Summary

On September 11, 2001, following the terrorist incidents at the World Trade Center and the Pentagon, the Centers for Disease Control and Prevention (CDC) recommended heightened surveillance for any unusual disease occurrence or increased numbers of illnesses that might be associated with the terrorist attacks. Subsequently, cases of anthrax have demonstrated the risks associated with intentional release of biologic agents. Health care providers, clinical laboratory personnel, infection control professionals, and health departments play critical and complementary roles in recognizing and responding to illnesses caused by intentional release of biologic agents. This issue of the Bulletin provides guidance about recognizing illnesses or patterns of clinical syndromes that might be associated with intentional release of a biologic agent and provides reference materials on biologic agents of concern. Much of this article is adapted from the October 19, 2001, issue of Morbidity and Mortality Weekly Report.

Introduction

Since the attacks on September 11, and the intentional release of Bacillus anthracis through the United States Postal Service, the nation’s public health system has been on heightened alert for other potential acts of terrorism. Public health agencies across the country have taken the necessary action to notify health care providers to be on the alert for any possible unusual disease occurrence or increased numbers of illness that might be associated with biologic agents.

In Virginia, the health department is working closely with hospitals to monitor the volume of patient encounters and the occurrence of specific disease syndromes. We are looking at naturally occurring illnesses and any other reports of unusual or ill-defined clinical presentations.

In the absence of adequate measures to predict or prevent acts of terrorism, early detection is critical to minimizing the consequences related to the deliberate release of a biologic agent. Increased vigilance for the detection of unexplained illnesses and disease clusters is essential. Therefore, it is necessary that health care providers, especially those who may be the first to examine and treat victims, become familiar with the syndromes associated with the critical agents (Table 1, adapted from materials from the California State and Local Health Department Bioterrorism Surveillance and Epidemiology Working Group, 2001).

Critical Biologic Agents and Clinical Characteristics

CDC defines three categories of biologic agents with potential to be used as weapons based on ease of dissemination or transmission, potential for major public health impact (e.g., high mortality), potential for public panic and social disruption, and requirements for public health preparedness. Agents of highest concern are Bacillus anthracis (anthrax), Yersinia pestis (plague), variola major (smallpox), Clostridium botulinum toxin (botulism), Francisella tularensis (tularemia), filoviruses (Ebola hemorrhagic fever, Marburg hemorrhagic fever); and arenaviruses (Lassa [Lassa fever], Junin [Argentine hemorrhagic fever], and related viruses). The following summarizes the clinical features of these agents.

Anthrax. A nonspecific prodrome (i.e., fever, dyspnea, cough, and chest discomfort) follows inhalation of infectious spores. Respiratory failure and hemodynamic collapse ensue approximately 2 - 4 days after initial symptoms. Signs of inhalational anthrax also might include thoracic edema and a widened mediastinum on chest radiograph or CT scan. Gram-positive bacilli can grow on blood culture, usually 2 - 3 days after onset of illness. Cutaneous anthrax follows deposition of the organism onto broken or abraded skin, occurring particularly on exposed areas of the hands, arms, or face. An area of local edema becomes a pruritic macule or papule, which enlarges and ulcerates after 1 - 2 days. Small, 1 - 3 mm vesicles may surround the ulcer. A painless, depressed, black
Plague. Clinical features of pneumonic plague include fever, cough with muco-purulent sputum (gram-negative rods may be seen on gram stain), hemoptysis, and chest pain. A chest radiograph will show evidence of bronchopneumonia.

Botulism. Clinical features include symmetric cranial neuropathies (e.g., ptosis, dysphagia, and dysphasia), blurred vision or diplopia, symmetric descending weakness in a proximal to distal pattern, and respiratory dyspnea, symmetric descending weakness in a pharynx, and dysphasia), blurred vision or diplopia,metric cranial neuropathies (e.g., ptosis, dyschopneumonia.

A chest radiograph will show evidence of bronchopneumonia.

