**Supplementary Table 1. Factors associated with elevated C-reactive protein (CRP) among HIV-negative, CXR-positivea cases**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **All**  **(N=1508)** | **CRP <10 mg/L**  **(N=530)** | **CRP 10-<40 mg/L**  **(N=452)** | **CRP ≥40 mg/L**  **(N=526)** | **<40 vs. ≥40 mg/L** | |
|  | n (col%) | n (row%) | n (row%) | n (row%) | **p-value**b | **adjusted p-value**c |
| **Site** |  |  |  |  |  |  |
| Kenya | 217 (14.4) | 58 (26.7) | 81 (37.3) | 78 (35.9) | <.001 | <.001 |
| The Gambia | 176 (11.7) | 35 (19.9) | 55 (31.3) | 86 (48.9) |
| Mali | 207 (13.7) | 75 (36.2) | 43 (20.8) | 89 (43.0) |
| Zambia | 188 (12.5) | 57 (30.3) | 40 (21.3) | 91 (48.4) |
| South Africa | 427 (28.3) | 160 (37.5) | 133 (31.1) | 134 (31.4) |
| Thailand | 91 (6.0) | 35 (38.5) | 34 (37.4) | 22 (24.2) |
| Bangladesh | 202 (13.4) | 110 (54.5) | 66 (32.7) | 26 (12.9) |
| **Age** (months) |  |  |  |  |  |  |
| 1-5 | 590 (39.1) | 251 (42.5) | 171 (29.0) | 168 (28.5) | <.001 | <.001 |
| 6-11 | 359 (23.8) | 133 (37.0) | 100 (27.9) | 126 (35.1) |
| 12-23 | 374 (24.8) | 102 (27.3) | 121 (32.4) | 151 (40.4) |
| 24-59 | 185 (12.3) | 44 (23.8) | 60 (32.4) | 81 (43.8) |
| **Sex** |  |  |  |  |  |  |
| Male | 855 (56.7) | 292 (34.2) | 266 (31.1) | 297 (34.7) | .89 | .99 |
| Female | 653 (43.3) | 238 (36.4) | 186 (28.5) | 229 (35.1) |
| **Severity** |  |  |  |  |  |  |
| Severe | 1073 (71.2) | 387 (36.1) | 342 (31.9) | 344 (32.1) | <.001 | .001 |
| Very severe | 435 (28.8) | 143 (32.9) | 110 (25.3) | 182 (41.8) |
| **Malnutrition**d |  |  |  |  |  |  |
| Normal (WAZ > -2 SDs) | 962 (64.0) | 342 (35.6) | 297 (30.9) | 323 (33.6) | .14 | .11 |
| Moderate/Severe (WAZ < -2 SDs) | 540 (36.0) | 184 (34.1) | 154 (28.5) | 202 (37.4) |
| **Prior antibiotic use**e |  |  |  |  |  |  |
| No | 653 (53.8) | 201 (30.8) | 197 (30.2) | 255 (39.1) | .78 | .38 |
| Yes | 560 (46.2) | 183 (32.7) | 154 (27.5) | 223 (39.8) |
| **Observed fever** |  |  |  |  |  |  |
| No | 1027 (68.2) | 413 (40.2) | 324 (31.5) | 290 (28.2) | <.001 | <.001 |
| Yes | 478 (31.8) | 115 (24.1) | 127 (26.6) | 236 (49.4) |
| **Observed or reported fever** |  |  |  |  |  |  |
| No | 267 (17.7) | 149 (55.8) | 77 (28.8) | 41 (15.4) | <.001 | <.001 |
| Yes | 1240 (82.3) | 380 (30.6) | 375 (30.2) | 485 (39.1) |
| **Duration of illness (days)**f |  |  |  |  |  |  |
| <3 | 441 (29.4) | 149 (33.8) | 151 (34.2) | 141 (32.0) | .25 | .34 |
| 3-5 | 719 (48.0) | 240 (33.4) | 225 (31.3) | 254 (35.3) |
| >5 | 338 (22.6) | 137 (40.5) | 74 (21.9) | 127 (37.6) |
| **Hypoxemia**g |  |  |  |  |  |  |
| No | 838 (55.6) | 307 (36.6) | 247 (29.5) | 284 (33.9) | .34 | .37 |
| Yes | 668 (44.4) | 222 (33.2) | 204 (30.5) | 242 (36.2) |
| **Wheezing** |  |  |  |  |  |  |
