Avian influenza A(H7N9) virus: Post-exposure antiviral chemoprophylaxis of close contacts of a patient with confirmed H7N9 virus infection and/or high risk poultry/environmental exposures.

WHO is in the process of developing standard guidelines on clinical management of influenza, including antiviral treatment. A series of systematic reviews using the Grading of Recommendations Assessment, Development and Evaluation (GRADE) process have been completed and an expert panel was convened to form recommendations. The following recommendation on post-exposure antiviral chemoprophylaxis for avian influenza A(H7N9) virus infection is based upon review of available data in accordance with these guidelines, and is being released ahead of the full publication.

WHO continues to recommend antiviral treatment with a neuraminidase inhibitor as soon as possible for patients with suspected or confirmed H7N9 virus infection; antiviral treatment should not be delayed while H7N9 laboratory test results are pending.

Persons who have had unprotected close contact with a patient with confirmed H7N9 virus infection or exposure to poultry, live poultry market or environments contaminated by H7N9 virus should be monitored for 7 days after the last known exposure. If fever or any respiratory symptom develops, empiric antiviral treatment should be started immediately, and respiratory specimens should be collected for H7N9 virus testing. Empiric early antiviral treatment with a neuraminidase inhibitor for 5 days is recommended. A clinical decision should be made about whether to extend the duration of the antiviral treatment.

WHO does not recommend routine post-exposure antiviral chemoprophylaxis for H7N9 virus. However, for some asymptomatic persons in which a substantial unprotected or prolonged exposure to an ill patient with H7N9 infection has occurred, initiation of empiric post-exposure antiviral treatment (e.g. oseltamivir 75 mg orally twice daily for 5 days), on the presumption that influenza virus infection has occurred, may be considered. This is likely to be limited to healthcare or other settings involving substantial exposure of those at higher risk for complications from influenza virus infection, including, but not limited to, patients with severe immunosuppression, neonates and infants, pregnant and early post-partum women, elderly adults, persons with chronic co-morbidities and, other highly vulnerable patients; or, unprotected healthcare workers, especially those involved in aerosol-generating procedures.

RECOMMENDATION: Antiviral chemoprophylaxis following exposure to H7N9 virus is generally not recommended. Symptomatic individuals with exposure to H7N9 virus should receive prompt antiviral treatment with a neuraminidase inhibitor.

1 Ideally, the sampling should precede antiviral treatment but should not delay the initiation of the treatment.
2 Persons aged >60 years are considered at increased risk of severe illness according to the published information by the Chinese authorities.
Empiric antiviral treatment with a neuraminidase inhibitor can be considered for the following groups:

- Asymptomatic persons with underlying medical conditions (e.g. immune system compromise) with recent exposure to poultry, live poultry market or environments contaminated by H7N9 virus;
- Asymptomatic persons with underlying medical conditions (e.g. immune system compromise) or unprotected healthcare workers (especially those involved in aerosol-generating procedures) who have recently had close unprotected exposure to a patient with confirmed H7N9 virus infection.

This recommendation takes account of:

- Epidemiological situations and transmission patterns of H7N9 virus. Poultry/environment-to-human transmission of H7N9 virus is rare. Human-to-human H7N9 virus transmission is very uncommon, thought to have occurred in only a few occasions among family members, and has not been reported in healthcare workers. There is no evidence of sustained human-to-human H7N9 virus transmission to date.
- Reports of oseltamivir resistance after post-exposure antiviral chemoprophylaxis failure, particularly during the 2009 H1N1 pandemic, where a majority of the population lacked baseline immunity, such that the standard regimen for post-exposure antiviral chemoprophylaxis (oseltamivir 75 mg\(^3\) once daily for 10 days) for seasonal influenza may have increased the risk of emergence of oseltamivir-resistant H1N1 virus infection, particularly if antiviral chemoprophylaxis was not started soon after exposure.
- Lack of knowledge on appropriate dose and duration of antiviral chemoprophylaxis after exposure to H7N9 virus.
- Severely immunosuppressed persons who may not manifest fever with influenza virus infection or who might have atypical symptoms that do not meet a definition of Influenza-like illness.

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\(^3\) For paediatric patients 1-12 years of age, based on weight.