Smallpox (variola). The early acute clinical symptoms of smallpox resemble other acute viral illnesses such as influenza, beginning with a 2 - 4 day nonspecific prodrome of fever and myalgias before rash onset. Several clinical features can help clinicians differentiate variella (chickenpox) from smallpox. The rash of variella is most prominent on the trunk and develops in successive groups of lesions over several days, resulting in lesions in various stages of development and resolution. In comparison, the vesicular/pustular rash of smallpox is typically most prominent on the face and extremities, and lesions develop at the same time.

Inhalational tularemia. Inhalation of F. tularensis causes an abrupt onset of an acute, nonspecific febrile illness beginning 3 - 5 days after exposure, with pleuropneumonitis developing in a substantial proportion of cases during subsequent days.

Hemorrhagic fever (such as would be caused by Ebola or Marburg viruses). After an incubation period of usually 5 - 10 days (range: 2 - 19 days), illness is characterized by abrupt onset of fever, myalgia, and headache. Other signs and symptoms include nausea and vomiting, abdominal pain, diarrhea, chest pain, cough, and pharyngitis. A maculopapular rash, prominent on the trunk, develops in most patients approximately 5 days after onset of illness. Bleeding manifestations, such as petechiae, ecchymoses, and hemorrhages, occur as the disease progresses.

Front Line Responders

Health-Care Providers

Health-care providers should be alert to illness patterns and diagnostic clues that might indicate a single case of an unusual infectious disease associated with intentional release of a biologic agent and should report any clusters or findings to their local or state health department. Delays in the recognition and subsequent reporting of suspected bioterrorist events could affect the health of many. The covert release of a biologic agent may not have an immediate impact because of the delay between exposure and illness onset, and outbreaks associated with intentional releases might closely resemble naturally occurring outbreaks. Indications of intentional release of a biologic agent include:

1) a large number of persons presenting with clinical signs and symptoms that suggest an infectious disease outbreak (e.g., ≥2 patients presenting with an unexplained febrile illness associated with sepsis, pneumonia, respiratory failure, or rash, especially if occurring in otherwise healthy persons);

2) an unusual temporal or geographic clustering of illness;

3) an unusual age distribution for common diseases (e.g., an increase in what appears to be a chickenpox-like illness among adult patients, but which might be smallpox); and

4) an unusual pattern of death or illness among animals that precedes or accompanies death or illness in humans.

Clinical Laboratory Personnel

Although unidentified gram-positive bacilli growing on agar may be considered as contaminants and discarded, CDC recommends that these bacilli be treated as a “finding” when they occur in a suspicious clinical situation (e.g., febrile illness in a previously healthy person). The laboratory should attempt to characterize the organism by determining motility, sensitivity to penicillin, absence of hemolysis on sheep blood agar and conducting other appropriate biochemical tests to identify species.

An unusually high number of samples, particularly from the same biologic medium (e.g., blood and stool cultures), may alert laboratory personnel to an outbreak. In addition, central laboratories that receive clinical specimens from several sources should be alert to increases in demand or unusual requests for culturing (e.g., uncommon biologic specimens such as cerebrospinal fluid or pulmonary aspirates).

When collecting or handling clinical specimens, laboratory personnel should:

1) use Biological Safety Level II (BSL-2) or Level III (BSL-3) facilities and practices when working with clinical samples considered potentially infectious;

2) handle all specimens in a BSL-2 laminar flow hood with protective eyewear (e.g., safety glasses or eye shields), use closed-front laboratory coats with cuffed sleeves, and stretch the gloves over the cuffed sleeves;

3) avoid any activity that places persons at risk for infectious exposure, especially activities that might create aerosols or droplet dispersal;

4) decontaminate laboratory benches after each use and dispose of supplies and equipment in proper receptacles;

5) avoid touching mucosal surfaces with their gloved or ungloved hands, and never eat or drink in the laboratory; and

6) remove and dispose of their gloves in a biohazard container, wash their hands, and remove their laboratory coat before leaving the laboratory.

