Table S1 Overview of comparison results for paired NPS and sputum samples and combined positive NPS and sputum samples

| Type of sample               | No. sample pairs tested | No. sample pairs (%) before combining | No. sample pairs (%) with a positive result after combining | No. virus detected before combining | No. virus detected (%) after combining |
|-----------------------------|-------------------------|--------------------------------------|-------------------------------------------------------------|-----------------------------------|---------------------------------------|
| NPS positive alone          | 7                       | 6 (86)                               | 12                                                          | 10 (83)                           |
| Sputum positive alone       | 24                      | 21 (88)                              | 30                                                          | 26 (87)                           |
| Both NPS and sputum positive| 61                      | 61 (100)                             | 61                                                          | 61 (100)                          |
| Total number of positives   | 92                      | 88 (96)                               | 103                                                         | 97 (94)                           |

| No. of positive viral nucleic acid detection before combining | No. of positive viral nucleic acid detection after combining |
|---------------------------------------------------------------|-------------------------------------------------------------|
| Virus                      | Total | NPS and sputum | NPS only | Sputum only | Total | NPS and sputum | NPS only | Sputum only |
|-----------------------------|-------|----------------|----------|-------------|-------|----------------|----------|-------------|
| Rhinovirus                  | 32    | 19             | 2        | 11          | 29    | 19             | 2        | 8^b         |
| Coronavirus OC43            | 17    | 11             | 1        | 5           | 16    | 11             | 1        | 4^c         |
| Influenza A/pdm09           | 15    | 9              | 1        | 5           | 15    | 9              | 1        | 5           |
| Virus Type               | 11 | 9  | 1  | 1  | 11 | 9  | 1  | 1  |
|-------------------------|----|----|----|----|----|----|----|----|
| RSV B                   |    |    |    |    |    |    |    |    |
| Metapneumovirus         | 6  | 5  | 1  | 0  | 6  | 5  | 1  | 0  |
| Parainfluenza 1         | 5  | 2  | 1  | 2  | 4  | 2  | 0  | 2  |
| Adenovirus              | 4  | 0  | 1  | 3  | 3  | 0  | 0  | 3  |
| Parainfluenza 2         | 3  | 2  | 1  | 0  | 3  | 2  | 1  | 0  |
| Parainfluenza 4         | 2  | 1  | 1  | 0  | -  | 2  | 1  | 1  |
| Enterovirus             | 2  | 1  | 0  | 1  | -  | 2  | 1  | 0  |
| RSV A                   | 2  | 1  | 0  | 1  | -  | 2  | 1  | 0  |
| Coronavirus 229E        | 1  | 0  | 1  | 0  | -  | 1  | 0  | 1  |
| HBOV                    | 1  | 0  | 0  | 1  | -  | 1  | 0  | 0  |
| Influenza A/H3          | 1  | 0  | 1  | 0  | -  | 1  | 0  | 1  |
| **Total**               | 103| 61 | 12 | 30 | 97 | 61 | 10 | 26 |

aNPS, nasopharyngeal swab; RSV, respiratory syncytial virus; HBOV, human bocavirus.

bCt value prior to combining for each of the three not detected viruses was 38.7, 39.4, and 40.5.

cCt value prior to combining for the not detected virus was 38.5.
Ct value prior to combining for the not detected virus was 38.3.

Ct value prior to combining for the not detected virus was 40.8.