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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Don't be quick to blame spiders for those "spider bite" wounds!

It is a well-publicized and frequently cited fact that bites (envenomation) by the brown recluse spider, *Loxosceles reclusa*, will produce dermonecrotic wounds. In comparison, far less is known by both the general public and the medical community about the recognized range of the spider, the inconsequential resolution of most brown recluse spider bites, and the reticent nature of the spider. Also important, but often overlooked, is the propensity of *Loxosceles* sp. to be present in often surprising numbers in homes within the endemic range with no recorded history of bites despite years of co-habitation.[1,2]

The endemic range of the brown recluse spider is southeastern Nebraska through Texas, east to Georgia and southernmost Ohio. Ten additional *Loxosceles* species are native to the southwestern U.S. deserts, and two non-native species are found within the continental U.S., but are rare and sporadic in distribution.[3] It has been repeatedly shown that all native species are known to be abundant in their respective ranges, and research has indicated that due to the necrotic capabilities of the venom, all species of *Loxosceles* should be considered to have public health significance.

The brown recluse spider (above) looks very similar to many of the large spiders found in Los Angeles County.

No established populations of the brown recluse spider have ever been documented within California.

Although California is well outside the recognized range of the brown recluse spider, a few verified specimens (<10) have been collected throughout the state. Most have been attributed to accidental transportation with goods delivered from an area within the spider's endemic distribution.[4] Despite an established commercial and private translocation of goods from within the recognized range, no established populations of the brown recluse spider have ever been documented within the state.

Los Angeles County lies within the range of one *Loxosceles* species and is known to have limited populations of a non-native species as well. The sparsely populated arid regions of our county are home to the desert recluse, *L. deserta*, where spiders are found

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Is that spider bite actually MRSA?

Misdiagnosis of methicillin resistant *Staphylococcus aureus* (MRSA) as due to spiders bites has been occurring in Los Angeles County with increasing frequency. The Los Angeles County Department of Health Services has investigated MRSA outbreaks originally and erroneously believed due to spider bites (see the February 2003 issue of **The Public's Health** available at: www.lapublichealth.org/wwwfiles/ph/ph/ph/TPH0203.pdf). This misdiagnosis not only impeded proper treatment but facilitated the spread of this infection.

Information about MRSA infection is available at: www.lapublichealth.org/acd/MRSA.htm or by calling Acute Communicable Disease Control: 213-240-7941

See related article about Pediatric MRSA page 4

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Update: Rabies Control and Prevention, 2003

The California Department of Health Services has recently revised its recommendations for rabies control and prevention. The full 2003 Compendium of Rabies Control and Prevention is available at: www.dhs.ca.gov/ps/dcdc/disb/pdf/2003%20CA%20Rabies%20Compendium.pdf or by calling the California Department of Health Services Veterinary Public Health Section (916-327-0332).

Of importance are the revised recommendations for human rabies postexposure prophylaxis (PEP). The essential components of rabies PEP are: immediate wound cleaning, treatment (i.e., tetanus and antibiotic prophylaxis as needed) and the appropriate administration of human rabies immune globulin (HRIG) and rabies vaccine. Persons who are bitten by or have significant exposure to saliva or nervous system tissue of a confirmed rabid animal should begin rabies PEP **immediately**. In addition to the classic bite exposure (teeth penetrating skin), nonbite exposure, such as the saliva contamination of open wounds or scratches, has been documented and may constitute sufficient reason to consider rabies PEP. In addition, a person exposed to a **suspected** rabid animal should begin treatment if rabies testing on the animal is not immediately available.

