

# Hypersensitivity reactions to the quadrivalent HPV vaccine are rare

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Hypersensitivity reactions to the quadrivalent HPV vaccine (4vHPV, Gardasil) are uncommon and most schoolgirls can tolerate subsequent doses, finds the first evaluation of the quadrivalent HPV vaccine published on [bmj.com](http://bmj.com) today.

In Australia, from April 2007, all females aged 12-13 years received the 4vHPV vaccine as part of a national secondary school immunisation programme. Some components of the vaccine such as aluminium salts and yeast have previously been associated with hypersensitivity reactions. Reports of some adverse events followed the school vaccination programme.

Dr Sharon Choo and colleagues from Australia describe the results of clinical evaluation, skin tests, and vaccine challenge in 25 schoolgirls with suspected hypersensitivity to 4vHPV after more than 380,000 vaccine doses were administered in schools in Victoria and South Australia.

Thirty five schoolgirls with suspected hypersensitivity reactions including urticaria (hives), generalised rash, angioedema (swelling of subcutaneous tissues) and anaphylaxis were reported to specialised immunisation services and 25 agreed to be referred to paediatric allergy centres for further evaluation.

A detailed account of the reactions was noted including previous doses of the vaccine, time and severity of reaction, and previous clinical

history. Skin prick tests of the quadrivalent and bivalent HPV vaccines were carried out, and vaccine challenges were administered intramuscularly. The school-girls were followed-up by telephone one week after the subsequent dose and any adverse events were recorded.

The researchers report that 19 girls had skin testing of the quadrivalent vaccine and all were negative. Seventeen of the 18 girls subsequently challenged with the quadrivalent vaccine tolerated further doses. One reported limited urticaria (hives) four hours after the vaccine was given.

Only three of the 25 evaluated schoolgirls had probable hypersensitivity to the quadrivalent vaccine, and the authors conclude that true hypersensitivity is uncommon. They point out that suspected hypersensitivity reactions such as hives are often "idiosyncratic" and do not increase the risk of adverse reactions in subsequent vaccinations.

The authors recommend that girls with suspected hypersensitivity to the quadrivalent vaccine should be evaluated before receiving more doses, and call for research into the mechanisms of hypersensitivity to the vaccine.

Source: British Medical Journal

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