STATEMENT OF PURPOSE

This document is intended as a guideline for hospital emergency planning efforts, including the use of preventative therapy in the form of oral prophylactic medication or vaccination of hospital employees in preparation for or in response to a health emergency due to infectious disease (i.e. smallpox, pandemic influenza, Severe Acute Respiratory Syndrome [SARS]). Your current emergency response plan should serve as the framework for a plan that also addresses the specific needs of infectious disease emergencies. The best plans are based on specific needs, capabilities and goals of the individual institution and the community it serves. Therefore, it is expected that each facility will assess its current response capabilities, determine how that compares to the level of preparedness desired, and determine planning priorities based upon functions necessary to the services they provide. It is important to protect your own staff first, then the patients in your facility. Only after accomplishing this priority can a facility be prepared to serve its community during a disaster.

Infectious disease emergencies differ from other disaster events in that there is oftentimes no apparent “big bang” indicating the need to activate the disaster plan. Detection requires continuous surveillance for disease agents and a high level of suspicion. An infectious disease emergency may strain a healthcare institution by:

1. Requiring resource investments that permit prompt recognition and isolation of potentially contagious individuals.
2. Exposing health care workers to contagious individuals.
3. Overwhelming emergency and inpatient care capabilities with a large number of critically ill people.
4. Placing additional burden on already financially strained institutions.

During a large-scale disaster, public and private healthcare leaders and city, state and federal governments may be forced to make many difficult decisions. Working together in the planning process will ensure that those decisions are based on an understanding of the capabilities and limitations of those involved.

This planning guide should be modified to fit your hospital’s structure, function, patient population, and staffing numbers, and should be integrated into the hospital’s existing emergency management plan.

This plan is easily modifiable for antibiotic prophylaxis or vaccination. As information related to recognizing, diagnosing, treating, and preventing bioterrorism and/or other emerging infectious diseases is updated at the federal and State level, hospitals should revise existing response plans accordingly. Los Angeles County Bioterrorism (LAC BT) will monitor such changes and notify staff accordingly.

The goals of these guidelines are:

- To assist hospitals in preparing for a possible bioterrorism event or as a response to a probable or confirmed case of a unique infectious disease agent with the potential to cause widespread death or disability.
• To reduce the incidence and transmission of infectious agents such as smallpox, pandemic influenza, SARS, and other emerging infectious diseases, to staff, patients, and the community.
• To rapidly provide preventative therapy to exposed staff in the form of oral prophylactic medication or vaccination.
• To prevent interruption in medical care for patients during large-scale public health emergencies.
• To integrate personal health and public health emergency response plans.

GENERAL INFORMATION

A. INTRODUCTION

This plan provides guidelines for conducting rapid prophylactic medication dispensing and vaccination activities for hospital employees. Antibiotic prophylaxis or vaccination may be recommended in either the context of bioterrorism readiness (pre-event) or as a response to a bioterrorism event (post-event) or large-scale epidemic of a naturally occurring infectious diseases (such as Pandemic Flu). The CDC has identified “Category A” agents for which a rapid response is critical for public health preparedness and protection. “Category A” agents are determined to be a risk to national security based on the presence of characteristics such as, ease of transmission; high mortality; potential for major public health impact; ability to cause public panic and social disruption; or necessity of special action for public health. “Category A” agents include:

- Variola major (smallpox)
- Bacillus anthracis (anthrax)
- Yersinia pestis (plague)
- Clostridium botulinum toxin (botulism)
- Francisella tularensis (tularemia)
- Viral Hemorrhagic fevers, including Ebola hemorrhagic fever and Marburg hemorrhagic fever, Lassa fever and others.

B. SITE SELECTION

Hospital Employee Dispensing/Vaccination Center (DVC)’s are meant to accommodate a large-scale medication dispensing or vaccination activity. The sites should be chosen accordingly.

For detailed criteria for DVC site selection, see Appendix B.

C. CRITERIA FOR ACTIVATING DVC SITES

The Los Angeles County Department of Health Services (LAC DHS) will notify hospitals of an infectious disease emergency through the Departmental Operations Center (DOC). The Hospital Emergency Incident Command System (HEICS) will activate DVC sites as required to address the emergency.
POLICY

A. RECEIPT AND STORAGE FUNCTION

An individual must be designated for the role of Logistic Manager (LM) to be responsible for the receipt and storage function of any medications/vaccines provided to the hospital through the Strategic National Stockpile (SNS). The Logistic Manager (LM) for all Dispensing/Vaccination Center functions will be the ________________ (insert position title of individual assigned as LM). The LM will ensure that appropriate personnel, based upon the organizational structure, are present to receive all SNS components including medications, monitor the inventory, and apportion the assets. The SNS supplies will arrive within 12 hours of Center for Disease Control and Prevention (CDC) approval and be received at a pre-designated warehouse. The stockpile requires secure storage for controlled pharmaceuticals, and pharmaceuticals requiring refrigeration. The LM will identify sites for the storage warehouse within the hospital.

B. PLAN FOR OBTAINING PROPHYLACTIC MEDICATION OR VACCINE

In an event of a large-scale infectious disease emergency, hospitals will first exhaust internal supplies and/or stocks of medications from ________________ (insert description here), then request additional medications from ________________ (insert pharmaceutical company), and/or directly request additional medications from the LAC Strategic National Stockpile (SNS) cache.

C. TREATMENT OF EMPLOYEES AND FAMILIES

- In an effort provide support and/or incentive for employees, prophylaxis medication and vaccination will be made available to staff and their immediate family members.
- Only hospital employees will receive prophylaxis medication or vaccination.

D. DISPENSING/VACCINATION CENTER POSITION DESCRIPTIONS

Staffing patterns are based on LAC’s Strategic National Stockpile (SNS) DVC Model. In general, the same staffing pattern can be used with numbers of staff adjusted to the size needed by the institution. In smaller DVCs, one person may be able to do several jobs. The Operations Manager (OM) ________________ (insert hospital representative) will assign staffing for the DVC based on the anticipated number of persons to be treated. The number and qualifications of personnel required to dispense medications and/or vaccinate a minimum of >250 or 500 individuals during a four-hour DVC session are outlined in Appendix C - DVC Staffing Roster and C-1 – DVC Job Action Descriptions. A Facility Staffing Roster, to assist in identifying staff for the hospital’s DVC, is included in Appendix C-2. Detailed Position Resource Guides (PRGs) outlining each position’s responsibility within the DVC are included in Appendix C-3.
E. DISPENSING/VACCINATION CENTER PROCESS

The DVC dispensing model provides preventative therapy to exposed staff in the form of oral prophylactic medications. This model provides oral prophylaxis at a rate of 250 people per hour, a total of 1,000 people per day (for large sized hospitals) and 130 people per hour, a total of 520 people per day (for smaller sized hospitals).

The DVC vaccination model provides vaccinations to staff. The vaccination model provides vaccinations at a rate of 125 people per hour, a total of 500 people per day (for large sized hospitals) and 65 people per hour, a total of 260 people per day (for smaller sized hospitals).

The DVC process model description and flow diagram is included in Appendix D. The instructions for prophylactic medication distribution are included in Appendix E. Sample Antibiotic Patient Information Sheets are included in Appendix F. Instructions for smallpox vaccination are included in Appendix G.

F. DOCUMENTATION

Each Hospital must have a formal system for documenting the DVC process and the treatment received by employees. Documentations (e.g., procedure logs) must be maintained by the hospital in their files. LAC DHS will provide forms to be used for inventory control, medical screening, medication dispensing and information, and vaccine information. All documentation must be maintained for entry into the LAC Vaccination Registry (Note: This Registry System is still in development). Examples of approved documentation are located in Appendix H.

G. STAFF COMPETENCY

All Hospital employees shall participate in an ongoing competence assessment process. The training and competency of employees will be based on the written hospital policy and procedures in regards to employee performance.

H. LIST OF SUPPORTING MANUALS, DOCUMENTS AND GUIDES FOR DVC – PROPHYLAXIS DISPENSING

See Appendix I

I. LIST OF SUPPORTING MANUALS, DOCUMENTS AND GUIDES FOR DVC – SMALLPOX VACCINATION

See Appendix J

J. SUPPLIES NEEDED FOR DVC OPERATIONS

See Appendix
APPENDIX A

HOSPITAL EMPLOYEE DISPENSING/VACCINATION PLAN REPORT

This document will assist in the process of incorporating the DVC plan in your facility’s emergency/disaster plan. Please complete the following information and return to your facility’s Acute Communicable Disease Control (ACDC) Program hospital liaison. Fax to (213) 482-4856.

Facility Information

<table>
<thead>
<tr>
<th>Facility Name:</th>
<th>Telephone #:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>Fax #:</td>
</tr>
<tr>
<td>City, State ZIP</td>
<td>E-mail:</td>
</tr>
<tr>
<td>Coordinator’s Position:</td>
<td>Plan Coordinator:</td>
</tr>
<tr>
<td>Plan completed by:</td>
<td>Date completed:</td>
</tr>
</tbody>
</table>

Acute Communicable Disease Control reviewed and accepted:

_________________________________________               _______________________________
Signature                                    Date
HOSPITAL EMPLOYEE DVC PLAN REPORT

General Information

A. Site Selection

<table>
<thead>
<tr>
<th>Primary Site for DVC</th>
<th>(Insert facility location and address)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary Site for DVC</td>
<td></td>
</tr>
</tbody>
</table>

B. Criteria for Activating DVC Sites

The staff responsible for oversight of the Hospital Emergency Incident Command System (HEICS) for this facility is (insert position title of individual assigned)
______________________________________________.

Policy

A. Receipt and Storage

The Logistic Manager is responsible for receipt and storage of Strategic National Stockpile inventory. The role of Logistic Manager will be filled by (insert position title of individual assigned)__________________________________.

B. Plan for Medication/ Vaccine Procurement

In the event of a large-scale infectious disease emergency, hospitals will first exhaust internal supplies of prophylactic medication/vaccine then utilize supplies from local pharmaceutical vendors before requesting supplies from Los Angeles County’s Strategic National Stockpile cache.

<table>
<thead>
<tr>
<th>Internal Resources maintained</th>
<th>(Insert facility’s internal supply location)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary resource request agreement</td>
<td>(Insert pharmaceutical company name)</td>
</tr>
</tbody>
</table>

C. Treatment of Employees and Families

- [ ] Prophylactic Medication and Vaccination for staff and immediate family members
- [ ] Prophylaxis Medication and Vaccination for staff ONLY
D. DVC Positions

The role of Operations Manager will be filled by (insert position title of individual assigned):_____________________.

