|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplemental Table 3 – Performance of alternate classification and regression tree (CART) derived profiles among outbreaks reported through the National Outbreak Reporting System (NORS), 2009-2012** | | | | | | | | | | | |
| **Profiles** | | **Confirmed Norovirus1** | **Suspected Norovirus 2** | **Confirmed Non-Viral3** | **Unknown4** | **Cohen's Kappa (95% CI)** | **Likelihood Ratio** | **Sensitivity, % (95% CI)** | **Specificity, % (95% CI)** | **Positive Predictive Value,**  **% (95% CI)** | **Negative Predictive Value, % (95% CI)** |
| Fever-to-Vomit Ratio < 1, Prop. Bloody Stool <0.1, Prop. Vomit ≥ 0.1 | |  |  |  |  |  |  |  |  |  |  |
|  | Outbreaks with all criteria | 706 | 324 | 607 | 762 |  |  |  |  |  |  |
|  | Outbreaks that fit the criteria | 612 | 269 | 59 | 576 | 0.77 (0.71-0.82) | 8.9 | 86.7 (84.0-89.0) | 90.3 (87.7-92.4) | 91.2 (88.8-93.1) | 85.4 (82.4-87.9) |
|  | Outbreaks that did not fit the criteria | 94 | 55 | 548 | 186 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Fever-to-Vomit Ratio < 1, Prop. Bloody Stool <0.1, Prop. Vomit ≥ 0.26 | |  |  |  |  |  |  |  |  |  |  |
|  | Outbreaks with all criteria | 706 | 324 | 607 | 762 |  |  |  |  |  |  |
|  | Outbreaks that fit the criteria | 605 | 261 | 46 | 536 | 0.78 (0.72-0.83) | 11.3 | 85.7 (82.9-88.1) | 92.4 (90.0-94.3) | 92.9 (90.7-94.7) | 84.7 (81.8-87.3) |
|  | Outbreaks that did not fit the criteria | 101 | 63 | 561 | 226 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Fever-to-Vomit Ratio < 1, Prop. Bloody Stool <0.1, Prop. Vomit < 0.44 | |  |  |  |  |  |  |  |  |  |  |
|  | Outbreaks with all criteria | 706 | 324 | 607 | 762 |  |  |  |  |  |  |
|  | Outbreaks that fit the criteria | 31 | 15 | 22 | 97 | 0.01 (-0.01 - 0.03) | 1.2 | 4.4 (3.1-6.2) | 96.4 (94.6-97.6) | 58.5 (45.1-70.7) | 46.4 (43.7-49.2) |
|  | Outbreaks that did not fit the criteria | 675 | 309 | 585 | 665 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Fever-to-Vomit Ratio < 1, Prop. Bloody Stool <0.27, Prop. Vomit ≥ 0.1 | |  |  |  |  |  |  |  |  |  |  |
|  | Outbreaks with all criteria | 706 | 324 | 607 | 762 |  |  |  |  |  |  |
|  | Outbreaks that fit the criteria | 631 | 283 | 85 | 609 | 0.75 (0.70-0.81) | 6.4 | 89.4 (86.9-91.4) | 86.0 (83.0-88.5) | 88.1 (85.6-90.3) | 87.4 (84.5-89.9) |
|  | Outbreaks that did not fit the criteria | 75 | 41 | 522 | 153 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Fever-to-Vomit Ratio < 1, Prop. Bloody Stool <0.27, Prop. Vomit ≥ 0.26 | |  |  |  |  |  |  |  |  |  |  |
|  | Outbreaks with all criteria | 706 | 324 | 607 | 762 |  |  |  |  |  |  |
|  | Outbreaks that fit the criteria | 624 | 275 | 67 | 565 | 0.77 (0.72-0.83) | 8.0 | 88.4 (85.8-90.5) | 89.0 (86.2-91.2) | 90.3 (87.9-92.3) | 86.7 (86.8-90.3) |
|  | Outbreaks that did not fit the criteria | 82 | 49 | 540 | 197 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Fever-to-Vomit Ratio < 1, Prop. Bloody Stool <0.27, Prop Vomit <0.44 | |  |  |  |  |  |  |  |  |  |  |
|  | Outbreaks with all criteria | 706 | 324 | 607 | 762 |  |  |  |  |  |  |
|  | Outbreaks that fit the criteria | 31 | 15 | 33 | 102 | -01 (-0.03-0.01) | 0.8 | 4.4 (3.1-6.2) | 94.6 (92.5-96.1) | 48.4 (36.6-60.4) | 46.0 (43.2-48.8) |
|  | Outbreaks that did not fit the criteria | 675 | 309 | 574 | 660 |  |  |  |  |  |  |
| 1Single etiology outbreaks with norovirus reported as confirmed (laboratory confirmation of two or more cases) (N=2,939) | | | | | | | | | | | |
| 2Single etiology outbreaks with norovirus reported as suspected (laboratory confirmation in fewer than two cases) (N=1,321) | | | | | | | | | | | |
| 3Single etiology outbreaks with a confirmed non-viral etiology (see Supplemental Table 2) (N=1,573) | | | | | | | | | | | |
| 4Outbreaks reported without any suspected or confirmed etiology (N=3,694) | | | | | | | | | | | |