

Annex 4

Vaccine Adverse-Events Reporting

Vaccine Safety

Monitoring and Reporting of Adverse Events Following Smallpox Vaccination

It is well documented that smallpox vaccination was associated with significant morbidity and mortality. When nonselective vaccination of the U.S. population was conducted, each year 5 to 10 deaths, several hundred hospitalizations, and several thousand nonhospitalized complications resulted from the vaccine. However, smallpox vaccine has not been routinely used in the United States since 1971, and familiarity with its adverse reactions has diminished. Therefore, careful monitoring of adverse events needs to be conducted to refamiliarize health professionals with the safety profile of the vaccine. Additionally, re-institution of the smallpox vaccine may reveal known safety concerns with increased frequency or ones not previously known. Known side effects and adverse reactions of the vaccinia (smallpox) vaccine are included in the recommendations of the CDC's Advisory Committee on Immunization Practices (ACIP) for vaccinia vaccine [CDC. MMWR 2001;50(No.RR-10)] and in other sections of this response plan (Guide B).

Timely recognition of and response to, vaccine adverse events (VAEs) is important to protect the public from unnecessary risk and to maintain confidence in the immunization effort. Individuals who are most susceptible to adverse effects of smallpox vaccine are those with active skin disorders (e.g., eczema, burns, atopic dermatitis, impetigo, and varicella zoster) and immunodeficiency states (e.g., HIV, AIDS, leukemia, lymphoma, generalized malignancy, agammaglobulinemia, or therapy with alkylating agents, antimetabolites, radiation, or large doses of corticosteroids). The following complications may follow either primary vaccination or revaccination:

- encephalitis
- encephalomyelitis
- encephalopathy
- transverse myelitis
- acute infectious polyneuritis
- vaccinia necrosum
- eczema vaccinatum
- generalized vaccinia
- accidental infection (autoinoculation)
- generalized rashes (erythematous, urticarial, nonspecific)
- secondary pyogenic infections at the site of vaccination

Such complications may result in severe disability (e.g., blindness from autoinoculation of the eye), permanent neurological sequelae, and/or death.

This document is intended to act as a guide for monitoring the safety of smallpox vaccine in preparation for a smallpox outbreak. It addresses the need for vaccine safety monitoring, identifies the range of potential safety activities, describes the safety actions that should take place before and at the time of vaccination, the process for reporting adverse events following smallpox vaccine under different vaccination scenarios, provides relevant safety contact information, and includes copies of the adverse event reporting forms. This document provides useful information for smallpox response teams and for state and local health department involved in any aspect of vaccine safety.

Investigational New Drug Protocol

The vaccinia vaccine is no longer a licensed product and is classified under an Investigational New Drug protocol (IND). The vaccine is only available from CDC Drug Service. Because of the IND status there is increased emphasis on and requirements for the monitoring of vaccine adverse events. The vaccine safety members of the CDC Smallpox Response Teams will be designated as IND sub-investigators and will be trained by CDC Drug Services in the regulations and requirements applicable to the IND protocol. Appropriate state health department physicians will also be identified, designated, and trained to be sub-investigators.

In the event of an outbreak, questions regarding the IND protocol should first be addressed to the CDC Response Team vaccine safety member(s). If necessary, questions can then be referred by the vaccine safety member to

CDC Drug Services
National Center for Infectious Diseases
Mail stop D-09
Atlanta, GA 30333
Phone: 404-639-3670
FAX: 404-639-3717

Reporting Vaccine Adverse Events

Report all adverse events to VAERS

The Vaccine Adverse Event Reporting System (VAERS) will receive all vaccine adverse event reports. The VAERS staff will give priority to smallpox reports and will be in daily contact with the CDC/NIP vaccine safety personnel. The VAE reports will be shared with the CDC Drug Services Center who holds the IND protocol for CDC and the reports will be reviewed by both CDC and the Food and Drug Administration. VAERS can be contacted at

VAERS
P.O. Box 1100
Rockville, Maryland 20849-1100

Phone: 1-800-822-7967
FAX: 1-877-721-0366
E-Mail: www.vaers.org

Follow-up Surveillance Actions

Depending on the extent of vaccine administration, a number of surveillance activities will be conducted.

- *Active surveillance* for adverse events will be conducted when the number of vaccine doses administered is limited (see description below). Every vaccine recipient will be provided with a diary report card to document their response to the vaccine. To make certain that serious VAEs are identified, active surveillance will be conducted for persons receiving vaccinia immune globulin (VIG) or Cidofovir – pharmaceutical agents indicated for the treatment of certain severe vaccine complications. Active surveillance for VIG and Cidofovir use will not be limited based on the number of vaccine doses administered.
- *Stimulated passive surveillance* and follow-up of serious adverse events will be conducted whether limited or large numbers of vaccine doses are administered. VAERS is considered a passive surveillance system because reports are not actively solicited. However, because of enhancements to VAERS, such as indicating to very vaccine recipient how VAERS can be contacted, implementation of electronic reporting, and follow-up of all smallpox reports, the passive system is “stimulated”.
- If *universal vaccination* is instituted, CDC’s Vaccine Safety Datalink can be utilized. The datalink is an economical and rapid mechanism for detection as well as evaluation of new hypothesized vaccine adverse events. It holds computerized vaccination and medical records for more than 2.5 percent of the U.S. population served by seven health maintenance organizations across the country.

