

## Swine Flu (novel H1N1) transmission, control, diagnosis and reemergence: An overview

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**ABSTRACT:**

Swine flu (A H1N1), a quadruple reassortant virus, causes respiratory illness in people. It is a new influenza virus, first detected in people in the United States in April 2009. It is a global threat, affecting more than 70 countries. The case fatality rate (CFR) of the pandemic strain has been estimated at 0.4%. In India, 1927 laboratory confirmed cases of novel influenza A H1N1 have been reported with 25 deaths. The novel H1N1 virus spreads from human to human, in similar way that of regular seasonal influenza viruses, and their clinical presentation imitate seasonal flu; sometimes diarrhea, vomiting, severe illnesses and death have also been reported. The virus is resistant to amantadine and rimantadine and sensitive to oseltamivir and zanamivir. However, oseltamivir resistant strains have also emerged. Use of approved N95 filtering face piece respirators, powered air purifying respirators during flu patient care and medical procedures have been recommended. AS03 adjuvant pandemic (H1N1) 2009 vaccine have been found effective in preventing pandemic (H1N1) 2009 disease. Different technologies such as intranasal administered SAP, multimeric forms of the 2009 A(H1N1) HA (sHA) and NA (sNA) surface glycoproteins, ty/04 att-based vaccines, licochalcone G and chalcones from the acetone extract of *Glycyrrhiza inflata* are being thought of and explored to control and treat influenza. Generalized lymphopenia, preferential loss of Th17 population and T cell activation and radiological imaging have been indicated for earlier diagnosis. The phylogenetic studies indicate 2009 novel H1N1 origin from that of the 1918 pandemic strain. Undoubtedly we are heading towards unraveling the mysteries of the influenza virus, but it seems to be far more tactical to prevail, emerge or re- emerge. Thus, potentially threatening challenge still surrounds us.

**Keywords:**

Novel H1N1, transmission, resistance, re-emergence, Glycyrrhiza.