When a laboratory is unable to identify an organism in a clinical specimen, the specimen should be sent to the state laboratory where the agent can be characterized. Any clinical specimens suspected to contain variola virus (smallpox) should be reported to local and state health authorities immediately and then transported to CDC. All variola diagnostics should be conducted at CDC laboratories.

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**Table 1. Bioterrorism Syndromes Quick Reference Chart**

If you suspect disease from a potential bioterrorism event, please contact your local health department immediately.

<table>
<thead>
<tr>
<th>Syndrome</th>
<th>Bioterrorism threat disease description</th>
<th>Differential diagnosis</th>
<th>Initial laboratory &amp; other diagnostic test results</th>
<th>Immediate public health &amp; infection control actions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inhalational Anthrax</strong>&lt;br&gt;Acute Respiratory Distress with Fever&lt;br&gt;Abdominal pain, fever, vomiting, diarrhea, and other gastrointestinal symptoms</td>
<td>Abrupt onset of fever, chest pain, respiratory distress without radiographic findings of pneumonia; no history of trauma or chronic disease; progress to shock and death within 24-36 hours.</td>
<td>Dissecting aortic aneurysm, pulmonary embolism, influenza, tularemia</td>
<td>Chest x-ray or CT scan with widened mediastinum, possible pleural effusion; gram-positive bacilli in sputum or blood; definitive testing available at the Virginia State Division of Consolidated Laboratory Services (DCLS).</td>
<td>Call Local Health Department. Alert laboratory to possibility of anthrax. No person-to-person transmission. Standard precautions.</td>
</tr>
<tr>
<td><strong>Pneumonic Plague</strong>&lt;br&gt;Acute Respiratory Distress with Fever&lt;br&gt;Acid-fast bacilli, influenza, tularemia, and other gastrointestinal symptoms</td>
<td>Apparent severe community-acquired pneumonia but with hemoptysis, cyanosis, gastrointestinal symptoms, shock.</td>
<td>Community acquired pneumonia, hantavirus pulmonary syndrome, meningococcemia, rickettsiosis, influenza</td>
<td>Gram-negative bacilli or cocccobacilli in sputum, blood or lymph node; safety-pin appearance with Wright or Giemsa stain; definitive testing available through DCLS.</td>
<td>Call hospital infection control and Local Health Department. Ask family members/close contacts of patient to stay at the hospital (if already present) for public health interview/chemoprophylaxis; get detailed address and phone number information. Alert laboratory of possibility of plague. In addition to standard precautions, droplet precautions with a regular surgical mask.</td>
</tr>
<tr>
<td><strong>Ricin (aerosolized)</strong>&lt;br&gt;Acute Respiratory Distress with Fever&lt;br&gt;Acute onset of fever, chest pain and cough, progressing to respiratory distress and hypoxemia; not improved with antibiotics; death in 36-72 hours.</td>
<td>Plague, Q fever, Staphylococcal enterotoxin B, phosgene, tularemia, influenza</td>
<td>Chest x-ray with pulmonary edema. Consult with Local Health Department regarding specimen collection and diagnostic testing procedures.</td>
<td>Call Local Health Department. Standard precautions.</td>
<td></td>
</tr>
<tr>
<td><strong>Staphylococcal Enterotoxin B</strong>&lt;br&gt;Acute Respiratory Distress with Fever&lt;br&gt;Influenza, adenovirus, mycoplasma</td>
<td>Acute onset of fever, chills, headache, nonproductive cough and myalgia (influenza-like illness) with a NORMAL chest x-ray.</td>
<td>Influenza, adenovirus, mycoplasma</td>
<td>Primarily clinical diagnosis. Consult with Local Health Department regarding specimen collection and diagnostic testing procedures.</td>
<td>Call Local Health Department. Standard precautions.</td>
</tr>
</tbody>
</table>

*continued on page 4*
### Table 1. Bioterrorism Syndromes Quick Reference Chart

If you suspect disease from a potential bioterrorism event, please contact your local health department immediately.