Surveillance and reporting for *Small Outbreaks*

When there are a limited number of cases in one geographic location (potential number of vaccinees in the hundreds) or when there are a limited number of cases in more than one geographic location (potential number of vaccinees in the thousands), the following actions should be conducted.

Prior to administering vaccine

Vaccine providers, immunization programs, and hospitals in the vicinity of the outbreak should be given the following:

- Hard copies of VAERS form (Figures 1 and 2)
- Instructions on how to access the VAERS report form and submit electronically to www.vaers.org Electronic reporting is the preferred method as of 01/01/02.

- Vaccine Information Statements (VIS) that contain instructions on how to contact VAERS and should include the state health department contact information also.
- Clinical description of known vaccine complications: inadvertent inoculation, generalized vaccinia, eczema vaccinatum, progressive vaccinia, post-vaccinal encephalitis
- Notification form to FAX to 404-639-8834 if VIG or Cidofovir used (Figure 3)
- VIG information: indications for use (See Guide B, Section 8 of this plan), where and how to obtain this information. The contact point for VIG is:

CDC Drug Services
National Center for Infectious Diseases
 Mail stop D-09
 Atlanta, GA 30333
Phone: 404-639-3670
FAX: 404-639-3717

State health departments should be given the material listed above, and should take the following actions:

- Designate and train physician(s) (subinvestigators) to be responsible for monitoring and complying with the IND protocol regulations.
- Designate a person who is trained and available for coordinating vaccine safety activities of surveillance and reporting
- Designate staff who are trained and available for active surveillance tracking, follow up of serious reports submitted to VAERS (Figure 4), for providing assistance in completing VAERS forms, and for telephone follow up of adverse event reports identified by contact tracing personnel during their follow up of smallpox contact vaccine recipients.

At time of vaccination

Vaccine recipients or their parent/guardians should be given the following:

- Vaccine Information Statements (VIS) with instructions on how to contact VAERS and the respective state health department
- VAE diary card and instructions for active surveillance (Figure 5)

Surveillance and reporting for *Large Outbreaks*

When there are large numbers of cases in one or more geographic locations (number of potential vaccinees in the hundreds of thousands or more), all of the previously described vaccine safety actions should occur, with one exception. Active surveillance for vaccine adverse events using a diary card will not be feasible. Thus, at the time of vaccination, vaccine recipients or their parent/guardians should only be given the only the VIS with instructions on how to contact VAERS and their respective state health department.

Additional Vaccine Safety Activities

In a large immunization effort reports of adverse events both coincidentally and causally associated with the smallpox vaccine are to be expected. Standardized follow-up of VAEs reported to VAERS (Figure 4) and assessment of the causal association between the vaccine and reported adverse events will be performed. This will be done to increase understanding of the safety profile of the vaccine and identify potential risk factors and to maintain confidence in the vaccine.

Smallpox Vaccine Expert Committee

The Smallpox Vaccine Expert Committee (SVEC) will be established as a standing committee to evaluate all smallpox vaccine VAERS reports and make recommendations for the need of additional collection of clinically relevant history or further clinical investigation. The SVEC will consist of clinical experts derived from CDC's Clinical Immunization Safety Assessment (CISA) Centers and/or from the Vaccine Healthcare Center (VHC) Network along with other expertise as required. CISA consists of four geographically diverse centers recently funded by CDC to evaluate individual clinical adverse events reported to VAERS. The VHC Network was established by a partnership between CDC and DoD to create centers for excellence in the military immunization healthcare system to study issues of safety and acceptability of vaccines in military populations.

Adverse event reports forwarded from CISA to Smallpox Vaccine Expert Committee

The VAERS contractor shall forward all smallpox vaccine VAERS reports to the attention of both the VAERS project officer and the CISA project officer *in the same packet*, while simultaneously generating a standardized follow-up form already mentioned (Figure 4). The responsible project officer will then submit all VAERS smallpox vaccine adverse event case reports, in a timely manner, to the SVEC for their expert consideration. The committee shall meet via conference call at least weekly and more often or on an emergency basis as needed to review emerging concerns from smallpox vaccine VAERS reports and existing follow-up records.

Protocols for assessment of adverse reactions

The CISA centers are developing protocols for the evaluation and clinical management of adverse events following immunization. Such protocols will allow for the intensive clinical study of individuals with true vaccine reactions and for standard assessment of persons reporting previously unrecognized adverse events. The evaluation component will consider the potential differential diagnosis and include questions to address patients' current and past medical history, risk factors, medications, vaccinations, allergies, family history, social and developmental factors, symptom assessment, physical examination, laboratory tests, radiological and other studies. The management

component will discuss supportive care and the indications for and instruction pertaining to the use of Vaccinia Immune Globulin and Cidofovir. The CISA clinicians will provide consultation to other health care providers for clinical safety questions, follow-up, and outcome of vaccine complications.