| No | 1065 (70.7) | 327 (30.7) | 301 (28.3) | 437 (41.0) | <.001 | <.001 |
| Yes | 440 (29.3) | 201 (45.7) | 151 (34.3) | 88 (20.0) |
| **Died within 30 days**h |  |  |  |  |  |  |
| No | 1245 (92.9) | 443 (35.6) | 389 (31.2) | 413 (33.2) | .25 | .88 |
| Yes | 95 (7.1) | 40 (42.1) | 18 (18.9) | 37 (38.9) |
| **Hospital death** |  |  |  |  |  |  |
| No | 1430 (94.9) | 498 (34.8) | 439 (30.7) | 493 (34.5) | .13 | .59 |
| Yes | 77 (5.1) | 32 (41.6) | 12 (15.6) | 33 (42.9) |
| **Hib and PCV vaccinationi** |  |  |  |  |  |  |
| None | 250 (21.1) | 105 (42.0) | 77 (30.8) | 68 (27.2) | <.001 | .75 |
| ≥1 HiB dose & no PCV | 175 (14.7) | 74 (42.3) | 55 (31.4) | 46 (26.3) |
| ≥1 HiB & ≥1 PCV dose | 762 (64.2) | 231 (30.3) | 236 (31.0) | 295 (38.7) |
| a CXR-positive: evidence of alveolar consolidation, other infiltrate, or both on chest radiograph. | | | | | | |
| b Chi-square unadjusted. | | | | | | |
| c P-value obtained from multivariate logistic regression adjusting for site and age, comparing CRP<40 vs. CRP≥40 mg/l. | | | | | | |
| d Moderate or severe malnutrition (WHO wt-for-age z score < -2 SDs). | | | | | | |
| e Antibiotic pretreatment: administered antibiotics at the study facility prior to the collection of specimens (cases only), positive serum bioassay, received antibiotics at a referral facility. | | | | | | |
| f Number of days of cough, fever, runny nose, difficulty breathing, ear discharge, or wheeze prior to enrollment, whichever is longest. | | | | | | |
| g Hypoxemia: room air reading of O2 sat <90 at sites at elevation (Zambia and South Africa) and <92 at all other sites OR O2 requirement (if on O2 and room air reading not available) | | | | | | |
| h Any death within 30 days of enrollment among cases with known vital status at 30 days. | | | | | | |
| i Hib, H. influenzae type b vaccine; PCV, pneumococcal conjugate vaccine. | | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table** **2. Characteristics of HIV-negative controls targeted vs. not targeted for C-reactive protein (CRP) testing and distribution of CRP among tested controls** | | | | | | | |
|  | **All controls** | | | **CRP distribution among controls targetedfor CRP testinga** | | | |
|  | **Tested** | **Not tested** | **p-valueb** | **< 10 mg/L** | **10-<40 mg/L** | **≥ 40 mg/L** | **p-valuec** |
|  | n (col %) | n (col %) | n (row %) | n (row %) | n (row %) |
| **Overall** | n=601 | n=4501 |  | 530 (88.2) | 55 (9.2) | n=16 (2.7) |  |
| **Site** |  |  |  |  |  |  |  |
| Kenya | 50 (8.3) | 813 (18.1) | <.001 | 42 (84.0) | 6 (12.0) | 2 (4.0) | .06 |
| Gambia | 84 (14.0) | 570 (12.7) | 68 (81.0) | 10 (11.9) | 6 (7.1) |
| Mali | 94 (15.6) | 631 (14.0) | 79 (84.0) | 9 (9.6) | 6 (6.4) |
| Zambia | 40 (6.7) | 561 (12.5) | 33 (82.5) | 7 (17.5) | 0 (0.0) |
