



Human Papillomavirus Vaccines

Revised: December 3, 2018.

Drug Levels and Effects

Summary of Use during Lactation

The Centers for Disease Control and Prevention and the several health professional organizations state that vaccines given to a nursing mother do not affect the safety of breastfeeding for mothers or infants.[1][2][3][4][5] A slightly higher percentage of infants who were breastfed during or after maternal vaccination with the active quadrivalent human papillomavirus vaccine (Gardasil) had pneumonia during the 30 days after maternal vaccination, but these effects were not thought to be vaccine related. No similar data exist for the bivalent vaccine (Cervarix). Maternal vaccination with human papillomavirus vaccine is not a contraindication to breastfeeding.

Drug Levels

Maternal Levels. Relevant published information was not found as of the revision date.

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

A total of 995 nursing mothers were given Gardasil or placebo during the vaccination period of the clinical trials (vaccine n = 500, control n = 495). A total of 17 (3.4%) and nine (1.8%) infants of women who breastfed who received quadrivalent HPV vaccine or placebo, respectively, experienced a serious adverse event. Of the 23 experiences among the 17 infants of women who received vaccine, 12 were respiratory infections, five were gastroenteritis or diarrhea, and the remaining included various other single events. None of the reactions was considered vaccine related.[6][7]

Effects on Lactation and Breastmilk

Relevant published information was not found as of the revision date.

References

1. General recommendations on immunization --- recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR Recomm Rep. 2011;60 (RR-2):1-64. PubMed PMID: 21293327.

2. Harpaz R, Ortega-Sanchez IR, Seward JF. Prevention of Herpes zoster: recommendations of the advisory committee on immunization practices (ACIP). *MMWR Recomm Rep.* 2008;57 (RR-5):1-30. PubMed PMID: 18528318.
3. Gruslin A, Steben M, Halperin S et al. Immunization in pregnancy: No. 220, December 2008. *Int J Gynaecol Obstet.* 2009;105:187-91. PubMed PMID: 19367691.
4. American Academy of Pediatrics Committee on Infectious Diseases, Kimberlin DW, Brady MT et al. *Red Book: 2015 Report of the Committee on Infectious Diseases.* 30th ed. Elk Grove Village, IL: American Academy of Pediatrics. 2015.
5. Committee opinion no. 467: human papillomavirus vaccination. *Obstet Gynecol.* 2010;116:800-3. PubMed PMID: 20733476.
6. Markowitz LE, Dunne EF, Saraiya M et al. Quadrivalent human papillomavirus vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep.* 2007;56 (RR-2):1-24. PubMed PMID: 17380109.
7. Garland SM, Ault KA, Gall SA et al. Pregnancy and infant outcomes in the clinical trials of a human papillomavirus type 6/11/16/18 vaccine: a combined analysis of five randomized controlled trials. *Obstet Gynecol.* 2009;114:1179-88. PubMed PMID: 19935017.

Substance Identification

Substance Name

Human Papillomavirus Vaccines

Drug Class

Breast Feeding

Lactation

Vaccines