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Two doses of vaccine, rather than one, might be necessary to sufficiently protect pediatric liver transplant recipients against the influenza A H1N1 virus, according to a recent study.

The H1N1 virus, discovered in April 2009, was responsible for the first influenza pandemic in four decades. In Australia, government recommendations (based on trials in healthy individuals) were to administer a single dose of vaccine to all individuals above the age of 10. However, as lead author Wolfram Haller explains, “Little was known about the effectiveness of vaccination in immunosuppressed transplant patients. We therefore decided to further characterize vaccine immunogenicity within this high-risk group”.

Haller *et al.* carried out a prospective, observational, cohort study. Liver transplant recipients above 10 years of age were included in the study and were administered a single dose of vaccine. Antibody levels in sera collected before and ≥ 6 weeks after vaccination were measured. Patients who did not have seroprotective titers after the first dose of vaccine received a second dose.

Results from the study show that a single dose of vaccine did not achieve the same seroconversion and seroprotection rates as found in healthy individuals; a second dose of vaccine was required in nearly 20% of patients to achieve seroconversion. “The findings underline the importance of a second dose of vaccine in this high-risk group of immunosuppressed patients—at least in a pandemic scenario,” says Haller.

“Ongoing research is focusing on both the patient and therapeutic variables that influence vaccine response in immunosuppressed patients, and the benefits of new dosing strategies and vaccines,” concludes Haller. “This will help to individualize vaccination for patients with immune dysfunction.”

Isobel Franks

Original article Haller, W. *et al.* Immune response to pandemic influenza a (pH1N1/09) vaccination in pediatric liver transplant recipients. *Liver Transplant*. doi:10.1002/lt.22283