

Update on Avian Influenza

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Study on environmental sampling during an Avian Outbreak in Cambodia

Samples were taken from the environment of households within one kilometre of the confirmed outbreak of birds or confirmed human cases. They sampled mud, still water (ponds), soil and water plants in and around 14 households areas in three villages with PCR testing. Viral RNA was detectable in poultry faeces, soil, some unconcentrated water, mud, water plants and feathers of dead poultry. However it was not possible to isolate any viruses so the role of environmental contaminants in infecting humans is so far still unclear. However it does reinforce the theory that those in contact with poultry and their detritus are at a potential risk of avian influenza and other zoonotic infections.

Update on Oseltamivir resistance in 2007-2008 seasonal influenza viruses in Europe

Although sporadic low level transmission of drug resistant viruses has taken place since 1999 when the Neuraminidase inhibitor drugs were first licensed, it was the winter season 07/08 that for the first time showed widespread and sustained transmission of such viruses in the community. Such viruses previously had not been able to readily transmit and had rapidly disappeared.

The proportion of Influenza A (H1N1) viruses that were

found to be oseltamivir resistant varied significantly across Europe. The highest proportion of resistant viruses to date has been in Norway followed by Belgium, France, Netherlands and Luxembourg. Surveillance in previous years by the Virgil Project found <1% of circulating viruses to be resistant. There is no evidence that the appearance of these new viruses are related to use of oseltamivir which is currently not widely prescribed in most European countries. The European Centre of Disease Prevention and Control (ECDC) is now working with the manufacturer and national authorities to gather more information on routine oseltamivir use in Europe.

The clinical experience in Norway and elsewhere suggests that people who become ill with an oseltamivir resistant strain of Influenza A (H1N1) had a similar spectrum of illness to those infected with 'normal' seasonal influenza A, which can cause severe disease or death in vulnerable people (older people, those with debilitating illnesses and the very young).

At this stage the significance of these findings remains uncertain. The emergence of drug resistance in the context of limited drug use is unexpected, and the extent of future circulation is difficult to predict. The ECDC, WHO, European Influenza Surveillance Scheme (EISS), European Surveillance Network for Vigilance against Viral Resistance (VIRGIL) and authorities in the member states are undertaking intensive surveillance to monitor this.