<table>
<thead>
<tr>
<th>DVC POSITION</th>
<th>DVC STATION</th>
<th>HOSPITAL STAFF OR UNIT RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage</td>
<td>Triage Area</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td>Form Review Staff</td>
<td>Forms Review Area</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________________________</td>
</tr>
<tr>
<td>Clinical Evaluators</td>
<td>Clinical Evaluation Area</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. ______________________________</td>
</tr>
<tr>
<td>Dispensing / Vaccination Staff</td>
<td>Dispensing/ Vaccination Area</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________________________</td>
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<td></td>
<td></td>
<td>4. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6. ______________________________</td>
</tr>
<tr>
<td>Post- Counseling Staff</td>
<td>Post- Counseling Area</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. ______________________________</td>
</tr>
<tr>
<td>Flow Control Staff</td>
<td>Mobile</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. ______________________________</td>
</tr>
<tr>
<td>Re-Supply Staff</td>
<td>Mobile</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________________________</td>
</tr>
<tr>
<td>DVC POSITION</td>
<td>DVC STATION</td>
<td>HOSPITAL STAFF OR UNIT RESPONSIBLE</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-------------------</td>
<td>-----------------------------------</td>
</tr>
</tbody>
</table>
| Force Protection Staff| Mobile            | 1. _____________________ 4. _____________________  
|                       |                   | 2. _____________________ 5. _____________________  
|                       |                   | 3. _____________________      |
| Mental Health Staff   | Mental Health Area| 1. _____________________ 3. _____________________  
|                       | Mobile            | 2. _____________________ 4. _____________________  |
| Data Entry Staff      | Data Entry Area   | 1. _____________________ 3. _____________________  
|                       |                   | 2. _____________________      |
| Back-Up Volunteers    | Mobile            | 1. _____________________ 4. _____________________  
|                       |                   | 2. _____________________ 5. _____________________  
|                       |                   | 3. _____________________ 6. _____________________  |

E. Documentation Plan

Documentation of the DVC process and treatment received by employees must be maintained by the facility. Documentation Maintenance will be overseen by (insert position title of individual assigned):___________________________.

______________________________
APPENDIX B

CRITERIA FOR SITE SELECTION

Site considerations
- Large floor space facility
- Access to one or two private rooms for staff conferencing and storage
- Access to power (electrical outlets)
- Access to telephones
- Refrigerator for vaccine storage during clinic operation
- Adequate sanitary facilities (bathrooms and sinks)
- Physically disabled persons accessible (Required by Title II of Americans with Disabilities Act; County of Los Angeles, ADA Compliance Policy No. 189,01/31/99)
- Heating and air conditioning (in some instances, may not be required)
- Access to telephones
- Consider auditoriums, conference halls, open-area buildings
- Availability to maintain security of area
- Computer lines

DVCs will be instituted at ________________________________

(Insert the location here)
APPENDIX C

DISPENSING/VACCINATION CENTER STAFFING

Dispensing/Vaccination Center (DVC) staffing patterns have been developed with the intention of reducing the number of licensed personnel needed to run a center. Since a DVC will only be instituted in the event of a large-scale natural or terrorist event it is anticipated that most licensed medical personnel will be caring for sick and/or injured people.


If available, additional licensed medical personnel may be used in lieu of non-medical personnel.
### APPENDIX C-1 Dispensing/Vaccination Center Staffing Roster

<table>
<thead>
<tr>
<th>Position</th>
<th>Station</th>
<th>Unit</th>
<th>Minimum Qualifications</th>
<th># Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage Staff</td>
<td>Triage Area</td>
<td>Clinical Unit</td>
<td>RN, LVN</td>
<td>2</td>
</tr>
<tr>
<td>Forms Review Staff</td>
<td>Forms Review Area</td>
<td>Interview Unit</td>
<td>Any (prophy needs 1 Pharmacist)</td>
<td>5</td>
</tr>
<tr>
<td>Clinical Evaluators</td>
<td>Clinical Evaluation Area</td>
<td>Clinical Unit</td>
<td>Any licensed medical personnel (at least 1 MD)</td>
<td>6</td>
</tr>
<tr>
<td>Clinical Counseling Area</td>
<td>Clinical Unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contact Evaluation Area</td>
<td>Clinical Unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dispensing/Vaccinating Staff</td>
<td>Main Dispensing Area</td>
<td>Clinical Unit</td>
<td>Pharmacist, Pharmacy Student, MD, RN</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Express Dispensing Area</td>
<td>Clinical Unit</td>
<td>Pharmacist, Pharmacy Student, MD, RN</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vaccination Area</td>
<td>Clinical Unit</td>
<td>MD, RN, LVN</td>
<td></td>
</tr>
<tr>
<td>Post-Counseling Staff*</td>
<td>Post-Counseling Area</td>
<td>Interview Unit</td>
<td>RN, LVN, Student nurses, Volunteers</td>
<td>4</td>
</tr>
<tr>
<td>Flow Control Staff</td>
<td>Mobile</td>
<td>Logistic Section</td>
<td>Any</td>
<td>5+</td>
</tr>
<tr>
<td>Re-supply Staff</td>
<td>Mobile</td>
<td>Logistic Section</td>
<td>Any</td>
<td>5+</td>
</tr>
<tr>
<td>Force Protection</td>
<td>Entrance, Exits, Roaming</td>
<td>Security and Safety Officer</td>
<td>Law Enforcement / Hospital Security</td>
<td>4+</td>
</tr>
<tr>
<td>Mental Health Staff</td>
<td>Mental Health Area &amp; Roaming</td>
<td>Mental Health Unit</td>
<td>Licensed Mental Health clinicians</td>
<td>4+</td>
</tr>
<tr>
<td>Data Entry Staff</td>
<td>Data Entry Area</td>
<td>Data Entry Unit</td>
<td>Any</td>
<td>3</td>
</tr>
<tr>
<td>Back-up Volunteers</td>
<td>Mobile</td>
<td>Logistic Section</td>
<td>Any</td>
<td>5+</td>
</tr>
<tr>
<td>Total Staff</td>
<td></td>
<td></td>
<td></td>
<td>51+</td>
</tr>
</tbody>
</table>

*Post-counseling staff is only used in a smallpox vaccination DVC.
APPENDIX C-2  DVC Job Action Sheets

*(One example only; others available from BT unit, Los Angeles County, Public Health.)*

POST-COUNSELING STAFF

<table>
<thead>
<tr>
<th>STATION(S) ASSIGNED TO</th>
<th>Post-Counseling Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNIT ASSIGNED TO</td>
<td>Clinical Unit</td>
</tr>
<tr>
<td>REPORT TO</td>
<td>Clinical Unit Leader</td>
</tr>
<tr>
<td>SUPERVISE</td>
<td>Not applicable</td>
</tr>
<tr>
<td>EXPERTISE/TRAINING</td>
<td>RN, LVN, Student nurses, Volunteers</td>
</tr>
<tr>
<td>JOB DESCRIPTION</td>
<td>Educate clients on post-vaccination care of the vaccination site</td>
</tr>
</tbody>
</table>

BEGINNING OF SHIFT DUTIES

- Check-in with Unit Leader
- Obtain proper DVC identification badge
- Attend overall staff briefing
- Attend station briefing
- Review job duties

JOB DUTIES

- Receive station description form
- Instruct clients on post-vaccination care of the vaccination site.
- Instruct clients on how to assess the vaccination site for “a take” on the seventh day post vaccination and what to do if adverse events occur following vaccination
- Stamp “Proof of Vaccination” form and return to the clients
- Any non-contact who refuses vaccination will be allowed to exit the clinic

END OF SHIFT DUTIES

- Check-out with Unit Leader
- Verify schedule
- Return DVC identification badge
- Attend debriefing
# APPENDIX C-3  Facility DVC Staffing Roster

## Hospital Dispensing/Vaccination Center Staffing Roster

<table>
<thead>
<tr>
<th>DVC POSITION</th>
<th>DVC STATION</th>
<th>HOSPITAL STAFF OR UNIT RESPONSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Triage</td>
<td>Triage Area</td>
<td>1. ______________________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________________________</td>
</tr>
<tr>
<td>Form Review Staff</td>
<td>Forms Review Area</td>
<td>1. ______________ 4. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________ 5. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________</td>
</tr>
<tr>
<td>Clinical Evaluators</td>
<td>Clinical Evaluation Area</td>
<td>1. ______________ 4. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________ 5. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________ 6. ______________</td>
</tr>
<tr>
<td>Dispensing / Vaccination Staff</td>
<td>Dispensing/ Vaccination Area</td>
<td>1. ______________ 5. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________ 6. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________ 7. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4. ______________ 8. ______________</td>
</tr>
<tr>
<td>Post-Counseling Staff</td>
<td>Post-Counseling Area</td>
<td>1. ______________ 4. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________ 3. ______________</td>
</tr>
<tr>
<td>Re-Supply Staff</td>
<td>Mobile</td>
<td>1. ______________ 4. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. ______________ 5. ______________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. ______________</td>
</tr>
<tr>
<td>DVC POSITION</td>
<td>DVC STATION</td>
<td>HOSPITAL STAFF OR UNIT RESPONSIBLE</td>
</tr>
<tr>
<td>--------------------</td>
<td>-------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td><strong>Force Protection Staff</strong></td>
<td>Mobile</td>
<td>1. __________________          4. ___________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. __________________          5. ___________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. __________________          4. ___________________</td>
</tr>
<tr>
<td><strong>Mental Health Staff</strong></td>
<td>Mental Health Area Mobile</td>
<td>1. __________________          3. ___________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. __________________          4. ___________________</td>
</tr>
<tr>
<td><strong>Data Entry Staff</strong></td>
<td>Data Entry Area</td>
<td>1. __________________          3. ___________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. __________________</td>
</tr>
<tr>
<td><strong>Back-Up Volunteers</strong></td>
<td>Mobile</td>
<td>1. __________________          4. ___________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. __________________          5. ___________________</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. __________________          6. ___________________</td>
</tr>
</tbody>
</table>
**APPENDIX C-4  Position Resource Guides (PRGs)**

*(Example only; others available from BT unit, Los Angeles County, Public Health)*

**POSITION RESOURCE GUIDE - Triage Staff SMALLPOX VACCINATION**

**Purpose:**
Triage quickly screens all persons presenting to the clinic for signs and symptoms of illness and contact status, and based on this assessment directs the client to the next appropriate area.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Method</th>
</tr>
</thead>
</table>
| 1. Ask the client about signs/symptoms of smallpox illness | Ask each client:  
   - Do you or anyone with you today have a fever?  
   - Do you or anyone with you today have a rash?  
   If yes to either question, refer to the Clinical Evaluation Area. |
| 2. Assess general appearance of the client | Assess each client:  
   - Does the person appear ill (e.g., feverish, toxic, moribund)?  
   - Does the person have visible rash?  
   If yes to either question, refer to the Clinical Evaluation Area. |
| 3. Determine if client or family member is a contact of a confirmed case of smallpox | Ask each client:  
   - Have you or anyone in your family been in contact with someone diagnosed with smallpox?  
   - Do you have a referral form from the health department?  
   If yes to either question, refer to the Contact Evaluation Area. |
| 4. Refer client to next appropriate area | Based on triage assessment direct client to:  
   - Clinical evaluation area if YES to questions 1 or 2  
   - Contact evaluation area if YES to question 3  
   - Briefing/Orientation area or waiting area if NO to all questions |
Triage Area Flow Chart (Smallpox)

Do you or anyone with you have a fever today?