<table>
<thead>
<tr>
<th>Syndrome</th>
<th>Bioterrorism threat disease description</th>
<th>Differential diagnosis</th>
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<th>Immediate public health &amp; infection control actions</th>
</tr>
</thead>
</table>
| **Acute Rash with Fever** | Smallpox  
Papular rash with fever that begins on the face and extremities and uniformly progresses to vesicles and pustules; headache, vomiting, back pain, and delirium common. | Varicella, disseminated herpes zoster, vaccinia, monkeypox, cowpox | Clinical with laboratory confirmation; vaccinated, gowned and gloved person obtains specimens (scabs or swabs of vesicular or pustular fluid). **Call Local Health Department immediately before obtaining specimen;** definitive testing available through CDC. | Call hospital infection control and Local Health Department immediately. Ask family members/close contacts of patient to stay at the hospital (if already present) for public health interview and vaccination; get detailed address and phone number information. In addition to standard precautions, contact and airborne precautions required. |
| **Viral Hemorrhagic Fever**  
(e.g., Ebola) | Fever with mucous membrane bleeding, petechiae, thrombocytopenia and hypotension in a patient without underlying malignancy. | Meningococcemia, malaria, typhus, leptospirosis, borreliosis, thrombotic thrombocytopenic purpura (TTP), hemolytic uremic syndrome (HUS) | Definitive testing available through public health laboratory network. Call Local Health Department immediately. | Call hospital infection control and Local Health Department. Ask family members/close contacts of patient to stay at the hospital (if already present) for public health interview and follow-up; get detailed address and phone number information. Standard and contact precautions. |
| **Botulism** | Acute bilateral descending flaccid paralysis beginning with cranial nerve palsy. | Guillain-Barré Syndrome; myasthenia gravis; midbrain stroke; tick paralysis; Mg++ intoxication; organophosphate, carbon monoxide, paralytic shellfish, or belladonna-like alkaloid poisoning; polio; Eaton-Lambert myasthenic syndrome | CSF protein normal; EMG with repetitive nerve stimulation shows augmentation of muscle action potential; toxin assays of serum, feces, or gastric aspirate available through DCLS. | Request botulinum antitoxin from local/state health department; call Local Health Department to arrange for testing. Standard precautions. |
| **Neurologic Syndromes** | Encephalitis  
(Venezuelan, Eastern, Western)  
Encephalopathy with fever and seizures and/or focal neurologic deficits. | Herpes simplex, post-infectious; other viral encephalitides | Serologic testing available through DCLS. | Call Local Health Department. Standard precautions. |
| **Bubonic Plague** | Plague transmitted to humans by rat fleas; symptoms include: headache, fever, chills, rigors, nausea, vomiting, respiratory distress, cough, myalgias, arthralgias, prostration, and death. | Bacterial sepsis, blood culture, pneumonia | Call hospital infection control and Local Health Department immediately. Notify laboratory of plague suspected; antibiotic treatment should be initiated. | Call hospital infection control and Local Health Department immediately. Notify laboratory of plague suspected; antibiotic treatment should be initiated. |
| **Brucellosis** | Irregular fever, chills, malaise, headache, weight loss, profound weakness and fatigue. Arthralgias, sacroiliitis, paravertebral abscesses. Anorexia, nausea, vomiting, diarrhea, hepatosplenomegaly. May have cough and pleuritic chest pain. | Numerous diseases, including Q Fever | Tiny, slow-growing, faintly-staining, gram-negative coccobacilli in blood or bone marrow culture. Leukocyte count normal or low. Anemia, thrombocytopenia possible. CXR nonspecific: normal, bronchopneumonia, abscesses, single or mililiary nodules, enlarged hilar nodes, effusions. Serologic testing and culture available through DCLS. | Notify laboratory if brucellosis suspected; microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call Local Health Department. Standard precautions. |
| **Influenzal-like Illness** | Fever, chills, myalgias, coryza, sore throat initially; followed by weakness, anorexia, weight loss. Subternal discomfort, dry cough if pneumonia disease. | Small, faintly-staining, slow-growing, gram-negative coccobacilli in sputum or cultures of sputum or blood. CXR may show infiltrate, hilar adenopathy, effusion. Definitive testing available through DCLS. | Notify laboratory if tularemia suspected; microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call Local Health Department. Standard precautions. | Notify laboratory if tularemia suspected; microbiological testing should be done in a biological safety cabinet to prevent lab-acquired infection. Call Local Health Department. Standard precautions. |
Virginia Reportable Disease List  (Effective December 18, 2001)

