

**Association of three Well-Characterized Polymorphisms in *IL -6* and
IL -10 Genes with Pneumonia: A Meta-Analysis**

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Supplementary Table S1. Criteria for quality assessment of genetic associations of the *IL-6* gene C-174G polymorphism with pneumonia risk

Criteria	Quality score
<i>Representativeness of cases</i>	
A. Consecutive/randomly selected from case population with clearly defined random frame	2
B. Consecutive/randomly selected from case population without clearly defined random frame or with extensive inclusion criteria	1
C. Method of selection not described	0
<i>Representativeness of controls</i>	
D. Controls were consecutive/randomly drawn from the same area (ward/community) as cases with the same criteria	2
E. Controls were consecutive/randomly drawn from a different area than cases	1
F. Not described	0
<i>Ascertainment of pneumonia cases</i>	
G. Clearly described objective criteria for diagnosis of pneumonia	1
H. Not described	0
<i>Ascertainment of controls</i>	
I. Clinical examinations were performed on controls to prove that controls did not have pneumonia	2
J. Article merely stated that controls were subjects who did not have pneumonia; no proof provided	1
K. Not described	0
<i>Ascertainment of genotyping examination</i>	
L. Genotyping done under "blind" conditions	1

M. Unblended or not mentioned	0
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<i>Test for Hardy-Weinberg equilibrium</i>	
N. Hardy-Weinberg equilibrium in control group	2
O. Hardy-Weinberg disequilibrium in control group	1
P. Hardy-Weinberg equilibrium not checked	0
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<i>Association assessment</i>	
Q. Assessed association between genotypes and pneumonia with appropriate statistic and adjusting confounders	2
R. Assessed association between genotypes and pneumonia with appropriate statistic without adjusting confounders	1
S. Inappropriate statistic used	0
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Supplementary Table S2. Excluded studies of IL-6, IL-10 gene polymorphisms and pneumonia risk.

exclusion criteria	Number	Titles of Excluded studies
based on title	8	<p>Relationship between cytokine gene polymorphisms and risk of postoperative pneumonia with esophageal cancer.</p> <p>Sex and inflammation in respiratory diseases: a clinical viewpoint.</p> <p>Human parainfluenza virus serotypes differ in their kinetics of replication and cytokine secretion in human tracheobronchial airway epithelium.</p> <p>Pulse methylprednisolone therapy in type 3 adenovirus pneumonia with hypercytokinemia.</p> <p>Cytokine gene polymorphisms moderate illness severity in infants with respiratory syncytial virus infection.</p> <p>A human origin type II strain of <i>Toxoplasma gondii</i> causing severe encephalitis in mice.</p> <p>Pulse methylprednisolone therapy in type 3 adenovirus pneumonia with hypercytokinemia.</p> <p>The NLRP3 inflammasome is differentially activated by pneumolysin variants and contributes to host defense in pneumococcal pneumonia.</p>
non English articles	2	<p>TNF-α, IL-10, and eNOS gene polymorphisms in patients with influenza A/H1N1 complicated by pneumonia.</p> <p>Genetic markers of predisposition to infectious complications in neonatal infants with respiratory distress syndrome.</p>
based on abstract	5	<p>Searching for an immunogenetic factor that will illuminate susceptibility to non-tuberculous mycobacterial disease.</p> <p>Genetics of community-acquired pneumonia.</p> <p>Gene polymorphism in intensive care patients. Is the course of disease predetermined?</p> <p>Genetic markers of predisposition to infectious complications in neonatal infants with respiratory distress syndrome.</p> <p>Interleukin-1 receptor antagonist intron 2 variable number of tandem repeats polymorphism and respiratory failure in children with community-acquired pneumonia.</p>

reviews	3	<p>Systemic cytokine response in patients with community-acquired pneumonia.</p> <p>Importance of severity of illness assessment in management of lower respiratory infections.</p> <p>Genetics of sepsis and pneumonia.</p>
other interleukin polymorphism	8	<p>Genetic polymorphisms within tumor necrosis factor gene promoter region: a role for susceptibility to ventilator-associated pneumonia.</p> <p>Interferon-gamma 874A>T genetic polymorphism is associated with infectious complications following surgery in patients with thoracic esophageal cancer.</p> <p>The -308G/A polymorphism of TNF-alpha influences immunological parameters in old subjects affected by infectious diseases.</p> <p>Alleles carried at positions -819 and -592 of the IL10 promoter affect transcription following stimulation of peripheral blood cells with Streptococcus pneumoniae.</p> <p>Stroke, IL-1ra, IL1RN, infection and outcome.</p> <p>Genetic polymorphisms within tumor necrosis factor gene promoter region: a role for susceptibility to ventilator-associated pneumonia.</p> <p>Interleukin-1 receptor antagonist gene polymorphism in patients with multidrug-resistant Acinetobacter baumannii-associated pneumonia.</p> <p>Haplotype of IL-8 -251T and 781C is associated with the susceptibility to respiratory syncytial virus.</p>
articles with only patients	3	<p>Variants at the promoter of the interleukin-6 gene are associated with severity and outcome of pneumococcal community-acquired pneumonia.</p> <p>Association of IL-10 polymorphism with severity of illness in community acquired pneumonia.</p> <p>Interleukin-10 haplotype associated with increased mortality in critically ill patients with sepsis from pneumonia but not in patients with extrapulmonary sepsis.</p>
articles for duplicate search	1	<p>Host genetic risk factors for community-acquired pneumonia.</p>
