

Vaccination schedule for infants after maternal pertussis vaccination

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Executive summary

Health Council of the Netherlands



Starting in 2019, all pregnant women will be offered vaccination against pertussis (whooping cough). The State Secretary for Health, Welfare and Sport (VWS) has asked the Health Council what this means the vaccination schedule for infants. The question is whether one vaccination less for the child during the first year of life will suffice if the mother is vaccinated. The Committee on Vaccinations has assessed whether infant vaccination at 3 and 5 months of age – after maternal vaccination – is just as effective as the current 2,3,4 months schedule in preventing pertussis as well as the other diseases against which children are simultaneously vaccinated. That is largely the case. In specific groups, the adjusted schedule could lead to more pertussis infections. In children with HepB-positive mothers, it is not clear whether the effectiveness against Hepatitis B (HepB) would be maintained with the adjusted vaccination schedule. The adjustment of the schedule could cause more cases of illness due to *Haemophilus influenzae* type b (Hib), however international data on the effectiveness of

different vaccination schedules does not suggest this would actually be the case.

The Committee has estimated whether the benefits of an adjusted vaccination schedule outweigh the disadvantages. That is the case for children whose mothers have been vaccinated against pertussis. The adjusted schedule reduces the burden of vaccination and offers them sufficient protection. The benefit-risk ratio is not favourable for children born prematurely and for children whose mothers have not been vaccinated against pertussis, or who are born less than two weeks after maternal vaccination. These children are not sufficiently protected against pertussis at birth and would be at risk of infection for a month longer with the adjusted schedule. Children whose mothers are HepB-positive would possibly be at greater risk of HepB infection.

Therefore, the Committee recommends that the existing vaccination schedule for infants be replaced by two schedules after the introduction

of maternal pertussis vaccination: a 3,5 schedule for children whose mother has been vaccinated and a 2,3,5 schedule for children whose mother has not been vaccinated or who belong to another group at greater risk.



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