Coordinating a Smallpox Vaccination Clinic Training

Communicable Disease Service-Bioterrorism Unit
New Jersey Hospital Association
February 11, 2004
Smallpox...A Brief History

- Orthopox: variola virus
- Naturally occurring smallpox eradicated
- Civilian vaccination ended in 1972
- First time immunization for security rather than public health
A single case-patient of smallpox anywhere in the world would be considered a **public health emergency** and require an immediate and coordinated response to contain the outbreak, prevent further infection, and control panic.
Assumptions

• Voluntary vaccination

• Response team members only

• <100 individuals per clinic

• Clinical Accuracy vs. Patient Throughput

• Sufficient time to pre-plan
Smallpox is Different

• Natural disease eradicated

• Protect against a biological weapon

• How to establish risk/benefit ratio?
Clinic Logistics

FIGURE 1. New York City residents line up for vaccinations during a smallpox vaccination campaign — New York City, 1947

Photo/Associated Press
Pre-Clinic Issues

- Planning
- Staffing
- Pre-Education
- Technology
- Vaccine considerations
Planning

- Locally
  - Hospital
  - Health Department

- Regionally
  - LINCS Agencies
  - State Regions
Northwest
Sussex, Warren, Morris, Passaic

Northeast
Bergen, Essex, Hudson

Central West
Hunterdon, Somerset, Mercer

Central East
Union, Middlesex, Monmouth, Ocean

South
Burlington, Camden, Gloucester, Salem, Cumberland, Cape May, Atlantic
Planning

• Clinic Planner

• Clinical Manager
Planning

• Notify NJDHSS

• Identify staff
  – Determine staffing needs

• Identify site(s)

• Publicize clinic to “vaccinees”

• Obtain supplies/equipment
Planning

• Identify hospitals to treat Adverse Events

• Identify staff and site(s) for “take” reads

• Identify staff to perform active surveillance and record Adverse Events
Selecting a Site
Site(s) should have:

- Parking
- Lighting
- Heating/Cooling
- Restrooms
- Accessible accommodations
- Internet access
- Electrical outlets
- Tables and chairs
- Screens/barriers
- Security and refrigeration for vaccine
- Parking
- Lighting
- Heating/Cooling
- Restrooms
- Accessible accommodations
- Internet access
- Electrical outlets
- Tables and chairs
- Screens/barriers
- Security and refrigeration for vaccine
Pre-Education

Pre-Vaccination Information Packet
Pre-Education

• At least 1 week prior to clinic

• Assists in decision making process

• CDC materials MUST be used and may not be altered

• Materials on the web: www.bt.cdc.gov
Liability and Compensation

• Section 304 of the Homeland Security Act

• Smallpox Emergency Personnel Protection Act of 2003
Clinic Workstations

- Check-in
- Registration
- Education
- Medical Screening
- Medical Consultation
- Vaccination
- After Care/Observation
- Mental Health/Crisis Counseling
- Check-out
Staffing

- Nurses
- Physician(s)
- Health Educators
- Security
- Volunteers
- Paramedic/EMS
- Mental health counselors
- IT specialists
- Administrative personnel
Staff Training

• All staff should attend a Pre-Education session

• Vaccinator and “Take” reader training

• PVS training

• Clinic Day “Orientation” for all staff
Technology Requirements
Technology Requirements

- Access to NJ Preparedness Vaccination System (PVS)
- Internet required for PVS
- Computers needed at various stations at clinic
Vaccine Considerations
• Contact NJDHSS to obtain vaccine

• Live virus vaccine

• Administered by physicians and registered nurses with NJ license only

• Must be trained to administer smallpox vaccine
Post-Clinic Issues

- Follow-up
- Adverse Events
Vaccinee Follow Up

- Vaccination site care
- Symptom diary
- “Take” reading
- Dealing with problems
Clinical Manager Follow Up

• Assure vaccinees have take reading
  – Phone reminder
  – No reading = unsuccessful vaccination

• Perform active surveillance

• Report adverse events information
“Take” Readings
Adverse Events

• What is an Adverse Event?

• First consideration is medical treatment

• The San Francisco Experience
Adverse Events

- NJDHSS is notified
- NJDHSS informs CDC via VAERS form
### Adverse Events Associated with Smallpox Vaccination in United States, January 24-November 30, 2003

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>Military</th>
<th>Civilian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eczema vaccinatum</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Erythema multiforme major</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fetal vaccinia</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Generalized vaccinia</td>
<td>35</td>
<td>3</td>
</tr>
<tr>
<td>Inadvertent inoculation, non-ocular</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>Myocarditis/pericarditis</td>
<td>69</td>
<td>22</td>
</tr>
<tr>
<td>Ocular vaccinia</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Postvaccinial encephalitis</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Progressive vaccinia</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pyogenic infection of vaccination site</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other serious adverse events</td>
<td>Not reported</td>
<td>90</td>
</tr>
<tr>
<td>Other non-serious adverse events</td>
<td>Not reported</td>
<td>707</td>
</tr>
</tbody>
</table>
Evaluation

- Assess strengths and weaknesses
- All participants evaluate clinic
- Types of evaluations
  - “Hotwash”
  - Survey
  - Informal assessment
Mary-Jo Foster, RN, MEd
Laura Taylor, MS, CHES

NJDHSS
Communicable Disease Service
Bioterrorism Unit
(609) 588-7500