

SUPPLEMENTARY MATERIAL

Clinical features of respiratory syncytial virus and influenza infections in hospitalized adults across three Italian regions

Tommaso Bigoni,¹ Franco Alfano,¹ Marta Vicentini,² Maria João Fonseca,³
Elisa Turriani,⁴ Elisa Vian,⁵ Micaela Romagnoli,⁶ Massimiliano Beccaria,⁷
Luca Pontalto,¹ Michele Schincaglia,¹ Federico Baraldi,¹ Alberto Papi¹

¹Respiratory Unit, Sant'Anna University Hospital, Ferrara, Italy; ²GlaxoSmithKline, Verona, Italy; ³GlaxoSmithKline, Lisbon, Portugal; ⁴GlaxoSmithKline, Wavre, Belgium; ⁵Microbiology Unit, Cà Foncello Hospital, AULSS2 Marca Trevigiana, Treviso, Italy; ⁶Respiratory Unit, Cà Foncello Hospital, AULSS2 Marca Trevigiana, Treviso, Italy; ⁷Respiratory Unit, ASST Mantua, Italy

Correspondence: Alberto Papi, Respiratory Unit, Sant'Anna University Hospital, Ferrara, Italy. Tel.: +39 0532 239752. E-mail: ppa@unife.it

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Methods. Definition of acute respiratory infection.

Acute respiratory infection was defined as the presence of:

- At least two respiratory symptoms/signs for at least 24 hours

OR

- At least one respiratory symptom/sign plus one systemic symptom/sign for at least 24 hours

Case definition	
Upper respiratory symptoms	Nasal congestion/rhinorrhea
	Sore throat
Lower respiratory symptoms	New or increased sputum
	New or increased cough
	New or increased dyspnea (shortness of breath)
Lower respiratory signs	New or increased wheezing*
	New or increased crackles (rales)/rhonchi, based on chest auscultation
	Respiratory rate ≥ 20 respirations/minute**
	Low or decreased oxygen saturation ($<95\%$ or $\leq 90\%$ of baseline is $<95\%$)**
Systemic signs and symptoms	Need for oxygen supplementation*
	Fever ¹ /feverishness ²
	Fatigue
	Body aches
	Headache
	Decreased appetite

*Reported by study participant or investigator; **measured and reported by investigator only at admission. ¹Fever is defined as a temperature $\geq 38.0^{\circ}\text{C}$ by any route; ²feverishness is defined as the feeling of having fever without objective measurement.

Supplementary Table 1. Statistical comparisons of baseline characteristics.

Endpoint	Comparison	Group data	p
Age, years	Non-ARI vs. ARI	69.1 (13.6) vs. 64.2 (13.9)	0.003 ^a
	Non-infected vs. infected	67.3 (13.7) vs. 64.1 (14.9)	NS ^b
	Non-infected vs. viral infection	67.3 (13.7) vs. 58.5 (14.8)	NS ^a
	Non-infected vs. bacterial infection	67.3 (13.7) vs. 59.8 (16.9)	NS ^a
Radiologically confirmed pneumonia	Non-ARI vs. ARI	7 (5.4%) vs. 74 (65.5%)	0.000 ^c
	Non-infected vs. infected	54 (26.2%) vs. 27 (75.0%)	0.000 ^c
	Non-infected vs. viral infection	54 (26.2%) vs. 8 (66.7%)	0.003 ^c
	Non-infected vs. bacterial infection	54 (26.2%) vs. 11 (78.6%)	0.000 ^c
Charlson Comorbidity Index	Non-ARI vs. ARI	5.0 (3.1) vs. 3.5 (2.4)	$<0.001^a$
	Non-infected vs. infected	4.4 (3.0) vs. 3.3 (2.4)	0.046 ^a
	Non-infected vs. viral infection	4.4 (3.0) vs. 2.6 (2.0)	NS ^a
	Non-infected vs. bacterial infection	4.4 (3.0) vs. 3.1 (2.8)	NS ^a
NIAID-OS	Non-ARI vs. ARI	4.3 (1.0) vs. 4.6 (1.0)	0.004 ^a
	Non-infected vs. infected	4.4 (1.0) vs. 4.9 (1.3)	0.010 ^b
	Non-infected vs. viral infection	4.4 (1.0) vs. 4.9 (1.4)	0.023 ^a
	Non-infected vs. bacterial infection	4.4 (1.0) vs. 5.2 (1.2)	0.009 ^a
Eosinophil count, cells/ μL	Non-ARI vs. ARI	161.6 (217.5) vs. 109.6 (197.2)	0.001 ^a
	Non-infected vs. infected	152.7 (219.6) vs. 52.5 (107.6)	$<0.001^a$
	Non-infected vs. viral infection	152.7 (219.6) vs. 7.5 (12.2)	$<0.001^a$
	Non-infected vs. bacterial infection	152.7 (219.6) vs. 60.7 (81.1)	NS ^a
Lymphocyte count, cells/ μL	Non-ARI vs. ARI	3543.3 (20,448.2) vs. 1569.8 (2673.4)	0.003 ^a
	Non-infected vs. infected	2904.8 (16,391.0) vs. 1095.8 (537.0)	$<0.001^a$
	Non-infected vs. viral infection	2904.8 (16,391.0) vs. 790.8 (433.4)	$<0.001^a$
	Non-infected vs. bacterial infection	2904.8 (16,391.0) vs. 1234.3 (593.1)	NS ^a

Data are number (percent) or mean (standard deviation). ARI, acute respiratory infection (see supplement for definition); NS, not statistically significant; NIAID-OS, National Institute of Allergy and Infectious Disease Ordinal Scale (ranging from 0 [not hospitalised and with no limitation of activities] to 8 [death]). Statistical test applied: aWilcoxon; b-t-test; cChi-square.

Supplementary Table 2. Statistical comparisons of acute respiratory infection symptoms.

Endpoint	Comparison	Group data	p
Lower respiratory signs or symptoms	Non-ARI vs. ARI	104 (78.2%) vs. 104 (92.0%)	0.003
	Non-infected vs. infected	175 (83.3%) vs. 33 (91.7%)	NS
	Non-infected vs. viral infection	175 (83.3%) vs. 13 (100.0%)	NS
	Non-infected vs. bacterial infection	175 (83.3%) vs. 13 (92.9%)	NS
Systemic signs or symptoms	Non-ARI vs. ARI	30 (22.6%) vs. 77 (68.1%)	0.000
	Non-infected vs. infected	85 (40.5%) vs. 22 (61.1%)	0.021
	Non-infected vs. viral infection	85 (40.5%) vs. 10 (76.9%)	0.010
	Non-infected vs. bacterial infection	85 (40.5%) vs. 10 (71.4%)	0.023
Upper respiratory symptoms	Non-ARI vs. ARI	1 (0.8%) vs 10 (8.8%)	0.002
	Non-infected vs. infected	8 (3.8%) vs 3 (8.3%)	NS
	Non-infected vs. viral infection	8 (3.8%) vs 3 (23.1%)	0.002
	Non-infected vs. bacterial infection	8 (3.8%) vs 0	NS

Data are number (percent) positive for the symptoms category. ARI, acute respiratory infection (see supplement for definition); NS, not statistically significant. The statistical test applied was the Chi-square.