12 VAC 5-90-80. Reportable Disease List.

A. Reportable Disease List.

The board declares the following named diseases, toxic effects, and conditions to be reportable by the persons enumerated in 12 VAC 5-90-90. Conditions listed in capital and bold letters require rapid communication, as defined in subsection B of this section:

- Acquired immunodeficiency syndrome (AIDS)
- Amebiasis
- ANTHRAX
- Arboviral infection (e.g., EEE, LAC, SLE, WNV)
- BOTULISM
- Brucellosis
- Campylobacter infection
- Chancroid
- Chickenpox
- Chlamydia trachomatis infection
- CHOLERA
- Creutzfeld-Jakob disease if <55 years of age
- Cryptosporidiosis
- Cyclosporiasis
- DIPHTHERIA
- Ehrlichiosis
- Escherichia coli O157:H7 and other enterohemorrhagic E. coli infections
- Giardiasis
- Gonorrhea
- Granuloma inguinale
- HAEMOPHILUS INFLUENZAE INFECTION, INVASIVE
- Hantavirus pulmonary syndrome
- Hemolytic uremic syndrome (HUS)
- HEPATITIS A (IgM +)
- Hepatitis B:
  - Acute disease (IgM +)
  - HBsAg positive pregnant woman
- Hepatitis C (acute and chronic)
- Hepatitis, Other Acute Viral
- Human immunodeficiency virus (HIV) infection
- Influenza
- Kawasaki syndrome
- Lead - elevated blood levels
- Legionellosis
- Leprosy (Hansen disease)
- Listeriosis
- Lyme disease
- Lymphogranuloma venereum
- Malaria
- MEASLES (Rubeola)
- MENINGOCOCCAL INFECTION
- Mumps
- Ophthalmia neonatorum
- OUTBREAKS, ALL (including foodborne, nosocomial, occupational, toxic substance-related, waterborne, and other outbreaks)
- PERTUSSIS (Whooping cough)
- PLAGUE
- POLIOMYELITIS
- PSITTACOSIS
- Q fever
- RABIES, HUMAN AND ANIMAL
- Rabies treatment, post-exposure
- Rocky Mountain spotted fever
- Rubella (German measles), including congenital rubella syndrome
- Salmonellosis
- Shigellosis
- SMALLPOX
- Streptococcal disease, Group A, invasive
- Streptococcus pneumoniae, invasive if <5 years of age
- Syphilis (report PRIMARY and SECONDARY syphilis by rapid means)
- Tetanus
- Toxic shock syndrome
- Toxic substance related illnesses
- Trichinosis
- TUBERCULOSIS DISEASE
- Tuberculosis infection in children age <4 years (Mantoux skin test reaction ≥10 mm)
- Tularemia
- Typhoid fever
- Typhus
- Unusual occurrence of disease of public health concern
- Vancomycin-resistant Staphylococcus aureus
- Vibrio infection
- Viral hemorrhagic fever
- YELLOW FEVER
Clinical laboratories should report any clusters of findings communicated promptly. If pious cases are evaluated appropriately and disregarding failures to ensure that cultures from suspicious laboratories that receive specimens for testing from should work with clinical microbiology laboratories that receive specimens for testing from their facility to ensure that cultures from suspicious cases are evaluated appropriately and findings communicated promptly.

**Infection-Control Professionals**

Heightened awareness by infection-control professionals (ICPs) facilitates recognition of the release of a biologic agent. ICPs are involved with many aspects of hospital operations and with counterparts in other hospitals. As a result, ICPs may recognize changing patterns or clusters in a hospital or in a community that might otherwise go unrecognized.