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ANTIBIOTIC RESISTANCE INFORMATION CORNER

Effect of Amoxicillin-Clavulanate in Clinically Diagnosed Acute Rhinosinusitis: A Placebo-Controlled, Double-Blind, Randomized Trial in General Practice

Bucher HC, Tschudi P, Young J, et al. Arch Intern Med 2003;163:1793-1798.
Available at: http://archinte.ama-assn.org/cgi/content/abstract/163/15/1793

Acute rhinosinusitis is one of the most common diagnoses in primary care and most often caused by an uncomplicated viral infection. Much concern focuses on the overuse of antibiotics that are frequently prescribed for this condition. Results of this study among adults with suspected acute bacterial rhinosinusitis indicate that antibiotic treatment with amoxicillin-clavulanate offers no clinical benefit. No differences were found in the time to cure between amoxicillin-clavulanate (29.8% at 1 week; 76.6% at 2 weeks) and placebo groups (30.7% at 1 week; 74.0% at 2 weeks). Additionally, patients treated with amoxicillin-clavulanate were more likely to experience side effects of diarrhea and abdominal pain. Symptomatic treatment rather than antibiotic prescription is recommended for acute rhinosinusitis. Such measures can prevent unnecessary costs and reduce antibiotic-resistant strains in the community.

The Centers for Disease Control and Prevention (CDC) provides clinical practice guidelines for otitis media, rhinitis, sinusitis, and cough illness/bronchitis available online at: www.cdc.gov/drugresistance/community/technical.htm and at www.cdc.gov/drugresistance/technical/prevention_tools.htm

Other clinical practice guidelines can be found at the Infectious Diseases Society of America (IDSA) web site: www.idsociety.org or in major medical journals.

Rabies Control and Prevention Update (from page 2)

The most important exposure to rabies in Los Angeles County is through bats. Rabies virus transmission can occur from very minor or even unrecognized bites. Bat bites may not leave any evident mark and often a patient may have limited recall of exposure which interferes with proper diagnosis of bat-based rabies. Healthcare providers should discourage all human contact with bats.

Beyond postexposure treatment, preexposure vaccination should be offered to all persons at increased risk of rabies exposure. This includes: veterinarians, animal handlers, animal control officers, laboratory workers with potential exposure to rabies virus, and persons traveling to and spending time (e.g., >1 month) in foreign countries where rabies is endemic.

To obtain assistance with rabies treatment decisions, or to refer an uninsured patient for treatment, call Acute Communicable Disease Control 213-240-7941

Preexposure vaccination should also be considered for persons whose habits and hobbies may expose them to potentially rabid animals (e.g., dogs, cats, skunks, bats). The advantage of preexposure prophylaxis is protection of persons with unrecognized rabies exposure. In addition, it simplifies and saves money inherent in rabies postexposure treatment. This also may protect persons exposed in areas where immunizing products are not available or when treatment may be delayed (e.g., travelers).

Reporting Animal Bites

Animal bites can cause serious injury, bacterial and viral infections, physical and psychological trauma, and even death. As such, it is critical to public health to obtain an accurate account of all animal bites that occur in our county.

Information for reporting animal bites is available by phone
877-747-2243 Rabies Hotline

or can be completed on-line through our secure website:
www.lapublichealth.org/vet/biteintro.htm

Rabies Biologics — United States, 2003

Type	Product name	Manufacturer
Human Rabies Vaccine		
Human diploid cell vaccine (HDCV)		
· Intramuscular	Imovax® Rabies	Aventis Pasteur, Inc. (800) 822-2463 www.aventispateur.com
· Intradermal (*for pre-exposure ONLY*)	Imovax® Rabies I.D.	
Purified chick embryo cell vaccine (PCEC)		
· Intramuscular (**not** approved for intradermal)	RabAvert™	Chiron Vaccines (800) 244-7668 www.rabavert.com
Rabies vaccine adsorbed (RVA)		
· Intramuscular (**not** approved for intradermal)	Rabies Vaccine Adsorbed (RVA)	Bioport Corporation (517) 327-1500 www.bioport.com
(*All three types of vaccine are considered equally efficacious and safe when used as indicated.*)		
Human Rabies Immune Globulin (RIG)	BayRab™	Bayer Corporation Pharmaceutical Div. (800) 288-8370 www.bayer.com
	Imogam® Rabies-HT	Aventis Pasteur, Inc. (800) 822-2463 www.aventispateur.com
(*Both types of HRIG are considered equally efficacious and safe when used as indicated.*)		

