

Electronic Supplementary Material

A Multicenter Study of Viral Aetiology of Community-Acquired Pneumonia in Hospitalized Children in Chinese Mainland

Yun Zhu¹ • Baoping Xu² • Changchong Li³ • Zhimin Chen⁴ • Ling Cao⁵ • Zhou Fu⁶ • Yunxiao Shang⁷ • Aihuan Chen⁸ • Li Deng⁹ • Yixiao Bao¹⁰ • Yun Sun¹¹ • Limin Ning¹² • Shuilian Yu¹³ • Fang Gu¹⁴ • Chunyan Liu¹ • Ju Yin² • Adong Shen¹⁵ • Zhengde Xie^{1✉} • Kunling Shen^{16✉}

1. Laboratory of Infection and Virology, Beijing Pediatric Research Institute, Beijing Key Laboratory of Pediatric Respiratory Infection Diseases, Research Unit of Critical Infection in Children, Chinese Academy of Medical Sciences, 2019RU016, Beijing Children's Hospital, Capital Medical University, Key Laboratory of Major Diseases in Children, Ministry of Education, National Clinical Research Center for Respiratory Diseases, National Center for Children's Health, Beijing 100045, China
2. Department of Respiratory Diseases I, Beijing Children's Hospital, Capital Medical University, National Clinical Research Center for Respiratory Diseases, National Center for Children's Health, Beijing 100045, China
3. The 2nd Affiliated Hospital and Yuying Children's Hospital of Wenzhou Medical University, Wenzhou 325027, China
4. The Children's Hospital of Zhejiang University School of Medicine, Hangzhou 310005, China
5. Children's Hospital Capital Institute of Pediatrics, Beijing 100020, China
6. Children's Hospital of Chongqing Medical University, Chongqing 400015, China
7. Shengjing Hospital of China Medical University, Shenyang 110004, China
8. The First Affiliated Hospital of Guangzhou Medical University, Guangzhou 510120, China
9. Guangzhou Women and Children's Medical Center, Guangzhou 510623, China
10. Xinhua Hospital Affiliated to Shanghai Jiao Tong University School of Medicine, Shanghai 200092, China
11. Yinchuan Women and Children Healthcare Hospital, Yinchuan 750000, China
12. Children's Hospital of Changchun, Changchun 130000, China
13. The 2nd Affiliated Hospital of Harbin Medical University, Harbin 150086, China
14. Baoding Children's Hospital, Baoding 071051, China
15. Laboratory of Respiratory Diseases, Beijing Key Laboratory of Pediatric Respiratory Infection Diseases, Beijing Pediatric Research Institute, Beijing Children's Hospital, Capital Medical University, Key Laboratory of Major Diseases in Children, Ministry of Education, National Clinical Research Center for Respiratory Diseases, National Center for Children's Health, Beijing 100045, China
16. Beijing Children's Hospital, Capital Medical University, National Clinical Research Center for Respiratory Diseases, National Center for Children's Health, Beijing 100045, China

Table S1 Comparison of detection rate of different viruses/virus subtypes in age groups between north China and south China