| South Africa | 151 (25.1) | 677 (15.0) | 140 (92.7) | 11 (7.3) | 0 (0.0) |
| Thailand | 89 (14.8) | 570 (12.7) | 82 (92.1) | 6 (6.7) | 1 (1.1) |
| Bangladesh | 93 (15.5) | 679 (15.1) | 86 (92.5) | 6 (6.5) | 1 (1.1) |
| **Age (months)** |  |  |  |  |  |  |  |
| 1-5 | 157 (26.1) | 1441 (32.0) | .02 | 141 (89.8) | 13 (8.3) | 3 (1.9) | .73 |
| 6-11 | 155 (25.8) | 1055 (23.4) | 134 (86.5) | 17 (11.0) | 4 (2.6) |
| 12-23 | 168 (28.0) | 1094 (24.3) | 146 (86.9) | 17 (10.1) | 5 (3.0) |
| 24-59 | 121 (20.1) | 911 (20.2) | 109 (90.1) | 8 (6.6) | 4 (3.3) |
| **Respiratory Tract Illness (RTI)d** |  |  |  |  |  |  |  |
| No | 342 (56.9) | 3554 (79.0) | <.001 | 307 (89.8) | 24 (7.0) | 11 (3.2) | .12 |
| Yes | 259 (43.1) | 947 (21.0) | 223 (86.1) | 31 (12.0) | 5 (1.9) |
| ***S. pneumoniae* (Spn)** |  |  |  |  |  |  |  |
| **NP/OP PCR** |  |  |  |  |  |  |  |
| Negative | 110 (18.4) | 1026 (23.4) | .006 | 102 (92.7) | 7 (6.4) | 1 (0.9) | .34 |
| Positive | 488 (81.6) | 3353 (76.6) | 425 (87.1) | 48 (9.8) | 15 (3.0) |
| **NP/OP PCR density** |  |  |  |  |  |  |  |
| ≤ 106.9 copies/ml | 524 (87.6) | 4073 (93.0) | <.001 | 461 (88.0) | 51 (9.7) | 12 (2.3) | .16 |
| > 106.9 copies/ml | 74 (12.4) | 306 (7.0) | 66 (89.2) | 4 (5.4) | 4 (5.4) |
| **Whole bloodPCR** |  |  |  |  |  |  |  |
| Negative | 384 (64.3) | 4140 (99.0) | <.001 | 347 (90.4) | 33 (8.6) | 4 (1.0) | .005 |
| Positive | 213 (35.7) | 42 (1.0) | 180 (84.5) | 22 (10.3) | 11 (5.2) |
| **Whole blood PCR density** |  |  |  |  |  |  |  |
| ≤ 102.2 copies/ml | 478 (80.1) | 4160 (99.5) | <.001 | 426 (89.1) | 42 (8.8) | 10 (2.1) | .44 |
| > 102.2 copies/ml | 119 (19.9) | 22 (0.5) | 101 (84.9) | 13 (10.9) | 5 (4.2) |
| **RTI or whole blood Spn PCR+** |  |  |  |  |  |  |  |
| No | 187 (31.1) | 3267 (76.9) | <.001 | 172 (92.5) | 11 (5.9) | 3 (1.6) | .61 |
| Yes | 414 (68.9) | 984 (23.2) | 357 (86.2) | 44 (10.6) | 13 (3.1) |
| **RTI or whole blood Spn PCR+ or NP/OP Spn density >106.9 copies/ml** |  |  |  |  |  |  |  |
| No | 168 (28.1) | 2969 (71.0) | <.001 | 157 (93.5) | 10 (6.0) | 1 (0.6) | .14 |
| Yes | 430 (71.9) | 1215 (29.0) | 370 (86.1) | 45 (10.5) | 15 (3.5) |
| **Malnutritione** |  |  |  |  |  |  |  |
| Normal (WAZ > -2 SDs) | 523 (87.5) | 3947 (88.1) | .66 | 462 (88.3) | 47 (9.0) | 14 (2.7) | .72 |
| Moderate/Severe (WAZ < -2 SDs) | 75 (12.5) | 534 (11.9) | 65 (86.7) | 8 (10.7) | 2 (2.7) |
| a The majority of controls selected for CRP testing had an increased likelihood for elevated CRP (i.e., controls that were positive for *S. pneumoniae* on whole blood PCR, had a respiratory tract illness, or had a total nasopharyngeal/oropharyngeal pathogen load in the top 25% of controls at a site were oversampled for testing).  b Chi-square univariate test. | | | | | | | |
