THE ROYAL SOCIETY

The Academy of Medical Sciences

Summary of oral evidence: Dr Alan Hay

27 April 2006

Dr Alan Hay is Director of the World Influenza Centre based at the National Institute for Medical Research in London which is one of four WHO Collaborating Centres worldwide for reference and research on influenza and one of eight WHO H5 Reference Laboratories. The views expressed were the personal views of Dr Hay.

Members of the working group present were: Sir John Skehel, Professor Glynis Breakwell, Professor Neil Ferguson, Professor Barry Furr, Dr John McCauley, Professor Andrew McMichael, Professor Karl Nicholson, Dr Geoffrey Schild and Richard Stubbins.

Key points

World Health Organisation Influenza Surveillance Network

Dr Hay explained that the WHO Global Influenza Surveillance Network comprises four WHO Collaborating Centres and 112 institutions in 83 countries, which are recognized by WHO as WHO National Influenza Centres (NICs). These NICs collect specimens in their country, perform primary virus isolation and preliminary antigenic characterisation. They ship newly isolated strains to one of the four collaborating centres for high level antigenic and genetic analysis, the result of which forms the basis for WHO recommendations on the composition of influenza vaccine for the Northern and Southern Hemisphere each year.

The WHO Influenza Surveillance Network serves also as a global alert mechanism for the emergence of influenza viruses with pandemic potential. Dr Hay said that in the case of H5 samples the process is not as well adhered to. Samples are being identified at National Influenza Centres and other laboratories but are not routinely being passed to the Collaborating Centres or H5 Reference Laboratories for further analysis.

Viruses and Data sharing

In the United Kingdom and world wide viruses from outbreaks of seasonal influenza are routine isolated and characterised by WHO's four Influenza centres. References viruses anti-sera and data are made available to researchers and industry (for vaccine manufacture) without any restrictions. In the case of avian influenza, particularly the current work on H5N1, sharing of viruses and data is much more restricted. Most human viruses, reagents and data are shared within the network of eight H5 Reference Laboratories and are available for the development of prototype H5N1 vaccine strains, co-ordinated by WHO. However, specific permission is required from the laboratories and Public Health authorities from which the viruses originated for human virus isolates and data to be disseminated more widely. Sharing of avian and animal virus isolates analysed in OIE/FAO Reference Laboratories and data obtained is also highly restricted.

The issue of sample and data sharing is due to be discussed at the upcoming World Health Assembly and the subsequent Executive Board meeting at the end of May.

Communication

The Neuraminidase Inhibitor Susceptibility Network was established in 1999 to coordinate testing of drug resistance of clinical isolates collected through the WHO influenza surveillance network from different regions of the world. The monitoring aims to give consistent data for public health and research purposes. The network has published some of its research. Dr Hay noted that the H5 isolates are not readily available to the network, but are analysed by the H5 Reference Laboratories and others.

Dr Hay said that no formal committee exists between the Medical Research Council, National Institute of Medical Research and the Department of Health for the exchange of influenza data, however a number of informal networks exist at research and management levels. Timely information is provided on the WHO website.