%)  |  63 (34.2%)  |   |
| Neutrophilia |   |   |   |  1.000  |
|  No – n (%) |  173 (66.0%)  |  52 (66.7%)  |  121 (65.8%)  |   |
|  Yes – n (%) |  89 (34.0%)  |  26 (33.3%)  |  63 (34.2%)  |   |
| C-reactive protein ≥ 100 mg/L |   |   |   |  0.262  |
|  No – n (%) |  163 (62.2%)  |  44 (56.4%)  |  119 (64.7%)  |   |
|  Yes – n (%) |  99 (37.8%)  |  34 (43.6%)  |  65 (35.3%)  |   |
| Procalcitonin ≥ 1.5 ng/mL |   |   |   |  0.748  |
|  No – n (%) |  155 (74.5%)  |  47 (72.3%)  |  108 (75.5%)  |   |
|  Yes – n (%) |  53 (25.5%)  |  18 (27.7%)  |  35 (24.5%)  |   |
| Sodium - Median (IQR) |  137 [135;138]  |  136 [134;138]  |  137 [135;139]  |  0.138  |
| Hypoalbuminemia < 3.1 g/dL |   |   |   |  0.298  |
|  No – n (%) |  55 (26.6%)  |  20 (32.3%)  |  35 (24.1%)  |   |
|  Yes – n (%) |  152 (73.4%)  |  42 (67.7%)  |  110 (75.9%)  |   |
| Etiology |   |   |   |  0.526  |
|  Atypical Bacteria – n (%) |  86 (32.8%)  |  23 (29.5%)  |  63 (34.2%)  |   |
|  Typical Bacteria – n (%) |  38 (14.5%)  |  14 (17.9%)  |  24 (13.0%)  |   |
|  Virus – n (%) |  138 (52.7%)  |  41 (52.6%)  |  97 (52.7%)  |   |