ICPs should ensure that hospitals have current telephone numbers for notification of both internal (ICPs, epidemiologists, infectious diseases specialists, administrators, and public affairs officials) and external (state and local health departments, local police, and other local emergency responders) contacts. ICPs should work with clinical microbiology laboratories that receive specimens for testing from their facility to ensure that cultures from suspicious cases are evaluated appropriately and findings communicated promptly.

**Virginia Public Health Response to the Threat of Bioterrorism**

Public health has a critical role in bioterrorism preparedness and response that includes surveillance for early detection of unusual patterns of disease occurrence. Over the past two years, the Virginia Department of Health (VDH) has worked to strengthen our disease surveillance capacity and to build partnerships with the health-care community and our colleagues in neighboring state health departments. In response to the terrorist attacks on September 11, and the subsequent intentional release of anthrax, the immediate public health action taken was heightened medical surveillance to monitor the occurrence of any unusual disease patterns that might be associated with these events.

While hospitals and other medical care providers statewide were encouraged to be on the highest alert for any signs of unusual disease activity, special medical surveillance projects also have been initiated. These projects involve public health staff working with selected hospital emergency departments (ED) in the northern and tidewater regions to monitor clinical data on all patients. Clinical syndromes (Table 1) are evaluated daily for trends and patterns that could signal an increase in illness consistent with a possible bioterrorist event. We are particularly interested in acute respiratory infections, symptoms of gastroenteritis, acute neurologic illness, rash illness and unexplained deaths. When an increase is detected, public health staff gather additional clinical and epidemiologic information. To date, no infectious disease outbreaks consistent with bioterrorism have been identified through these syndromic surveillance projects.

The syndromic surveillance system used since September 11 is not the first time VDH has initiated this type of enhanced medical surveillance for potential acts of bioterrorism. The department’s first experience with syndromic surveillance was associated with the 2001 Presidential Inauguration. This project was designed to classify every ED patient visit at three participating hospitals in northern Virginia into one of eight categories using discharge diagnosis data that were analyzed daily. The second project involved conducting enhanced medical surveillance for illnesses around the 2001 Boy Scout Jamboree. Information was collected from two participating hospitals regarding number of admissions and percentage of admissions from EDs, as well as encounters with a Jamboree link. Each project utilized hospital and health department staff to collect the clinical data, monitor the occurrence of specific disease syndromes, and evaluate the volume of patient encounters.

In light of growing concerns for future acts of terrorism and the need to continue to improve our capability of early recognition of unusual disease patterns, there is a need to enhance surveillance. Data collected from 911 calls, hospital admissions, ED visits, intensive care unit admissions, and pharmaceutical records have been identified as potential sources for evaluating the health status of a community. The utility of these data for identifying infectious disease outbreaks is still being evaluated. Electronic linkages to these data could improve surveillance for bioterrorism.

**Conclusion**

Early recognition of a bioterrorist event is crucial. Any unusual illness or disease clusters should be reported to your local health department. The first indication of the intentional release of a biologic agent may be detected by an astute health care provider. Early detection requires a level of knowledge among health care providers about potential biologic agents.

The CDC and public health agencies across the nation continue to mobilize resources to identify and investigate potential acts of bioterrorism. Cases of bioterrorism-associated disease may continue to occur and new risk populations may be identified. Even after the cause of these acts has been solved, public health and health care providers should remain alert for potential acts of bioterrorism.

**References**

1. CDC. Recognition of illness associated with the intentional release of a biologic agent. MMWR 2001;50:893-7.
2. CDC. Biological and chemical terrorism: strategic plan for preparedness and response. MMWR 2001;49 (NO. RR-4).