Reports from clinics

Ideally, to accurately and rapidly monitor the occurrence of vaccine adverse events, rates of VAEs would be calculated on a daily basis by CDC. This would require daily submission of information on the number of vaccine doses administered from the vaccination/clinic site(s) to the CDC. In the event of a large outbreak, or outbreaks in multiple locations, it might not be feasible to accomplish daily submission from the field. However, at a minimum, data should be available weekly or the timeliness of vaccine safety monitoring would be greatly diminished. If rates of VAEs are observed to be unusually high for serious VAEs (i.e., higher than expected based on historical published information), increased efforts would be made to obtain data more frequently than on a weekly basis. The data available from each clinic should include, for each vaccine recipient, information on age, gender, vaccine lot, and clinic location. Thus, the calculated rates of VAEs will be age and gender specific. And, it will be possible to quickly detect unusual VAE rates for specific vaccine lots.

Tracking serious adverse events using VIG or cidofovir

To track the most serious adverse events, presumably those most likely to be treated with VIG and/or Cidofovir (under an IND), it will be necessary to identify the requests for VIG and/or Cidofovir using multiple mechanisms. Requests for VIG must go through the CDC Drug Services center; daily contact with the CDC Drug Services center will be performed to obtain this information. Additionally, vaccine safety personnel will contact hospitals and pharmacies in the area of an outbreak to identify VIG and/or Cidofovir use. Prior to vaccine being administered, notification postcards (Figure 3) will be given to all vaccine providers, immunization programs, and hospitals in the outbreak area. For each person receiving VIG or Cidofovir, a notification postcard should be returned to CDC. Case follow up will be performed for all vaccine recipients or contacts of vaccine recipients requiring such treatment.

Instructions for Reporting to VAERS

(Please refer to figures 1 and 2 for a sample VAERS form.)

Getting a VAERS form

Additional report forms, assistance in completing the form, or answers to other questions about VAERS are available via a 24-hour toll-free telephone number: **1-800-822-7967**. The reporting form can be downloaded from the VAERS web page at www.vaers.org. A sample copy of the VAERS form, which can be copied for reporting purposes, is also

available in the American Academy of Pediatrics' *Red Book*. The Vaccine Information Statements developed by DHHS also contain instructions on how to report adverse events to VAERS.

Submitting the VAERS form

Mailed: The VAERS form is preaddressed and postage paid. It may be sent directly to VAERS at the following address:

**VAERS
P.O. Box 1100
Rockville, Maryland 20849-1100**

FAXED: The form can also be FAXED toll-free to **1-877-721-0366**.

Electronic: As of 01/01/02, the preferred method of reporting will be electronic. The instructions for reporting and the electronic report form are available at VAERS web page www.vaers.org

Completing the VAERS form

Instructions for completing the VAERS form are on the back of the form. (Please see Figure 2.) To complete the VAERS form, as much of the requested information as possible should be obtained. Each report should be reviewed for completeness, accuracy, and legibility with specific attention to the following.

Dates: All dates should make chronological sense. For example: the vaccine date cannot precede the birth date; the report date cannot precede the vaccine date, etc. All date fields require entry of the full month, date, and year.

Patient name: Verify that the patient's first and last names are correct. This assists in the identification of duplicate reports and facilitates the ability to conduct follow up.

Reporter information: (This is in the upper right corner of form.) The reporter name and complete mailing address are required. Verification letters and requests for missing or follow-up information are sent to this address. If you do not receive a verification letter within a reasonable amount of time (e.g., month) check with the VAERS program at www.vaers.org

Critical boxes: Certain items are crucial to the analysis of VAERS data and have been designated as critical boxes. If all critical boxes are complete, no missing data will be requested and the report is considered complete. Critical boxes are differentiated by a square around their respective item numbers on the form as follows:

Date

| |
|--------------|
| Box 3 |
|--------------|

 of birth

Age of **Box 4** patient at the time of vaccination

Box 7 Narrative description of adverse events, symptoms, etc.

Box 8 Determines whether a report is regarded as serious or nonserious, and identifies the most serious reports for 60-day and annual follow-up

Serious Reports

- Patient died/date patient died
- Life threatening illness
- Resulted in permanent disability
- Resulted in prolongation of hospitalization
- Required hospitalization and number of days of hospitalization

Non-Serious Reports

- Required emergency room or doctor's visit
- None of the above

Box 10 Date of vaccination (and time, if known)

Box 11 Date of onset of adverse event (and time, if known)

Box 13 All vaccines given on the date listed in Box 10, including name of vaccine, vaccine manufacturer, vaccine lot number, route and site of administration and number of previous doses given

Box 15 and 16 Identify potential public health reports; VAERS immunization report number if not supplied

Box 24 NCVIA requires tracking of vaccine(s) administered; the immunization project report number is assigned by the state health coordinator (SHC) and is an identifier between the SHC and the VAERS ID

Timely Reporting: All reports are to be sent to VAERS as they occur, especially any serious reports. Do not send batches of reports. Do not wait for complete documentation before sending to VAERS, especially if the report appears serious. VAERS data is downloaded on a daily basis so that review and follow-up of serious reports can be conducted. Timely reporting is essential to timely follow-up investigation, especially if clinical specimens may need to be obtained.