Viral Pathogens	Region	Age group, n (%)				
		< 6 m	6–12 m	1–3 y	3–5 y	> 5 y
HEV/HRV	North China	35 (34.7)*	36 (34.6)	93 (28.1)	60 (22.6)	48 (14.7)
	South China	92 (29.5)*	58 (22.5)	122 (24.7)	50 (20.4)	49 (17.2)
	Total	30.8 (127)*	94 (26.0)	215 (26.1)	110 (21.5)	97 (15.9)
RSV	North China	37 (36.6)*	26 (25.0)	46 (13.9)	27 (10.2)	4 (1.2)
	South China	89 (28.5)*	51 (19.8)	99 (20.1)	24 (9.8)	11 (3.9)
	Total	126 (30.5)*	77 (21.3)	145 (17.6)	51 (10.0)	15 (2.5)
RSV A	North China	25 (24.8)	15 (14.4)	35 (10.6)	13 (4.9)	4 (1.2)
	South China	72 (23.1)	45 (17.4)	76 (15.4)	18 (7.3)	9 (3.2)
	Total	97 (23.5)	60 (16.6)	111 (0.4)	31 (6.1)	13 (2.1)
RSV B	North China	12 (11.9)	12 (11.5)	14 (4.2)	14 (5.3)	0 (0)
	South China	20 (6.4)	11 (4.3)	27 (5.5)	2 (0.8)	3 (1.1)
	Total	32 (7.7)	13 (6.4)	41 (5.0)	16 (3.1)	3 (0.5)
HPIV	North China	9 (8.9)	18 (17.3)*	51 (15.4)	29 (10.9)	16 (4.9)
	South China	23 (7.4)	25 (9.7)*	48 (9.7)	16 (6.5)	9 (3.2)
	Total	32 (7.7)	43 (11.9)	99 (12.0)*	45 (8.8)	25 (4.1)
HPIV1	North China	1 (1.0)	3 (2.9)	11 (3.3)	13 (4.9)	4 (1.2)
	South China	1 (0.3)	1 (0.4)	7 (1.4)	3 (1.2)	0 (0)
	Total	2 (0.5)	4 (1.1)	18 (2.2)	16 (3.1)	4 (0.7)
HPIV2	North China	0 (0)	2 (1.9)	1 (0.3)	1 (0.4)	3 (0.9)
	South China	8 (2.6)	10 (3.9)	9 (1.8)	1 (0.4)	2 (0.7)
	Total	8 (1.9)	12 (3.3)	10 (1.2)	2 (0.4)	5 (0.8)
HPIV3	North China	8 (6.9)	13 (12.5)	30 (9.1)	9 (3.4)	9 (2.8)
	South China	12 (3.8)	12 (4.7)	34 (6.9)	8 (3.3)	7 (2.5)
	Total	19 (4.6)	25 (6.9)	64 (7.8)	17 (3.3)	16 (2.6)
HPIV4	North China	1 (1.0)	1 (1.0)	11 (3.3)	6 (2.3)	1 (0.3)
	South China	3 (1.0)	2 (0.8)	2 (0.4)	4 (1.6)	0 (0)
	Total	4 (1.0)	3 (0.8)	13 (1.6)	10 (2.0)	1 (0.2)
HAdV	North China	6 (5.9)	7 (6.7)	34 (10.3)*	11 (4.1)	16 (4.9)
	South China	7 (2.2)	11 (4.3)	30 (6.1)	18 (7.3)*	14 (4.9)
	Total	13 (3.1)	18 (5.0)	64 (7.8)*	29 (5.7)	30 (4.9)
HCoV	North China	5 (5.0)	3 (2.9)	11 (3.3)	10 (3.8)	4 (1.2)
	South China	12 (3.8)	9 (3.5)	10 (2.0)	4 (1.6)	3 (1.1)
	Total	17 (4.1)	12 (3.3)	21 (2.5)	14 (2.7)	7 (1.1)
HCoV-229E	North China	1 (1.0)	1 (1.0)	1 (0.3)	0 (0)	0 (0)
	South China	2 (0.6)	6 (2.3)	3 (0.6)	1 (0.4)	2 (0.7)
	Total	3 (0.7)	7 (1.9)	4 (0.5)	1 (0.2)	2 (0.3)
HCoV-OC43	North China	5 (5.0)	2 (1.9)	6 (1.8)	7 (2.6)	1 (0.3)
	South China	7 (2.2)	1 (0.4)	4 (0.8)	1 (0.4)	2 (0.7)
	Total	12 (2.9)	3 (0.8)	10 (1.2)	8 (1.6)	3 (0.5)
HCoV- NL63	North China	0 (0)	0 (0)	1 (0.3)	5 (0.8)	1 (0.3)
	South China	0 (0)	0 (0)	0 (0)	0 (0)	2 (0.7)
	Total	0 (0)	0 (0)	1 (0.1)	5 (0.4)	3 (0.5)
HCoV-HKU1	North China	0 (0)	0 (0)	4 (1.2)	1 (0.4)	2 (0.6)
	South China	3 (1.0)	2 (0.8)	3 (0.6)	2 (0.8)	1 (0.4)
	Total	3 (0.7)	2 (0.6)	7 (0.8)	3 (0.6)	3 (0.5)
Flu A	North China	0 (0)	3 (2.9)	8 (2.4)	7 (2.6)	5 (1.5)
	South China	5 (1.6)	11 (4.3)	15 (3.0)	9 (3.7)	12 (4.2)
	Total	5 (1.2)	14 (3.9)	23 (2.8)	16 (3.1)	17 (2.8)
2009 H1N1	North China	0 (0)	1 (1.0)	2 (0.6)	1 (0.4)	0 (0)

	South China	1 (0.3)	0 (0)	2 (0.4)	4 (1.6)	4 (1.4)
	Total	1 (0.2)	1 (0.3)	4 (0.5)	5 (1.0)	4 (0.7)
H3	North China	0 (0)	1 (1.0)	4 (1.2)	3 (1.1)	3 (0.9)
	South China	0 (0)	2 (0.8)	2 (0.4)	5 (2.0)	0 (0)
	Total	0 (0)	3 (0.8)	6 (0.7)	8 (1.6)	3 (0.5)
Flu B	North China	6 (5.9)	5 (4.8)	12 (3.6)	13 (4.9)	4 (4.0)
	South China	1 (0.3)	1 (0.4)	7 (1.4)	5 (2.0)	6 (2.1)
	Total	7 (1.7)	6 (1.7)	19 (2.3)	18 (3.5)	19 (3.1)
HBoV	North China	16 (15.8)	22 (21.2)*	63 (19.0)	16 (6.0)	10 (3.1)
	South China	21 (6.7)	15 (5.8)	48 (9.7)*	13 (5.3)	14 (4.9)
	Total	37 (9.0)	37 (10.2)	111 (13.5)*	29 (5.7)	24 (3.9)
HMPV	North China	6 (5.9)	4 (3.8)	29 (8.8)*	22 (8.3)	11 (3.4)
	South China	27 (8.7)	28 (10.9)	46 (9.3)	31 (12.7)*	9 (3.2)
	Total	33 (8)	32 (8.8)	75 (9.1)	53 (10.4)*	20 (3.3)

The highest detection rate in age groups was highlighted by bold.

The symbol “*” indicated that there was statistic difference among age groups.

RSV: respiratory syncytial virus; HEV/HRV: human enterovirus/human rhinovirus; HPIVs: human parainfluenza viruses (including HPIV1–4); HBoV: human bocavirus; HMPV: human metapneumovirus, HAdV: human adenovirus; Flu A: influenza A virus (including 2009 pandemic H1N1 influenza A virus, H3 subtype influenza A virus); HCoVs: human coronavirus (including HCoV-229E, -OC43, -NL63 and -HKU1); Flu B: influenza B virus.