County of Los Angeles
Department of Health Services
Public Health

THE PUBLIC'S HEALTH

Newsletter for Medical Professionals in Los Angeles County

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Public Health Staff Receive Smallpox Vaccine

Community physician collaboration essential for strong surveillance.

Twenty-seven members of the Los Angeles County Department of Health Services (DHS) received smallpox vaccinations last month as part of the voluntary ongoing vaccination program to help protect the public from the potential threat of a terrorist attack using smallpox. Under a program directed by the CDC, smallpox vaccine is being offered to specific public health and medical staff who would be most likely to respond if there was a case or an outbreak of the disease. This month, DHS plans to vaccinate key rapid response personnel from other agencies (FBI, Sheriff's and Mental Health Departments) as well as response teams at hospitals across the county.

A detailed letter apprising physicians in the county of the department's Smallpox Phase I Vaccination Plan was sent out earlier this month. It is essential that all physicians become familiar with this Plan since community physicians may be asked about smallpox vaccination, including general questions, contraindications, and potential adverse reactions among vaccinees or their contacts and since vaccinees with reactions to smallpox vaccine may present to primary care physicians.

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Outbreaks of Community-Associated Methicillin-Resistant *Staphylococcus aureus* Skin Infections in Los Angeles County, 2002-2003[1]

During 2002, the Los Angeles County Department of Health Services (DHS) investigated three community outbreaks of skin infections associated with methicillin-resistant *Staphylococcus aureus* (MRSA). MRSA commonly has occurred in health-care settings; however, recent investigations of community-associated* MRSA (CA-MRSA) have identified infection in various settings, including correctional facilities, athletic teams, and others (CDC, unpublished data, 2002). This report describes investigations of CA-MRSA in Los Angeles County.

In September 2002, DHS investigated cases of MRSA infection in two athletes on the same team who were hospitalized with MRSA cellulitis within the same week. No additional cases of MRSA infection were identified. The source of MRSA for these patients has not been determined.

Currently, DHS is investigating an outbreak in the Los Angeles County Jail, in which 928 inmates had MRSA wound infections diagnosed in 2002. Patients were reported as having spider bites but subsequently were found to be infected with MRSA. Review of medical

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* Community-associated MRSA infections are distinguished from hospital-acquired MRSA infections by the following criteria:
- Diagnosis of MRSA was made in the outpatient setting or by a culture positive for MRSA within 48 hours after admission to the hospital.
- The patient has no past medical history of MRSA infection.
- The patient has no past medical history in the past 1 year of: Hospitalization; admission to a nursing home, skilled nursing facility, or hospice; dialysis; surgery; or permanent indwelling catheter or percutaneous medical device.

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Smallpox Vaccination Plan (from page 1)

It is important to keep in mind that many of the details of this plan are currently being debated at local, state, and federal levels, and thus there may be changes to the plan. Be assured that the health department will continue to provide you with as current information as possible.

Overview of the National Smallpox Vaccination Plan

Phase 1: The federal government has released approximately 450,000 doses for voluntary vaccination of a limited number of healthcare workers in public health and hospital settings. These personnel will form public health and hospital-based smallpox response teams. These teams will increase the county's capacity to respond to suspected or actual smallpox cases, should this ever be necessary.

Phase 2: Expands availability of smallpox vaccination to all healthcare workers and traditional first responders such as pre-hospital emergency medical, law enforcement and fire personnel. The precise timing and implementation guidelines for Phase 2 have not yet been determined.

Phase 3: Would make voluntary smallpox vaccination available to any member of the general public. Phase 3 is unlikely to begin before 2004 when the new cell culture vaccine is licensed by the Food and Drug Administration.

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ANTIBIOTIC RESISTANCE INFORMATION CORNER

Empirical Therapy for Uncomplicated Urinary Tract Infections in an Era of Increasing Antimicrobial Resistance: A Decision and Cost Analysis

Thuan P. Le and Loren G. Miler
Clinical Infectious Diseases 2001;33:615-21.
Available at: www.journals.uchicago.edu/CID/journal/issues/v33n5/001268/001268.web.pdf

There has been a strong trend towards dropping trimethoprim-sulfamethoxazole (TMP-SMZ) as a treatment for uncomplicated urinary tract infections (UTIs). However, the results of this article do not support dropping TMP-SMZ unless the community resistance among uropathogens warrants this decision (i.e., when TMP-SMZ resistance exceeds 20%), in which case a fluoroquinolone (FQ) should be used. It is important to avoid excess FQ use, which clearly contributes to increasing FQ-resistant gram-negative infections in the community, as well as being a risk factor for methicillin resistant *Staphylococcus aureus* (MRSA) infection. This article includes a cost-benefit analysis of the use of FQ versus TMP-SMZ treatment given varying levels of microbial resistance.

Smallpox Vaccination Plan (from page 2)

Physician's Role

Be familiar with smallpox vaccination including contraindications and potential adverse reactions in order to counsel patients considering vaccination.

Report immediately by telephone to DHS any known or suspected adverse reactions to smallpox vaccination that are serious, life-threatening and/or require hospitalization. (Working hours: 213-240-7941 or after hours: 213-974-1234)

Obtain urgent consultation from the Public Health department when encountering severe adverse reactions for which Vaccinia Immune Globulin (VIG) may be required. Procurement of VIG must be coordinated through the Public Health Department.

About the Vaccine

The smallpox (vaccinia) vaccine is a live virus that multiplies in the superficial layers of the skin. The vaccine does not contain variola virus, the virus that causes smallpox, and **CANNOT** cause smallpox. A successful vaccination is often referred to as a "take." Persons who were vaccinated in the remote past probably no longer have significant immunity. Vaccination after exposure to smallpox is effective in preventing or decreasing the severity of disease, even if given up to 3-4 days after exposure.

