

miniupdate

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TO: Medical Directors, Community-Based Clinics
Directors, Medical Residency Programs
Directors, Nursing Schools
Interested Others

April 11, 2003

FROM: John L. Dunajski, Acting Chief
Immunization Branch

Below for your information and reference is an abbreviated copy of the Immunization Branch's bimonthly UPDATE memorandum. The edited version contains medical and technical information on immunization and vaccines. We hope it is helpful. If you have questions on immunizations, please contact the Immunization Coordinator at your local health department.

NIIW and TIM Are Here!



**Immunizations
Protect Little Lungs.**

Activities will be going on around the state to observe National Infant Immunization Week and Toddler Immunization Month. The Immunization Branch takes this opportunity to thank all of our partners in public health, community health centers, and in the private medical sector for your hard work and dedication to protect California's infants and toddlers.

HIGHLIGHTS

- Smallpox Vaccination Program Status
- Guidelines on Use of Pediarix™
- NIIW Lungs Event: Stop the Cough!

Upsurge in Reported Pertussis Cases in California, 2002-2003

In California, as in the U.S. as a whole, the annual numbers of pertussis cases and overall pertussis incidence rates gradually have been increasing since 1976, with cyclic peaks every 3-5 years superimposed upon this long-term, upward trend. The last such cyclic peak occurred in 1998 and 1999 when around 1,100 cases were reported each year. After two "trough" years in 2000 and 2001, with roughly 500-600 cases reported each year, the cyclic increase has started again. More than 1,200 cases were reported in 2002 and it looks as though we are going to have another big year in 2003. Already in 2003, one county, Santa Cruz, is experiencing a countywide outbreak.

During the past 25 years, the number of pertussis cases among children old enough to be immunized and young enough for vaccine-conferred immunity to persist (i.e., in the age group of roughly 6 months through 9 years) has remained stable. Cases in very young infants, however, are increasing, indicating what is thought to be a real increase in pertussis incidence, though it is not yet clear how changes in laboratory diagnostic methods and in reporting practices are contributing to this trend. In 2002, one-third of the reported cases in California were

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≤ 3 months of age and 82% of these cases were ill enough to be hospitalized. Five deaths were reported and all deaths occurred in infants ≤ 2 months of age.

DISEASE ACTIVITY AND SURVEILLANCE

The surveillance data reviewed in this section are reported in Table 1 at the bottom of this page.

Pertussis: In January and February 2003, 79 confirmed and probable cases of pertussis were reported, resulting in an incidence rate of 0.2 cases per 100,000 population. Infants under 6 months of age (and therefore too young to be adequately immunized) represent 18% of all cases. Children 5–17 years old represent 59% of all cases; however, this is due in part to a large outbreak of pertussis in a middle school in San Diego County. Children 1-4 years old represent 3% and adults >18 years of age represent 19% of all cases. Most of the cases were White, non-Hispanic (66%) or Hispanic (19%). Of the 12 hospitalized cases, only one was an adult. All other hospitalized cases were infants less than 5 months old. Note: Only 8 of the 79 reported cases had onset of illness in 2003 – the majority of the cases had onset of illness in 2002 but were reported in 2003.

Hepatitis A and B: One hundred cases of hepatitis A were reported in California in January and February 2003, resulting in an incidence rate of 0.1 cases per 100,000 population. The majority of cases (78%) were in adults (18 years of age or older). Most cases were White, non-Hispanic (35%) or Hispanic (32%).

Forty-four cases of hepatitis B were reported in January and February 2003 in California, resulting in an incidence rate of 0.1 per 100,000 population. No cases were reported in children under 18 years, and most cases (48%) were White, non-Hispanic.

Other VPDs: No cases of tetanus, measles, rubella, haemophilus influenzae type B (Hib), diphtheria, polio, or congenital rubella syndrome were reported in January and February 2003.

IMMUNIZATION SERVICES

Catch-Up Schedules for Children Who Are Behind on Routine Immunizations

The Immunization Branch attached with the February 2003 issue of Update a single page from the January 31, 2003 MMWR (2003; 52:Q-1 through Q-4) "Quick-Guide" presenting the ACIP/AAP/AAFP's recommendations for immunization of children and adolescents. This page contained Tables 1 and 2, the ACIP/AAP/AAFP's "catch-up" schedules for children who are behind on immunizations.