Yes  

No  

Do you or anyone with you have a rash today?  
*Does client have a visible rash?*

Yes  

No  

Does the client appear ill?  
*  

Yes  

No  

Have you or anyone in your family been in contact with someone diagnosed with smallpox?

Yes  

Contact Evaluation Area

Do you have a referral form from the health department?

Yes  

Contact Evaluation Area

No  

Waiting Area or Briefing/ Orientation Area

*Italicized questions refer to the staff members’ observations*
APPENDIX D

DVC PROCESS MODEL DESCRIPTION AND FLOW DIAGRAM

DVC Process Model Description

DVC Entrance and Distribution of Information Packet

Individuals presenting to the DVC will be instructed where to proceed for entrance to the DVC and will be given information on the agent being treated.

Triage Area: The first screening point for the DVC is triage for symptomatic clients and/or contacts of the agent being treated.

- **Symptomatic individuals**: will be taken out of the mainstream flow before entering the DVC and will be attended to as required by their symptoms/illness (e.g., monitoring, referral, or supportive care) in the Clinical Evaluation Area.

- **Contacts**: These clients will be taken out of the mainstream flow and taken to the Contact Evaluation Area. They will receive all DVC services including, counseling on follow-up procedures and registration for monitoring.

- **Asymptomatic/Non-contacts (mainstream progression through the clinic)**: These clients will progress to the next station within the DVC.

Briefing/Orientation, Completion of Forms and Forms Review

- **Distribution of Screening Forms**: Clients will receive additional information and medical screening forms as they enter the Briefing/Orientation area.

- **Briefing/Orientation Area**: Clients will be given education on the agent being treated, signs and symptoms of illness, information on the preventative treatment being provided and contraindications to treatment. Clients will then be instructed to complete the forms.

- **Forms Review**: Clients will have their completed medical screening forms reviewed and/or given assistance in completing them. If individuals have contraindications they will proceed to the Clinical Counseling Area to receive additional information and screening. Individuals that have no self-identified contraindications or questions will be requested to sign a treatment consent and then will be directed to proceed to the dispensing or vaccination area.

Clinical Counseling

Clinical Counseling personnel will determine if and what type of preventative treatment is appropriate. If necessary, clinical counseling personnel will review the individual's medical condition/situation with a physician.

Dispensing/Vaccination Area

Individuals will receive prophylactic medications or vaccination within this area.
**Post Counseling Area (only for smallpox vaccination)**

Post counseling staff will instruct vaccine recipients on care of the vaccination site, how to assess the vaccination site and what to do if adverse events occur following vaccination.

**Contact Evaluation Area**

Provides express DVC functions in a separate area for identified contacts including registration for follow-up and monitoring of symptoms.
Parking Area / Client Entrance

Clinical Evaluation Area

Symptomatic

Triage Area

Non-symptomatic

Waiting Area

Non-symptomatic contacts and family

Cleared for Entrance

Enter

Further Evaluation

Symptomatic

Briefing / Orientation Area

Forms Review Area (Multiple Stations)

Box Checked “Yes” or “Maybe”

All Boxes checked “No”

“Yes” to Dispensing / Vaccination

Post-Counseling Area *
(Groups of 4 to 8 people)

Post-Counseling Area *
(Groups of 4-8 people)

“No” to Dispensing/Vaccination

D/VS – Dispensing/Vaccination Station
* Used in Vaccination Center Only

Exit
APPENDIX E

DESCRIPTION OF PROPHYLACTIC MEDICATION DISTRIBUTION

Triage Area (Administrative personnel)

1. Register client and give numbered wrist band

2. Instruct client to retain numbered wrist band until discharged from Out-Processing Station

3. Give patient Medical Screening Form and Agent FAQ (general information)

4. Instruct patient to proceed to seating area and complete Medical Screening Form and read agent FAQ (general information)

Briefing/Orientation Area (Physician or Registered Nurse)

5. Provide information on the agent being treated

6. Provide uniform information about what is currently known about recent cases, who may have been exposed, purpose of antibiotic prophylaxis and the antibiotic distribution process

7. Provide information on what antibiotics will be dispensed and why different antibiotics may be given

8. Provide assistance with completing Medical Screening Form (regarding the language or an inability to read)

9. Answer questions

Forms Review Area

10. Collect Medical Screening Form

11. Review Medical Screening Form

12. If NO to all questions on Medical Screening Form:

   - Complete prescription form
   - Give prescription to patient
   - Send patient to Pharmacy Dispensing Station
   - Send Medical Screening Form to data entry staff

13. If YES to any of the screening questions on Medical Screening Form OR if patient has any of symptoms of agent being treated —or if laboratory testing is recommended:
• Refer patient to MD for consultation in Clinical Counseling Area Clinical Counseling Area - MD Consultant

14. Complete prescription form and give to patient

15. Give patient Primary Care Notification Form, if applicable

16. Instruct patient to call primary care MD for an appointment on next working day, if applicable

17. Refer patient to Pharmacy Dispensing Station

18. Send Medical Screening Form to data analyst

For symptoms requiring further evaluation:

• Call local health care referral facility
• Copy Medical Screening Form and give photocopy to patient
• Arrange for transportation, if necessary
• Send original Medical Screening Form to data entry staff

Pharmacy Dispensing Station

19. Check antibiotic order

20. Verify the patient's identity (using driver's license, employee ID, etc.

21. Dispense antibiotic

22. Give patient instructions for taking antibiotic

23. Sign Dispensing Form

24. Send Antibiotic Prescription Form to data entry staff

25. Refer patient to the mental health station, if necessary, or to the Out-Processing Station

Mental Health Station

26. Counsel patient

27. Document patient's visit

28. Answer questions

29. Send patient back to Pharmacy Dispensing or to Post-counseling Area (where they came from)
APPENDIX F

ANTIBIOTIC INFORMATION SHEETS

Information sheets are provided for the most commonly prescribed antibiotics used to treat “Category A” agents.

You may choose to use these, modify them or use documents developed by your facility.

Please refer to “Terrorism Agent Information and Treatment Guidelines for Clinicians and Hospitals for more detailed information on antibiotic treatments for each “Category A” agent.
APPENDIX F-1 Amoxicillin Oral Capsules

To avoid serious medication problem, please tell the health care worker if:

- You have previously had a reaction or serious side effect to amoxicillin, ampicillin, penicillin, cephalosporin (Keflex, Cephalexin)
- You are pregnant or are breastfeeding (this is the preferred antibiotic)
- You are currently taking methotrexate (the combination may increase side effects);
- You are currently taking other antibiotics (may decrease the effectiveness of amoxicillin)
- You have a history of kidney problems or colitis (may be more prone to side effects)
- You are currently taking birth control pills (amoxicillin may make them less effective, so use alternative or additional method to avoid pregnancy)

Instructions for taking Amoxicillin

- Take amoxicillin 3 times a day or every 8 hours, as directed by the health care worker.
- If you stop taking amoxicillin too soon you may become ill.
- Amoxicillin may be taken with meals.
- Take amoxicillin with a full glass of water. Drink several glasses of water each day.
- If you miss a dose, take amoxicillin as soon as possible. If it is almost time for the next dose, skip the missed dose and take the next dose at the regular time. Do not take 2 doses at one time.
- DO NOT give your amoxicillin to any other person.

Reactions or Side Effects

Seek medical advice if you have any reaction to amoxicillin.

- **Allergic reaction:** rash, hives, itching, trouble breathing, swelling of face, lips, or throat.

- **Common side effects:** nausea, stomach cramps or discomfort, vaginal yeast infection. If you are a diabetic your urine sugar tests may be falsely positive.

- **Rare side effects:** severe watery or bloody diarrhea; fever; joint pain; change in urination; seizures; unusual bleeding or bruising, insomnia, anxiety, confusion.
APPENDIX F-2  Ciprofloxacin (Cipro) Oral Capsules

To avoid serious medication problems, please tell the health care worker if you have any history of:

- A previous reaction or side effect to Cipro or other antibiotic such as gatifloxacin (Tequin), Norfloxacin (Noroxin), Ofloxacin (Floxacin) and or nalidixic acid (NegGram);
- Seizures (epilepsy)
- Kidney disease or dialysis

Or if you are currently:

- Pregnancy or breastfeeding or become pregnant
- Currently taking theophylline, probenecid (Benemid), Coumadin or Cyclosporine. (Cipro may effect blood levels of these medications)

Instructions for taking Cipro:

- Take Cipro twice daily or every 12 hours (example: 9 AM and 9 PM)
- Take this medicine until all the pills are gone or until you are told to stop. If you stop taking this medicine too soon you may become ill.
- Although it is best to take Cipro 2 hours before or after you eat a meal, if your stomach becomes upset, take Cipro with food, but do not take it with milk, yogurt, or cheese.
- Take Cipro with a full glass of water. Drink several glasses of water each day.
- If you miss a dose, take Cipro as soon as possible. If it is almost time for the next dose (within 3 hours), skip the missed dose and take the next dose at the regular time. **Do not** take 2 doses at one time.
- **DO NOT** give your Cipro to any other person.

Drugs and food to avoid:

- **Do not** take the following medications within 2 hours of taking Cipro: Antacids (Maalox, Mylanta, Tums) or other medicine that contains calcium; sucralfate (Carafate); vitamins with iron or zinc supplements. Do not drink more than 2 caffeinated beverages (coffee, tea, soft drinks) per day.
- **Do not** take Cipro with milk, yogurt or cheese.

Reactions and Side Effects:

- Seek medical advice if you have any reaction to Cipro.

Allergic Reaction:

- Rash, hives, itching, swelling or face, throat, or lips, shortness or breath or trouble breathing.

Common Side Effects:

- Nausea, mild diarrhea, stomach pain or discomfort; headache; lightheadedness, dizziness or sleepiness (**Do not** drive a car or operate...
machinery if you experience these symptoms), trouble sleeping and vaginal yeast infections. Cipro may cause sun sensitivity with increased risk of sunburn; cover skin or apply sunscreen.

**Rare Side Effects:**
- Vomiting or severe diarrhea; disorientation, confusion, agitation, hallucinations; fever; inflammation of tendons.
APPENDIX F-3  Doxycycline Oral Capsules

To avoid serious medication problems, please tell the health care worker if you have any history of:

- A previous reaction or side effect to doxycycline (a different antibiotic may be given to you which is equally as effective as doxycycline)
- Seizures or are taking any medications to control seizures such as, Dilantin or Phenobarbital

Or if you are currently:

- Pregnant, breastfeeding or become pregnant
- Taking Tegretol or Carbatrol or an over-the-counter medicine such as aspirin, or cold or sinus medicines. If you are taking any of these medications, you must see your primary care provider within 3-5 days after starting antibiotic treatment.

