**Viral Etiologies of Hospitalized Acute Lower Respiratory Infection Patients in China, 2009-2013**

**Supplementary Information**

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Table S1. Primers and sequence information to detect viral etiologies by RT-PCR or PCR in this study

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Virus | Primer | Sequence (5’-3’) | Gene | Amplificationsize |
| RT-PCR |  |  |  |  |
| Influenza [1] | FluAB3 | GATCAAGTGAKMGRRAGYMGRAAYCCAGG  | NP | A: 301bpB: 226bpC: 111bp |
| FluC3 | AAATTGGAATTTGTTCCTTTCAAGGGACA |
| FluAC4 | TCTTCAWATGCARSWSMAWKGCATGCCATC |
| FluB4 | CTTAATATGGAAACAGGTGTTGCCATATT |
| RSV [1] | RSVA3 | TTATACACTCAACAATRCCAAAAAWACC | F | A: 363 bpB: 611 bp |
| RSVA4 | AAATTCCCTGGTAATCTCTAGTAGTAGTCTGT  |
| RSVB3 | ATCTTCCTAACTCTTGCTRTTAATGCATTG |
| RSVB4 | GATGCGACAGCTCTGTTGATTTACTATG |
| PIV [2] | 1PIV13 | AGGWTGYSMRGATATAGGRAARTCAT | HA | PIV1: 439bpPIV2: 297bpPIV3: 390bpPIV4: 174bp |
| 2PIV13 | CTWGTATATATATRTAGATCTTKTTRCCTAGT |
| 1PIV2 | TAATTCCTCTTAAAATTGACAGTATCGA |
| 1PIV4 | ATCCAGARRGACGTCACATCAACTCAT |
| 2PIV24 | TRAGRCCMCCATAYAMRGGAAATA |
| hMPV [3] | hMPVLF | CATGCCCACTATAAAAGGTCAG | L | 171bp |
| hMPVLR | CACCCCAGTCTTTCTTGAAA |
| hCoV [4] | hCoVFc | GGTTGGGACTATCCTAAGTGTGA | POL | 440bp |
| hCoVRc | CCATCATCAGATAGAATCATCATA |
| PCR |  |  |  |  |
| ADV [5] | 1-ADVF | GCCSCARTGGKCWTACATGCACATC | Hexon | 301bp |
| 1-ADVR | CAGCACSCCICGRATGTCAAA |
| hBoV [6] | HBoVF | GACCTCTGTAAGTACTATTAC | NP1 | 354bp |
| HBoVR | CTCTGTGTTGACTGAATACAG |

RSV: Respiratory syncytial virus; ADV: adenovirus virus; PIV: parainfluenza virus; hMPV: human metapneumovirus; hCoV: human coronavirus; hBoV: human bocavirus.

Table S2. Primers and sequence information to detect viral etiologies by Real-time RT-PCR or PCR in this study

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Virus | Primers | Sequence (5’-3’) | 3' Label | 5' Label | Gene |
| Influenza [7,8] | FluA-FFluA-RFluA-P | GACCRATCCTGTCACCTCTGACAGGGCATTYTGGACAAAKCGTCTATGCAGTCCTCGCTCACTGGGCACG | TAMRA | FAM | M2 |
| 09FluH1-F09FluH1-R09FluH1-P | GTGCTATAAACACCAGCCTYCCACGGGATATTCCTTAATCCTGTRGCCAGAATATACA”T”CCRGTCACAATTGGARAA | TAMRA | FAM | HA |
| FluB-FFluB-RFluB-P | TGCCTACCTGCTTTMMYTRACACCRAACCAACARTGTAATTTTTCTGTGCTTTGCCTTCTCCA | TAMRA | FAM | M |
| RSV [9] | RSVA-FRSVA-RRSVA-P | GCTCTTAGCAAAGTCAAGTTGAATGATGCTCCGTTGGATGGTGTATTACACTCAACAAAGATCAACTTCTGTCATCCAGC | TAMRA | FAM | N |
| RSVB-FRSVB-RRSVB-P | GATGGCTCTTAGCAAAGTCAAGTTAATGTCAATATTATCTCCTGTACTACGTTGAATGATACATTAAATAAGGATCAGCTGCTGTCATCCA | TAMRA | FAM | N |
| PIV [10] | hPIV1-FhPIV1-RhPIV1-P | TGATTTAAACCCGGTAATTTCTCATCCTTGTTCCTGCAGCTATTACAGAACGACAACAGGAAATC | TAMRA | FAM | HN |
| hPIV2-FhPIV2-RhPIV2-P | AGGACTATGAAAACCATTTACCTAAGTGAAAGCAAGTCTCAGTTCAGCTAGATCAATCAATCGCAAAAGCTGTTCAGTCACTGCTATAC | TAMRA | FAM | HN |
| hPIV3-FhPIV3-RhPIV3-P | TGATGAAAGATCAGATTATGCATCATCCCGGGACACCCAGTTGTGTGGACCAGGGATATACTACAAAGGCAAAATAATATTTCTC | TAMRA | FAM | HN |
| hPIV4-FhPIV4-RhPIV4-P | CAAAYGATCCACAGCAAAGATTCATGTGGCCTGTAAGGAAAGCAGTATCATCATCTGCCAAATCGGCAATTAAACA | TAMRA | FAM | Nucleoc-apsid |
| hMPV [11] | hMPV-FhMPV-RhMPV-P | CATAYAARCATGCTATATTAAAAGAGTCTCCCTATYTCTGCAGCATATTTGTAATCAGTGYAATGATGARGGTGTCACTGCRGTTG | TAMRA | FAM | NP |
| hCoV [12] | 229E-F229E-R229E-P | CAGTCAAATGGGCTGATGCAAAAGGGCTATAAAGAGAATAAGGTATTCTCCCTGACGACCACGTTGTGGTTCA | TAMRA | FAM | NP |
| NL63-FNL63-RNL63-P | GACCAAAGCACTGAATAACATTTTCCACCTAATAAGCCTCTTTCTCAACCCAACACGCTTCCAACGAGGTTTCTTCAACTGAG | TAMRA | FAM | NP |
| OC43-FOC43-ROC43-P | CGATGAGGCTATTCCGACTAGGTCCTTCCTGAGCCTTCAATATAGTAACCTCCGCCTGGCACGGTACTCCCT | TAMRA | FAM | NP |
| HKU1-FHKU1-RHKU1-P  | CCTTGCGAATGAATGTGCTTTGCATCACCACTGCTAGTACCACTGTGTGGCGGTTGCTATTATGTTAAGCCTG | TAMRA | FAM | Replicase1b |
| ADV [13] | hAdV-FhAdV-RhAdV-P | GCCACGGTGGGGTTTCTAAACTTGCCCCAGTGGTCTTACATGCACATCTGCACCAGACCCGGGCTCAGGTACTCCGA | TAMRA | FAM | Hexon |
| hBoV [14] | HBoV-FHBoV-RHBoV-P | AGAGGCTCGGGCTCATATCACACTTGGTCTGAGGTCTTCGAAAGGAACACCCAATCARCCACCTATCGTCT  | TAMRA | FAM | NP-1 |

B =C, G, or T; H =A, C, or T; R= A or G; S =G or C; Y =C or T.

RSV: Respiratory syncytial virus; ADV: adenovirus virus; PIV: parainfluenza virus; hMPV: human metapneumovirus; hCoV: human coronavirus; hBoV: human bocavirus; HN: Hemagglutinin neuraminidase.

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