Since that time, the Branch has discovered that there were two errors in the Hib section of Table 1, as included in the MMWR QuickGuide. The Branch has prepared a corrected version which is included as an attachment with this UPDATE. A correction is also being published in MMWR.

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Table 1: Reported Cases by Age Group and Incidence of Selected Vaccine-Preventable Diseases California, 2003 (Provisional¹ – as of 2/28/03)

DISEASE	Age Groups ²			All Ages ³	
	0-4 yrs	5-17 yrs	18+ yrs	Cases	Rate ⁴
Congenital Rubella Syndrome	0	0	0	0	0.0
<i>H. influenzae</i> , type B (Hib) ⁵	0	0	0	0	0.0
Hepatitis A	1	21	78	100	0.3
Hepatitis B	0	0	44	44	0.1
Measles ⁶	0	0	0	0	0.0
Pertussis ⁷	16	47	15	79	0.2
Rubella ⁶	0	0	0	0	0.0
Tetanus	0	0	0	0	0.0

¹ Cases by date of report, not of onset

² Does **not** include cases with unknown age

³ Includes cases with unknown age

⁴ Incidence Rate = cases/100,000 population

⁵ *H. influenzae* is reportable only for cases 30 years of age and under

⁶ Confirmed cases only

⁷ Closed cases only (probable and confirmed)

Prepared by the California Department of Health Services, Immunization Branch

Guidelines on Use of Pediarix™ (DTaP-IPV-Hep B combination vaccine)

As indicated in February's Update, in December 2002, FDA licensed this new combination vaccine for use in the U.S. The ACIP has published (MMWR 2003;52:203-4) supplemental guidelines (to FDA's) for use of this product. These guidelines:

- Pediarix™ is approved for use in infants and children aged 6 weeks through 6 years. Primary usage will be for infants at ages 2, 4, and 6 months.
- The recommended interval between successive Pediarix™ doses is 6-8 weeks, but intervals as short as 4 weeks are acceptable when rapid acquisition of immunity to one or more of the diseases against which this vaccine protects is desired.
- Interchangeability of Pediarix™ with other vaccines containing one or more of the same components in an infant or child's immunization series: This is acceptable, though for the DTaP component it is preferred that Infanrix® (which is identical to the DTaP component of Pediarix™) be used for such "mix and match" immunization series.
- Special guidelines for the hepatitis B component of Pediarix™:
 - In addition to the FDA's approval for use of Pediarix™ only in infants of HBsAg-negative mothers, ACIP recommends that it can be used for all infants (aged 6 weeks and older), regardless of whether the mother's HBsAg status is positive, negative, or unknown.
 - Use of a 3-dose series of Pediarix™ at, for example, ages 2, 4, and 6 months in an infant who has already received a dose of hepatitis B vaccine at birth, resulting in receipt of a total of 4 hepatitis B vaccine doses is fully acceptable.
 - Despite some language in the aforementioned MMWR article about the minimum age for receipt of the final dose in an infant's hepatitis B vaccine series being as early as 24 weeks (5 1/2 months) when this dose is given as part of Pediarix™, the ACIP's actual recommendation is that the final dose of the hepatitis B vaccine series should be given no earlier than age 6 months, regardless of what vaccine product is used, including Pediarix™. This clarification is being published in MMWR.
- Special guidelines for the DTaP and IPV (polio) components of Pediarix™: The FDA approved Pediarix™ only for the first 3 doses of the 4-5-dose DTaP series and only for the first 3 doses of a 4-dose IPV (polio) immunization series. The ACIP did not address how children who inadvertently receive their 4th or 5th DTaP dose and/or 4th IPV dose as Pediarix™ should be managed. CDC is

currently working to develop consensus recommendations as to whether or not repeat-doses of DTaP and/or IPV should be given in these situations.

Fever: Study data, some of it preliminary, indicate that when Pediarix™ is given (at a separate anatomic site) at the same time as Hib vaccine, or at the same time as Hib vaccine plus pneumococcal conjugate vaccine (PCV), post-immunization fever is more common than if this is done using separate DTaP, IPV, and Hep B doses rather than Pediarix™. However, after reviewing these study data, the ACIP still recommends that Pediarix™ can be given simultaneously (at a separate anatomic site) with PCV and/or Hib vaccine doses. (Of course, a standard AAP guideline is that providers may elect to have administered age-appropriate doses of acetaminophen at the time of DTaP immunization and every 4-6 hours thereafter for 24 hours to infants and young children with personal or family history of convulsions.)