Community-associated MRSA in hospitalized children: results from interim analysis

In response to the increase in community-associated methicillin-resistant *Staphylococcus aureus* (CAMRSA) infections reported in Los Angeles County, the Department of Health Services (DHS) added skin, soft tissue, and invasive MRSA infections to the list of local reportable diseases (as described previously in **The Public's Health**).[1] This reporting requirement is limited to infections among hospitalized children (<18 years) and excludes nosocomial (healthcare associated) infections unless part of an outbreak. The reporting period began May 5, 2003 and will end on November 7, 2003.

After 13 weeks of surveillance, 62 hospitalized cases have been reported to DHS. The patient population is a diverse group comprised of children from a variety of races and ethnicities (see Table). Their mean age is 6.9 years (median 5.5 years, range of 14 days to 17 years). Among cases where admitting diagnosis was indicated, the most common diagnosis was cellulitis, accounting for half of all reported illnesses. Moreover, these infections accounted for substantial illness; the average length of hospitalization was 7 days (range of 1-33 days). All of the reported infections are resistant to ß-lactam antibiotics. But in addition, the results of sensitivities provided by hospital labs indicate that most are also resistant to ciprofloxacin (89%) and levofloxacin (75%). Isolates are being collected for analysis at the end of this study. These will be studied using pulsed-field gel electrophoresis (PFGE) to determine their relatedness, and additional tests will determine virulence factors.

One-fourth of interviewed guardians erroneously believed their child's infection was due to a spider or bug bite.

CAMRSA infections among hospitalized children:
Preliminary findings of interim reporting, Los Angeles County*

Gender (n=62)	
Female	56%
Male	44%
Race (n=39)†	
White	74%
African American	18%
Asian/Pacific Islander	5%
Other	3%
Ethnicity (n=39)†	
Hispanic	68%‡
Non-Hispanic	32%
Admitting Diagnosis (n=53)†	
Cellulitis	50%
Abcess	25%
Cellulitis and abcess	6%

* Data as of 8/25/03.
† Information not available for all reported cases.
‡ According to 2000 census, 28% of the L.A. County population under18 years are Hispanic.

Parent/caregiver surveys were also conducted to obtain broader information regarding these infections. To date, 43 of 62 guardians have been interviewed. Of 13 cases with treatment with known antibiotics before

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The reporting of hospitalized pediatric CAMRSA cases will end on November 7th, 2003. Cases should be reported using a standard Confidential Morbidity Report (CMR) form (available at: www.lapublichealth.org/acd/reports/diseasePLUScmr.pdf) and may be reported directly to the Morbidity Unit (telephone 213-240-7821 or fax 888-397-3778).

DHS is also requesting that the antibiogram of the MRSA isolate be submitted with the CMR. The isolate should sent to LAC Public Health Laboratory (313 North Figueroa Street, Los Angeles, CA 90012).

Questions regarding this reporting requirement can be addressed by calling Acute Communicable Disease Control at 213- 240-7941.

Additional information about MRSA infection including guidelines for patients and healthcare providers regarding the diagnosis, prevention and treatment of community associated MRSA is available at: www.lapublichealth.org/acd/MRSA.htm.

MRSA in hospitalized children (from page 4)

hospitalization, nearly all (85%, n=11) were treated with ß-lactam antibiotics which are not effective against this type of infection. Also of note, one-fourth of the interviewed guardians had initially, and erroneously, thought their child's infection was due to a spider or bug bite. Findings from these interviews also suggest that many of these infections had spread among members of their households: 24% reported that the affected child was exposed to another individual in the home with lesions during the month before the child's infection. And following the child's infection, 12% of contacts in the home also developed a skin lesion. This demonstrates that an immediate, accurate, and effective diagnosis and treatment is necessary to limit the spread of these infections. The continued reporting of CAMRSA infections will be instrumental in the development and refinement of educational materials and recommendations for health care professionals.

