



Emerging respiratory virus. The changing face of Pediatric respiratory tract infections.

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Respiratory tract infections

- URI accounts for numerous health care visits, unnecessary antibiotic prescriptions & significant societal costs
- LRI is a leading cause of morbidity and mortality

Lancet 2011

Etiology of LRI in hospitalized children

154 children ; aged 2 mo-17 yr (median age 33 mo)



3%

3%

- Bacteria
- Viral
- Mixed
- Atypical Bacteria
- Fungal
- Unknown

RSV, Influenza, RhinoV, ParaInflu
Adeno

Michelow et al, Pediatrics 2004; 113: 701-7

Etiology of the lower respiratory tract infection in children.

Pavia A, et al Clin Infect dis 2011

Variable	Juven et al [16] (n = 254)	Tsolia et al [18] (n = 75)	Michelow et al [17] (n = 154)	Cevey-Macherel et al [19] (n = 99)
Age	1 month–17 years	5–14 years	2 months–17 years	2 months–5 years
Any pathogen identified	215 (85)	58 (77)	122 (79)	85 (86)
Any bacteria ^a	134 (53)	30 (40)	93 (60)	52 (52)
Any virus ^b	158 (62)	49 (65)	65 (45)	66 (66)
Bacteria and virus	77 (30)	21 (28)	35 (23)	33 (33)
Specific viruses				
Influenza virus	10 (4)	5 (7)	32 (22)	14 (14)
Parainfluenza virus	25 (10)	6 (8)	20 (13)	13 (13)
Adenovirus	19 (7)	9 (12)	11 (7)	7 (7)
RSV	73 (29) ^a	2 (3)	20 (13)	13 (13)
Human metapneumovirus	Ns	1 (1)	ns	13 (13)
Rhinovirus	58 (24)	34 (45)	5 (3)	20 (20)
Coronavirus	7 (3)	ns	ns	7 (7)
Enterovirus	Ns	ns	1 (<1)	13 (13)

Viral respiratory tract infections

Since 2001, several new respiratory viruses have been identified in children and adults with respiratory tract infections (normal & immunocompromised host)