A CUP OF HEALTH WITH CDC

Nobody Wants Chicken Pox!

Prevention of Varicella: Recommendations of the Advisory Committee on Immunization Practices (ACIP)

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[Announcer] This podcast is presented by the Centers for Disease Control and Prevention. CDC – safer, healthier people.

[Matthew Reynolds] Welcome to *A Cup of Health with CDC*, a weekly broadcast of the MMWR, the Morbidity and Mortality Weekly Report. I'm your host, Matthew Reynolds.

Varicella is the scientific name for chickenpox, a common childhood disease. There are now vaccines available that can prevent chickenpox and we also that know there are some really good reasons to prevent it. Even though many kids – and some adults – have gotten chickenpox and suffered no ill effects beyond a few miserable days of itching, chickenpox can be a very severe illness, especially for adolescents and adults, pregnant women, or persons with compromised immunity. It can even cause permanent harm to some newborns if their mothers were not immune and had chickenpox while they were pregnant. Medical experts who advise CDC on immunizations have updated the recommendations for the vaccines that help prevent chickenpox.

Today we will be talking with Dr. Mona Marin, a research physician in CDC's immunization center. Dr. Marin is the lead author of the recently published recommendations on varicella prevention and she's here to tell us more about that.

Welcome to the show, Dr. Marin.

[Dr. Mona Marin] Thank you, Matthew. It's a pleasure to be here.

[Matthew Reynolds] Dr. Marin, I have pretty clear memories of having chickenpox when I was a child. I think I was about nine years old and I was probably feeling pretty sorry for myself when I was sick. So, from my point of view, being able to prevent chickenpox is a great achievement I understand that the original recommendations on varicella vaccination have been updated. Can you tell us what is different in the newer guidance on immunization to prevent chickenpox?

[Dr. Mona Marin] Well, Matthew, there are several changes between the original recommendations and the new report, but the main difference is the recommendation for a routine 2-dose vaccination schedule for children. The original recommendations for prevention of varicella in the United States, issued in 1995 and updated in 1999, called for a 1-dose childhood vaccination program. Although great progress has been made with the one dose program, the reports in the last years show that the number of varicella cases has remained constant or declined minimally. In addition, outbreaks of varicella have continued to occur in highly vaccinated school populations, and these outbreaks are difficult to control because most of the students have already received the

one dose of vaccine as it was recommended. So these are factors that indicate the one dose program might have achieved the limit of control. Therefore, in 2006, a routine two dose vaccination schedule was recommended for children. And this recommendation was based on evidence that a second dose will boost immunity and we expect to provide further protection to the 15%-20% of children who do not respond adequately to the first dose.

[Matthew Reynolds] From what I understand, there is more than one type of vaccine that can be used to prevent chickenpox. What are the differences?

[Dr. Mona Marin] You are right, Matthew. Currently there are two vaccines available in the US for prevention of chickenpox. They differ in their composition and the ages for which they are indicated. There is a single antigen varicella vaccine for use among all healthy persons aged 12 months or older, that is for children, adolescents, and adults. This vaccine provides protection for chickenpox only. The other vaccine is a combination measles-mumps-rubella and varicella vaccine, for use among healthy children aged 12 months through 12 years. So this vaccine can be used for simultaneous vaccination against four diseases. This combination vaccine should not be administered to people aged 13 years or older.

[Matthew Reynolds] Who should get vaccinated and when should they get vaccinated?

[Dr. Mona Marin] For the routine childhood vaccination: healthy children aged 12 months through 12 years should receive 2 doses of varicella vaccine, with the first dose administered at age 12-15 months and the second dose at age 4-6 years. For persons 13 years of age or older, the recommendation is that all persons without evidence of immunity should receive two doses of vaccine 4-8 weeks apart. And there is also a catch-up recommendation for children, adolescents, and adults who previously had received one dose.

[Matthew Reynolds] Are there other recommendations for varicella vaccination, perhaps other groups that we haven't mentioned so far?

[Dr. Mona Marin] Yes, there is a recommendation to assess prenatally the evidence of immunity for pregnant women and vaccinate those women who do not have such evidence, after termination or completion of the pregnancy. There is a recommendation for vaccination of certain categories of HIV-infected persons; a recommendation for a two-dose policy for outbreak control; and vaccination requirements for entry to child care, school (all grades – elementary, middle, high school), college and other postsecondary educational institutions.

[Matthew Reynolds] Are there some people who should not get the vaccine?

[Dr. Mona Marin] Yes. As a brief overview, varicella vaccines should not be given to certain groups of people, such as those who have allergy to any components used in

the vaccines or those who have reduced immunity from any malignant condition, including leukemia, lymphomas of any type, or other cancers affecting the bone marrow. People with other conditions that reduce immunity - due to diseases, such as AIDS or severe HIV infection, or due to treatment, such as high-dose steroid therapy or chemotherapy – also should not receive the varicella vaccine. Also, varicella vaccine should not be given to a pregnant woman. And there are other specific conditions that are listed in the report and health-care providers can advise their patients accordingly.

[Matthew Reynolds] Are some people immune to varicella – and how would a person know if they are immune to it?

[Dr. Mona Marin] Thank you for this question, Matthew. The new report defines a set of criteria for health-care providers upon which they can assess whether a person is immune or not. People should ask their health-care provider and immunity can be assessed based on history of vaccination, history of disease, some laboratory tests, and so on.

[Matthew Reynolds] I've heard the term "breakthrough varicella." Could you explain to us what that is?

[Dr. Mona Marin] Certainly, Matthew. Breakthrough varicella is varicella disease that occurs in a person more than 42 days after vaccination. As you know Matthew, no vaccine is 100% effective in preventing all disease, so some people who were vaccinated might get the disease. While breakthrough varicella is substantially less severe than varicella in unvaccinated persons, it is important to remember that these cases are infectious. We expect the second dose varicella vaccination to reduce the number of breakthrough cases to less than 1 in 10 people who got two doses of vaccine, compared with 1 in 5 people who got one dose of vaccine.

[Matthew Reynolds] What if someone wants to learn more, they have more questions about varicella. Where can they go? What do you recommend?

[Dr. Mona Marin] To learn more about vaccination recommendations for varicella (or chickenpox) or other illnesses that can be prevented through vaccines, listeners can call 1-800-CDC INFO or visit the CDC immunization web site at cdc.gov/vaccines, where they find more details about vaccine preventable diseases.

[Matthew Reynolds] Thank you for taking the time to talk with us today, Dr. Marin.

[Dr. Mona Marin] Thank you for having me, Matthew.

[Matthew Reynolds] That's it for this week's show. Don't forget to join us next week. Until then, be well. This is Matthew Reynolds for *A Cup of Health with CDC*.

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