

# Cat-to-Human H7N2 Infection

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## In the Literature

Marinova-Petkova A, Laplante J, Jang Y, et al. Avian influenza A(H7N2) virus in humans exposed to sick cats, New York, USA, 2016. *Emerg Infect Dis.* 2017;23(12):2046-2049.

## FROM THE PAGE ...

Influenza poses a tremendous public health burden, and extensive surveillance is used to detect emerging influenza threats.

Although influenza in cats is rare, a previous 2016 case report identified a large influenza outbreak in cats in a New York animal shelter.<sup>1</sup> The strain involved in this outbreak was an H7N2 avian influenza virus that had been identified in birds and a small number of humans in the early 2000s but had not been identified as part of large-scale testing (ie, 132 000-212 000 tests per day) in birds in the United States between 2007 and 2014.

The case report highlighted here discusses a veterinarian who had collected oropharyngeal samples from clinically normal cats at the shelter during the outbreak and subsequently developed influenza-like illness (eg, sore throat, muscle pain, cough).<sup>1</sup> When the virus was sequenced, human and feline isolates were found to be closely related to H7N2 strains that had been circulating in birds in the northeastern United States in the early 2000s. Although H7N2 is considered an avian influenza strain, feline and human isolates had changes in their genomes that enhanced the ability of the virus to attach to the mammalian respiratory tract and increase the risk for intramammary transmission. Although this strain had not been identified in the United States between the early 2000s and 2016, the genetic changes (ie, drift) present as compared with older strains suggest that it has continued to circulate, likely in wild birds.

## ... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Veterinarians may be at the forefront of exposure to new infectious disease risks.
- 2** Without testing of sick cats, this situation would have likely gone unidentified, as specific testing of the veterinarian occurred only because of the history of exposure to infected cats.
- 3** Veterinarians should be aware of zoonotic disease risks and ensure their healthcare providers are informed of any situations that might increase the likelihood of a zoonotic infection.

## Reference

1. Lee CT, Slavinski S, Schiff C, et al. Outbreak of influenza A(H7N2) among cats in an animal shelter with cat-to-human transmission-New York City, 2016. *Clin Infect Dis.* 2017;65(11):1927-1929.