Instruction for taking Doxycycline:

- Take doxycycline exactly as directed by the health care worker. If you stop taking doxycycline too soon, you may become sick.
- Although it is best to take doxycycline 1 hour before or 2 hours after you eat a meal, if your stomach becomes upset, take doxycycline with food.
- Take doxycycline with a full glass of water and drink several glasses of water each day.
- If you miss a dose, take it as soon as possible. If it is almost time for the next dose (within 3 hours), skip the missed dose and take the next dose at the regular time. Do not take 2 doses at one time.

Reactions or Side Effects:

- Seek medical advice if you have any reaction to doxycycline.
- **Common side effects**: nausea, mild diarrhea, stomach pain, cramps or discomfort; lightheadedness (DO NOT drive a car or operate machinery if you experience these symptoms). Doxycycline may increase the risk of sunburn for several months after you finish the antibiotic. It is best to stay out of the sun and avoid sun lamps. Wear sunscreen to protect your skin.
- Rare side effects: yellow or discolored skin or teeth; increased frequency or amount of urine; headache; increased thirst; loss of appetite; vomiting; visual changes, or muscle weakness.
- DO NOT give your doxycycline to any other person
- DO NOT give doxycycline to children without a physician's order.
- If you do not understand the instructions provided or if you want more information, please tell the health care worker before you leave the dispensing area.
Drugs and foods to avoid:

- **Do not** take the following medications within 2 hours of taking doxycycline: Antacids (Maalox, Mylanta, Tums) or other medicine that contains calcium; sucralfate (Carafate); vitamins with iron or zinc supplements. Do not drink more than 2 caffeinated beverages (coffee, tea, soft drinks) per day.

- **Do not** take doxycycline with milk, yogurt or cheese.
APPENDIX G

TREATMENT PROTOCOLS FOR BACTERIAL AGENTS

Appendices I-1 through I-3 includes current CDC approved treatment protocols for “Category A” bacterial agents.

These protocols may be revised at any time, please review the CDC website or contact your local health department for updates and revisions.
# APPENDIX G-1  Anthrax (Inhalation) Treatment Protocols

These are the CDC Antibiotic Treatment Dosing Guidelines for the SNS Components:

<table>
<thead>
<tr>
<th>Initial Therapy</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adults:</strong></td>
<td></td>
</tr>
<tr>
<td>Intravenous</td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin 400 mg BID</td>
<td>Estimated for 7 days.</td>
</tr>
<tr>
<td>OR</td>
<td>(Switch to oral antibiotic therapy when clinically appropriate to complete 60-day regimen.)</td>
</tr>
<tr>
<td>Doxycycline 100 mg BID</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Erythromycin 15-20 mg/kg/day in divided doses</td>
<td>OR</td>
</tr>
<tr>
<td>Penicillin G 20 MU/day in divided doses</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Estimated for 60 days</td>
</tr>
<tr>
<td>Ciprofloxacin 500 mg BID</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Doxycycline 100 mg BID</td>
<td></td>
</tr>
<tr>
<td>Children:</td>
<td></td>
</tr>
<tr>
<td>Intravenous</td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin 15 mg/kg IV Q12hrs</td>
<td>Estimated for 7 days.</td>
</tr>
<tr>
<td>OR</td>
<td>(Switch to oral antibiotic therapy when clinically appropriate to complete 60-day regimen.)</td>
</tr>
<tr>
<td>Doxycycline:</td>
<td></td>
</tr>
<tr>
<td>&gt; 8 yrs and &gt; 45 kg: 100 mg BID</td>
<td></td>
</tr>
<tr>
<td>&gt; 8 yrs and ≤ 45 kg: 2.2 mg/kg/day in 2 divided doses</td>
<td></td>
</tr>
<tr>
<td>≤ 8 yrs: (same as &gt; 8 yrs and ≤ 45 kg)</td>
<td>OR</td>
</tr>
<tr>
<td>Erythromycin 15-20 mg/kg/day IV in divided doses</td>
<td>OR</td>
</tr>
<tr>
<td>Penicillin G 400,000 Units/kg/day in divided doses</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>Estimated for 60 days</td>
</tr>
<tr>
<td>Ciprofloxacin 15-20 mg/kg Q12 hrs</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>Doxycycline:</td>
<td></td>
</tr>
<tr>
<td>&gt; 8 yrs and &gt; 45 kg: 100 mg BID</td>
<td></td>
</tr>
<tr>
<td>&gt; 8 yrs and ≤ 45 kg: 2.2 mg/kg/day BID</td>
<td></td>
</tr>
<tr>
<td>≤ 8 yrs: same as above</td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>Same as for non-pregnant adults (the high mortality rate from the infection outweighs the risk posed by the antibiotic)</td>
</tr>
<tr>
<td>Doxycycline oral not recommended for more than 14 days of therapy.</td>
<td></td>
</tr>
<tr>
<td>Immuno-compromised</td>
<td>Same as for non-immunocompromised adults and children</td>
</tr>
</tbody>
</table>

1. Therapy with ciprofloxacin may be initiated either as intravenous or oral dosage form. The pharmacokinetics are such that oral ciprofloxacin is rapidly and well absorbed from the GI tract with no substantial loss by first-pass metabolism. Maximum serum concentrations are attained 1-2 hours after oral dosing.

2. Because the potential persistence of spores following a possible aerosol exposure, antibiotic therapy should be continued for at least 30 days if used alone, and
although supporting data are less definitive, longer antibiotic therapy (up to 42-60 days) might be indicated.

3. If susceptibility testing allows, therapy should be changed to IV penicillin for treatment or oral amoxicillin for post-exposure prophylaxis to continue therapy out 60 days.

4. Ciprofloxacin dose should not exceed 1gram/day in children.

5. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing low incidence of gastrointestinal side effects.

6. Although tetracyclines are not recommended during pregnancy, their use may be indicated for life-threatening illness. Adverse affects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6th month of gestation. Please consult physician after the 6th month of gestation for recommendations.
**APPENDIX G-2**

**Plague Treatment Protocol**

These are the CDC Antibiotic Treatment Dosing Guidelines for the SNS Components:

<table>
<thead>
<tr>
<th>Initial Therapy</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adults Intravenous</strong></td>
<td></td>
</tr>
</tbody>
</table>
| Gentamicin 3-5 mg/kg/day (or in 3 divided doses Q8 hrs) (IV or IM) OR | Estimated for 10 days  
(Switch to oral doxycycline when clinically appropriate to complete 10 day therapy) |
| Doxycycline 100 mg BID OR |                                               |
| **Oral**                 |                                               |
| Doxycycline 100 mg BID   | Estimated for 10 days                        |
|                          |                                               |
| **Children Intravenous** |                                               |
| Gentamicin 6-7.5 mg/kg/day (or in 3 divided doses Q 8 hrs) OR | Estimated for 10 days  
(Switch to oral doxycycline when clinically appropriate to complete 10 day therapy) |
|                          |                                               |
| Doxycycline3             |                                               |
| >8 yr and >45 kg: 100 mg BID |                                               |
| >8 yr and <45 kg: 2.2 mg/kg/day in 2 divided doses Q12 hrs |                                               |
| <8 yrs: (same as >8 yrs and < 45 kg) OR |                                               |
| **Oral**                 |                                               |
| Doxycycline3:            | Estimate for 10 days                         |
| >8 yr and >45 kg: 100 mg BID |                                               |
| >8 yr and <45 kg: 2.2 mg/kg/day in 2 divided doses Q12 hrs |                                               |
| <8 yrs: (same as >8 yrs and < 45 kg) |                                               |
| **Pregnancy**            | Same as for non-pregnant adults               |
| **Immunocompromised**    | Same as for non-immunocompromised adults and children |

1. Treatment of choice for plague is streptomycin. Streptomycin can be difficult to obtain; therefore gentamicin is often used as the drug of choice and appears to be effective.

2. The frequency of administration is left up to the discretion of the clinician, however, it should be noted that once-daily dosing of aminoglycosides is investigational. The manufacturers usually recommend that the daily dose be given in equally divided doses at 8-hour intervals; however, current evidence suggests that once-daily (single-daily) dosing of aminoglycosides is at least as effective as, and may be less toxic than, conventional dosing regimens employing multiple daily doses of the drugs.

3. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing low incidence of gastrointestinal side effects.
APPENDIX G-3  Tularemia (Pneumonic, Pleuropulmonary, Typhoidal)  
Treatment Protocol

These are the CDC Antibiotic Treatment Dosing Guidelines for the SNS Components:

<table>
<thead>
<tr>
<th>Initial Therapy</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adults</strong></td>
<td></td>
</tr>
<tr>
<td>Gentamicin 3-5 mg/kg/day (or in 3 divided doses Q8 hrs) (IV or IM)</td>
<td>7 – 14 days (If switching to oral doxycycline, duration of therapy should continue for a total of 21 days)</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
</tr>
<tr>
<td>Doxycycline 100 mg IV BID</td>
<td>Estimated for 21 days (May switch to oral doxycycline when clinically appropriate)</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin 400 mg IV BID</td>
<td>Estimated for 10-14 days (May switch to oral therapy when clinically appropriate)</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
</tr>
<tr>
<td>Gentamicin 6.0-7.5 mg/kg/day (or in 3 divided doses Q8 hrs) (IV or IM)</td>
<td>7 – 14 days (If switching to oral doxycycline, duration of therapy should continue for a total of 21 days)</td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
</tr>
<tr>
<td>Doxycycline:</td>
<td></td>
</tr>
<tr>
<td>&gt; 8 yrs and &gt; 45 kg: 100 mg IV BID</td>
<td>Estimated for 21 days (May switch to oral doxycycline when clinically appropriate)</td>
</tr>
<tr>
<td>&gt; 8 yrs and ≤ 45 kg: 2.2 mg/kg/day in 2 divided doses Q12 hrs</td>
<td></td>
</tr>
<tr>
<td>≤ 8 yrs: (same as &gt; 8 yrs and ≤ 45 kg)</td>
<td></td>
</tr>
<tr>
<td><strong>OR</strong></td>
<td></td>
</tr>
<tr>
<td>Ciprofloxacin 15 mg/kg Q12hrs</td>
<td>Estimated for 10-14 days (May switch to oral therapy when clinically appropriate)</td>
</tr>
<tr>
<td><strong>Pregnancy</strong></td>
<td></td>
</tr>
<tr>
<td>Same as for non-pregnant adults</td>
<td></td>
</tr>
<tr>
<td><strong>Immunocompromised</strong></td>
<td></td>
</tr>
<tr>
<td>Same as for non-immunocompromised adults and children</td>
<td></td>
</tr>
</tbody>
</table>

1. Treatment of choice for tularemia is streptomycin. Streptomycin can be difficult to obtain; therefore gentamicin is often used and appears to be equally effective. Doxycycline is approved for the treatment of tularemia and is 90-100% absorbed after oral administration. This complete absorption may allow for its use in patients who can tolerate oral administration to complete the duration of therapy that is designated above.

