



SJCEIRS

Summary of novel H7N9 assessment in various animal models

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Ferrets infected with A/Anhui/1/2013 (H7N9) virus showed mild signs of fever and transient weight loss of 5-10% but recovered quickly. Animals shed virus to high titers for around 6 days. The virus was efficiently spread to naïve animals via contact but inefficiently via airborne routes.

Ferrets are generally considered an appropriate animal for modeling the transmission and pathogenicity of influenza viruses in humans. These data from ferrets indicate that A/Anhui/1/2013-like viruses may have potential to transmit between humans in close contact with infected animals, including humans. Regarding pathogenicity, the ferret data would indicate that the severe disease reported in some human cases in China may be due to other, non-virologic, factors (e.g., pre-existing conditions, age).

In **chickens**, natural route infection (oral, nasal, ocular, tracheal) of 10^6 EID₅₀ A/Anhui/1/2013 (H7N9) virus resulted in no disease signs. Chickens shed virus tracheally only. The IVPI for A/Anhui/1/2013 was 0. Most natural-route infected chickens seroconverted and all tested IVPI chickens seroconverted. Level of seroconversion as determined by HI assay was generally low.

Three different strains of **mice** (BALB/c; C57BL/6; DBA/2J) showed A/Anhui/1/2013 (H7N9) virus to be pathogenic without prior adaptation.