

## **Abstract**

**The influenza vaccine was administered in children with acute lymphoblastic leukemia (ALL) under maintenance chemotherapy to evaluate the clinical reaction and immunologic response. A total of 65 children were studied: 25 children with ALL, 30 children with asthma in remission and 10 healthy children as control. B/Yamanashi/166/98, A/New Caledonia/20/99(H1N1), and A/Panama /2007/99(H3N2) were the antigens contained in the Vaxigrip vaccine. Four weeks after the second immunization, children with ALL developed significant antibody titers to A/Panama /2007/99 ( $p<0.05$ ). Seroconversion rates and seroresponse rates after two doses of vaccine were around 57.1% to 84.6% and 40% to 69.2% in children with ALL. As compared with asthma children who were taken as immunocompetent individuals, ALL children had less increase of antibody titers to the former two antigens. But in view of panama antigen, the results in both groups were optimal and similar. On the other hand, immunization given at the same time with reinduction chemotherapy did not appear to hamper the immunological response. To sum up, the influenza vaccine is safe and effective in Taiwanese children with ALL and asthma.**

**Key Word : Inactivated influenza vaccine 、 Children 、 Leukemia 、 Asthma**