VACCINE RISKS AND BENEFITS

Study Results Fail to Support Concerns about Thimerosal in Pediatric Vaccines

A recently published investigation (Pichichero ME: Lancet 2002;360:1737-41) found that administration of thimerosal-containing DTaP, Hib, and hepatitis B vaccines to full-term infants over the first 6 months of life did not appear to raise blood mercury concentrations above safe levels. The mercury (in the form of ethylmercury) contained in these vaccines was found to be rapidly excreted in stools, so that a cumulative build-up of mercury in infants resulting from the immunizations did not occur, with blood levels remaining well below the very conservative upper limit of what is considered the safe level for infants. Thimerosal has already been essentially eliminated from pediatric DTaP, Hib, and hepatitis B vaccines marketed in the U.S. The findings of this study alleviate the concern that use of thimerosal-containing preparations of these three vaccines in young infants during the 1990's decade might possibly have predisposed them to harmful Central Nervous System effects.

Institute of Medicine Panel Finds No Evidence that the Number and Variety of Currently-Used Routine Infancy Vaccines Cause SIDS

On March 12, 2003, the Institute of Medicine (IOM), a non-profit institution that provides technically-informed, health policy advice under a congressional charter granted to the National Academy of Sciences,

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issued a report titled, "Immunization Safety Review: Vaccinations and Sudden Unexplained Death in Infancy." Copies of the full report are expected to be available soon at this website: www.nap.edu.

Among the key findings in this report: "Evidence from studies based on human exposure is strong enough to favor rejection of any causal connection between SIDS [Sudden Infant Death Syndrome] and multiple doses of different vaccines. In addition, the report reaffirmed previous findings that SIDS is not linked to the older DTwP [DTP] (Ed: i.e., whole cell pertussis vaccine)." Marie McCormick, M.D., Sc. D., Chair of the committee issuing the report further stated that, "... parents should rest assured that the number and variety of childhood vaccines do not cause SIDS."

PROFESSIONAL INFORMATION AND EDUCATION

Adult Immunization: The Technical Issues Satellite Course

CDC will be broadcasting this update on adult immunization issues on Thursday, June 26 from 9-11 a.m., Pacific Time. Last year's program topics included patient intake and screening, vaccine administration, vaccine management, documentation, vaccine adverse events management and reporting, and resources for staff orientation and development.

PUBLIC INFORMATION AND EDUCATION

Spanish-Language Radio & TV Ads for NIIW

The Immunization Branch is supporting local Spanish-language media advertising during NIIW and TIM this spring. The popular "Dos y Dos" radio spot and the "Puppies" TV spot will be aired from April 4 through June 1, 2003. The counties participating are: Butte, Fresno, Imperial, Kern, Los Angeles, Monterey, Riverside, Sacramento, San Diego, San Francisco, San Joaquin, Santa Barbara, Stanislaus, and Ventura. Some of the stations selected have significant media spillover into other counties.

Coming Soon to a Theater Near You: Hepatitis B Movie Theater Ads

Selected movie theaters in 16 California counties will soon be featuring hepatitis B movie advertisements promoting the message: "Anyone can get Hepatitis B. Why risk it? You decide." The advertising slide which is shown

before the movie begins will run during April 25 to June 5 in observance of National Hepatitis Awareness Month in May. Enclosed in this  UPDATE is a copy of the brochure and postcard designed to support the ad.

The ads are designed to raise awareness of hepatitis B, with an ultimate goal of increasing immunization rates among older teens and young adults who were never impacted by a school requirement. California's hepatitis B protection levels for 16 to 24-year-olds are estimated at 10-15%.

Immunization Promotion on West Wing and Joe Millionaire

Our Comfort Measures poster (IMM-674) got lots of valuable airtime during Joe Millionaire's final episode. In the show, the "non-selected" women, one of whom is a California pediatrician, were interviewed. She conducted her interview standing in front of the poster in a clinic room. The final episode drew 34.6 million viewers, the highest series telecast on any network since January 2001. Also on the airwaves, childhood immunization got a boost from West Wing's First Lady, played by Stockard Channing. Several times during the episode she lobbied for funds to continue CDC's efforts in childhood immunization research. Now that's product placement!

INFLUENZA AND PNEUMOCOCCAL ACTIVITIES

Flu Season Moderate, But Not Over Yet

Flu activity has been moderate this winter, but some recent school outbreaks demonstrate that the flu season is not over. The flu season runs from early October through late March or early April. This winter, flu-related outpatient visits and hospitalization are well below epidemic levels. However, outbreaks have been reported in schools in a few counties.