VAERS ID: VAERS will send a confirmation notice to the reporter for all reports received, whether mailed, faxed, or sent electronically. A unique VAERS ID number will be provided with the confirmation notice. Any follow up correspondence about a report must include the VAERS ID number. Reports are entered into the VAERS database under the unique ID number. It is also helpful to have the patient's name and date of birth, if available, to help identify the specific report.

Missing, corrected, or supplemental information: Information such as medical records, autopsy reports may be submitted to VAERS by phone, mail or fax as follows:

Phone: 800-822-7967

Fax: Using a blank VAERS form, record the following information in the appropriate boxes: VAERS ID, the SHC immunization project number (if appropriate), the patient's name and date of birth, the corrected or missing information you are providing, your name and phone number.

Mail: See instructions for FAX above. Mail to:

**VAERS
P.O. Box 1100
Rockville, MD 20849-1100**

Serious reports

For serious reports, the VAERS program will send a letter to the reporter requesting information on patient status at 60 days and 1 year. The reporter may also provide additional information on critical boxes if not originally available and pertinent supporting documentation may be attached if available (e.g., medical records, autopsy report). Include the following information:

- VAERS ID Number
- Patient name
- Your name and phone number
- Box 3—Patient date of birth
- Box 7 or 9—Patient status. Indicate the date that the follow-up information was obtained.
- Report patient status as follows.

Recovered—if patient health condition is the same as it was prior to the vaccine.

Not recovered—if patient health condition has not returned to pre-vaccination state of health.

Unknown—if patient condition or whereabouts are unknown.

Died—if patient has expired since initial report. Include date of death and supporting documentation (copies of hospital records, autopsy report, death certificate, etc.) as available.

Secondary transmission

Because vaccine virus can be transmitted from the vaccination site if not appropriately covered and cared for, adverse events have been known to occur in contacts of vaccinated persons (e.g., eczema vaccinatum). If an adverse event is suspected or identified in a contact of a vaccine recipient, a VAERS report should be submitted with information on the person experiencing the adverse event. Such reports will be coded as the result of secondary transmission.

Local health departments or immunization projects

Clinic staff at the local level are responsible for initiating the VAERS report when an adverse event is suspected or occurs. Because of the need to rapidly monitor the occurrence of adverse events and to follow up on serious reports, local clinic or health department staff are requested to send reports directly to VAERS. Note that this differs from the procedure usually employed for non-smallpox vaccine reports; for non-smallpox vaccine reports each VAERS report is sent first to the SHC or VAERS Coordinator before being sent to the VAERS program.

Figure 1. VAERS Reporting Form

|  VACCINE ADVERSE EVENT REPORTING SYSTEM 24 Hour Toll Free Information 1-800-822-7967 P.O. Box 1100, Rockville, MD 20849-1100 PATIENT IDENTITY KEPT CONFIDENTIAL | | | | For CDC/FDA Use Only VAERS Number _____ Date Received _____ | | |
|--|------------------------------|--|--|--|---|-----------------------|
| Patient Name: Last _____ First _____ M.I. _____ Address _____ _____ City _____ State _____ Zip _____ Telephone no. (____) _____ | | Vaccine administered by (Name): Responsible Physician _____ Facility Name/Address _____ _____ City _____ State _____ Zip _____ Telephone no. (____) _____ | | Form completed by (Name): _____ Relation <input type="checkbox"/> Vaccine Provider <input type="checkbox"/> Patient/Parent to Patient <input type="checkbox"/> Manufacturer <input type="checkbox"/> Other Address (if different from patient or provider) _____ _____ City _____ State _____ Zip _____ Telephone no. (____) _____ | | |
| 1. State | 2. County where administered | 3. Date of birth mm / dd / yy | 4. Patient age | 5. Sex <input type="checkbox"/> M <input type="checkbox"/> F | 6. Date form completed mm / dd / yy | |
| 7. Describe adverse event(s) (symptoms, signs, time course) and treatment, if any | | | | 8. Check all appropriate: <input type="checkbox"/> Patient died (date mm / dd / yy) <input type="checkbox"/> Life threatening illness <input type="checkbox"/> Required emergency room/doctor visit <input type="checkbox"/> Required hospitalization (____ days) <input type="checkbox"/> Resulted in prolongation of hospitalization <input type="checkbox"/> Resulted in permanent disability <input type="checkbox"/> None of the above | | |
| 9. Patient recovered <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> UNKNOWN | | | | 10. Date of vaccination mm / dd / yy AM Time _____ PM | 11. Adverse event onset mm / dd / yy AM Time _____ PM | |
| 12. Relevant diagnostic tests/laboratory data | | | | | | |
| 13. Enter all vaccines given on date listed in no. 10 | | | | | | |
| Vaccine (type) | | Manufacturer | Lot number | Route/Site | No. Previous Doses | |
| a. _____ | | _____ | _____ | _____ | _____ | |
| b. _____ | | _____ | _____ | _____ | _____ | |
| c. _____ | | _____ | _____ | _____ | _____ | |
| d. _____ | | _____ | _____ | _____ | _____ | |
| 14. Any other vaccinations within 4 weeks prior to the date listed in no. 10 | | | | | | |
| Vaccine (type) | | Manufacturer | Lot number | Route/Site | No. Previous doses | Date given |
| a. _____ | | _____ | _____ | _____ | _____ | _____ |
| b. _____ | | _____ | _____ | _____ | _____ | _____ |
| 15. Vaccinated at: <input type="checkbox"/> Private doctor's office/hospital <input type="checkbox"/> Public health clinic/hospital | | <input type="checkbox"/> Military clinic/hospital <input type="checkbox"/> Other/unknown | | 16. Vaccine purchased with: <input type="checkbox"/> Private funds <input type="checkbox"/> Military funds <input type="checkbox"/> Public funds <input type="checkbox"/> Other/unknown | | 17. Other medications |
| 18. Illness at time of vaccination (specify) | | | 19. Pre-existing physician-diagnosed allergies, birth defects, medical conditions (specify) | | | |
| 20. Have you reported this adverse event previously? <input type="checkbox"/> No <input type="checkbox"/> To health department <input type="checkbox"/> To doctor <input type="checkbox"/> To manufacturer | | | Only for children 5 and under 22. Birth weight _____ lb. _____ oz. 23. No. of brother and sisters _____ | | | |
| 21. Adverse event following prior vaccination (check all applicable, specify) | | | | Only for reports submitted by manufacturer/immunization project 24. Mfr./imm. proj. report no. _____ 25. Date received by mfr./imm. proj. _____ | | |
| <input type="checkbox"/> In patient <input type="checkbox"/> In brother or sister | | Adverse Event | Onset Age | Type Vaccine | Dose no. in series | |
| _____ | | _____ | _____ | _____ | _____ | |
| _____ | | _____ | _____ | _____ | _____ | |
| 25. 15 day report? <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | 27. Report type <input type="checkbox"/> Initial <input type="checkbox"/> Follow-Up | | |
| Health care providers and manufacturers are required by law (42 USC 300aa-25) to report reactions to vaccines listed in the Table of Reportable Events Following Immunization. Reports for reactions to other vaccines are voluntary except when required as a condition of immunization grant awards. | | | | | | |