| c P-value obtained from multivariate logistic regression adjusting for site and age, comparing CRP<40 vs. CRP≥40 mg/l. | | | | | | | |
| d Respiratory tract illness (RTI) in controls was defined as having cough or runny nose. RTI was also defined as having 1) at least one of ear discharge, wheezing, or difficulty breathing *and* 2) either a measured fever (temp ≥ 38.0°C) within the previous 48 hours, or a history of sore throat. | | | | | | | |
| e Normal defined as WHO weight-for-age z-score ≥ -2 SDs. Moderate/severe defined as WHO weight-for-age z-score < -2 SDs. | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Supplementary Table 3. Characteristics of HIV-negative, CXR-positivea cases with very high levels of C-reactive protein (CRP)** | | | | | |
|  | **CRP <40 mg/L** | **CRP 40-<100 mg/L** | **CRP 100-<200 mg/L** | **CRP ≥200 mg/L** | **P-value**b |
| (N=982) | (N=293) | (N=137) | (N=96) |
| n (col%) | n (col%) | n (col%) | n (col%) |
| **Site** |  |  |  |  |  |
| Kenya | 139 (14.2) | 43 (14.7) | 15 (10.9) | 20 (20.8) |  |
| The Gambia | 90 (9.2) | 46 (15.7) | 22 (16.1) | 18 (18.8) |  |
| Mali | 118 (12.0) | 37 (12.6) | 33 (24.1) | 19 (19.8) |  |
| Zambia | 97 (9.9) | 51 (17.4) | 28 (20.4) | 12 (12.5) | .14 |
| South Africa | 293 (29.8) | 81 (27.6) | 27 (19.7) | 26 (27.1) |  |
| Thailand | 69 (7.0) | 16 (5.5) | 6 (4.4) | 0 (0.0) |  |
| Bangladesh | 176 (17.9) | 19 (6.5) | 6 (4.4) | 1 (1.0) |  |
| **Age** (months)  0-5  6-11  11-23  24-59 |  |  |  |  |  |
| 422 (43.0) | 106 (36.2) | 41 (29.9) | 21 (21.9) |  |
| 233 (23.7) | 79 (27.0) | 28 (20.4) | 19 (19.8) |  |
| 223 (22.7) | 71 (24.2) | 48 (35.0) | 32 (33.3) | .002 |
| 104 (10.6) | 37 (12.6) | 20 (14.6) | 24 (25.0) |  |
| **Female** | 424 (43.2) | 117 (39.9) | 66 (48.2) | 46 (47.9) | .26 |
| **Very severe pneumonia** | 253 (25.8) | 89 (30.4) | 53 (38.7) | 40 (41.7) | .02 |
| **Malnutrition**c | 338 (34.6) | 100 (34.1) | 68 (49.6) | 34 (35.8) | .02 |
| **Feverd** | 755 (77.0) | 268 (91.5) | 124 (90.5) | 93 (96.9) | .15 |
| **Hypoxemia**e | 426 (43.5) | 137 (46.8) | 64 (46.7) | 41 (42.7) | .74 |
| **Died within 30 days**f | 58 (6.5) | 16 (6.3) | 10 (8.6) | 11 (13.4) | .10 |
| **Wheezing** | 352 (35.8) | 62 (21.2) | 16 (11.7) | 10 (10.4) | .37 |
| **Discharge diagnosis** |  |  |  |  |  |
| Pneumonia only | 522 (53.2) | 156 (53.2) | 70 (51.1) | 52 (54.2) | .13 |
| Bronchiolitis | 126 (12.8) | 33 (11.3) | 7 (5.1) | 2 (2.1) | .04 |
| Diarrhea | 13 (1.3) | 9 (3.1) | 3 (2.2) | 0 (0.0) | .76 |
| Malaria | 3 (0.3) | 1 (0.3) | 1 (0.7) | 2 (2.1) | .58 |
| Meningitis | 5 (0.5) | 1 (0.3) | 1 (0.7) | 2 (2.1) | .38 |
| Septicemia | 19 (1.9) | 2 (0.7) | 7 (5.1) | 2 (2.1) | .03 |
| Tuberculosis | 24 (2.4) | 10 (3.4) | 6 (4.4) | 2 (2.1) | .36 |
| Other | 284 (28.9) | 86 (29.4) | 43 (31.4) | 35 (36.5) | .74 |