Adverse Reactions

One of the most important roles of the community physician is awareness of potential adverse reactions, and rapid reporting and referral of patients with suspected adverse events. While many patients may have side effects such as pain, pruritis, malaise and fever as described above, there are several serious or life-threatening adverse reactions. These adverse events are rare and most of them are preventable with careful screening, good site care and hygiene.

Careful screening of potential vaccinees for contraindications will decrease the frequency with which adverse reactions occur. Treatment is available for some of these conditions, and medications can be obtained through DHS by calling the above numbers. Vaccinia Immune Globulin (VIG) is available for treatment of certain reactions and can only be obtained through DHS. Consultation is available on a 24-hour basis to assist you in evaluating a potential adverse event and, if needed, VIG will be provided.

Volunteer to work with us, receive electronic alerts

The department is soliciting physicians with bioterrorism-related experience to review and fill out a survey delivered with the recent letter. This survey is also available on-line at https://abweb.lapublichealth.org/phcommon/public/BTES/BTESForm.cfm. You may also elect to provide your e-mail address on-line at www.ladhs.org by clicking "Subscribe to News – ListServ" so that we are able to reach you rapidly with urgent alerts.

For More Information

Extensive resources regarding smallpox and smallpox vaccination are available on the Los Angeles County Public Health Bioterrorism Preparedness and Response website www.labt.org or the CDC website and satellite broadcasts at www.bt.cdc.gov/agent/smallpox.

For all other questions or matters concerning the county's smallpox vaccination plan, call the DHS hotline at 1-800-427-8700.

For questions regarding the National Smallpox Vaccination Program, call the CDC hotline at:

1-888-246-2675 English

1-888-246-2857 Spanish

1-866-874-2646 Hearing Impaired

Severe adverse reactions require immediate telephone notification to the Acute Communicable Disease Control Program (Working hours: 213-240-7941 or after hours: 213-974-1234)

Methicillin-Resistant *Staphylococcus aureus* Outbreaks (from page 1)

charts of 39 of the 66 inmates hospitalized with these infections indicated that all initially had skin infections, but 10 later had invasive disease, including bacteremia, endocarditis, or osteomyelitis. DHS issued recommendations for the diagnosis and treatment of skin infections in the jail and is working with the Los Angeles County Sheriff's Department to review policies and procedures on laundry, showers, environmental cleaning, skin care, and control of person-to-person transmission.

In November 2002, physicians from two large infectious disease clinical practices notified DHS of MRSA skin infections among men who have sex with men (MSM). DHS has increased surveillance in selected clinics serving MSM and has begun a study of risk factors for infection among this population. Results will be published along with specific prevention strategies as soon as this study is completed. A fact sheet has been made available for patients[2] with MRSA infections.

In each of these outbreaks, antimicrobial susceptibility patterns from MRSA isolates of these patients have been similar, including resistance to fluoroquinolones. Molecular analysis by pulsed-field gel electrophoresis (PFGE) of isolates performed at the Los Angeles County Public Health Laboratory has identified a predominant strain common to all of these outbreaks. The PFGE pattern of the predominant strain also is consistent with PFGE patterns of strains that CDC has identified in community outbreaks from other parts of the United States. Selected MRSA isolates have been sent to CDC to characterize their virulence factors and toxins.

DHS advises health-care providers to be aware that MRSA can cause community-associated skin and soft tissue infections. Local treatment and incision and drainage remain first-line therapies for soft tissue infections. Clinicians who suspect MRSA skin and soft tissue infections should consider microbiologic culture of wounds and appropriate antimicrobial therapy. Complete management recommendations for CA-MRSA have been posted to assist health-care providers.[3]

DHS advises health-care providers to be aware that MRSA can cause community-associated skin and soft tissue infections

Skin infections might be prevented by keeping cuts and abrasions clean by washing with soap and water. Previous investigations of MRSA infection clusters in community settings have identified MRSA transmission through sharing common objects (e.g., athletic equipment, towels, benches, and personal items) contaminated with MRSA. To prevent MRSA infections from spreading in health-care settings, health-care providers should use standard precautions and appropriate hand hygiene between treating patients, clean surfaces of examination rooms with commercial disinfectant or diluted bleach (1 tablespoon bleach in 1 quart water), and carefully dispose of dressings and other materials that come into contact with pus, nasal discharge, blood, and urine.[4]

If you have questions or if you see a cluster of two or more cases of CA-MRSA that are linked by a common exposure, please call the Acute Communicable Disease Control Program at 213-240-7941 during regular business hours.

References

1. Adapted from: Public Health Dispatch: Outbreaks of Community-Associated Methicillin-Resistant Staphylococcus aureus Skin Infections — Los Angeles County, California, 2002-2003. Centers for Disease Control and Prevention. MMWR 2003;52:88. www.cdc.gov/mmwr/preview/mmwrhtml/mm5205a4.htm

2. Fact Sheet for Patients: Antibiotic-resistant "Staph" Skin Infections (1/31/03).

3. Fact Sheet For Health Care Providers: Community-Associated Methicillin-Resistant Staphylococcus aureus Skin Infections (2/7/03). www.lapublichealth.org/acd/docs/CAMRSA_ProviderFactSheet.pdf

4. CDC. Guideline for hand hygiene in health-care settings: recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/ APIC/IDSA Hand Hygiene Task Force. MMWR 2002;51(No. RR-16). www.cdc.gov/mmwr/preview/mmwrhtml/rr5116a1.htm

RECOMMENDED CHILDHOOD AND ADOLESCENT IMMUNIZATION SCHEDULE — United States, 2002-2003

The annual Recommended Childhood and Adolescent Immunization Schedule of the Advisory Committee on Immunization Practices (ACIP) of the Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) is issued in January of each year.