Form VAERS-1(____)

Figure 2. Instructions for Completion of VAERS Form

"Fold in thirds, tape & mail - DO NOT STAPLE FORM"



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES
OR APO/FPO

BUSINESS REPLY MAIL
FIRST-CLASS MAIL PERMIT NO. 1895 ROCKVILLE, MD

POSTAGE WILL BE PAID BY ADDRESSEE



VAERS
P.O. Box 1100
Rockville MD 20849-1100



DIRECTIONS FOR COMPLETING FORM
(Additional pages may be attached if more space is needed)

GENERAL

Use a separate form for each patient. Complete the form to the best of your abilities. Items 3, 4, 7, 8, 10, 11, and 13 are considered essential and should be completed whenever possible. Parents/Guardians may need to consult the facility where the vaccine was administered for some of the information (such as manufacturer, lot number or laboratory data.) Refer to the Reportable Events Table (RET) for events mandated for reporting by law. Reporting for other serious events felt to be related but not on the RET is encouraged.

Health care providers other than the vaccine administrator (VA) treating a patient for a suspected adverse event should notify the VA and provide the information about the adverse event to allow the VA to complete the form to meet the VA's legal responsibility. These data will be used to increase understanding of adverse events following vaccination and will become part of CDC Privacy Act System 09-20-0136, "Epidemiologic Studies and Surveillance of Disease Problems". Information identifying the person who received the vaccine or that person's legal representative will not be made available to the public, but may be available to the vaccinee or legal representative.

Postage will be paid by addressee. Forms may be photocopied (must be front & back on same sheet).

SPECIFIC INSTRUCTIONS

Form Completed By: To be used by parents/guardians, vaccine manufacturers/distributors, vaccine administrators, and/or the person completing the form on behalf of the patient or the health professional who administered the vaccine.

- Item 7: Describe the suspected adverse event. Such things as temperature, local and general signs and symptoms, time course, duration of symptoms diagnosis, treatment and recovery should be noted.
- Item 9: Check "YES" if the patient's health condition is the same as it was prior to the vaccine, "NO" if the patient has not returned to the pre-vaccination state of health, or "UNKNOWN" if the patient's condition is not known.
- Item 10: Give dates and times as specifically as you can remember. If you do not know the exact time, please
- Item 11: indicate "AM" or "PM" when possible if this information is known. If more than one adverse event, give the onset date and time for the most serious event.
- Item 12: Include "negative" or "normal" results of any relevant tests performed as well as abnormal findings.
- Item 13: List ONLY those vaccines given on the day listed in Item 10.
- Item 14: List any other vaccines that the patient received within 4 weeks prior to the date listed in Item 10.
- Item 16: This section refers to how the person who gave the vaccine purchased it, not to the patient's insurance.
- Item 17: List any prescription or non-prescription medications the patient was taking when the vaccine(s) was given.
- Item 18: List any short term illnesses the patient had on the date the vaccine(s) was given (i.e., cold, flu, ear infection).
- Item 19: List any pre-existing physician-diagnosed allergies, birth defects, medical conditions (including developmental and/or neurologic disorders) for the patient.
- Item 21: List any suspected adverse events the patient, or the patient's brothers or sisters, may have had to previous vaccinations. If more than one brother or sister, or if the patient has reacted to more than one prior vaccine, use additional pages to explain completely. For the onset age of a patient, provide the age in months if less than two years old.
- Item 26: This space is for manufacturers' use only.

