

## Editorial

# New Vaccination Guidelines: Tdap in Elderly, Hepatitis B for Diabetics and HPV for Young Men

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Pertussis is a highly contagious disease of which outbreaks have occurred among the elderly in nursing homes and hospitals. Adults aged 65 and older now have the opportunity to receive a vaccine that prevents pertussis, as well as tetanus and diphtheria. (1)

Tetanus can cause paralysis and is caused by bacteria that live in soil, dust, and manure. The bacteria usually enter the body through a deep cut. Diphtheria is a serious bacterial infection that usually causes a bad sore throat, swollen glands, fever and chills. It can result in serious complications such as heart failure or paralysis if not properly diagnosed and treated. Pertussis is a disease that causes uncontrollable coughing and the infected person makes a noise when breathes after coughing which sounds like "whoop." The incidence of pertussis disease in the United States has been increasing since 2007, with large local outbreaks occurring in 2010 in California, Michigan, and Ohio. (1)

The U.S. Food and Drug Administration today approved Tdap Vaccine to prevent tetanus, diphtheria, and pertussis (whooping cough) in people aged 65 and older. Currently, there are vaccines approved for prevention of tetanus and diphtheria that can be used in adults aged 65 and older. Currently, there are vaccines approved for prevention of tetanus and diphtheria that can be used in adults aged 65 and older. Tdap Vaccine, which is given as a single-dose booster shot, is the first vaccine approved to prevent all three diseases in older people. (2)

The safety and effectiveness of Tdap Vaccine were based on a study of about 1,300 people aged 65 and older. (1) To demonstrate its ability to protect against pertussis, the antibody levels among participants were measured and found comparable to the levels in infants who received a closely related vaccine that had been shown to prevent pertussis. The antibody components in responses to tetanus and diphtheria were compared with a licensed tetanus and diphtheria vaccine, and were found comparable. The most common adverse reactions reported by the older adults after receiving Tdap Vaccine were headache, fatigue and pain at the injection site.

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Tdap Vaccine was originally approved on May 3, 2005, for use in adolescents aged 10 years through 18 years. It subsequently was approved in December 2008, to include adults with 19 through 64 years of age. (1)

The advisory committee on immunization practices (ACIP), the federal panel responsible for setting guidelines for use of vaccines in the United States, now advises that pregnant women receive the tetanus, diphtheria, and pertussis (Tdap) vaccine after 20th weeks of gestation, however, the previous recommendation had called for vaccination of the mothers after delivery. The change in timing allows the fetus to benefit from mother's immune response prior to birth. The new recommendation supplements existing guidelines that call for vaccinating family members and other close contacts of children younger than 12 months old. (3)

In another issue, ACIP has issued its 2012 clinical guidelines for adult immunizations. Doctors refer to the guidelines when recommending vaccinations for their patients. There were significant changes to the vaccinations recommended for young men and boys, pregnant women, and diabetics.

Hepatitis B vaccination is now recommended for diabetic adults under the age of 60. This recommendation is based on the fact that diabetics have more than twice the risk of contracting hepatitis B than do non-diabetics. The ACIP advises that for diabetics over 60, the decision to vaccinate should be made on an individual basis, taking into account the patient's overall medical condition. This recommendation reflects the lower rates of effectiveness of the vaccine in older and frailer people. In general, healthier patients are more likely to respond to the vaccine. The new guidelines extend the call for routine vaccination against human papillomavirus (HPV) to all boys and young men between the ages of 11 and 21. The HPV vaccine has already been recommended for females aged 11 to 26. HPV vaccination is also recommended for men up to age 26 who engage in same-sex relations. (4)

## References

1. (MMWR), Jan, 14, 2011/60(01); 13-5
2. (MMWR), Mar, 24, 2006/55(RR03);1-34
3. (MMWR), Oct, 21, 2011/60(41);1424-6
4. (MMWR), Nov, 25, 2011/60 (RR07);1-45