Since publication of the 2002 schedule, no major changes have been made regarding specific vaccines. The schedule specifies the recommended ages for routine administration of licensed childhood vaccines for children through age 18 years. The 2003 schedule also encourages the routine use of hepatitis B vaccine for all infants before hospital discharge to 1) safeguard against maternal hepatitis B testing errors and test reporting failures; 2) protect neonates discharged to households in which hepatitis B chronic carriers other than the mother may reside; and 3) enhance the completion of the childhood immunization series. The new schedule also focuses on the expansion of routine influenza immunization for pediatric populations to reflect the shift toward immunization of all children between 6 to 23 months of age.

Influenza Vaccination

Children aged 6–23 months are at substantially increased risk for influenza-related hospitalizations and the 2003 schedule includes an advisory to vaccinate **healthy** children aged 6-23 months with influenza vaccine. However, because of concerns about full implementation of this recommendation, the ACIP statement merely encourages vaccination of healthy children aged 6-23 months and is not a full recommendation of the committee. The concerns include increasing efforts to educate parents and providers regarding the impact of influenza and the potential benefits and risks of vaccination among young children, clarification of practical strategies for annual vaccination of children, certain ones of whom will require two doses within the same season, and reimbursement for vaccination. ACIP will provide updated information as these concerns are addressed and a full recommendation may be made by 2003–2005.

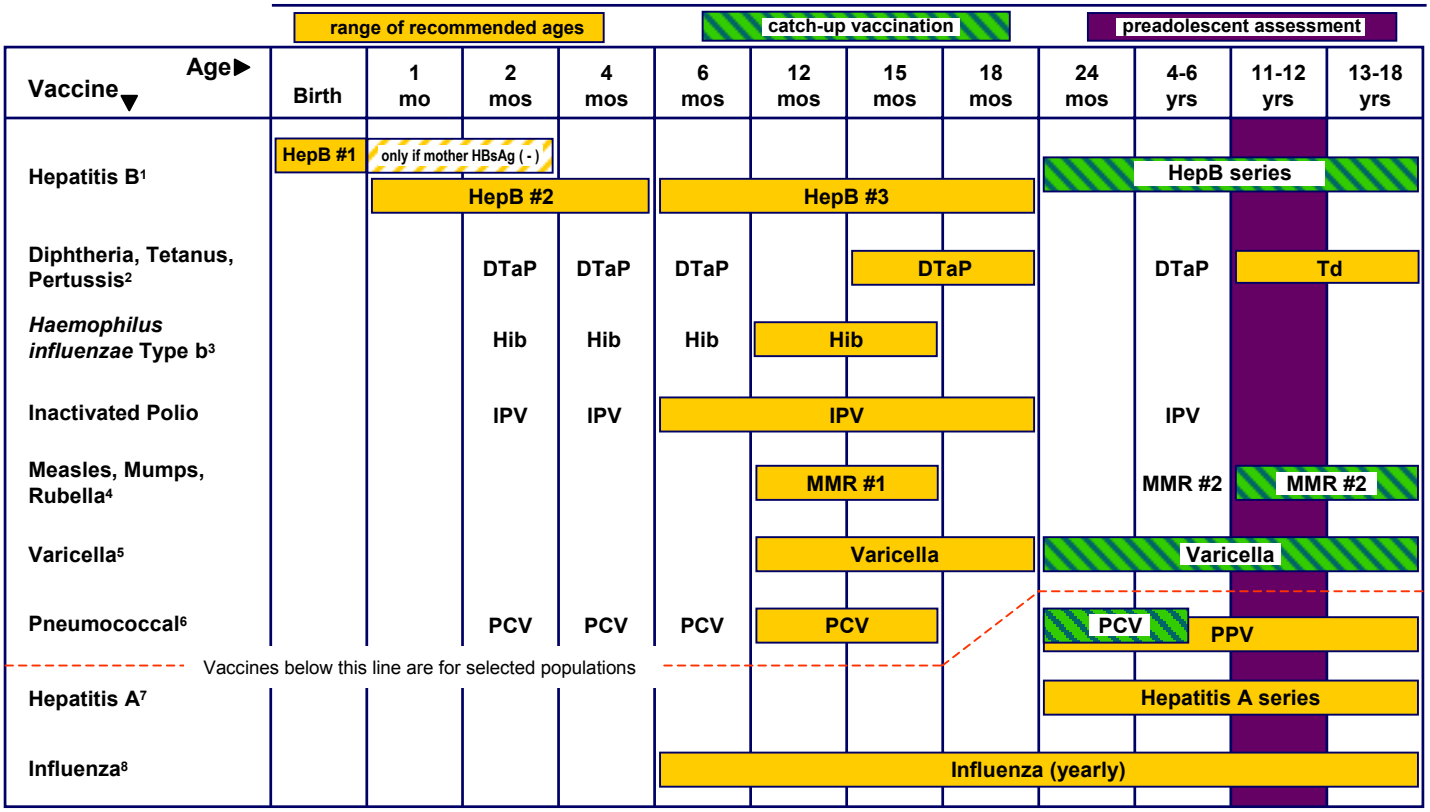
Influenza vaccine continues to be recommended annually for children ≥ 6 months with certain risk factors (including but not limited to asthma, cardiac disease, sickle cell disease, HIV and diabetes),[1] and can be administered to all others wishing to obtain immunity. Children aged ≤ 12 years of age should receive vaccine in a dosage appropriate for their age (0.25 mL if age 6-35 months or 0.5 mL if ≥ 3 years of age). Children ≤ 8 years of age who are receiving influenza vaccine for the first time should receive two doses separated by at least 4 weeks.

The Recommended Childhood and Adolescent Immunization Schedule is available at www.lapublichealth.org/ip.

