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Recommendation of the Immunization Practices Advisory Committee Pertussis Immunization; Family History of Convulsions and Use of Antipyretics -- Supplementary ACIP Statement

The Immunization Practices Advisory Committee (ACIP) has reviewed available data concerning the risks and benefits of pertussis vaccine for infants and children with a family history of convulsions. Based on this review, the ACIP does not believe that a family history of convulsions should be a contraindication to vaccination with diphtheria and tetanus toxoids and pertussis vaccine (DTP). In addition, the ACIP believes that antipyretic use in conjunction with DTP vaccination may be reasonable in children with personal or family histories of convulsions. Consequently, the following statement updates some of the previous recommendations regarding pertussis vaccine (1). Vaccination of Children with Family Histories of Convulsions with Pertussis Vaccine

The risk of neurologic events after DTP vaccination is very small. Most neurologic events (primarily febrile seizures, but including nonfebrile seizures, encephalopathy, or other neurologic symptoms) that occasionally follow DTP vaccination occur in children without known risk factors. However, recent studies suggest that infants and children with a history of convulsions in first-degree family members (i.e., siblings and parents) have a 3.2-fold increased risk for neurologic events compared with those without such histories (CDC, unpublished data). Nevertheless, these children are still at very low risk for serious neurologic events following DTP vaccination. Convulsions within 3 days of DTP vaccination may be unrelated to vaccination, induced by vaccine components, or initiated by vaccine-associated fever in those children prone to febrile convulsions. Although children with a family history of seizures have an increased risk for developing idiopathic epilepsy, febrile seizures (including those following vaccinations) do not themselves increase the probability of epilepsy or other neurologic disorders (2,3).

After careful deliberation, the ACIP has concluded that a family history of convulsions in parents and siblings is not a contraindication to pertussis vaccination and that children with such family histories should receive pertussis vaccine according to the recommended schedule (1,4). The committee reached this decision after considering 1) the risks of pertussis disease, 2) the large number of children (5%-7%) with a family history of convulsions, 3) the clustering of these children within families, and 4) the low risk of convulsions following pertussis vaccination (1-3,5).

The ACIP believes that parents of infants and children with family histories of convulsions should be informed of their children's increased risk of seizures following DTP vaccination. In particular, they should be told, before the

child is vaccinated, to seek immediate medical evaluation in the unlikely event of a seizure. The child's permanent medical record should document that the small risk of postvaccination seizure and the benefits of pertussis vaccination have been discussed. Antipyretic Use in Children with Personal or Family Histories of Convulsions

There are no data on whether the prophylactic use of antipyretics following DTP vaccine can decrease the risk of febrile convulsions. However, preliminary information suggests that acetaminophen given at a dose of 15\mg/kg at the time of DTP vaccination and again 4 hours later will reduce the incidence of postvaccination fever (6). Thus, it is reasonable to consider administering antipyretics (such as acetaminophen) at age-appropriate doses at the time of vaccination and every 4 to 6 hours for 48 to 72 hours to children at higher risk for seizures than the general population.

References

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