Figure 3. Notification Form for Vaccinia Immune Globulin (VIG) or Cidofovir Use
Notification of Vaccinia Immune Globulin (VIG) /Cidofovir (Vistide) Therapy

Dear Provider,

Rare serious adverse reactions are known to occur following smallpox vaccination. The CDC is attempting to follow those individuals who experience such vaccine complications, especially those who receive vaccinia immune globulin (VIG) or cidofovir (Vistide) for the treatment of their adverse events. Please use this form to report initiation of either VIG or cidofovir therapy in the treatment of serious adverse events associated with administration of smallpox vaccine.

This form should NOT be used to request VIG, VIG can be obtained from CDC Drug Services:

Centers for Disease Control and Prevention
 Drug Services, National Center for Infectious Diseases
 Mailstop D-09
 1600 Clifton Road NE
 Atlanta GA 30333
 Telephone: 404-639-3670
 Facsimile: 404-639-3717

Once VIG/Cidofovir therapy is initiated, please fax this completed form to:

**National Immunization Program
 Vaccine Safety and Development Activity
 Facsimile: 404-639-8834**

Patient Identification

Patient Name _____

Address: _____

Daytime Phone Number:
 _ () _____

Evening Phone Number:
 _ () _____

Provider Identification

Provider Name: _____

Address: _____

Daytime Phone Number:
 _ () _____

Evening Phone Number:
 _ () _____

VIG/Cidofovir Therapy

Date therapy started:
 _____ / _____ / _____

Which therapy is being used?
 (please circle) VIG or Cidofovir

Why was therapy started?

Date of Symptom Onset:
 _____ / _____ / _____

Was a VAERS Report Submitted:
 (please circle) Yes or No

Vaccination Information

Vaccine: _____

Manufacturer: _____

Lot #: _____

Expiration Date:
 _____ / _____ / _____

Date Vaccinated:
 _____ / _____ / _____

Vaccine diluted: Yes or No
 (please circle)

Figure 4. VAERS Smallpox Follow-up Form

SMALLPOX VACCINE ADVERSE EVENT FOLLOW-UP

1. VAERS #: _____ 2. Form completed by: _____

MISSING INFORMATION:

Check for missing information on original VAERS form, and obtain if needed.

THIS INFORMATION WAS COLLECTED FROM THE FOLLOWING PERSONS:

| | |
|---------------------------------|----------------------------------|
| 3. Name _____ | 3a. Name _____ |
| 4. Title _____ | 4a. Title _____ |
| 5. Telephone # ____-____-____ | 5a. Telephone # ____-____-____ |
| 6. Address _____ | 6a. Address _____ |
| 7. Fax # ____-____-____ | 7a. Fax # ____-____-____ |
| 8. E-mail _____ | 8a. E-mail _____ |
| 9. Date spoken with ___/___/___ | 9a. Date spoken with ___/___/___ |

CONFIRM VAERS FORM INFORMATION:

10. Patient Name: _____
11. Date of Birth: _____
12. Gender: _____M _____F
13. Update pt's status/VAERS information since the original VAERS form:

MEDICAL HISTORY (has the patient ever had any of the following medical conditions):

| | | | |
|---|--|--|--|
| 14. Heart disease | <input type="checkbox"/> Yes <input type="checkbox"/> No | 21. Acquired Immune deficiency (HIV) | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 15. Stroke | <input type="checkbox"/> Yes <input type="checkbox"/> No | 22. Congenital immune deficiency | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 16. Seizure | <input type="checkbox"/> Yes <input type="checkbox"/> No | 23. Sickle Cell Disease | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 17. Asthma/emphysema | <input type="checkbox"/> Yes <input type="checkbox"/> No | 24. Spleen Removal | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 18. Cancer /leukemia | <input type="checkbox"/> Yes <input type="checkbox"/> No | 25. Automimmune disorder (ex: lupus) | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 19. Eczema | <input type="checkbox"/> Yes <input type="checkbox"/> No | 26. Hepatitis | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 19a. If yes: Active ___ or History of ___ (check one) | | 27. Frequent/recurrent/severe infections | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 20. Other chronic skin condition | <input type="checkbox"/> Yes <input type="checkbox"/> No | 28. Other (specify): _____ | |

29. If you checked "YES" to Cancer/leukemia, other chronic skin conditions, automimmune disorder, or frequent/recurrent/severe infections, please specify what type, when it was diagnosed, and how it was treated:

30. Describe any hospitalizations in the last 1 year (dates, where, why, outcome):

MEDICATION HISTORY:

31. Were you taking any medications at the time of vaccination or since vaccination? Yes No

If yes, specify drugs/dates:

32a. Drug _____ 32b. Start dt: ___/___/___ 32c. Stop dt: ___/___/___

32d. Drug _____ 32e. Start dt: ___/___/___ 32f. Stop dt: ___/___/___

32g. Drug _____ 32h. Start dt: ___/___/___ 32i. Stop dt: ___/___/___

33. Allergic to any medications? Yes No If yes, specify: _____

VACCINATION HISTORY:

34. Previous vacc with smallpox? Yes No Not sure If yes, when/where: _____

Other vaccines received within 30 days before or after smallpox vaccine:

35a. Vacc1: _____ 35b. Year: _____ 35c. Loc: _____ 35j. Vacc4: _____ 35k. Year: _____ 35l. Loc: _____

35d. Vacc2: _____ 35e. Year: _____ 35f. Loc: _____ 35m. Vacc5: _____ 35n. Year: _____ 35o. Loc: _____

35g. Vacc3: _____ 35h. Year: _____ 35i. Loc: _____ 35p. Vacc6: _____ 35q. Year: _____ 35r. Loc: _____

36. Have you ever had a serious reaction after any vaccination? Yes No

36a. If yes, specify the immunization, the approximate date, the events that occurred, and what was done in response to the reaction:

FEMALES ONLY:

38. Date of LMP ___/___/___

39. Are you currently pregnant? Yes No

DETAILS OF ADVERSE EVENT AND MANAGEMENT

40. Which type of adverse event did the patient experience? (check all that apply)

Generalized Vaccinia ___

If yes, was it: maculopapular ___ vesicular ___ unknown ___ (check one)

Eczema Vaccinatum ___

If yes, describe location(s) of skin involvement:

Progressive Vaccinia (Vaccinia necrosum) ___

Post-Vaccinial Encephalitis ___

Inadvertant Inoculation ___

If yes, involved anatomic area: eye ___ mouth ___ lips ___ genitals ___

Other location (describe) _____

Other ___

If other, was it: severe local reaction ___

bacterial superinfection of vaccination site ___

erythema multiforme ___

other (describe) _____

41. Which if any of the following were used to treat the patient: (check all that were used)

Vaccinia Immune Globulin (VIG) ___

Cidofovir ___

Antibiotics ___

Other antiviral agents _____ If yes, list agent(s):

42. Was the patient hospitalized overnight or for more than one night?

Yes ___ No ___ Unknown ___

43. Was the patient seen or treated in a hospital emergency room or department?

Yes ___ No ___ Unknown ___

44. What is the patient's current recovery status? (check one)

Acutely ill or illness still evolving ___

Fully recovered ___

Recovered with sequelae ___

If yes, please describe: _____

Died ___

Unknown ___

Figure 5. Smallpox Vaccine Adverse Event Report Card

A copy of the Adverse Event Diary Report Card and the Instructions must be given to every vaccine recipient at the time of vaccination

1. Patient name: _____ 2. Date of Birth: ___/___/___
3. Gender: Male Female
 If female: 3a. Date of last menstrual period: ___/___/___ 3b. Are you currently pregnant? Yes No
4. Today's date: ___/___/___
5. Date of most recent smallpox vaccination: ___/___/___
 5a. Vacc manufacturer: _____ 5b. Vacc Lot Number: # _____
6. Have you received other vaccinations in the last month? Yes No
 If yes, list vaccine(s) and approximate date(s) and describe any reaction:
 6a. Vaccine1 _____ 6b. Date ___/___/___
 6c. Reaction: _____
 6d. Vaccine2 _____ 6e. Date ___/___/___
 6f. Reaction: _____
7. Have you ever previously received smallpox vaccine? Yes No If yes: 7a Vaccination year: 19__
 7b. Adverse Event? Yes No 7c. If yes, describe: _____
8. Have you taken any medications since your most recent smallpox vaccination? Yes No
 If yes, please list: _____
 Do you have any of the following medical conditions:

| | | | |
|---------------------|--|---------------------------------------|--|
| 9. Seizure | <input type="checkbox"/> Yes <input type="checkbox"/> No | 16. Congenital Immune deficiency | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 10. Asthma | <input type="checkbox"/> Yes <input type="checkbox"/> No | 17. Sickle Cell disease | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 11. Cancer/leukemia | <input type="checkbox"/> Yes <input type="checkbox"/> No | 18. Spleen removal | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 12. Eczema | <input type="checkbox"/> Yes <input type="checkbox"/> No | 19. Autoimmune disorder (e.g., lupus) | <input type="checkbox"/> Yes <input type="checkbox"/> No |

12a. If yes: Active ___ or History of ___ (check one)

| | | | |
|----------------------------------|--|--|--|
| 13. Other chronic skin condition | <input type="checkbox"/> Yes <input type="checkbox"/> No | 20. Frequent/recurrent/severe infections | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 14. Renal/kidney disease | <input type="checkbox"/> Yes <input type="checkbox"/> No | 21. Other (specify): _____ | <input type="checkbox"/> Yes <input type="checkbox"/> No |