2. The frequency of administration is left up to the discretion of the clinician, however, it should be noted that once-daily dosing of aminoglycosides is investigational. The manufacturers usually recommend that the daily dose be given in equally divided doses at 8-hour intervals; however, current evidence suggests that once-daily (single-daily) dosing of aminoglycosides is at least as effective as, and may be less toxic than, conventional dosing regimens employing multiple daily doses of the drugs.
3. To avoid relapses with shorter courses of therapy, longer courses of therapy are required when using oral doxycycline in F. tularensis due to doxycycline’s bacteriostatic mechanism of action.

4. In 1991, the American Academy of Pediatrics amended their recommendation to allow treatment of young children with tetracyclines for serious infections, such as, Rocky Mountain Spotted Fever, for which doxycycline may be indicated. Doxycycline is preferred for its twice-a-day dosing low incidence of gastrointestinal side effects. Ciprofloxacin dose should not exceed 1 gram/day in children.

5. Aminoglycosides can cause fetal toxicity when administered to pregnant women, but potential benefits from use of the drug may be acceptable in certain conditions despite the possible risks to the fetus.

6. Although tetracyclines are not recommended during pregnancy, its use may be indicated for life-threatening illness. Adverse affects on developing teeth and bones are dose related, therefore, doxycycline might be used for a short course of therapy (7-14 days) prior to the 6th month of gestation. Please consult physician after the 6th month of gestation for recommendations.
APPENDIX H

DESCRIPTION OF SMALLPOX VACCINATION

Instructions for Screening Clients and Vaccination

Triage Area (Licensed medical personnel)

1. Screen presenting clients for signs/symptoms of smallpox disease

2. Direct clients to briefing/orientation area, contact evaluation or clinical evaluation based on triage protocol

Briefing/Orientation Area

3. Provide information on the agent being treated

4. Provide uniform information about what is currently known about recent cases, who may have been exposed, purpose of vaccination and the vaccinating process

5. Provide information on risks and benefits of vaccination

6. Provide assistance with completing Medical Screening Form

7. Answer questions

Forms Review Area

8. Review Medical Screening Form

9. If NO to all questions regarding contraindications on Medical Screening Form:
   - Have client sign vaccination consent and move to vaccination area

10. If YES to any of the screening questions on Medical Screening Form OR if patient has any additional questions:
   - Refer patient for consultation in Clinical Counseling Area

Clinical Counseling Area

11. Review contraindications and vaccination options with client, if client wants vaccination:
   - Refer patient to Vaccination Station
12. If client declines vaccination:
   - Collect client form, provide information on protective measures and direct client to the DVC exit.

Vaccination Station
13. Check Medical Screening Form and Consent for Vaccination
14. Vaccinate
15. Sign Vaccination Form
16. Collect Medical Screening Form and Consent for data entry staff
17. Refer client to the Post-Counseling Area

Post-counseling Area
18. Provide information on site care and reading the vaccination “take”
19. Answer questions

Mental Health Station
20. Counsel patient
21. Document patient's visit
22. Answer questions
APPENDIX I

SUPPORTING DOCUMENTS FOR SMALLPOX VACCINATION

Included in the J Appendices are documents intended to guide facilities through the smallpox vaccination process.

Documents provide information on smallpox handling and storage to adverse events.

Note: DC Approved Documentation Forms (Available from BT unit, Los Angeles County, Public Health)
APPENDIX I-1 Vaccination of Smallpox Vaccinators

In order to minimize the clinical impact of inadvertent inoculation, should it occur, the Advisory Committee on Immunization Practices (ACIP) recommends that persons who will be handling and administering smallpox vaccine in a pre-event smallpox vaccination program be vaccinated. Vaccination of this group will also contribute to preparedness for smallpox response, should a smallpox release occur, with development of a cadre of vaccinated, experienced vaccinators who could immediately be deployed for outbreak response.

In a post-event vaccination clinic, clinic personnel should be vaccinated before beginning vaccination clinic activities in order to provide protection against exposure from symptomatic contacts that may inadvertently present to the vaccination clinic. Establishment of voluntary clinics may need to be done in a stepwise fashion over 2-3 days to accommodate administration of staff vaccinations before opening a clinic.

(Note: Vaccination clinic personnel do not require a “waiting period” before beginning vaccination activities as long as a triage system to prevent admission of ill/potentially infectious individuals into the clinic is in place at each clinic site. Personnel involved specifically in the triage and/or evaluation of ill individuals who may present to vaccination clinics should use other personal protective measures until a vaccine take is confirmed. Vaccination take rates are expected to be >95%).
APPENDIX I-2  Contraindication Screening

In the event of a smallpox outbreak, CDC will issue guidance regarding populations to be vaccinated and specific contraindications to vaccination. At the time of this publication, it is recommended that in the event of a smallpox outbreak the only contraindication to vaccination would be severely compromised immune systems.

The attached Adverse Reaction worksheet is useful in reviewing possible contraindications with clients and determining appropriateness for vaccination.
Smallpox Vaccination Adverse Reaction Table 1

Look for the Risk Factor on the left and educate patient regarding the name of the adverse event, its symptoms and what sort of treatment is available.

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Adverse Reaction</th>
<th>Description</th>
<th>Treatment</th>
</tr>
</thead>
</table>
| **Manipulation** of vaccination site  
Children aged <4 years  
Conditions that disrupt the epidermis (e.g., burns, severe acne, or psoriasis) | Inadvertent inoculation | • Most common complication  
• Physical transfer of vaccinia virus from a vaccination site to second site on the vaccinee or to a close contact of vaccine  
• Usually self-limited | • Resolution in 3 weeks  
• Infection-control precautions  
• Vaccine Immunoglobulin (VIG) if extensive body surface involved or severe ocular disease (cidofovir, second-line therapy) |
| **Manipulation** of vaccination site, followed by eye rubbing  
• More likely with conditions that cause eye itching and scratching (conjunctivitis, corneal abrasion/ ulceration) | Ocular vaccinia | • Can range from mild to severe  
• Inadvertent periocular or ocular implantation with vaccinia virus  
Keratitis  
• Marginal infiltration or ulceration with or without stromal haze/infiltration  
Conjunctivitis  
• Hyperemia, edema, membranes, focal lesions, fever, lymphadenopathy  
Blepharitis  
• Lid pustules on or near the lid margin, edema, hyperemia, lymphadenopathy, cellulitis, fever | • Ophthalmologic consultation  
• May consider off-label topical antiviral medications  
• Topical prophylactic antibacterial medications for keratitis  
• VIG for severe blepharitis and blepharoconjunctivitis (without keratitis)  
• VIG not indicated for keratitis, except if other vision-threatening conditions exist or in the presence of life-threatening conditions that require VIG |
| More frequent in children (touching vaccination site) | Pyogenic infections of vaccination site | • Uncommon  
• Onset: 5 days post-vaccination  
• Fluctuance at vaccination site  
• Fever not specific for bacteria infection | • Gram stain  
• Bacterial culture  
• Antibacterial medications clinically indicated  
• No topical medications |
| Might be more likely among first time vaccinees | Robust take (RT) | • >7.5 cm with swelling, warmth, and pain at vaccination site  
• Peak symptoms: 8–10 days post-vaccination  
• Improvement in 24–72 hours  
• Non-progressive  
• Fluctuant lymph nodes not expected | • Observation most important  
• Antibacterial medications not indicated  
• Rest affected limb  
• Antipruritic medications  
• Anti-inflammatory medications  
• No salves or ointments |
| Sensitivity to adhesives | Tape adhesive reactions | • Sharply demarcated raised lines of erythema that correspond to adhesive placement  
• Local pruritis  
• No systemic illness | • No salves, ointments, or topical/oral steroids  
• Frequent bandage changes  
• Periodic bandage removal |
| No known risk factors | Erythema multiforme (EM) and Stevens- Johnson Syndrome (SJS) | • Typical bull’s eye (target) lesions  
• Hypersensitivity reaction  
• Pruritis  
• Onset: 10 days postvaccination  
• Can progress to SJS | • Antipruritic medications  
• VIG not indicated  
• Hospitalization and supportive care for SJS  
• Steroid use for SJS is controversial |
| History of Heart Conditions | Myocarditis, pericarditis, myopericarditis | • Myocarditis, pericarditis, myopericarditis  
• Reported events may be coincidental | • Symptomatic treatment of acute cardiac events |
<table>
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<tr>
<th>Risk Factor</th>
<th>Adverse Reaction</th>
<th>Description</th>
<th>Treatment</th>
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<td>• Humoral and cellular immunocompromise (e.g., malignancy, human immunodeficiency virus (HIV) acquired immunodeficiency syndrome (AIDS), severe combined immunodeficiency syndrome (SCIDS), or hypogammaglobulinemia) • Protective level of T-cell count or humoral immunity unknown</td>
<td>Progressive vaccinia (PV)</td>
<td>• Nonhealing vaccination site • Painless progressive (central) necrosis at the vaccination site • Occasional metastatic lesions in skin, bones, and viscera • No inflammation initially • Absence of inflammatory cells on histopathological examination • Inflammation weeks later • Bacterial infection might develop • Differential diagnosis: severe bacterial infection, severe chickenpox, disseminated herpes simplex, and other necrotic conditions • Prognosis: poor, despite therapy</td>
<td>• Prompt evaluation and diagnosis • Infection-control precautions • Might require multiple doses of VIG (cidofovir second-line therapy) • Surgical debridement of progressive necrotic lesions not proven useful</td>
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<tr>
<td>• More serious among immunocompromised persons • Hematogenous spread • Lesions contain vaccinia</td>
<td>Generalized vaccinia (GV)</td>
<td>• Maculopapular or vesicular rash • Onset: 6–9 days postvaccination • Nontoxic, with or without fever • Differential diagnosis: erythema multiforme (EM), varicella, inadvertent inoculation, progressive vaccinia(PV), and smallpox</td>
<td>• Usually self-limited in immunocompetent person • Infection-control precautions • VIG usually not indicated • Anti-inflammatory medications • Antipruritic medications • Antivirals usually not indicated</td>
</tr>
<tr>
<td>• History of eczema or atopic dermatitis irrespective of disease activity or severity • Less frequently, persons without a history of dermatological conditions</td>
<td>Eczema vaccinatum (EV)</td>
<td>• High fever • Generalized lymphadenopathy with extensive vesicular and pustular eruption • Onset: concurrently or shortly after local vaccinial lesion in vaccinee, or in contacts, 5–19 days after suspected exposure • Risk for secondary bacterial or fungal infections • Virus recovered from lesions • High mortality rate with poor prognosis if not treated with VIG promptly</td>
<td>• Prompt evaluation and diagnosis • Infection-control precautions • Might require multiple doses of vaccinia immune globulin (VIG) (cidofovir, second-line therapy) • Hemodynamic support • Volume and electrolyte repletion • Observe for secondary skin infections</td>
</tr>
<tr>
<td>• Cases in all trimesters of pregnancy • Greatest risk, third trimester</td>
<td>Fetal vaccinia (FV)</td>
<td>• Incidence: rare (&lt;50 reported cases) • Route of transmission: unknown • Outcomes: premature birth, fetal loss, high mortality • Not associated with congenital anomalies</td>
<td>• Efficacy of VIG unknown • Antivirals not recommended</td>
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<tr>
<td>• Age &lt;1 year</td>
<td>Postvaccinal Encephalitis (PVE) or Encephalomyelitis (PVEM)</td>
<td>• Diagnosis of exclusion • Appears similar to postinfectious encephalomyelitis or toxic encephalopathy caused by other agents • Abrupt onset of symptoms: fever, headache, malaise, lethargy, vomiting, meningeal signs, seizures, paralysis, drowsiness, altered mental status, or coma • Age &lt;2 years (encephalopathy): cerebral vascular changes occurring 6–10 days postvaccination • Age &gt;2 years (encephalomyelitis): demyelinating changes occurring 11–15 days postvaccination • Cerebral spinal fluid (CSF): normal or nonspecific; mononcytosis, lymphocytosis, or elevated protein • Prognosis: mortality, 25%; neurological sequelae, 25%; complete recovery, 50%</td>
<td>• Intensive supportive care • Anticonvulsants as needed • VIG not recommended • Antiviral role unclear • Use of modern imaging studies has not been evaluated</td>
</tr>
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APPENDIX I-3    Vaccination Timeline