REFERENCES

1. Prevention and Control of Influenza. Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2002;51(No. RR-3):1-36.

Recommended Childhood and Adolescent Immunization Schedule -- United States, 2003



This schedule indicates the recommended ages for routine administration of currently licensed childhood vaccines, as of December 1, 2002, for children through age 18 years. Any dose not given at the recommended age should be given at any subsequent visit when indicated and feasible. Indicates age groups that warrant special effort to administer those vaccines not previously given. Additional vaccines may be licensed and recommended during the year. Licensed combination vaccines may be used whenever any components of the combination are indicated and the vaccine's other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

1. Hepatitis B vaccine (HepB). All infants should receive the first dose of hepatitis B vaccine soon after birth and before hospital discharge; the first dose may also be given by age 2 months if the infant's mother is HBsAg-negative. Only monovalent HepB can be used for the birth dose. Monovalent or combination vaccine containing HepB may be used to complete the series. Four doses of vaccine may be administered when a birth dose is given. The second dose should be given at least 4 weeks after the first dose, except for combination vaccines which cannot be administered before age 6 weeks. The third dose should be given at least 16 weeks after the first dose and at least 8 weeks after the second dose. The last dose in the vaccination series (third or fourth dose) should not be administered before age 6 months.

Infants born to HBsAg-positive mothers should receive HepB and 0.5 mL Hepatitis B Immune Globulin (HBIG) within 12 hours of birth at separate sites. The second dose is recommended at age 1-2 months. The last dose in the vaccination series should not be administered before age 6 months. These infants should be tested for HBsAg and anti-HBs at 9-15 months of age.

Infants born to mothers whose HBsAg status is unknown should receive the first dose of the HepB series within 12 hours of birth. Maternal blood should be drawn as soon as possible to determine the mother's HBsAg status; if the HBsAg test is positive, the infant should receive HBIG as soon as possible (no later than age 1 week). The second dose is recommended at age 1-2 months. The last dose in the vaccination series should not be administered before age 6 months.

2. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP). The fourth dose of DTaP may be administered as early as age 12 months, provided 6 months have elapsed since the third dose and the child is unlikely to return at age 15-18 months. **Tetanus and diphtheria toxoids (Td)** is recommended at age 11-12 years if at least 5 years have elapsed since the last dose of tetanus and diphtheria toxoid-containing vaccine. Subsequent routine Td boosters are recommended every 10 years.

3. *Haemophilus influenzae* type b (Hib) conjugate vaccine. Three Hib conjugate vaccines are licensed for infant use. If PRP-OMP (PedvaxHIB® or ComVax® [Merck]) is administered at ages 2 and 4 months, a dose at age 6 months is not required. DTaP/Hib combination products should not be used for primary immunization in infants at ages 2, 4 or 6 months, but can be used as boosters following any Hib vaccine.

4. Measles, mumps, and rubella vaccine (MMR). The second dose of MMR is recommended routinely at age 4-6 years but may be administered during any visit, provided at least 4 weeks have elapsed since the first dose and that both doses are administered beginning at or after age 12 months. Those who have not previously received the second dose should complete the schedule by the 11-12 year old visit.

5. Varicella vaccine. Varicella vaccine is recommended at any visit at or after age 12 months for susceptible children, i.e. those who lack a reliable history of chickenpox. Susceptible persons aged ≥13 years should receive two doses, given at least 4 weeks apart.

6. Pneumococcal vaccine. The heptavalent **pneumococcal conjugate vaccine (PCV)** is recommended for all children age 2-23 months. It is also recommended for certain children age 24-59 months. **Pneumococcal polysaccharide vaccine (PPV)** is recommended in addition to PCV for certain high-risk groups. See *MMWR* 2000;49(RR-9);1-38.

7. Hepatitis A vaccine. Hepatitis A vaccine is recommended for children and adolescents in selected states and regions, and for certain high-risk groups; consult your local public health authority. Children and adolescents in these states, regions, and high risk groups who have not been immunized against hepatitis A can begin the hepatitis A vaccination series during any visit. The two doses in the series should be administered at least 6 months apart. See *MMWR* 1999;48(RR-12);1-37.

8. Influenza vaccine. Influenza vaccine is recommended annually for children age ≥6 months with certain risk factors (including but not limited to asthma, cardiac disease, sickle cell disease, HIV, diabetes, and household members of persons in groups at high risk; see *MMWR* 2002;51(RR-3);1-31), and can be administered to all others wishing to obtain immunity. In addition, healthy children age 6-23 months are encouraged to receive influenza vaccine if feasible because children in this age group are at substantially increased risk for influenza-related hospitalizations. Children aged ≤12 years should receive vaccine in a dosage appropriate for their age (0.25 mL if age 6-35 months or 0.5 mL if aged ≥3 years). Children aged ≤8 years who are receiving influenza vaccine for the first time should receive two doses separated by at least 4 weeks.

For additional information about vaccines, including precautions and contraindications for immunization and vaccine shortages, please visit the National Immunization Program Website at www.cdc.gov/nip or call the National Immunization Information Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).

Approved by the Advisory Committee on Immunization Practices (www.cdc.gov/nip/acip), the American Academy of Pediatrics (www.aap.org), and the American Academy of Family Physicians (www.aafp.org).

Fetal-Infant Mortality Review: Learning From Past Events

The purpose of the Los Angeles County Fetal-Infant Mortality Review (FIMR) project, initiated in 1992, is to identify contributing factors and causes of deaths of fetuses and infants in order to promote changes (in health care facilities, systems, provider practices, and the community) that would reduce rates of stillbirths and infant deaths.

Individual cases of fetal or infant deaths are examined in depth to determine if there was a chance of having had a different outcome. Considered "sentinel events," these deaths may be representative of many other non-fatal cases with morbidities and contributing factors of the same nature. In the course of case review, medical records are abstracted and summarized without revealing the identity of the patient, health care provider, or facility involved. An expert panel - composed of volunteer physicians, nurses, social workers, and the county's Black Infant Health Program director – presents the findings and recommendations to the FIMR Community Advisory Group. Representatives from health care plans, HMOs, community-based organization and county departments comprise this advisory group.

Defining target population

Early in the project, it became clear that African Americans have a higher rate of fetal and infant deaths than other groups, including Black immigrants. This finding is not unique to Los Angeles. To investigate this disparity, the FIMR project defined its study population to be African Americans and Black immigrants within 15 zip codes that had high rates of African American pregnancies.