References:

1. Pediatric MRSA Interim Reporting. **The Public's Health**, May 2003, Vol. 3 No. 4. Available at: www.lapublichealth.org/wwwfiles/ph/ph/ph/TPH_May_2003.pdf

New Tuberculosis Treatment Guidelines

In February 2003, the new official joint statement for the treatment of tuberculosis by the American Thoracic Society (ATS), Centers for Disease Control and Prevention (CDC), and the Infectious Disease Society of America (IDSA) was published in the American Journal of Respiratory and Critical Care Medicine. There are several additions to the new 60-page document in comparison to the previous one published in 1993. The California Tuberculosis Controllers Association (CTCA) also published a set of tuberculosis treatment guidelines in April 2003 based on the ATS/CDC/IDSA statement. The following are highlights of the revised recommendations:

- The responsibility for treatment is assumed by the public health program or private provider, not the patient.
- The initial treatment strategy utilizes patient-centered case management with an emphasis on directly observed therapy.
- Obtaining sputum cultures at the time of completion of the initial phase of therapy is emphasized to identify patients at increased risk of relapse.
- Patients with drug-susceptible pulmonary tuberculosis with cavitation noted on their initial chest film, and who have positive sputum cultures at the completion of 2 months of treatment, are recommended to have extended treatment.
- The roles of rifabutin, rifapentine, and the fluroquinolones are discussed.
- Issues in therapy, such as drug administration, use of fixed-dose combination preparations, monitoring and management of adverse effects, and drug interactions are described.
- Considerations for special situations include: HIV infection, pediatric tuberculosis, extrapulmonary tuberculosis, culture-negative tuberculosis, pregnancy and breastfeeding, hepatic disease, and renal disease.
- Management of drug-resistant tuberculosis is discussed.
- Comparison between the new recommendations with those of the World Health Organization (WHO) and International Union Against Tuberculosis and Lung Diseases (IUATLD) and the Directly Observed Treatment, Short Course (DOTS) strategy are outlined.
- On-going research to improve treatment is reviewed.

The full treatment guidelines (American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America: Treatment of Tuberculosis. Am J Respir Crit Care Med, 2003; 167: 603-662) are available online at www.atsjournal.org. The CTCA guidelines can be found online at www.ctca.org.

Spiders (from page 1)

beneath wood piles and other debris. The South American recluse, often referred to as the "fiddle back" or "violin" spider, was inadvertently introduced into our county, and restricted populations were discovered in 1969 in a foothill foci, most notably in the cities of Alhambra and Sierra Madre. The spider was uncovered again in 1991 in downtown Los Angeles where an extensive survey revealed an extremely limited distribution within a 15 block area where the spiders were found to predominantly occupy dark, seldom used basements in commercial buildings. In all circumstances, there has never been a documented bite incident from within the established foci of either species.

Physicians in LA County should be cautious when implicating brown recluse spiders as the source of necrotic lesions and should first consider the many other probable causes for the condition.

Despite this limited distribution of *Loxosceles* within our county, the general population regularly claims bites by the brown recluse spider, and the medical community continues to fan the flame by attributing spider bites as a regular source of skin lesions. This diagnosis is frequently provided despite the fact that no spider was observed inflicting a bite, or a common brown colored spider is collected from the general vicinity of the proposed bite incident and misidentified by the physician, the patient, or a pest control technician.

Physicians in Los Angeles County should be cautious when implicating brown recluse spiders as the source of necrotic lesions and should first consider the many other probable causes for the condition (see Table 1). If a spider is implicated, verification of the genus and species should be performed by a qualified entomologist (see below). The medical community should make a conscious effort whenever possible to dispel the enigma of the brown recluse spider in Los Angeles County. Additional information on the brown recluse spider is available at http://spiders.ucr.edu/ or visit the Spider Myth Site at www.washington.edu/burkemuseum/spidermyth.index.html.