Clinic staffing for vaccination clinics is based on three 4-hour work shifts. Vaccination clinics will be operational 24 hours a day. Given the potential numbers of staff needing prophylactic medication, some of the interviewing and screening for potential adverse reactions may need to be eliminated to provide medications to mass numbers of patients in a clinically necessary time period. This is clearly a sensitive issue, because certain patient care requirements may have to be waived. The decision to decrease patient interviewing and screening times will be left to the discretion of the Health Officer and/or hospital designee.

The hospital employee vaccination staffing model is based on the ability to vaccinate 125 people per hour and a total of 500 people per day or 63 people per hour (smaller sized-hospitals) and a total of 252 people.

Vaccination - 125 people per hour = 500 people x 4 hours
63 people per hour = 252 people x 4 hours
APPENDIX I-4  Prioritization of Vaccinees

To ensure coverage of critical departments with potential for increased exposure to contagious diseases, prioritization of the following departments would be as followed:

(Please insert the departments, for example, ER, ICU, etc.)

<table>
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<th>DEPARTMENTS</th>
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APPENDIX I-5 Storage and Handling of Vaccine

The brand of vaccine to be used may not be known beforehand, therefore, review the storage and handling instructions for the specific vaccine received with staff before they begin their shift. The storage of Dryvax vaccine is given in the following table.

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Doses per Vial</th>
<th>Storage</th>
<th>Reconstitution/Storage</th>
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<tr>
<td>Dryvax (Wyeth)</td>
<td>100</td>
<td>2 to 8 °C (35-46°F)</td>
<td>0.25 ml of diluent. Store at 2 to 8 °C once reconstituted</td>
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APPENDIX I-6    Transporting Vaccine to Outreach Sites

- Before the start of off-site mass vaccination clinics, special security measures to be taken during vaccine transport will be issued if warranted.
- During transport to and at outreach clinic site, keep vaccine in insulated (Styrofoam) containers with cold packs. Refrigerated packs not frozen packs are recommended. A VaxiPac™ carrying case with 5 cold VaxiSafes™ enclosed may be used to transport smallpox vaccine. Follow manufacturer’s instructions on the use of the VaxiPac/VaxiSafe system.
- How to pack vaccine in an insulated container (e.g. Styrofoam container):
  - Place cold packs on the bottom of container.
  - Cover with crumpled brown paper bags or newspaper (Vaccine should not come in direct contact with the cold packs)
  - Place vaccines on top of paper (Open vials with the stopper in place should be in a Styrofoam holder. The vial’s stopper should be covered with a gauze pad and taped to the Styrofoam holder to prevent spills.)
  - Cover vaccines with additional crumpled paper
  - Cover crumpled paper with more cold packs (Note: if clinic is longer than 4 hours, replace with new cold packs)
  - Monitor temperature to ensure storage between 35°-46° F (TempTales must be placed in the container and the temperature monitored at 3 to four hour intervals).
  - Replace refrigerated packs as necessary to maintain temperature between 35°-46° F or place vaccine in a secure temperature monitored refrigerator at the outreach site.
APPENDIX I-7 Security Considerations

Provision of appropriate security should be made for the following:

1. Vaccine storage sites (clinic and non-clinic) to include security personnel and locked, limited access areas for vaccine storage.
2. Backup power sources (generators) should be identified for all sites where vaccine is stored (vaccination clinics and storage sites).
3. Vaccination clinic sites: security personnel for crowd control, traffic movement, clinic personnel safety, and related security issues.
4. Vaccine transportation to storage sites and dispensing clinics.
APPENDIX I-8     Reconstitution

- **Dryvax®** vaccine is contained as a freeze-dried pellet in a glass vial of size comparable to single-dose vaccine vials in current use, approximately 3.5 cm in height and 1.1 cm in diameter. The vaccine will be reconstituted before use. The diluent used for reconstitution contains 50% glycerin, 0.25% phenol, in Sterile Water for Injection, USP, for a final volume of 0.25 ml. It is packaged in pre-filled 0.25 ml syringes.

- Using current practice for standard reconstitution of Dryvax® with 0.25 ml of diluent per vial, vaccination with bifurcated needle will allow approximately 100 vaccinations to be made from each vial. Recent clinical studies have confirmed the immunogenicity and safety of further diluting each vaccine pellet to a total liquid volume of 1.25 ml (1:5). Each vial of vaccine could theoretically be used to vaccinate approximately 500 persons. At the time of deployment, CDC will advise on what dilution of the vaccine to use.

- **Directions for Reconstitution of Dryvax®**
  - Remove vaccine vial from refrigerated storage and allow vial to come to room temperature.
  - Lift up tab of aluminum seal on vaccine vial. DO NOT BREAK OFF OR TEAR DOWN TAB.
  - Wipe off vial stopper with an alcohol sponge and allow it to dry.
  - Place vaccine vial upright into a styrofoam vaccine holder, place this holder on a hard, flat surface. Insert a sterile 21 gauge or smaller needle into the rubber stopper to release the vacuum from the vaccine vial. Note this needle must only be used to release the vacuum. The needle to release the vacuum is NOT included in the kit. Discard the needle in biohazard waste container.
  - To reduce viscosity of cold diluent, warm by holding diluent-cartridge in palm of hand for a minute or so.
  - Peel open the vented needle package (provided with the kit) and aseptically remove the vented needle.
  - Remove rubber cover from end of the diluent syringe.
  - With a twisting motion, aseptically attach the vented needle to the hub of the diluent syringe.
  - Remove protective cover from the vented needle and expel the air from the diluent syringe.
  - Aseptically insert the needle through the rubber stopper into the vaccine vial up to the first hub.
- Depress the plunger to ensure the entire volume of diluent is delivered into the vial.
- Withdraw diluent syringe/vented needle and discard in biohazard waste container.
- Allow vaccine vial to stand undisturbed for 3 to 5 minutes. Then if necessary, swirl vial gently to effect complete reconstitution.
- Record date and time of reconstitution.
- **Reconstituted Dryvax® vaccine may be used for 90 days if stored at 2 to 8°C (35-46°F) when not in actual use.**
- The vaccine vial, its stopper, the diluent syringe, the needle used for diluent reconstitution of the vaccine, and any gauze or cotton that came in contact with the vaccine must be placed in the appropriate biohazard container for proper biohazard disposal.
• **Administering vaccine**
  
  o Gloves should be worn when handling opened vaccine vials, used bifurcated needles, administering vaccine, or evaluating a vaccination site. Care should be taken to prevent bacterial contamination of the opened vaccine vial or vaccination site, or self-inoculation of virus to other sites.
  
  o Remove aluminum seal from vaccine vial by pulling down “tear off” tab.
  
  o Remove rubber stopper from vaccine vial and place inverted in a clean container (stopper will be used to recap vials containing vaccine).
  
  o The site of vaccination should be one that is easily accessible for vaccination and evaluation of vaccine take on post vaccination day seven (7). The outer aspect of the **upper arm** over the insertion of the deltoid muscle or the posterior aspect of the arm over the triceps muscle is the preferred site for smallpox vaccination. Normally the non-dominant arm is vaccinated. Select a site for vaccination at least 2 finger-widths away from any previous vaccination scars.
  
  o **Cleaning the vaccination site is not necessary unless grossly contaminated.** If cleaning is deemed necessary, clean site with soap and water and allow to thoroughly dry. **Under no circumstances should alcohol be applied to the skin before vaccination** as it has been shown to inactivate the vaccine virus. If alcohol or another chemical antiseptic is inadvertently used, the skin must be allowed to dry thoroughly to help prevent inactivation of the virus.
  
  o Dip the bifurcated point of a **sterile** bifurcated needle into the vial of reconstituted vaccine and withdraw the needle perpendicular to the floor.

  o Do not redip the needle into the vaccine vial if the needle has touched the skin.
  
  o Holding the skin of the upper arm **taut**, the vaccinator should place his wrist firmly on the arm. Holding the needle at a 90° angle (perpendicular) to the skin, apply **the recommended number of strokes** up-and-down (perpendicular) strokes rapidly within a 5mm diameter area. Apply 3 strokes for first time vaccine recipients (primary vaccinees) and 15 strokes for persons who have been previously vaccinated.
The strokes should be made rapidly, and be sufficiently vigorous to illicit a trace of blood after 15-20 seconds at the vaccination site. If no trace of blood is visible after vaccination, an additional 3 insertions should be made using the same bifurcated needle without reinserting the needle into the vaccine vial. After vaccination, any remaining vaccine should be absorbed with sterile gauze and the gauze disposed of in a biohazard waste container.

Dispose of the bifurcated needle in the medical waste sharps container.

Tape a 2" by 2" gauze pad over vaccination site and instruct the vaccine recipient on post-vaccination care of the vaccination site, and how to assess the vaccination site for “a take” on the seventh day post vaccination (see below).

Discard gloves with other biohazard waste. Wash hand with warm soapy water or use a hand-rub solution that is ≥60% alcohol-based.