Although there are some factors that are unique to the African American community, many of the findings and recommendations are applicable to all women. For example, fetal and infant outcomes could likely be improved by enhancing communications during the prenatal and delivery periods. Prenatal care may involve different providers, including specialists who may be assisting in the management of particular medical problems. Getting a complete picture necessitates the availability of all pertinent medical records. Frequently, a woman comes to an emergency room or delivery hospital in labor with no records of her prenatal care, lab tests, past medical history, or other medical conditions. The resulting delay in diagnosis and treatment may result in a poor outcome. Therefore, the expert panel has recommended that transportable medical records be established to ensure pregnant women receive ideal care in the event delivery takes place at an unplanned facility. Even when delivery happens at a planned facility, it would be helpful to have up-to-date prenatal care records available there.

Recommendations

Other recommendations made by the panel are listed below. These recommendations, formulated from the hundreds of FIMR case reviews over the past ten years, remain timely and appropriate for implementation by all providers and practitioners serving pregnant women.

- Record more detailed information about observations made during and after delivery regarding the diagnoses and treatments of various abnormalities that developed during the pregnancy.
- Develop a tracking system to monitor high risk women (even if they are not pregnant, these women can be case-managed and receive services)
- Perform a toxicology screen of the mother whenever a pre-term delivery is imminent. This could improve treatment of the mother and infant as well as alert social services of a possible need for intervention.
- Pathological evaluation of placentas of all pre-term deliveries and intrauterine fetal deaths. A better understanding of the cause may help prevent poor outcomes of future pregnancies for the patient and others.
- Patient education. Because patients are often more receptive during prenatal care than after delivery, preconceptional counseling could improve pregnancy outcomes in many instances. Suggested topics include: fetal movement monitoring, routine "kick counting" after 28 weeks, and SIDS risk reduction.

For more informations about FIMR, visit lapublichealth.org/mch/fimr/fimr2.htm or call Grant Neie, RN at (213) 639-6440.

RECOMMENDED ADULT IMMUNIZATION SCHEDULE
United States, 2002-2003

Immunizations—Not Just for Kids

Although every visit to a health professional provides an opportunity for immunization, the proportion of the adult population that is adequately vaccinated is only about one-half for influenza vaccine. Coverage for hepatitis B vaccine varies from 1% to 60% depending on the population and adequate antibody titers against tetanus and diphtheria are present in approximately 40% of U.S. adults.[1]

The burden of vaccine preventable disease among adults is high. Influenza is estimated to be responsible for 20,000 to 40,000 deaths annually. Mortality from pneumococcal disease is estimated at 6,000 deaths annually, with morbidity estimated at 500,000 cases of pneumonia, 50,000 cases of sepsis, and 3,000 cases of meningitis.[1,2] Hepatitis B infections occur in 200,000 to 300,000 people per year and result in 10,000 to 15,000 hospitalizations and approximately 5,000 deaths.

Appropriately-timed adult immunizations can reduce or prevent morbidity and mortality related to influenza, pneumococcal infection, hepatitis B, diphtheria, tetanus, measles, mumps, and rubella. Influenza and pneumococcal disease, which cause considerable morbidity and mortality in the ever-increasing population over age 65, can be reduced through vaccination with little associated harm or net cost. Vaccination of adults at risk for hepatitis B infection can reduce the expenses of perinatally-acquired chronic hepatitis B infection in their offspring as well as the cost of adult morbidity and mortality. Diphtheria, tetanus, measles, mumps, and rubella affect small numbers of adults, but morbidity and mortality attributable to these preventable illnesses can be reduced substantially by selective immunization of at-risk adults.

The Adult Immunization Schedule is based on published recommendations of the Advisory Committee on Immunization Practices (ACIP),[3] the American College of Obstetricians and Gynecologists (ACOG),[4] the American Academy of Family Physicians (AAFP),[5] and the American College of Physicians—American Society of Internal Medicine (ACP-ASIM) with the Infectious Diseases Society of America[2] and was developed by members of these organizations and CDC. The schedule presents a tabular, color-coded summary of vaccine indications by age group and medical condition. The Recommended Adult Immunization Schedule includes footnotes that are summaries of the ACIP recommendations for specific vaccines since 1991. The Recommended Immunizations for Adults with Medical Conditions (available at www.lapublichealth.org/ip/izschedules/2002-2003_adult.pdf) includes special considerations or contraindications for vaccinating persons with specific medical conditions. Please see the full recommendations at www.cdc.gov/mmwr/preview/mmwrhtml/mm5140a5.htm for more detailed information, definitions, and footnotes. CDC and ACIP will update the schedule annually through collaboration with members of ACOG, AAFP, and ACP-ASIM.

The Recommended Adult Immunization Schedule, the Recommended Immunizations for Adults with Medical Conditions, and the full recommendations are available at www.lapublichealth.org/ip/ipsched.htm.

REFERENCES

1. Gardner P, Schaffner W. Immunization of Adults. N Engl J Med 1993;328:1252-8.
2. American College of Physicians Task Force on Adult Immunization/ Infectious Diseases Society of America. Guide for Adult Immunization. 3rd ed. Philadelphia: American College of Physicians; 1994.
3. CDC. Prevention and Control of Influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 2002;51 (No. RR-3).
4. CDC. Hepatitis B Virus: A Comprehensive Strategy for Eliminating Transmission in the United States Through Universal Childhood Vaccination: Recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(No. RR-13).
5. CDC. Prevention of Pneumococcal Disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997;46(No. RR-8).

