

Change to HPV vaccine doses

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Executive summary

Health Council of the Netherlands



As requested by the State Secretary for Health, Welfare and Sport, the Health Council of the Netherlands has reviewed the vaccination schedule against HPV (human papillomavirus) to see whether the number of doses could be reduced from 2 doses to 1 dose for the 'younger than 15' age group and from 3 to 2 doses for the '15 and older' age group. This request was prompted by advice in this respect from the English Joint Committee on Vaccination and Immunisation and the World Health Organisation. Currently, children are offered the HPV vaccine via the National Immunisation Programme (*Rijksvaccinatieprogramma*) in the year they reach the age of ten. The Health Council's permanent committee on Vaccination carried out the review.

Efficacy and effectiveness

The committee on Vaccination has evaluated scientific data about the efficacy and

effectiveness of one, two or three doses of HPV vaccine. Studies show that the percentage of vaccinated people that make antibodies is not affected by the number of doses of HPV vaccine given: this percentage is high regardless of the number of doses. However, one dose does lead to a lower immune response than two or three doses does. Also, one dose would seem to provide good protection against infections by HPV types included in the vaccine, but less certainty exists about cross-protection (against infection by types that have not been included in the vaccine) after one dose in comparison with two or three doses. Finally, there are indications that protection against precursors to cervical cancer is possibly just as effective after one dose as it is after two or three doses. However, this research is too limited to be able to arrive at any conclusions with sufficient certainty at this stage.

Advice

Based on the above data, the committee on Vaccination advises that the vaccination schedule for people aged 15 and older be reduced by 1 dose to 2 doses. It believes that the effect of two doses is sufficiently strong and conclusive for it to be possible to limit vaccination to this number of doses. This is based on the effect on the creation of antibodies, the reduction of infections by HPV and the prevention of precursors to cervical cancer. However, the two vaccinations must always be given least six months apart.

Where children under the age of 15 are concerned, the committee on Vaccination advises that they continue to be given 2 doses for the time being and, as such, that the number of doses is not reduced to one dose. At this stage, it is not certain that the administration of just one dose would be enough to maintain the



current vaccination effect. The committee on Vaccination advises that no changes should be made until the results of current research on the effect of one dose are available.

The Health Council will follow scientific developments in respect of vaccination against HPV and advise on this subject again when relevant.



The Health Council of the Netherlands, established in 1902, is an independent scientific advisory body. Its remit is “to advise the government and Parliament on the current level of knowledge with respect to public health issues and health (services) research...” (Section 22, Health Act).

The Health Council receives most requests for advice from the Ministers of Health, Welfare and Sport, Infrastructure and Water Management, Social Affairs and Employment, and Agriculture, Nature and Food Quality. The Council can publish advisory reports on its own initiative. It usually does this in order to ask attention for developments or trends that are thought to be relevant to government policy.

Most Health Council reports are prepared by multidisciplinary committees of Dutch or, sometimes, foreign experts, appointed in a personal capacity. The reports are available to the public.

This publication can be downloaded from www.healthcouncil.nl.

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