| a CXR-positive: evidence of alveolar consolidation, other infiltrate, or both on chest radiograph.  b Multinomial logistic regression with 3-level outcome of CRP 40-<100 mg/l, 100-<200 mg/l, and ≥200 mg/l; p-value adjusted for age and site. | | | | | |
| c Moderate or severe malnutrition (WHO weight-for-age z score < -2 SDs). | | | | | |
| d Observed temperature ≥ 38.0⁰C or fever reported by guardian. | | | | | |
| e Hypoxemia: room air reading of O2 sat <90% at sites at elevation (Zambia and South Africa) and <92% at all other sites or O2 requirement (if on O2 and room air reading not available). | | | | | |
| f Died within 30 days of enrollment among cases with known vital status at 30 days. | | | | | |

**Supplementary Table 4. Distribution of C-Reactive Protein (CRP) among HIV-negative PERCH Cases with Various Case Definitions for Bacterial and Viral Etiology**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CRP (mg/L)** | **Confirmed bacterial pneumonia casesa** | | | | | **RSV pneumonia casesb** | | | | |
| **(increasing specificity for bacterial pneumonia)** | | | | | **(decreasing specificity for RSV pneumonia)** | | | | |
| **CXR-Normal** | **All** | **CXR-OIc** | **CXR+d** | **CXR-ACe** | **CXR-Normal** | **All** | **CXR-OIb** | **CXR+c** | **CXR-ACd** |
| **N=28** | **N=119** | **N=16** | **N=64** | **N=48** | **N=218** | **N=556** | **N=143** | **N=259** | **N=116** |
| n (%) | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) | n (%) |
| <40 | 7 (25.0) | 28 (23.5) | 8 (50.0) | 15 (23.4) | 7 (14.6) | 193 (88.5) | 459 (82.6) | 118 (82.5) | 198 (76.4) | 80 (69.0) |
| ≥40 | 21 (75.0) | 91 (76.5) | 8 (50.0) | 49 (76.6) | 41 (85.4) | 25 (11.5)† | 97 (17.4)† | 25 (17.5)\* | 61 (23.6)† | 36 (31.0)† |
| <10 | 4 (14.3) | 12 (10.1) | 5 (31.3) | 6 (9.4) | 1 (2.1) | 139 (63.8) | 308 (55.4) | 72 (50.3) | 120 (46.3) | 48 (41.4) |
| 10-<40 | 3 (10.7) | 16 (13.4) | 3 (18.8) | 9 (14.1) | 6 (12.5) | 54 (24.8) | 151 (27.2) | 46 (32.2) | 78 (30.1) | 32 (27.6) |
| 40-<100 | 5 (17.9) | 21 (17.6) | 4 (25.0) | 11 (17.2) | 7 (14.6) | 23 (10.6) | 76 (13.7) | 19 (13.3) | 45 (17.4) | 26 (22.4) |
| ≥100 | 16 (57.1) | 70 (58.8) | 4 (25.0) | 38 (59.4) | 34 (70.8) | 2 (0.9) | 21 (3.8) | 6 (4.2) | 16 (6.2) | 10 (8.6) |
| a Any bacterial pathogen found on blood culture, lung aspirate culture or PCR, pleural fluid culture or PCR, or *S. pneumoniae* detected in pleural fluid by BinaxNow assay. | | | | | | | | | | |
| b Cases positive for RSV on nasopharyngeal/oropharyngeal (NP/OP) PCR or induced sputum PCR, excluding 1) confirmed bacterial cases (defined above) and 2) cases with whole blood pneumococcal PCR density > 102.2 copies/ml or NP/OP *S. pneumoniae* PCR density > 106.9 copies/ml or NP/OP PCR density of *H. influenzae* > 105.9 copies/ml). | | | | | | | | | | |