Recommended Adult Immunization Schedule, United States, 2002-2003

For all persons in this group | Catch-up on childhood vaccinations | For persons with medical / exposure indications

Vaccine \ Age Group	19-49 Years	50-64 Years	65 Years and Older
Tetanus, Diphtheria (Td)*	1 dose booster every 10 years [1]		
Influenza	1 dose annually for persons with medical or occupational indications, or household contacts of persons with indications [2]	1 annual dose	
Pneumococcal (polysaccharide)	1 dose for persons with medical or other indications. (1 dose revaccination for immunosuppressive conditions) [3,4]		1 dose for unvaccinated persons [3] 1 dose revaccination [4]
Hepatitis B*	3 doses (0, 1-2, 4-6 months) for persons with medical, behavioral, occupational, or other indications [5]		
Hepatitis A	2 doses (0, 6-12 months) for persons with medical, behavioral, occupational, or other indications [6]		
Measles, Mumps, Rubella (MMR)*	1 dose if measles, mumps, or rubella vaccination history is unreliable; 2 doses for persons with occupational or other indications [7]		
Varicella*	2 doses (0, 4-8 weeks) for persons who are susceptible [8]		
Meningococcal (polysaccharide)	1 dose for persons with medical or other indications [9]		

See Footnotes for Recommended Adult Immunization Schedule, United States, 2002-2003 on back cover.

*Covered by the Vaccine Injury Compensation Program. For information on how to file a claim call 800-338-2382. Please also visit www.hrsa.osp.gov/vicp To file a claim for vaccine injury write: U.S. Court of Federal Claims, 717 Madison Place, N.W., Washington D.C. 20005. 202 219-9657.

This schedule indicates the recommended age groups for routine administration of currently licensed vaccines for persons 19 years of age and older. Licensed combination vaccines may be used whenever any components of the combination are indicated and the vaccine's other components are not contraindicated. Providers should consult the manufacturers' package inserts for detailed recommendations.

Report all clinically significant post-vaccination reactions to the Vaccine Adverse Event Reporting System (VAERS). Reporting forms and instructions on filing a VAERS report are available by calling 800-822-7967 or from the VAERS website at www.vaers.org.

For additional information about the vaccines listed above and contraindications for immunization, visit the National Immunization Program Website at www.cdc.gov/nip/ or call the National Immunization Hotline at 800-232-2522 (English) or 800-232-0233 (Spanish).

Approved by the Advisory Committee on Immunization Practices (ACIP), and accepted by the American College of Obstetricians and Gynecologists (ACOG) and the American Academy of Family Physicians (AAFP)

Footnotes for
Recommended Adult Immunization Schedule, United States, 2002-2003

1. **Tetanus and diphtheria (Td)**—A primary series for adults is 3 doses: the first 2 doses given at least 4 weeks apart and the 3rd dose, 6-12 months after the second. Administer 1 dose if the person had received the primary series and the last vaccination was 10 years ago or longer. *MMWR* 1991; 40 (RR-10): 1-21. The ACP Task Force on Adult Immunization supports a second option: a single Td booster at age 50 years for persons who have completed the full pediatric series, including the teenage/young adult booster. *Guide for Adult Immunization*. 3rd ed. ACP 1994: 20.

2. **Influenza vaccination**—Medical indications: chronic disorders of the cardiovascular or pulmonary systems including asthma; chronic metabolic diseases including diabetes mellitus, renal dysfunction, hemoglobinopathies, immunosuppression (including immunosuppression caused by medications or by human immunodeficiency virus [HIV]), requiring regular medical follow-up or hospitalization during the preceding year; women who will be in the second or third trimester of pregnancy during the influenza season. Occupational indications: health-care workers. Other indications: residents of nursing homes and other long-term care facilities; persons likely to transmit influenza to persons at high-risk (in-home care givers to persons with medical indications, household contacts and out-of-home caregivers of children birth to 23 months of age, or children with asthma or other indicator conditions for influenza vaccination, household members and care givers of elderly and adults with high-risk conditions); and anyone who wishes to be vaccinated. *MMWR* 2002; 51 (RR-3): 1-31.

3. **Pneumococcal polysaccharide vaccination**—Medical indications: chronic disorders of the pulmonary system (excluding asthma), cardiovascular diseases, diabetes mellitus, chronic liver diseases including liver disease as a result of alcohol abuse (e.g., cirrhosis), chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkins disease, generalized malignancy, organ or bone marrow transplantation), chemotherapy with alkylating agents, anti-metabolites, or long-term systemic corticosteroids. Geographic/other indications: Alaskan Natives and certain American Indian populations. Other indications: residents of nursing homes and other long-term care facilities. *MMWR* 1997; 47 (RR-8): 1-24.

4. **Revaccination with pneumococcal polysaccharide vaccine**—One time revaccination after 5 years for persons with chronic renal failure or nephrotic syndrome, functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), immunosuppressive conditions (e.g., congenital immunodeficiency, HIV infection, leukemia, lymphoma, multiple myeloma, Hodgkins disease, generalized malignancy, organ or bone marrow transplantation), chemotherapy with alkylating agents, anti-metabolites, or long-term systemic corticosteroids. For persons 65 and older, one-time revaccination if they were vaccinated 5 or more years previously and were aged less than 65 years at the time of primary vaccination. *MMWR* 1997; 47 (RR-8): 1-24.