Table 1. Conditions that can cause necrotic wounds and/or that have been misdiagnosed as brown recluse spider bites:[4]

- Infections with Staphylococcus or Streptococcus species
- Herpes simplex
- Herpes zoster
- Erythema multiforme
- Diabetic ulcer
- Lyme disease
- Fungal infection
- Pyoderma gangrenosum
- Lymphomatoid papulosis
- Chemical burn
- Poison ivy/oak dermatitis
- Squamous cell carcinoma
- Localized vasculitis
- Syphilitic chancre

For questions regarding spider bites and spider identification, contact the Vector Management Program at: 626-430-5450.

References:

1. Vetter, R. S. and D. K. Barger. An infestation of 2,055 brown recluse spiders and no envenomations in a Kansas home: implications for bite diagnoses in nonendemic areas. J Med Ent 2002; 39:948-951.
2. Schenone, H., A. Rojas, H., Reyes, et al. Prevalence of Loxosceles laeta in houses in Central Chile. Am J Trop Med Hyg 1970; 19:564-567.
3. Gertsch, W. J. and F. Ennik. The spider genus Loxosceles in North America, Central America, and the West Indies (Araneae, Loxoscelidae). Bull Am Mus Nat Hist 1983; 175:264-360.
4. Vetter, R. S. Myth: idiopathic wounds are often due to brown recuse or other spider bites throughout the United States. West J Med 2000; 173:357-358.

Promoting Influenza Immunizations Across the Life Span

Influenza (flu) is responsible for over 36,000 deaths and more than 100,000 hospitalizations in the U.S. each year. Flu season is fast approaching, so now is the time to plan since vaccination continues to be the primary method for prevention of flu and its complications.

The 2003-2004 trivalent inactivated vaccine contains the same antigens as last year's vaccine because these components are expected to protect against the strains that will circulate this year. While the components of the 2003-2004 vaccine are the same as last year, the CDC strongly encourages individuals who were vaccinated last year to be vaccinated again this year since immunity may have waned. Vaccination every year is critical especially for those vulnerable to the complications of influenza (see below) and for those who might expose illness to people who are vulnerable, e.g. healthcare workers. In addition, while the components of the vaccine are the same, any remaining vaccine from last season has expired and is no longer viable. If your practice has any vaccine from the previous season, it should be appropriately discarded.

The CDC indicates that because production of flu vaccine has proceeded so well this year, there should be an abundant supply of vaccine early in the fall. As a result, all persons who wish to protect themselves against the flu can be vaccinated as soon as vaccine is available.

Vulnerable persons who especially need to be vaccinated are:

- Persons aged 50 and above.
- Residents of nursing homes and other chronic care facilities housing persons of any age with chronic medical conditions.
- Adults and **children** who have chronic disorders of the pulmonary or cardiovascular systems, including asthma.
- Adults and **children** who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (e.g., diabetes), renal dysfunction, hemoglobinopathies, or immunosuppression by either medication or disease.
- **Children** and adolescents (aged 6 months to 18 years) who are receiving long-term aspirin therapy and, therefore, might be at risk for Reye syndrome if they get the flu.
- Women who will be in the second or third trimester of pregnancy during the flu season.

Vaccination against the flu is recommended for all persons over 50 years of age because this age group has an increased prevalence of persons with high-risk conditions. Persons such as health care workers and employees of nursing homes, who if infected with the flu can transmit it to persons at high risk for complications from the flu, should also be immunized.

Recently, there has been increased attention to another group of individuals who should be protected against influenza. Epidemiological studies have shown that children 6 months - 23 months, as a group, are hospitalized for flu and its complications at high rates, similar to those for elderly persons. For this reason, the Advisory Committee on Immunization Practices (ACIP) **strongly encourages** healthy children 6 months – 23 months to be immunized against the flu. ACIP also advises that the household contacts of infants from 0-23 months of age, especially the contacts of children under 6 months of age, should be immunized with the influenza vaccine.

