

ARE EQUINE 1 INFLUENZA VIRUSES STILL CIRCULATING IN THE WORLD ?

Two international surveys (Table 1) indicate that equine 1 influenza viruses [prototype strain A/equine/Prague/1/57 (H7N7)] have not been isolated anywhere in the world for at least 12 years. On the other hand, the survey revealed that there is still serological evidence for H7N7 influenza virus in some parts of the world. Laboratories were requested to report the detection of antibodies in non-vaccinated horses. The survey done in 1990 indicates that hemagglutinin inhibition (HI) antibodies were detected in unvaccinated horses in Belgium, Russia and the United States. One possibility is that the equine 1 (H7N7) virus is still circulating but is causing no clinical disease signs. Another possibility is that some of the sera tested were from vaccinated animals or that the inhibition in the serological assay represented non-specific inhibitors of hemagglutination.

Since equine 1 (H7N7) is still included in equine influenza vaccines in some countries, it will be difficult to rule out inadvertent inclusion of vaccinated horses in such serological surveys. The only convincing evidence for the continued circulating of equine 1 influenza viruses in the world is the isolation of virus. Laboratories are encouraged to continue efforts to isolate equine 1 influenza viruses and to submit any isolates to their national laboratories or to the World Health Organization reference laboratories.

While it is of academic interest to know whether equine 1 influenza virus has disappeared from horses, it also has practical importance. Equine vaccines should contain representative viruses to protect against currently circulating strains. While it would be foolish to remove the equine 1 component from vaccines if it is still circulating it is economically and scientifically sound to find out if this component is needed. Continued virological and serological surveillance should answer these questions.

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COUNTRY	CENTERS RESPONDING 1985	CENTERS RESPONDING 1990	TOTAL CENTERS RESPONDING	YEAR OF LAST KNOWN EQUINE 1 (H7N7) VIRUS ISOLATE	YEAR WHEN ANTIBODY TO EQUINE 1 (H7N7) LAST DETECTED*
Germany	1	1	1	Never detected	Never detected
France	2	2	3	1971	1973
Belgium	0	1	1	Never detected	1990
Holland	1	1	2	Never detected	Not known
Denmark	0	2	2	Not known	Not known
Austria	1	1	1	1973	1973
Switzerland	1	1	1	1973	1990**
Italy	1	1	2	1976	1981
Sweden	0	3	3	1974	1974
England	2	0	2	1977	1984
Czechoslovakia	1	1	1	1978	1989
Ireland	1	1	2	1979	1981
Poland	1	2	2	Not known	1984
Yugoslavia	2	1	2	1980	1983
Hungary	0	1	1	Never detected	1985**
Turkey	0	1	1	Not known	Not known
Israel	1	1	1	Never detected	1983
Morocco	0	0	0	Not known	1985**
Nigeria	1	0	1	Never detected	Not known
S. Africa	0	1	1	Never detected	Never detected
Russia	1	2	2	1974	1989
Mongolia	1	0	1	1978	1985
P.R. China	1	1	1	1974	1974
Hong Kong	2	0	2	Never detected	Never detected
Japan	3	5	6	Never detected	Never detected
Argentina	1	1	1	1976	1986
Brazil	1	1	1	1976	1984
USA	1	3	3	1977	1990
Canada	0	1	1	Never detected	Not known
Australia	1	0	1	Never detected	Not known
New Zealand	1	1	1	Never detected	Never detected

* In non-vaccinated horses

** These antibodies were reported in horses from other countries.