5. **Hepatitis B vaccination**—Medical indications: hemodialysis patients, patients who receive clotting-factor concentrates. Occupational indications: health-care workers and public-safety workers who have exposure to blood in the workplace, persons in training in schools of medicine, dentistry, nursing, laboratory technology, and other allied health professions. Behavioral indications: injecting drug users, persons with more than one sex partner in the previous 6 months, persons with a recently acquired sexually-transmitted disease (STD), all clients in STD clinics, men who have sex with men. Other indications: household contacts and sex partners of persons with chronic HBV infection, clients and staff of institutions for the developmentally disabled, international travelers who will be in countries with high or intermediate prevalence of chronic HBV infection for more than 6 months, inmates of correctional facilities. *MMWR* 1991; 40 (RR-13): 1-25. (www.cdc.gov/travel/diseases/hbv.htm)

6. **Hepatitis A vaccination**—For the combined HepA-HepB vaccine use 3 doses at 0, 1, 6 months). Medical indications: persons with clotting-factor disorders or chronic liver disease. Behavioral indications: men who have sex with men, users of injecting and noninjecting illegal drugs. Occupational indications: persons working with HAV-infected primates or with HAV in a research laboratory setting. Other indications: persons traveling to or working in countries that have high or intermediate endemicity of hepatitis A. *MMWR* 1999; 48 (RR-12): 1-37. (www.cdc.gov/travel/diseases/hav.htm)

7. **Measles, Mumps, Rubella vaccination (MMR)**—Measles component: Adults born prior to 1957 may be considered to be immune to measles. Give 2 doses of MMR for adults with one or more of the following conditions and without vaccination history:
   - adults born after 1956
   - persons vaccinated with killed measles virus vaccine 1963-1969
   - students in post-secondary education institutions
   - health care workers
   - susceptible international travelers to measles endemic countries.

   Mumps component: 1 dose of MMR should be adequate for protection. Rubella component: Give 1 dose of MMR to women whose rubella vaccination history is unreliable and counsel women to avoid becoming pregnant for 4 weeks after vaccination. For women of child-bearing age, regardless of birth year, routinely determine rubella immunity and counsel women regarding congenital rubella syndrome. Do not vaccinate pregnant women or those planning to become pregnant in the next 4 weeks. If pregnant and susceptible, vaccinate as early in postpartum period as possible. *MMWR* 1998; 47 (RR-8): 1-57.

8. **Varicella vaccination**—Recommended for all persons who do not have reliable clinical history of varicella infection, or serological evidence of varicella zoster virus (VZV) infection; health-care workers and family contacts of immunocompromised persons, those who live or work in environments where transmission is likely (e.g., teachers of young children, day care employees, and residents and staff members in institutional settings), persons who live or work in environments where VZV transmission can occur (e.g., college students, inmates and staff members of correctional institutions, and military personnel), adolescents and adults living in households with children, women who are not pregnant but who may become pregnant in the future, international travelers who are not immune to infection. Note: Greater than 90% of U.S. born adults are immune to VZV. Do not vaccinate pregnant women or those planning to become pregnant in the next 4 weeks. If pregnant and susceptible, vaccinate as early in postpartum period as possible. *MMWR* 1996; 45 (RR-11): 1-36, *MMWR* 1999; 48 (RR-6): 1-5.

9. **Meningococcal vaccine (quadrivalent polysaccharide for serogroups A, C, Y, and W-135)**—Consider vaccination for persons with medical indications: adults with terminal complement component deficiencies, with anatomic or functional asplenia. Other indications: travelers to countries in which disease is hyperendemic or epidemic ("meningitis belt" of sub-Saharan Africa, Mecca, Saudi Arabia for Hajj). Revaccination at 3-5 years may be indicated for persons at high risk for infection (e.g., persons residing in areas in which disease is epidemic). Counsel college freshmen, especially those who live in dormitories, regarding meningococcal disease and the vaccine so that they can make an educated decision about receiving the vaccination. *MMWR* 2000; 49 (RR-7): 1-20. Note: The AAFP recommends that colleges should take the lead on providing education on meningococcal infection and vaccination and offer it to those who are interested. Physicians need not initiate discussion of the meningococcal quadravalent polysaccharide vaccine as part of routine medical care.

Recommended Immunizations for Adults with Medical Conditions, United States, 2002-2003

For all persons in this group | Catch-up on childhood vaccinations | For persons with medical / exposure indications | Contraindicated

Medical Conditions \ Vaccine	Tetanus-Diphtheria (Td)*	Influenza	Pneumococcal (polysaccharide)	Hepatitis B*	Hepatitis A	Measles, Mumps, Rubella (MMR)*	Varicella*
Pregnancy		A					
Diabetes, heart disease, chronic pulmonary disease, chronic liver disease, including chronic alcoholism		B	C		D		
Congenital immunodeficiency, leukemia, lymphoma, generalized malignancy, therapy with alkylating agents, antimetabolites, radiation or large amounts of corticosteroids			E				F
Renal failure / end stage renal disease, recipients of hemodialysis or clotting factor concentrates			E	G			
Asplenia including elective splenectomy and terminal complement component deficiencies			E, H, I				
HIV infection			E, J			K	

A. If pregnancy is at 2nd or 3rd trimester during influenza season.

B. Although chronic liver disease and alcoholism are not indicator conditions for influenza vaccination, give 1 dose annually if the patient is ≥ 50 years, has other indications for influenza vaccine, or if the patient requests vaccination.

C. Asthma is an indicator condition for influenza but not for pneumococcal vaccination.

D. For all persons with chronic liver disease.

E. Revaccinate once after 5 years or more have elapsed since initial vaccination.

F. Persons with impaired humoral but not cellular immunity may be vaccinated. *MMWR* 1999; 48 (RR-06): 1-5.

G. Hemodialysis patients: Use special formulation of vaccine (40 ug/mL) or two 1.0 mL 20 ug doses given at one site. Vaccinate early in the course of renal disease. Assess antibody titers to hep B surface antigen (anti-HBs) levels annually. Administer additional doses if anti-HBs levels decline to <10 milliinternational units (mIU)/ mL.

H. Also administer meningococcal vaccine.

I. Elective splenectomy: vaccinate at least 2 weeks before surgery.

J. Vaccinate as close to diagnosis as possible when CD4 cell counts are highest.

K. Withhold MMR or other measles containing vaccines from HIV-infected persons with evidence of severe immunosuppression. *MMWR* 1996; 45: 603-606, *MMWR* 1992; 41 (RR-17): 1-19.

