Fast tracked Swine Flu Medical Research

Grants have been awarded to two paediatricians at The Children’s Hospital at Westmead to help ensure that the response to swine flu is based on the most up-to-date information available.

Prof Elizabeth Elliott will assess the risks to children in hospital of HINI and Prof Robert Booy will investigate the best strategies for anti-viral use.

The Government’s peak health and medical research agency, the National Health and Medical Research Council (NHMRC) has approved and provided $7 to fund medical research projects around Australia that emphasise rapid results to benefit Australians and the rest of the world.

The research will help the Government tailor its response to the spread and nature of the disease, and better equip the Government to help those most at risk from the disease.

Prof Elliott, from the Australian Paediatric Surveillance Unit, developed and runs a novel, hospital based surveillance system for identifying and characterising children with important infectious diseases in association with colleagues from the National Centre of Immunisation Research and Surveillance (NCIRS). The new system, called Paediatric Active Enhanced Disease Surveillance (PAEDS), is co-ordinated from The Children’s Hospital at Westmead and facilitates hospital-based disease surveillance at four children’s hospitals around Australia.

“Influenza can be a serious condition and this season we have had numerous children hospitalised in Sydney with a range of severe respiratory, neurological and infectious complications, some requiring intensive care” said Prof Elliott. The NHMRC funding gives us a unique opportunity to document and compare the clinical course and outcomes of children with swine flu and seasonal flu in four states.”

As part of preparedness plans for influenza, many developed nations have acquired large stockpiles of the drugs of choice, oseltamivir and zanamivir, against seasonal influenza A and B. The aim of Prof. Robert Booy’s study is to assess the frequency of emergence of anti-viral resistant viruses in patients treated for swine flu with anti-viral drugs.

“Wide-scale use of antiviral agents in the event of an influenza pandemic is likely to promote the emergence of drug resistance, with potentially deleterious effects for outbreak control, said Prof Booy.. “During the 2007-2008 influenza seasons, increased levels of resistance to oseltamivir were detected worldwide and then in the early 2008-2009 influenza season surveillance data suggest that oseltamivir resistance among influenza A (H1N1) viruses was most likely to be higher during the upcoming season.”

The study will be An Unblinded randomized study of influenza A/H1N1 09 resistance to oseltamivir and zanamivir, carried out at The Children’s Hospital at Westmead and in one or more General Practices clinics in the region. Participating patients, aged 5 years or older testing positive for influenza will be treated with antiviral drugs and followed up several days later.

Prof. Elizabeth Elliott is Professor in the Discipline of Paediatrics and Child Health at the University of Sydney and a consultant paediatrician at The Children’s Hospital at Westmead. Professor Elliott founded the Australian Paediatric Surveillance Unit in 1993 and has been the Director of the Unit since then. She is also Director of the Centre for Evidence Based Paediatrics, Gastroenterology and Nutrition in Sydney and President of the Paediatric Research Society Australia and New Zealand as well as heading a clinical education program in Maternal and Child Health for health professionals in Dien Bien Province, Vietnam. She was awarded the Member of the Order of Australia in June 2008 for ‘academic services to paediatrics and child health, research, education and the establishment of the Australian Paediatric Surveillance Unit.’

Robert Booy is Head of Research at the National Centre for Immunisation Research and
Surveillance, located at The Children’s Hospital at Westmead, and Professor in the Discipline of Paediatrics and School of Public Health, The University of Sydney. He is a member of the Vaccine Advisory Group and the Scientific Influenza Advisory Group assisting the Chief Medical Officer on pandemic influenza issues. Professor Booy is a clinical paediatrician with expertise in infectious diseases. He is also an epidemiologist/clinical trialist and is the Principal Investigator on two ARC grants on the social, economic and health impacts of interventions for the prevention of influenza; one in the elderly (on antivirals) and one in the very young.