**Documentation of Vaccine Administration**

The identification of the vaccine and its lot number received by the vaccine recipient will be transferred onto the IND consent form if it is needed, the clinic vaccination record and the take-home proof-of-vaccination card, by the vaccinator or vaccination assistants. For this purpose, CDC will supply vaccine peel-off stickers on rolls or sheets.

Stamp the “Proof of Vaccination” form that documents when and where the vaccine was administered and return it to the vaccine recipient. See sample of form in appendix.

Complete the clinic’s record of vaccination, including vaccine clinic ID, vaccinators name or ID number and check the name of the vaccine administered. See sample form in appendix.
• Vaccine Recipient instructions (Post Counseling)

- Care of Vaccination Site: Vaccinia virus may be recovered from the site of vaccination beginning at the time of development of a papule (2 to 5 days post vaccination) until the scab separates from the skin (14 to 21 days post vaccination). The vaccination site can be covered with a porous bandage such as a gauze pad until the scab has separated and the underlying skin has healed, in order to prevent contact transmission of the virus to unvaccinated persons (people with contraindications to vaccination) or inadvertent inoculation of another body site (see Adverse Events). The site should be kept dry, however normal bathing can occur. To avoid contact transmission of the virus, vaccine recipient and guardians must be cautioned:
  - No rubbing or scratching of vaccination site
  - Discard gauze carefully
  - Wash hands thoroughly after handling gauze

- Stress need to wash hands with soap and warm water or with an alcohol-based hand rub after direct contact with the vaccination site, or anything that might be contaminated with live virus, including bandages, clothing, towels or sheets that came in contact with the vaccination site. This is vital in order to remove any virus from the hands and prevent contact spread.

- Staff performing direct client care: When providing direct client care, cover the vaccination site loosely with gauze, using first aid adhesive tape to keep it in place. Then cover the gauze with a semi-permeable (or semi-occlusive) dressing.

- Change the bandage at least every 3-5 days in order to prevent build-up of fluids and irritation of the vaccination site. Also, wear a shirt that covers the vaccination site as an additional barrier to spread of vaccinia. (A “semi-permeable dressing” is one that does not allow for the passage of fluids but allows for the passage of air.)

- Worksite monitoring of the vaccination site: Instruct health care personnel to comply with vaccination site monitoring at the worksite. A designated public health or hospital staff must check the vaccine recipient’s dressing at start of the work shift. The vaccination site should be covered during direct patient care until the scab separates.

- Recognition of Vaccination Take: Instruct vaccine recipient on use of the vaccine site reaction recognition card. Give recipients instructions to call for possible evaluation and revaccination if the vaccine site does not look similar to that depicted on the card at day seven. Vaccinees that are known contacts to a case or suspect case will be instructed on where to return in seven days to have their vaccination sites evaluated by a designated medical professional.

- Instructions on Expected Vaccine Reactions: Successful vaccination is normally associated with tenderness, redness, swelling, and a lesion at the vaccination site. Primary vaccination may also be
associated with fever for a few days and enlarged, tender lymph nodes in the axilla of the vaccinated arm. These symptoms are more common in persons receiving their first dose of vaccine (15 to 20%) than in persons being revaccinated (0 to 10%).

- **Instructions on Adverse Events:** Give vaccine recipient's instructions on where to call should an adverse event occur.

### Infection Control and other Precautionary Activities

All vaccination operations will observe universal precautions for preventing blood exposures and blood borne pathogen transmission. Guidelines for the proper disposal of instruments and other potentially contaminated material during a smallpox response operation are summarized below:

The following guidelines will be observed for appropriate disposal of pre-sterilized bifurcated needles after use:

- Sharps containers will be available in the area where the sharp is used.
- Bifurcated needles will be deposited into a sharps container immediately after use.
- Label used sealed sharps-disposal containers as used hypodermic equipment.
- Filled sharps containers and red-bagged items will be transported by the nurse coordinator or designee to the local health center for collection by the hazardous waste contractor. Follow health center policy on transporting medical waste (carry a valid LQHE permit and medical waste log).

**Vaccine Spills:** Clean vaccine spills with a tuberculocidal agent. Dispose of materials used to clean a vaccine spill as medical waste. An inexpensive environmental surface germicide is a solution of sodium hypochlorite (1 part household bleach to 99 parts water or 1/4 cup bleach to 1 gallon of water or 2 tablespoons of bleach to 1 quart of water) prepared daily. Bleach, however, is corrosive to metals (especially aluminum) and should not be used to decontaminate medical instruments with metallic parts.
Emergency Procedures

Emergency procedures should be consistent with those normally carried out by the facility. In addition to those procedures, complete an Event Notification Form and the Vaccine Adverse Events Reporting Systems (VAERS) form.
APPENDIX I-11 Post Vaccination Clinic Activities

- The clinic manager will insure that all medical waste is disposed of in accordance with the procedures noted in this manual.
- The vaccine manager will insure that all unused vaccine is placed into Styrofoam containers with cool packs (or VaxiPac/VaxiSafes) and transported to the health center.
- The clinic manager will insure that all portable equipment is returned to the designated Public Health Center in the area where the clinic was held. Laptops and other computer hardware on loan from the Immunization Program will be returned to the nearest Immunization Program field office.
- The clinic manager will insure that all forms and documentation paperwork is collected; vaccine accountability forms will be faxed to the Immunization Program field office and other paperwork delivered to the designated Public Health Center in the area where the clinic was held.
- Post clinic activities will include an evaluation by clinic management staff of:
  - Adequacy of the clinic site, vaccine supply, staffing, medical supplies and equipment
  - The nature of the problems encountered
  - How problems were resolved
APPENDIX I-12  Vaccine Accountability Procedure

At the completion of each clinic session, a vaccine accountability form is to be completed. The number of vaccinations by age groups needs to be recorded on the form. If there has been any vaccine wastage, this information is to be included on the form. See appendix for a sample copy of the Smallpox Vaccine Accountability Form. The form is to be submitted to the Immunization Program within 1 day of the clinic session by fax.
APPENDIX I-13  Recognition of Vaccine Take

A primary (major) reaction results from successful primary vaccination of a non-vaccinated individual. It is expected that the majority of individuals will exhibit this type of reaction as most have never received vaccination or were vaccinated over 20 years ago. Reactions other than a primary or major reaction in an individual receiving their first-ever vaccination or revaccination after many years should be interpreted as an unsuccessful vaccination, and the individual should be revaccinated.

Primary (major) reaction: The inoculation site becomes reddened and pruritic 3-4 days after vaccination. A vesicle surrounded by a red areola then forms which becomes umbilicated and then pustular by the 7th to 11th day after vaccination. The red areola has enlarged by this time. The pustule begins to dry, the redness subsides, and the lesion becomes crusted between the 2nd and 3rd week. By the end of the 3rd week, the scab falls off leaving a permanent scar that is pink in color initially but eventually becomes flesh-colored. At the end of the first week between the vesicular and pustular phases, there may be a variable amount of fever, malaise, and regional lymphadenitis. These symptoms usually subside within 1 to 2 days and are more likely to occur in older children and adults than in infants.

Major (primary) reaction: Expected vaccine site reaction and progression following primary smallpox vaccination or revaccination after a prolonged period between vaccinations. Multiple pressure vaccination technique used. Source: CDC.

Revaccination reaction: Revaccination of a person who has been vaccinated within the last 10 years (a partially immune person) is usually followed by an attenuated primary vaccine site reaction with the following characteristics: 1) absence of fever or constitutional symptoms, 2) papule by 3rd day that becomes vesicular by 5 to 7th day, and dries shortly thereafter, 3) a relatively small vesicle and areola, and 4) the scar, if present, is usually insignificant and disappears within 1 to 2 years.
**Erythema only reaction:** A delayed type of skin sensitivity consisting of erythema only within 24 to 48 hours may occur following vaccination with killed as well as live vaccines. Under these circumstances, it represents a response to inert protein in a previously sensitized person. This type of reaction can occur in a highly immunized person or in individuals with little or no immunity and is indistinguishable from the immediate or immune reaction. Therefore, persons exhibiting this type of reaction should be revaccinated.

Attenuated reaction in an immune person that can also represent a response to an inert protein without development of immunity. Individuals with this reaction should be revaccinated.

Successful take of vaccination should be contingent upon the presence of a pustular lesion in a previously unvaccinated persons and a pustular lesion or an area of definite induration or congestion surrounding a central lesion, 7 days following revaccination in a previously vaccinated person. Vaccine recipients who do not exhibit the type of “major” reaction at the vaccination site on day 7 should be revaccinated. If available, use a different vaccine vial and preferably vaccine from a different lot number for the revaccination. Some persons who have had a successful vaccination in the past will have neither a major reaction nor an attenuated reaction after revaccination. The CDC has determined that such individuals should receive a second revaccination attempt and if they again show neither a major reaction nor an attenuated reaction they can be considered immune.
**APPENDIX I-14  Normal Reactions**

**Local Reactions:** Primary vaccination can produce swelling and tenderness of regional lymph nodes beginning 3 to 10 days after vaccination and in some cases persisting up to 2 to 4 weeks after the skin lesion has healed. Other normal local reactions can include local satellite lesions (which appear similar to the primary lesion), considerable local edema, which may be confused with bacterial cellulitis, but is simply intense inflammation accompanying the vaccination (viral cellulitis).

**Systemic Reactions:** In a recent study, 17% of adult primary vaccinees experienced fever of at least 100°F within two weeks of vaccination; 7% had a fever of 101°F or more, and 1.4% experienced a fever of 102°F or more. Beyond two weeks, fever was recorded in 0.3% of vaccinees. Other expected systemic reactions include malaise, soreness at the vaccination site, myalgia, local lymphadenopathy, and intense erythema ringing the vaccination site. The occurrence of these normal reactions varies considerably from study to study. A variety of erythematous or urticarial rashes occur approximately 10 days after primary vaccination in one person per 3,700 vaccinated. Vaccine recipients who develop these rashes are usually afebrile and the rash resolves spontaneously within 2 to 4 days. Rarely, a more serious rash, called bullous erythema multiforme (or Stevens-Johnson syndrome) occurs. In a recent study of adult primary vaccinees, 36% were sufficiently ill to miss work, school, or recreational activities or to have trouble sleeping. [CDC.MMWR 2003; 52(No. RR-04)]
APPENDIX I-15  Adverse Events

The overall risk of serious complications following vaccination with vaccinia vaccine is low. Complications occur more frequently in persons receiving their first dose of vaccine, and among young children (<5 years of age). 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 reactions is needed to familiarize health professionals with the safety profile of the vaccine. Reinstitution 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 Centers for Disease Control and Prevention’s (CDC) Advisory Committee on Immunization Practices (ACIP) for vaccinia vaccine [CDC.  MMWR 2001; 50(No.RR-10)].