An Ancient Killer Lurks for Unprotected Adults: Be Aware of Tetanus

The effectiveness of vaccines in reducing the incidence of once-common infectious diseases has resulted in a decreased level of awareness of the seriousness of these diseases when they do occur. This is true of tetanus. Although this disease is currently very rare (averaging only two cases reported per year in Los Angeles County over the last five years), it can still be fatal. Of the four cases that occurred between the period of January 1, 2001 through October 31, 2002, two resulted in deaths — both in elderly individuals who where born at a time when childhood vaccination against tetanus was not yet available.

Studies have shown that 49-66% of adults greater than 60 years of age probably lack protective levels of circulating antitoxin as a result of insufficient primary vaccination or delinquent booster doses.[1] With the recent replenishing of the national supply of tetanus and diphtheria toxoids for adult use (Td), now is a good time for providers to review the records of their adult patients in order to insure that their patients are protected against this potentially deadly disease. Many of their patients may have been born before routine childhood immunizations were implemented. The following points should be considered when evaluating such patients.

- Person who never received a primary series of a tetanus-containing vaccine as children or adults should receive three doses of Td with the first two doses separated by a minimum of four weeks and the third dose given 6-12 months after the second.[2] Individuals who started but did not complete a primary series for tetanus immunization should receive the number of doses required to equal three (they do not have to start the series over).[2]
- Because most persons have sub-optimal antitoxin levels 10 years after their last dose of a tetanus containing vaccine, booster doses of tetanus vaccine should be given every 10 years to maintain adequate protection. (For adolescents, the first booster dose can be given at age 11-12 years if at least five years have elapsed since the last dose of DTaP or DTP or DT.) More frequent booster doses of tetanus vaccine are not indicated and if given can be associated with an increased incidence and severity of adverse local reactions. If a dose of tetanus vaccine is given sooner than 10 years as part of wound management (see Table A), the next booster is not required until 10 years after the "wound management" dose.
- Adults who are evaluated for any traumatic injury should be questioned regarding receipt of their last tetanus booster and such persons should be given a Td booster if delinquent, even if the injury does not meet the criteria for Td and tetanus immune globulin (TIG) administration. Often injuries to the skin which are considered to be minor can pose a risk for tetanus.

Table A: Tetanus Wound Management For Adults

	Clean minor wounds		All other wounds	
Vaccination History	Td	TIG	Td	TIG
Unknown or <3doses	Yes	No	Yes	Yes
3 + doses	No*	No	No**	No

*Yes, if > 10 years since last dose
**Yes, if > 5 years since last dose

Adapted from:
CDC. Epidemiology and Prevention of Vaccine-Preventable Disease. CDC: Atlanta, 2002

For information about any of the commonly recommended vaccines please refer to the Immunization Program web site at: www.lapublichealth.org/ip.

REFERENCES

1. CDC. Diphtheria, Tetanus, and Pertussis: Recommendations for Vaccine Use and Other Preventive Measures Recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991; 40(RR10): 1-28.
2. CDC. Epidemiology and Prevention of Vaccine-Preventable Diseases. CDC: Atlanta, 2002.

Shigellosis continues to be a problem in Los Angeles County.

Prompt reporting is critical.

The Los Angeles County Department of Health Services has recently noted an increase in cases of shigellosis in the West, Southeast and Central health districts of the county. There is also evidence that cases were not reported in a timely manner or not reported at all. Reporting delays and omissions impede public health intervention and contribute to continued transmission. It is very important that providers promptly report all communicable disease, including shigellosis – do not depend on laboratories to report.

For more information or to report contact the Communicable Disease Reporting System

1-888-397-3993

This Issue . . .

THE PUBLIC'S HEALTH

Newsletter for Medical Professionals in Los Angeles County

COUNTY OF LOS ANGELES
DEPARTMENT OF HEALTH SERVICES
Public Health

313 North Figueroa Street, Room 212
Los Angeles, California 90012

Selected Reportable Diseases (Cases)[1] - Oct-Nov 2002

Disease	THIS PERIOD Oct-Nov 2002	SAME PERIOD LAST YEAR Oct-Nov 2001	YEAR TO DATE 2002	YEAR TO DATE 2001	YEAR END TOTALS 2001	YEAR END TOTALS 2000	YEAR END TOTALS 1999
AIDS[2]	317	264	1,667	1,190	1,415	1,652	1,876
Amebiasis	16	26	104	119	136	116	142
Campylobacteriosis	189	178	1,022	1,036	1,084	1,332	1,100
Chlamydial Infections	6,446	5,526	31,469	29,362	32,784	30,642	27,561
Encephalitis	8	11	60	44	44	51	7
Gonorrhea	1,352	1,311	6,682	6,923	7,800	7,212	6,053
Hepatitis Type A	68	119	450	537	517	1,025	1,258
Hepatitis Type B, Acute	6	11	26	70	44	65	61
Hepatitis Type C, Acute	1	1	1	1	1	28	21
Measles	0	0	0	8	8	5	1
Meningitis, viral/aseptic	136	104	634	506	534	491	390
Meningococcal Infections	5	3	42	51	53	53	49
Mumps	1	2	11	12	17	29	24
Non-gonococcal Urethritis (NGU)	190	257	1,176	1,269	1,423	1,575	1,742
Pertussis	19	17	104	82	103	102	238
Rubella	0	0	0	0	0	3	0
Salmonellosis	151	264	868	867	893	1,119	1,027
Shigellosis	256	158	805	568	596	878	687
Syphilis, primary & secondary	61	32	306	162	184	136	88
Syphilis, early latent (<1 yr.)	52	42	290	173	209	194	335
Tuberculosis	153	172	823	810	1,046	1,065	1,170
Typhoid fever, Acute	2	0	30	17	24	25	16

1. Case totals are provisional and are subject to change following publication.
2. Case totals are interim and may vary following periodic updates of the database.

Data provided by DHS' Public Health programs: Acute Communicable Disease Control, Data Collection & Analysis, HIV/Epidemiology, Sexually Transmitted Diseases, and Tuberculosis Control.