



To News Editor
For Immediate Release

6 February 2013

CUHK Research Reveals New Influenza Vaccine Offers More Effective Control over Influenza in Hong Kong

The Department of Paediatrics, the Division of Infectious Diseases and the Department of Microbiology at The Chinese University of Hong Kong (CUHK) have jointly conducted a research recently to assess the effectiveness of a proposed new form of influenza vaccine (quadrivalent vaccine). It is found that the new vaccine can offer better control over influenza in Hong Kong, and is especially effective in containing infection among children.

Respiratory viral infection is a major cause of influenza and hospitalization is required for serious cases. According to the statistics from the Prince of Wales Hospital, 769 children (aged under 17 years) and 1,013 adults (aged 18 years or over) were admitted to the hospital because of respiratory viral infection in 2012, of which 54% and 76% were influenza patients respectively.

A recent study conducted by Professor Ting Fan LEUNG, Department of Paediatrics; Professor Nelson Lai Shun LEE, Head of Division of Infectious Diseases; and Professor Paul Kay Sheung CHAN, Chairman, Department of Microbiology at CUHK, examined 5,210 influenza cases in the Prince of Wales Hospital from 2000 to 2010 (excluded 2009). Gene sequencing was applied to identify the virus lineage. The results showed that influenza B attributed to 1,253 (24%) cases of influenza-associated hospitalizations. Furthermore, influenza B accounted for the highest proportion among children aged 5-14 years (42%). Since the current form of trivalent influenza vaccine covers only one of the two groups of influenza B in addition to influenza A H1N1 and H3N2, the protection may not be sufficient.

The study also found that the vaccine strains selected by World Health Organization (WHO) for trivalent vaccines in the last 10 years did not match well with the influenza B virus lineage circulated in Hong Kong. In the past 10 years, successful matches with the major circulating lineage (>50%) were achieved in six years only; and only two out of six years in which one virus lineage predominated (>80%) the circulating pool were successfully matched.

The WHO has provided two groups of influenza B virus for producing quadrivalent vaccine since February 2012 which covers both lineages of influenza B virus in addition to influenza A H1N1 and H3N2. The new quadrivalent vaccine is expected to offer a better control over influenza in Hong Kong, and is especially effective in containing infection among children. CUHK recommends the public to receive the current trivalent influenza vaccination before the new form of vaccine becomes available.