



Cholera Vaccine

Revised: October 31, 2018.

Drug Levels and Effects

Summary of Use during Lactation

The Centers for Disease Control and Prevention and several health professional organizations state that vaccines given to a nursing mother do not affect the safety of breastfeeding for mothers or infants and that breastfeeding is not a contraindication to cholera vaccine. Breastfed infants should be vaccinated according to the routine recommended schedules.[1][2][3]

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

Limited data indicate that breastfeeding can enhance the response of the infant to certain vaccine antigens.[1][3][4]

Administration of injectable cholera vaccine increases milk secretory IgA antibodies against cholera in the breastmilk in some reports.[5][6] Oral cholera vaccines result in a much lower increase in breastmilk anticholera antibodies. [7][8] However administration of oral cholera vaccine to the mother decreased the risk of cholera in their breastfed infants by 47% in one study. The authors hypothesized that vaccination of the mothers reduced their transmission of cholera to their infants.[8]

An open-label study in Bangladesh compared the serum immune response to administration of an oral cholera vaccine (Dukoral; containing killed cholera organisms and cholera subunit B) found that withholding breastfeeding for 3 hours before giving the vaccine resulted in a greater antibody response in infants between 10 and 18 months of age. In infants between 6 and 9 months of age, no difference in antibody response was seen between infants who had breastfeeding withheld and those who did not.[9]

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. 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.
3. 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.
4. Pabst HF. Immunomodulation by breast-feeding. Pediatr Infect Dis J. 1997;16:991-5. PubMed PMID: 9380478.
5. Merson MH, Black RE, Sack DA et al. Maternal cholera immunisation and secretory IgA in breast milk. Lancet. 1980;1:931-2. Letter. PubMed PMID: 6103281.
6. Svennerholm A-M, Holmgren J, Hanson LA et al. Boosting of secretory IgA antibody responses in man by parenteral cholera vaccination. Scand J Immunol. 1977;6:1345-9. PubMed PMID: 605366.
7. Jertborn M, Svennerholm AM, Holmgren J. Saliva, breast milk, and serum antibody responses as indirect measures of intestinal immunity after oral cholera vaccination or natural disease. J Clin Microbiol. 1986;24:203-9. PubMed PMID: 3528211.
8. Clemens JD, Sack DA, Chakraborty J et al. Field trial of oral cholera vaccines in Bangladesh: evaluation of anti-bacterial and anti-toxic breast-milk immunity in response to ingestion of the vaccines. Vaccine. 1990;8:469-72. PubMed PMID: 2251873.
9. Ahmed T, Svennerholm AM, Al Tarique A et al. Enhanced immunogenicity of an oral inactivated cholera vaccine in infants in Bangladesh obtained by zinc supplementation and by temporary withholding breast-feeding. Vaccine. 2009;27:1433-9. PubMed PMID: 19146904.

Substance Identification

Substance Name

Cholera Vaccine

Drug Class

Breast Feeding

Lactation

Vaccines

