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Avian influenza XXXIII

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Viable field vaccination strategies

Vaccination of poultry is rarely utilised against HPAI in developed countries. Early diagnosis and stamping out without vaccination are commonly practised for immediate eradication.

However, in developing countries, the use of vaccine against H5 and H7 LPAI and HPAI depends on the endemic strain that is present and the ability to successfully stamp out the virus. Of 37 HPAI epizootics that occurred between 1959 and 2015, only five instances utilised vaccination and stamping out. The remaining 32 epizootics used only stamping out.

Avian influenza vaccination was used in 1995 for an H5N2 HPAI epidemic in Mexico and the H7N3 HPAI epidemic in Pakistan, in 2002 for the Gs/GD linkage H5N1 epidemic in Asia, in 2005 for the H7N7 epidemic in North Korea and in 2012 for the H7N3 epidemic in Mexico.

In situations where the use of vaccine is being considered, the risk of avian influenza should be determined. If the risk is high, correct vaccination could be used as an effective prevention tool as part of a multi-component avian influenza control strategy. For example, in Hong Kong in 2002 compulsory vaccination was implemented because of the repeated introduction of H5N1 HPAI in imported poultry from southern China where H5N1 HPAI was epidemic. This strategy was successful in preventing further outbreaks of H5N1 in poultry in Hong Kong and preventing exposure to, and infection with, the virus in humans.

However, the approach of blanket vaccination in all situations should not be endorsed. Vaccine use without proper biosecurity and surveillance may make the early detection of avian influenza infection difficult, thereby confounding rapid detection and stamping out programmes.

Aveve Biochem	Grimaud Frères	Joosten
Aviagen Turkeys	Henke-Sass Wolf	Kanters
Ayurvet	Herbonis	Lubing
CID Lines	Honeywell	Norel
Coventry Chemicals	Hubbard	Ovet
DACS	Hyline	Plumatech
Diamond V	Impextraco	Val-Co
Dupont/Danisco	Interheat	Wisium
Giordano	Jansen	Ziggity