Submitted by Leslie Branch, Surveillance Program Coordinator, Office of Epidemiology.
Cases of Selected Notifiable Diseases Reported in Virginia*

<table>
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<tr>
<th>Disease</th>
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<th>SW</th>
<th>C</th>
<th>E</th>
<th>This Year</th>
<th>Last Year</th>
<th>5 Yr Avg</th>
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<td>Tuberculosis</td>
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<td>3</td>
<td>235</td>
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</table>

Localities Reporting Animal Rabies This Month: Accomack 1 raccoon; Amelia 1 raccoon; Bath 1 raccoon, 1 skunk; Bland 1 bobcat, 1 skunk; Chesterfield 1 raccoon; Clarke 1 fox, 1 horse, 1 raccoon; Fairfax 1 bat, 1 fox, 2 raccoons, 1 skunk; Fauquier 1 raccoon; Halifax 1 skunk; Hanover 1 raccoon; Henry 1 raccoon; Highland 1 raccoon; Loudoun 1 cat; Lynchburg 1 skunk; Montgomery 1 raccoon, 1 skunk; Nelson 1 skunk; Newport News 1 raccoon; Norfolk 1 raccoon; Nottoway 1 raccoon; Page 1 skunk; Pittsylvania 2 raccoons, 1 skunk; Powhatan 1 raccoon; Prince George 1 raccoon, 1 skunk; Prince William 1 raccoon, 1 skunk; Shenandoah 1 cat, 1 skunk; Smyth 1 skunk; Spotsylvania 1 fox, 1 raccoon; Stafford 1 raccoon; Virginia Beach 4 raccoons; York 1 raccoon.

Toxic Substance-related Illnesses: Asbestosis 41; Lead Exposure 10; Pneumoconiosis 2.

*Data for 2001 are provisional. †Elevated blood lead levels >10µg/dL.
§Includes primary, secondary, and early latent.

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"Focus on the Future: Where Do We Go from Here?"
APIC-Virginia 28th Annual Education Conference

Date: September 18-20, 2002
Location: Fair Oaks Holiday Inn, Fairfax, Virginia
Contact: Dorothy Seibert, BSN, RN, CIC
Fauquier Hospital
500 Hospital Drive
Warrenton, VA 20186
Phone: 540-341-0826 Fax:540-349-5506
E-mail: seibertd@fauquierhospital.org
### Cases of Selected Notifiable Diseases Reported in Virginia*

<table>
<thead>
<tr>
<th>Disease</th>
<th>State</th>
<th>NW</th>
<th>N</th>
<th>SW</th>
<th>C</th>
<th>E</th>
<th>This Year</th>
<th>Last Year</th>
<th>5 Yr Avg</th>
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<td>5</td>
<td>306</td>
<td>292</td>
<td>333</td>
</tr>
</tbody>
</table>

Localities Reporting Animal Rabies This Month: Accomack 1 skunk; Amherst 1 skunk; Augusta 1 cat; Bedford 2 skunks; Bland 1 skunk; Caroline 1 skunk; Culpeper 1 skunk; Fairfax 1 cat, 1 fox, 5 raccoons, 2 skunks; Floyd 1 skunk; Franklin 1 cow; Frederick 1 dog; Giles 1 raccoon; Gloucester 1 skunk; Greene 1 raccoon; Halifax 1 skunk; Hanovery 2 raccoons, 2 skunks; Henrico 1 skunk; Henry 1 raccoon; King William 1 raccoon; Loudoun 1 raccoon; Lunenburg 1 raccoon, 1 skunk; Middlesex 1 raccoon; Nelson 1 raccoon; Norfolk 3 raccoons; Pittsylvania 1 raccoon; Powhatan 1 raccoon; Prince William 1 cat, 1 dog, 1 raccoon, 1 skunk; Rockingham 1 cow; Shenandoah 1 fox, 2 skunks; Spotsylvania 1 skunk; Stafford 2 raccoons; Virginia Beach 1 raccoon; Washington 1 raccoon.

Toxic Substance-related Illnesses: Asbestosis 83; Lead Exposure 9; Pneumocystis 1.

*Data for 2001 are provisional. †Elevated blood lead levels ≥10µg/dL.
§Includes primary, secondary, and early latent.