Providers participating in the State's Child Health and Disability Prevention (CHDP) Program will also be reimbursed for vaccinating these children during the upcoming flu season. Please see the box below for special information about vaccinating healthy children 6 months to 23 months of age against the flu. If you have questions or require additional information about flu immunizations, please contact the Los Angeles County Immunization Program at 213-351-7800.

Key Points about Immunizing Children 6 Months through 23 Months of Age

- ACIP **strongly encourages** healthy children 6-23 months of age and their household contacts and childcare providers to be immunized with the influenza vaccine.
- Of the inactivated influenza vaccines currently licensed and available in the U.S., only Fluzone® split (Aventis Pasteur) are licensed for use in children 6 months and older.
- Thimerosol-free Fluzone® is also available for providers who wish to use it for immunizing young children.
- For children under 3 years of age being vaccinated against the flu for the first time, two doses of 0.25ml separated by at least one month are recommended.
- The recently licensed intranasal live influenza vaccine, FluMist™ (MedImmune Vaccines, Inc. and Wyeth Vaccines) is only licensed for healthy persons aged 5 years through 49 years and therefore cannot be used for immunizing children aged 6 months through 23 months against the flu.
- State CHDP providers will be reimbursed for the immunization of CHDP-eligible children.

Epidemiology and Prevention of Vaccine-Preventable Diseases

A live, two-day course with the latest information on the immunization schedules, contraindications, standard immunization practices, vaccine-preventable diseases, and vaccine management and safety.

Registration form available at www.lapublichealth.org/ip/train&conf/EPVPD2003.pdf . Register by close of business Nov 1, 2003. Non-refundable registration fee of $40 must be included with your form. Mail form to: Vaccine Preventable Disease Course, ATTN: Melissa Dahlke, CA Dept of Health Services, 2151 Berkeley Way Rm 712, Berkeley, CA 94704. No fax or telephone registrations will be accepted.

Date: Mon & Tues, November 17-18, 2003
Time: 8:00am - 5:00pm; registration opens at 7:15am
Place: Torrance Marriott, 3635 Fashion Way, Torrance, CA 90503

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Selected Reportable Diseases (Cases)[1] - May 2003

Disease	THIS PERIOD May 2003	SAME PERIOD LAST YEAR May 2002	YEAR TO DATE 2003	YEAR TO DATE 2002	YEAR END TOTALS 2002	YEAR END TOTALS 2001	YEAR END TOTALS 2000
AIDS[1]	262	132	1,069	673	1,787	1,354	1,648
Amebiasis	10	9	48	43	109	139	109
Campylobacteriosis	81	72	382	352	1,092	1,141	1,273
Chlamydial Infections	2,802	3,193	14,322	13,491	36,590	31,658	30,642
Encephalitis	8	7	25	24	63	41	49
Gonorrhea	650	610	2,869	2,984	7,985	7,468	7,212
Hepatitis Type A	29	53	156	249	482	542	839
Hepatitis Type B, Acute	5	2	24	13	27	44	65
Hepatitis Type C, Acute	1	0	1	0	3	1	28
Measles	0	0	0	0	0	8	5
Meningitis, viral/aseptic	46	38	217	231	669	530	491
Meningococcal Infections	1	2	16	27	46	58	53
Mumps	0	0	7	14	16	17	29
Non-gonococcal Urethritis (NGU)	116	126	564	537	1,398	1,343	1,575
Pertussis	5	9	67	64	167	103	102
Rubella	0	0	0	0	0	0	3
Salmonellosis	55	48	361	329	990	1,006	990
Shigellosis	26	49	346	236	922	684	849
Syphilis, primary & secondary	24	30	149	118	362	181	136
Syphilis, early latent (<1 yr.)	16	27	111	128	341	191	194
Tuberculosis	55	79	274	284	1,025	1,046	1,065
Typhoid fever, Acute	1	1	6	7	34	17	21

1. Case totals are interim and may vary following periodic updates of the database.

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