| c CXR-OI: other infiltrate (without alveolar consolidation) identified on chest radiograph. | | | | | | | | | | |
| d CXR+: alveolar consolidation and/or other infiltrate identified on chest radiograph. | | | | | | | | | | |
| e CXR-AC: alveolar consolidation identified on chest radiograph, with or without other infiltrates. | | | | | | | | | | |
| \*p<.05; †p<.001 (comparing CRP <40 vs. ≥ 40 mg/L within same case sub-group among confirmed bacterial cases vs. RSV+ cases). | | | | | | | | | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 5: Distribution of C-reactive protein (CRP) among HIV-negative confirmed *S. pneumoniae*, confirmed *H. influenzae*, and confirmed other bacterial cases.** | | | | | | | |
| **CRP (mg/L)** | **Confirmed *S. pneumoniae*a** | | **Confirmed *H. Influenzae*b** | | **Confirmed Other bacteriac** | |
| Negd | Pos. | Negd | Pos. | Negd | Pos. |
| n=3232 | n=38 | n=3232 | n=20 | n=3232 | n=62 |
| <40 | 2399 (74.2) | 6 (15.8) | 2399 (74.2) | 3 (15.0) | 2399 (74.2) | 19 (30.6) |
| ≥40 | 833 (25.8) | 32 (84.2) | 833 (25.8) | 17 (85.0) | 833 (25.8) | 43 (69.4)\*\* |
| p-value\* | <.001 | | <.001 | | <.001 | |
| <10 | 1406 (43.5) | 3 (7.9) | 1406 (43.5) | 1 (5.0) | 1406 (43.5) | 8 (12.9) |
| 10-<40 | 993 (30.7) | 3 (7.9) | 993 (30.7) | 2 (10.0) | 993 (30.7) | 11 (17.7) |
| 40-<100 | 531 (16.4) | 3 (7.9) | 531 (16.4) | 3 (15.0) | 531 (16.4) | 15 (24.2) |
| ≥100 | 302 (9.3) | 29 (76.3) | 302 (9.3) | 14 (70.0) | 302 (9.3) | 28 (45.2)\*\*\* |
| a *S. pneumoniae* identified by blood culture, lung aspirate PCR or culture or pleural fluid PCR, culture or BinaxNow. | | | | | | | |
| b Confirmed *H. influenzae* infection identified by blood culture, pleural fluid PCR or culture, or lung aspirate PCR or culture.  c Other bacterial pathogen, excluding  *S. pneumoniae* and  *H. influenzae,* identified by blood culture, pleural fluid PCR or culture, or lung aspirate PCR or culture. | | | | | | | |
| d Excludes all confirmed bacterial cases (n=145).  \* p-values from logistic regression for elevated CRP (≥40 vs. <40 mg/L) adjusted for site and age.  \*\* p-value=.21 comparing percent of cases confirmed for Spn or Hib with CRP ≥40 copies/mL to cases confirmed for other pathogens, adjusted for site and age.  \*\*\* p-value=.03 comparing percent of cases confirmed for Spn or Hib with CRP ≥100 copies/mL to cases confirmed for other pathogens, adjusted for site and age.     |  | | --- | |  | | | | | | | | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 6. Distribution of C-reactive protein among severe and very severe pneumonia cases with and without suspected *S. pneumoniae* and *H. influenzae* pneumoniaa** | | | | | | | | |