Children are not routinely vaccinated against the flu, and this year, they are especially vulnerable to the main circulating strain, a type B virus. This strain has not been seen in the United States in ten years. While adults have some immunity from previous exposure, young children do not. Type B virus generally causes milder illness than type A strains. In Sacramento, influenza-like illness caused increased school absenteeism in several elementary schools in late February/early March. Influenza B was isolated from a few of the cases. In January, an outbreak occurred in a day care center in Los Angeles. There was one positive specimen, type A (H1N1). CDC and the World Health Organization (WHO) monitor flu activity each year to determine which strains to vaccinate against.

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Get Ready for Flu Season 2003-2004!

For clinics and private health care providers, some vaccine manufacturers are accepting pre-booking orders now. Contact the vaccine manufacturers or check their websites now to learn about influenza vaccine availability for this fall and ordering deadlines.

SMALLPOX AND BT PREPAREDNESS

Smallpox Vaccination Program Status

As of March 28, 2003, 1,282 people were vaccinated in California (including Los Angeles). Of those, 659 were members of public health response teams, 524 were members of health care response teams, and 99 were other eligible vaccinees. Vaccination has started in 36 hospitals.

The California smallpox vaccination program was delayed for one week while policy decisions and modifications in clinic materials were made in response to concerns of cardiac adverse events related to vaccination. Vaccination in California resumed on April 7, when new education and screening guidelines issued by CDC and ACIP were incorporated into the program (see article below).

Smallpox Vaccination and Cardiac Adverse Reactions

Careful monitoring of smallpox vaccinations given over recent months has suggested that the vaccine may cause heart inflammation (myocarditis), inflammation of the membrane covering the heart (pericarditis), and/or a combination of these two problems (myopericarditis). Experts are exploring this more in depth. CDC, in conjunction with ACIP and cardiac specialists, have provided new guidelines and related screening materials regarding heart disease or risk factors that would exclude someone from being vaccinated for smallpox.

The new guidelines advise that potential vaccinees should not be vaccinated if they have been diagnosed by a doctor as having a heart condition with or without symptoms. In addition, anyone with three or more risk factors for cardiac disease should not be vaccinated. These include: high blood pressure, high blood cholesterol, diabetes or high blood sugar, an immediate family member who had a heart condition before age 50, or a current smoker. The revised guidelines and forms are available on CDC's website at: www.cdc.gov/smallpox.

UPDATE Now Available by E-Mail:

If you would like to receive an electronic copy of UPDATE, we can now email UPDATE as an Adobe Acrobat pdf file. To get on our email list, please send an email to izupdate@dhs.ca.gov. Please indicate whether you would like to still receive the mailed version as well.

IZ COALITION ACTIVITIES

New Immunization Coalition

Tulare-Kings Immunization Coalition was created recently to improve local immunization rates across the lifespan, focusing on children. Members represent a variety of organizations, including Immunization Program staff from Tulare County and Kings County, Family Health-Care Network representatives, vaccine sales representatives, CVIIS IZ Registry staff, First 5 Children & Families Commission of Kings County representatives, local health plan representatives, and local families.

NIIW Lungs Event: Stop the Cough!

National Infant Immunization Week media events will take place April 16 all around the state. The coordinated events will promote reducing infant diseases transmitted through the respiratory system, including influenza, pneumococcal, and pertussis. Local health departments and coalitions will focus media attention on the importance of infant immunization to protect against influenza, pneumococcal diseases, and whooping cough.

Grandma Ads to Support NIIW/TIM

To support NIIW and Toddler Immunization Month (TIM) activities, local immunization coalitions and the California Coalition for Childhood Immunization (C3I) will be sponsoring "Grandma, Am I Up-To-Date?" ads in 22 African American newspapers. The campaign begins in mid-April, and the ad will weekly in counties with large African American populations. Counties include San Diego, Orange, Riverside, Los Angeles, Sacramento, San Francisco, Alameda, Santa Clara, Kern, and Fresno.

MISCELLANEOUS

School and Child Care Facility Entry Varicella Immunization Regulations Made Permanent

The emergency regulations DHS Immunization Branch developed for implementation of California's statutory requirement for varicella immunization or other documentation of varicella immunity (SB 741, Chapter 747, Statutes of 1999) have received final approval from the Office of Administrative Law in the Secretary of State's office.