Febrile seizures, even if relatively benign in terms of their neurologic significance, are still worrisome events for families to witness. Even if they have not occurred, families worry they will in the setting of a fever, and ask questions about what might trigger them. One of those concerns often raised by parents are vaccines, and while individual vaccines by themselves do not appear to increase the risk of febrile seizures, what about when vaccines are given in combination?

Duffy et al. (peds.2016-0320) seized the opportunity to address this question by looking at the risk of febrile seizures during the 24 hours post-vaccination for all routinely administered vaccines in children 6 to 23 months of age along with influenza vaccine as well.

The results are reassuring with a few added findings. For example, the only standard vaccine that showed a modest increased in febrile seizures was the 7-valent pneumococcal vaccine. When the influenza vaccine was given alone, there was no increase in seizure frequency, but if that vaccine was given along with either pneumococcal or diphtheria, tetanus, and acellular pertussis (DTaP), the risk increased significantly although the absolute excess risk of concomitant administration of these vaccines given together versus on separate days was 30 seizures per 100,000 vaccinated, a relatively small number.

Before families jump on the wrong take-home message from this study and focus on relative versus absolute risk, we have asked Drs. Sawyer, Simon and Byington from the AAP's Committee on Infectious Diseases (peds.2016-0976) to comment on the take-away lessons from this well-done study of febrile seizures associated with vaccines. Take a shot and read both of these articles so you are ready to continue to advocate strongly for vaccines given on schedule even if in combination with the influenza vaccine. Do you routinely administer influenza with other vaccines?

Have your patients had a febrile seizure in association with receiving these vaccines? We would love to hear your own experience relative to the findings in this study by posting a response to this blog, sending us a comment, or sharing your thoughts via our Facebook and Twitter links.

Further Reading

- Strategies for Improving Vaccine Delivery: A Cluster-Randomized Trial
- Immunization Data Exchange With Electronic Health Records
- Pediatrics on Facebook
- Pediatrics on Twitter