| **CRP (mg/L)** | ***S. pneumoniae* (Spn)** | | | | ***H. influenzae* (HINF)** | | **Spn or HINF** | |
| **NP/OP PCR density** | | **Whole blood PCR density** | | **NP/OP PCR density** | | **PCR Density** | |
| Low/Negb | Highb | Low/Negc | Highc | Low/Negd | Highd | Low/Nege | Highe |
| n=2046 | n=260 | n=2160 | n=94 | n=1693 | n=612 | n=1463 | n=781 |
| <40 | 1542 (75.4) | 144 (55.4) | 1597 (73.9) | 46 (48.9) | 1297 (76.6) | 390 (63.7) | 1143 (78.1) | 501 (64.1) |
| ≥40 | 504 (24.6) | 116 (44.6) | 563 (26.1) | 48 (51.1) | 396 (23.4) | 222 (36.3) | 320 (21.9) | 280 (35.9) |
| p-valuef | <.001 | | <.001 | | <.001 | | <.001 | |
| <10 | 897 (43.8) | 83 (31.9) | 926 (42.9) | 25 (26.6) | 791 (46.7) | 189 (30.9) | 699 (47.8) | 254 (32.5) |
| 10-<40 | 645 (31.5) | 61 (23.5) | 671 (31.1) | 21 (22.3) | 506 (29.9) | 201 (32.8) | 444 (30.3) | 247 (31.6) |
| 40-<100 | 318 (15.5) | 52 (20.0) | 353 (16.3) | 13 (13.8) | 245 (14.5) | 124 (20.3) | 208 (14.2) | 149 (19.1) |
| ≥100 | 186 (9.1) | 64 (24.6) | 210 (9.7) | 35 (37.2) | 151 (8.9) | 98 (16.0) | 112 (7.7) | 131 (16.8) |
|  | | | | | | | | |
| aSuspected bacterial pneumonia cases were children with NP/OP PCR *Streptococcus pneumoniae* (Spn)density >106.9 copies/ml, whole blood PCR Spn density >102.2 copies/ml, or NP/OP PCR *Haemophilus influenzae* (Hinf) density >105.9 copies/ml. Table excludes all confirmed bacterial cases (n=119), all confirmed viral cases (n=9), and all cases positive for RSV by NP/OP PCR or induced sputum PCR (n=883). | | | | | | | | |
| b Low density/Negative Spn: NP/OP PCR density ≤ 106.9 copies/ml; high density Spn: NP/OP PCR density > 106.9 copies/ml.  c Low density/Negative Spn: whole blood PCR density ≤ 102.2 copies/ml; high density Spn: whole blood PCR density > 102.2 copies/ml.  d Low density/Negative HINF: NP/OP PCR density ≤ 105.9 copies/ml; high density Spn: NP/OP PCR density > 105.9 copies/ml.  e Low density/Negative: Spn NP/OP PCR density ≤ 106.9 copies/ml *and* Spn whole blood PCR density ≤ 102.2 copies/ml *and* HINF NP/OP PCR density ≤ 105.9 copies/ml; high density: Spn NP/OP PCR density > 106.9 copies/ml *or* Spn whole blood PCR density > 102.2 copies/ml *or* HINF NP/OP PCR density > 105.9 copies/ml.  f Multivariate logistic regression adjusted for site, age. | | | | | | | | |
| Compared to cases without high density for Spn or Hinf, the proportion with CRP ≥40 mg/L was higher among suspected bacterial cases (36% vs. 22%, p<.001). Of the three density measures, the association with elevated CRP was strongest for high density Spn in whole blood: 51% and 37% of cases had CRP ≥40 and ≥100 mg/L, respectively, compared to 26% (p<.001) and 10% (p<.001) of cases who had low density Spn in whole blood or were negative). | | | | | | | | |

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