15. Acquired Immune deficiency (e.g., HIV) Yes No

If you checked "YES" to Cancer/leukemia, other chronic skin conditions, automimmune disorder, immune deficiency, or frequent/recurrent/severe infections, please specify what type, when it was diagnosed, and how it was treated:

WEEK 1 THROUGH WEEK FOUR AFTER SMALLPOX VACCINATION

| Symptom(s) Please check off any symptoms present on each indicated day | Day 1 | Days 2 through 21 | | | | | | | | | | | | | | | | | | W e e k 4 | | |
|---|----------------|-------------------|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|-----------------------|----|----|
| | Day of vaccine | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | | 20 | 21 |
| No symptoms | | | | | | | | | | | | | | | | | | | | | | |
| Fever (write down temperature) | | | | | | | | | | | | | | | | | | | | | | |
| Chills | | | | | | | | | | | | | | | | | | | | | | |
| Joint pain | | | | | | | | | | | | | | | | | | | | | | |
| Muscle pain | | | | | | | | | | | | | | | | | | | | | | |
| Fatigue | | | | | | | | | | | | | | | | | | | | | | |
| Loss of Appetite | | | | | | | | | | | | | | | | | | | | | | |
| Cough | | | | | | | | | | | | | | | | | | | | | | |
| Vaccination site rash/lesion (describe): | | | | | | | | | | | | | | | | | | | | | | |
| Rash elsewhere (describe): | | | | | | | | | | | | | | | | | | | | | | |
| Swelling/tender lymph nodes | | | | | | | | | | | | | | | | | | | | | | |
| Itching at vaccination site | | | | | | | | | | | | | | | | | | | | | | |
| Itching on body | | | | | | | | | | | | | | | | | | | | | | |
| Pain at vaccination site | | | | | | | | | | | | | | | | | | | | | | |
| Headache | | | | | | | | | | | | | | | | | | | | | | |
| Backache | | | | | | | | | | | | | | | | | | | | | | |
| Abdominal pain | | | | | | | | | | | | | | | | | | | | | | |
| Difficulty breathing | | | | | | | | | | | | | | | | | | | | | | |
| Vaccinia lesions other than at vaccination site (describe): | | | | | | | | | | | | | | | | | | | | | | |
| Other (describe in additional comments) | | | | | | | | | | | | | | | | | | | | | | |
| Was medical care sought? (describe below) | | | | | | | | | | | | | | | | | | | | | | |

If medical care sought, where? Name of facility/MD: _____

Address: _____ Phone: _____ - _____ - _____ Permission to acquire

medical records? Yes No

Has a VAERS form been submitted? Yes ___ No ___ Unsure ___ If yes, on what date? ___/___/___

Additional comments _____

*Figure 5. Smallpox Vaccine Adverse Event Report Card
(reverse side)*

Please return to:
VAERS-Active Surveillance
P.O. Box 1100
Rockville, MD 20849-1100

Or FAX to: 1-877-721-0366

Instructions for Completing the Smallpox Adverse Event Report Card

A copy of the Adverse Event Diary Report Card must be given to every vaccine recipient at the time of vaccination

- Please write clearly using dark ink if possible.
- **Questions 1-2:** This personal identifying information will be kept confidential.
- **Question 5:** The clinic or other place you are being vaccinated has this information and will complete it before you leave.
- **Question 7:** If you are not sure, please leave this question blank.
- **Questions 9-21:** This personal medical information will be kept confidential. If you answered “yes” to any of these questions, please provide details in the space provided.
- **Week 1 Through Week 4 After Smallpox Vaccination** chart
 - If on any day, you are not having any of the symptoms listed, please check only the “No symptoms” box.
 - If you notice more than one symptom, please check all that apply for a particular day.
- If you sought medical care for any of the symptoms you report, please tell where you received the care in the space provided. If you do not want your medical records to be reviewed, please check “No,” otherwise check “Yes”. Any information from your medical records will be kept confidential.
- If you experienced side effects you think may have been caused by the vaccine and would like to report them to the Vaccine Adverse Event Reporting System (VAERS), you may report them online at www.vaers.org or you may call 1-800-822-7967.
- After completing the form, please fold it, seal it and mail it to the address listed on the back of the form or fax it toll-free to 1-877-721-0366.

Summary of Contact Information for Vaccine Safety Concerns

Contact the CDC Drug Services for information pertaining to the smallpox vaccine Investigational New Drug (IND) protocol or access to Vaccinia Immune Globulin (VIG):

CDC Drug Services

National Center for Infectious Diseases

Mail stop D-09

1600 Clifton Road NE

Atlanta, GA 30333

Phone: 404-639-3670

FAX: 404-639-3717

Contact VAERS for information on the reporting of vaccine adverse events:

VAERS

P.O. Box 1100

Rockville, Maryland 20849-1100

Phone: 1-800-822-7967

FAX: 1-877-721-0366

E-Mail: www.vaers.org

Contact the National Immunization Program when VIG or cidofovir use initiated for treatment of vaccine adverse event:

Centers for Disease Control and Prevention

National Immunization Program

Vaccine Safety and Development Activity

Phone: 404-639-8256

FAX: 404-639-8834