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, varicella zoster) and immunodeficiency states (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 or encephalomyelitis, encephalopathy, transverse myelitis, acute infectious polyneuritis, vaccinia necrosum, eczema vaccinatum, generalized vaccinia, accidental infection (autoinoculation), generalized rashes (erythematous, urticarial, nonspecific), myocarditis, pericarditis, and secondary pyogenic infections at the site of vaccination.

The most frequent complications of vaccination and their descriptions are listed below:

Inadvertent inoculation at other sites: This is the most frequent complication of vaccinia vaccination and accounts for about 50% of all complications following primary and revaccination. This complication occurs at a rate of about 1 in 2000 primary vaccinations and usually results from autoinoculation when the virus is transferred by hand from the site of vaccination to other areas. The most common sites involved are the face, eyelid, nose, mouth, genitalia, and rectum. Most lesions will heal without specific therapy, but Vaccinia Immune Globulin (VIG) may be useful for some cases of inadvertent ocular inoculation (see Indications and Guidelines for VIG Use below). Inadvertent inoculation can be prevented by hand washing after touching the vaccination site.

Inadvertent inoculation of lower eyelid

Generalized vaccinia: This complication is characterized by a vesicular rash of varying extent resulting from blood-borne dissemination of vaccinia virus. It is most frequently seen following primary vaccination and occurs at a rate of about 1 in 5,000 vaccinations. Lesions occur between 6 to 9 days following vaccination and can be few or generalized. The rash is generally self-limited in persons with no underlying illnesses (immune deficiencies) and usually requires no treatment with VIG except in patients who appear toxic or who have serious underlying conditions.

Eczema vaccinatum: This complication is seen in vaccine recipients who have active or healed eczema or other chronic skin conditions. It can also occur in persons with these conditions who come into contact with a recently vaccinated individual. Vaccinial skin lesions can progress to cover all or most of the area(s) that are or were affected by the eczema or chronic skin condition. Fever and generalized lymphadenopathy may also occur. The illness is usually mild and self-limited, but can be severe and occasionally fatal. The most serious cases appear to occur in primary vaccines and close contacts with eczema of vaccine recipients, and are independent of the activity of underlying eczema. Previous studies have indicated that this complication occurs at a rate of about 1 in 26,000 primary vaccinations. VIG is effective in treating serious cases of eczema vaccinatum.

Progressive vaccinia (vaccinia necrosum or gangrenosa): This severe and potentially fatal complication occurs in persons with underlying immune deficiencies and can occur following primary or revaccination. It is characterized by failure of the vaccine
site lesion to heal, with progressive necrosis of the vaccination site and surrounding areas (Fig. 9). Secondary lesions may appear at other sites of the body and also exhibit progressive necrosis. **VIG has been used to treat this complication with varying success.**

Post vaccination encephalitis: Encephalitis, characterized by fever, headache, vomiting, drowsiness, and occasional spastic paralysis, meningeal signs, convulsions, or coma, occurred between 8 and 15 days post vaccination at a rate of 1 case per 300,000 vaccinations. The majority of cases occurred in primary vaccine recipients <1 year of age. The incidence of post vaccination encephalitis in primary vaccine recipients also increased with increasing age. There are no other known predisposing factors for this complication. Approximately 15 to 25% of cases with post vaccination encephalitis died and an additional 25% had permanent neurological sequelae. There is currently no known treatment for post vaccination encephalitis, and **VIG is not effective** or indicated for this complication.

Progressive vaccinia that was fatal in a child with an immunodeficiency. [Fenner F, Henderson, DA, et al. Smallpox and its eradication. WHO, 1988, CDC reprinted with permission of WHO.]
APPENDIX I-16 Guidelines for use of VIG

To obtain VIG, consult with Administrative Officer of the Day (AOD) at the LAC ACDC at (213) 240-7941 or after hours call (213) 974-1234. The current supply of VIG is stored at CDC and is available only under IND protocols. On the approval of ACDC, CDC will release VIG for specific cases. VIG use should be reserved for treatment of the most serious or life-threatening complications (see below). The current limited supplies of VIG do not allow for its concomitant administration with vaccine for the prevention of potential complications.

The recommended dosage of VIG for treatment of complications due to vaccinia vaccination is 0.6 mL/kg of body weight. VIG must be administered intramuscularly (IM) and should be administered as early as possible after the onset of symptoms. Because the therapeutic dose of VIG may be large (e.g., 42 mL for a 70 kg person), the product should be given in divided doses over a 24 to 36 hour period. Doses may be repeated at 2 to 3 day intervals until no new lesions appear.

Post-vaccination complications for which VIG may be indicated include:

- Eczema vaccinatum
- Progressive vaccinia (vaccinia necrosum)
- Severe generalized vaccinia if the patient has a toxic condition or serious underlying illness.
- Inadvertent inoculation of the eye or eyelid without vaccinial keratitis
- *VIG is not indicated for the treatment of post-vaccination encephalitis and is contraindicated for vaccinial keratitis.
Vaccine Adverse Events Reporting System (VAERS): Before administering vaccine, vaccine providers, immunization programs, and hospitals in the vicinity will be given the following:

- Hard copies of VAERS form
- Instructions on how to access the VAERS report form and submit electronically to www.vaers.org (Electronic reporting is now the preferred method of VAERS reporting.)
- Vaccine Information Statements (VIS) that contain instructions on how to contact VAERS, including LAC Immunization Program (LAC IP) contact information
- Clinical description of known vaccine complications: inadvertent inoculation, generalized vaccinia, eczema vaccinatum, progressive vaccinia, post-vaccinial encephalitis, myocarditis, and pericarditis
- Notification form to FAX to 404-639-8834 if VIG or cidofovir is used
- VIG information: indications for use, 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

At the time of vaccination, vaccine recipients or their parent/guardian will be given the following:

VIS with instructions on how to contact VAERS and LAC-IP.

**Instructions for Reporting to VAERS**

**Electronic**: The preferred method of reporting is electronic. The electronic report form is available at the VAERS web page www.vaers.org  
**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

**Fax**: The form can also be faxed toll-free to 1-877-721-0366. Copies of all VAERS reports should also be faxed to LA County Immunization Program at: 213-351-2780. 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 will be submitted with information on the person experiencing the adverse event. Such reports will be coded as the result of secondary transmission.
APPENDIX I-18  Needle Stick Injuries

Follow current facility policy on referral of staff for medical evaluation that sustains a needle stick injury while using the bifurcated needle.
APPENDIX I-19 Follow-up Surveillance Actions

To make certain that serious VAERs are identified, active surveillance will be conducted for persons receiving vaccinia immune globulin (VIG) or cidofovir and pharmaceutical agents indicated for the treatment of certain severe vaccine complications.

At the time of vaccination, vaccine recipients or their parent/guardian will be given the VIS with instructions on how to contact VAERS and the health department should a suspected adverse event occur.

If universal vaccination is instituted, CDC’s Vaccine Safety Datalink will 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 7 health maintenance organizations across the country.
Occasionally, an individual may ingest vaccine accidentally or may be injected inadvertently by the intramuscular or subcutaneous route with a dose of vaccine. These are not recommended routes of administration. No harm has been recorded from such events.

Management: It is prudent to follow the individual clinically and to examine the site of injection for any lesions in the one to two weeks following administration. If the injection is subcutaneous, some individuals will respond with a normal cutaneous response.
APPENDIX J

CLINIC SUPPLIES

Emergency Supplies

- Standing orders for emergencies
- Ampules of epinephrine 1:1,000 SQ
- Ampules of diphenhydramine 50mg IM
- 3cc syringes with 1", 25-gauge needles
- 1.5" needles
- Tuberculin syringes with 5/8" needles (for epinephrine)
- Alcohol wipes
- Tongue depressors
- Stethoscope
- Sphygmomanometer
- Blood Pressure cuffs in various sizes
- Adult and pediatric pocket masks with one-way valve
- Adult and pediatric airways
- Oxygen tank with gauge
- Oxygen tank tubing, nasal cannula or mask
- Tourniquet
- Gurney
- Flashlight
- Cots
- Blankets
- Pillows

Medical Supplies

- Vaccine
- Styrofoam stabilizers (holders for open vaccine vials)
- Smallpox vaccine cooler (Styrofoam container or VaxiPac™)
- Cold packs (VaxiSafe™ packs if VaxiPac used)
- Vaccine and vaccine diluent
- Sterilized bifurcated needles
- “Sharps” disposal containers
- Gloves, latex and latex-free
- Antibacterial hand washing solutions (no-rinse hand-wash gel)
- Alcohol wipes (for cleaning tops of vials only)
- Small trays to hold vaccine in use
- Drape sheets or roll table covers for tables
- Red plastic bags for contaminated supplies
- Bleach
- Measuring cup (tablespoon)
- Spray bottles for bleach solution
• Acetone
• Semi-permeable dressings
• Gauze (2" by 2")
• Adhesive tape (hypoallergenic, paper tape)
• Screens for privacy
• Stationary Supplies
• Tables, chairs
• Water and cups
• Paper, pens, pencils
• Envelopes
• Rubber bands
• Tape (masking tape)
• Stapler/staples
• Scissors
• Post-it notes
• Clipboards
• File boxes
• Telephone
• Paper towels
• Facial tissue
• Table pads and paper covers to cover table for work site
• Garbage containers and trash bags
• List of emergency phone numbers
• Identification badges for staff
• Forms and educational materials

Crowd Management Supplies
• Signs for clinic stations and between stations
• Queue partitions (to keep people in lines)

Computer Equipment and Supplies
• Computer with modem or cable connection [desk-top or lap-top]
• Printer and paper
• Telephone connection or high-speed Internet access line
APPENDIX K

“CATEGORY A” AGENTS

The CDC has identified “Category A” agents for which a response capability is critical for public health preparedness. These “Category A” agents include organisms that pose a risk to national security because they can be easily disseminated or transmitted person to person; cause high mortality, with potential for major public health impact; might cause public panic and social disruption; and require special action for public health preparedness. “Category A” agents include:

- Bacillus anthracis (anthrax)
- Clostridium botulinum toxin (botulism)
- Yersinia pestis (plague)
- Variola major (smallpox)
- Francisella tularensis (tularemia)
- Viral Hemorrhagic fevers

For more information, please refer to “Terrorism Agent Information and Treatment Guidelines for Clinicians and Hospital, June 2005”
APPENDIX L

PANDEMIC INFLUENZA

The Los Angeles County, Department of Health, Acute Communicable Disease Control Program offers the Hospital Pandemic Influenza Guidelines. These guidelines are part of the overall LAC Pandemic Influenza Plan that is designed to assist those responsible from managing pandemic influenza in traditional health care settings which include acute care facilities.

For more detailed information on Pandemic Flu, please refer to the Hospital Pandemic Influenza Guideline.
References


County of Los Angeles, Department of Health Services, Immunization Program. (2003). Smallpox Vaccination Clinic Operation Guidelines

County of Los Angeles, Department of Health Services, Bioterrorism Program. (2004). Strategic National Stockpile Plan