**Supplemental Digital Content 2.** Characteristics of the Study Cohorts (N=4,735)

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| --- | --- | --- | --- |
| Time Period of ED Arrival(Epoch) | **Aug 2016 – Jul 2017 (1)** | **Aug 2017 – Dec 2018 (2)** | Jan 2019 – Dec 2020 (3) |
| Characteristics Mean (SD) or % (N) |  |  |  |
| Age Category | 7.9 years (6.2) | 8.0 years (6.7) | 6.9 years (6.5) |
|  Neonate (0 to 4 weeks) | 7.6% (84) | 9.5% (144) | 8.9% (187) |
|  Infant (>4 weeks to <2 years) | 14.7% (162) | 15.2% (230) | 22.6% (479) |
|  Toddler and preschool (2 to <6 years) | 23.6% (261) | 22.6% (341) | 22.9% (485) |
|  School age child (6 to <13 years) | 30.9% (342) | 26.8% (406) | 25.5% (540) |
|  Adolescent and young adult (≥13 years) | 23.2% (256) | 25.9% (392) | 20.1% (426) |
|  % of Overall Study Cohort (N) | 23.3% (1105) | 32.0% (1513) | 44.7% (2117) |
|   |  |  |  |
| Hospitalized as inpatient or observation | 58.6% (647) | 63.5% (960) | 63.4% (1343) |
|   |  |  |  |
| Length of stay if hospitalized  | 5.5 days (9.9) | 5.5 days (20.1) | 4.7 days (9.0) |
|   |  |  |  |
| Length of time spent in ED | 4.8 hours (2.4) | 4.8 hours (2.4) | 5.0 hours (2.7) |
|  |  |  |  |
| Infectious Disease primary service linea | 16.0% (177) | 15.6% (236) | 14.5% (306) |
|  |  |  |  |
| Gender (% female) | 53.8% (595) | 49.1% (743) | 51.6% (1092) |
|  |  |  |  |
| Race/Ethnicity |  |  |  |
|  White/Caucasian | 41.5% (459) | 40.5% (613) | 42.0% (889) |
|  Black or African American | 48.2% (533) | 47.7% (722) | 45.1% (955) |
|  Hispanic | 8.0% (88) |  8.6% (130) | 10.1% (213) |
|  Asian | 1.4% (16) | 2.2% (33) | 1.8% (38) |
|  Native American/Alaskan/Hawaiian or Pacific Islander |  0.6% (6) |  0.8% (12) |  0.4% (8) |
|  Other or Declined |  0.3% (3) |  0.2% (3) | 0.6% (14) |
|   |  |  |  |
| Emergency Severity Index, ESIb (acuity) |  |  |  |
|  Level 1 | 13.3% (147) | 11.6% (176) | 13.2% (280) |
|  Level 2 | 44.2% (488) | 45.9% (695) | 40.6% (859) |
|  Level 3 | 20.9% (231) | 26.6% (402) | 26.5% (561) |
|  Level 4 | 20.0% (221) | 15.0% (226) | 18.7% (395) |
|  Level 5 | 1.3% (15) | 0.5% (8) | 0.8% (18) |
|  Not assigned | 0.3% (3) | 0.4% (6) | 0.2% (4) |
|  |  |  |  |
| Diagnostic Group (APR-DRG® v32)c |  |  |  |
|  Upper Respiratory Tract Infection  | 13.0% (144) | 8.1% (122) | 9.6% (203) |
|  Pneumonia | 7.1% (78) | 7.0% (106) | 9.1% (192) |
|  Bronchiolitis & RSV Pneumonia | 5.0% (55) | 6.7% (101) | 6.9% (146) |
|  Kidney and Urinary Tract Infection | 2.8% (31) | 4.8% (73) | 7.8% (166) |
|  Fever | 6.7% (74) | 6.0% (91) | 4.4% (94) |
|  All Other (164 diagnostic groups) | 65.4% (723) | 67.4% (1020) | 62.2% (1316) |
|  |  |  |  |
| Deaths (all causes, admitted or ED-only)d |  0.18% (2) |  0.13% (2) |  0.09% (2) |

aAssigned following discharge based on APR-DRG v32 classification.

bLevel 1 is highest acuity, Level 5 is lowest.

cAll Patient Refined - Diagnosis Related Groups, 3M Corporation.

dAll deaths within one week of ED arrival. Excludes patients who died >1 week after ED arrival, arrested prior to ED arrival, had DNR status or family requested to allow natural death shortly after ED arrival.