

INFORMATION PAPER

DHA-IHB
16 October 2018

SUBJECT: Smallpox Vaccine and Contact Transmission Avoidance

1. Purpose. To describe special precautions that must be taken by susceptible close contacts of smallpox vaccinees.
2. Facts.
 - a. Special precautions must be taken to avoid close contact with anyone who has been recently (within the last 28 days) vaccinated with smallpox vaccine by individuals who have or have ever had the following conditions:
 - (1) atopic dermatitis
 - (2) eczema (mild or severe)
 - (3) many breaks in skin (i.e., shingles, bad burns, herpes, psoriasis, pityriasis rosea, impetigo, and other rashes)
 - (4) a weakened immune system (HIV, lupus, etc.)
 - (5) are pregnant or might be pregnant within 4 weeks.
 - b. A close contact includes anyone living in your household and anyone with whom you have close, physical contact (such as a spouse or someone you share a bed with). Other friends or people you work with are not considered close contacts.
 - c. First and foremost, explore whether or not it is feasible for the vaccinated service member to physically avoid close contact (e.g., postpone return home for 30 days or make alternate lodging arrangements) with any 'at-risk' family member with the above listed conditions (see SPV exemption screening form) IAW current educational/policy material.
 - d. The risk of inadvertent contact, either directly or by means of clothing, towels, sheets or other common- access items has been historically quite rare (about 27 cases/1,000,000). However, because there is a very small risk of a developing very serious conditions called eczema vaccinatum, progressive vaccinia and fetal vaccinia through inadvertent contact, DoD's goal is to reduce the risk of inadvertent contact as much as possible.
 - e. Ask the service member if he/she will be able to comply with this most prudent advice and if he/she states that this is not possible, then provide him/her with the following precautions. (Document that absolute avoidance was discussed and the service member is unable to comply).
 - f. For family members.

- (1) If you are with someone who has received a smallpox vaccination, do NOT touch the vaccination site, bandages, clothing, sheets, towels, etc. If you do, then WASH your hands including under your fingernails with warm soap and water. If none available, then use hand sanitizer.
 - (2) If there is an infant at home under 1 year of age, monitor closely that there is no contact between that infant and the vaccination site or items that have been in contact with the vaccination site.
 - (3) Breast-feeding is not a medical contraindication, but breastfeeding could put the infant in close contact with the mother's vaccination site.
- g. For the vaccinee.
- (1) Be sure the vaccination site is well-covered and thorough hand hygiene is maintained. Wear a protective bandage and a long sleeve shirt around others; and long sleeves/pajamas to bed so the bandage is not dislodged during sleep or during sexual relations.
 - (2) Activities that complicate vaccination site care and cleanliness should be avoided during the post-vaccination healing period. Avoid contact sports, such as wrestling, basketball, etc. Avoid immersion in public pools or spas (this keeps the vaccination site wet, limits drying of scab, increases risk of satellite lesions, thereby increasing the risk of contact transmission to others).
 - (3) The vaccinee can bath normally, however leave the bandage on during showers/baths and wash the vaccinated arm last avoiding the bandage. Otherwise, the vaccination site should be kept dry. Towel dry all areas except the vaccination site (may use disposable towel or tissue). If towel used, that towel goes directly into laundry. Avoid rubbing the vaccination site and do not apply any creams or medications to the site.
 - (4) Clothing, towels, sheets, or other cloth materials that have had contact with the site can be decontaminated with routine laundering in hot water with detergent or bleach. The vaccinee should handle all such textiles prior to completion of the wash cycle (e.g., removing linens from the bed, picking up clothing, placing cloths and linens in the washing machine, etc.). The vaccinee must wash his/her hands well after handling linens.

- (5) If the risk to household contacts is great (e.g., pregnant wife), a more occlusive dressing should be applied. Semi-permeable polyurethane dressings (e.g., Opsite®, Tegaderm®, Cosmopore®) are effective barriers. Keep site completely covered with a dry non-stick bandage (i.e. Band-Aid®, telfa™ pad). Do not use gauze (virus may leak through or may stick to scab and pull it off when you change dressing). The dressing should also be changed daily or every few days (depending on the type of bandage and amount of exudate). The bandage and all dressings should be disposed of in a sealed plastic (Ziploc®) bag with small amount bleach in the bag. Wash hands and work surfaces (sink, faucets, door knobs, etc.) after dressing change. Make sure pets or small children cannot get into the trash.
- (6) If the household contact develops any lesions following any accidental contact, they should seek evaluation, as well as contact the Immunization Healthcare Branch at 877-GET-VACC, Option 1.

h. Summary.

- (1) Three major preventive keys to prevent contact transmission are good hand washing, site bandage/hygiene, and wearing long sleeves. Full details are available in our [smallpox vaccine Q&As for household members and community members](#).
- (2) What you should expect the vaccination site to look like after receiving the vaccine.
 - (i) If vaccination is successful, after 2 to 4 days a red and itchy bump will form at the vaccination site. Over the next few days, the bump becomes a blister and fills with pus. During the second week, the blister dries up and a scab forms. The scab falls off after 2 to 4 weeks, leaving a scar. The vaccine virus is present on the skin at the vaccination site for 30 days after vaccination and until the site is healed.



- (ii) To care for vaccination site, remember the 3 “W’s”:
 - a. Wear a non-stick bandage that covers the vaccination site

- b. Wear long sleeves to cover the bandage
 - c. Wash your hands!!
- i. To reduce complications and spreading of the disease elsewhere on your body or to someone else:
- (1) Keep site completely covered with a dry non-stick bandage (i.e., Band-Aid®, telfa™ pad); DO NOT use gauze.
 - (2) Avoid directly touching the vaccination site.
 - (3) Do NOT let others touch your vaccination site or materials that may have touched your blister; like clothing and bandages.
 - (4) Keep site as dry as possible and when showering keep site covered.
 - (5) Avoid swimming, wrestling, or other contact sports until site is healed.
 - (6) Wash your hands frequently with soap and water or an alcohol-based hand sanitizer.

North Atlantic Region Vaccine Safety Hub/877-438-8222
Approved: Chief, Immunization Healthcare Branch