WINTER '98 Volume 2.2

CT DPH IMMUNIZATION PROGRAM

IAP ONTIME

RECOMMENDED CHILDHOOD IMMUNIZATION SCHEDULE

Just when you thought all was calm on the immunization front, another vaccine pops up on the immunization schedule. Last year it was varicella, and this year, it is the rotavirus vaccine. The FDA approved this vaccine against acute gastroenteritis on August 31, 1998 under the brand name Rotashield®. It is manufactured by Wyeth-Lederle. The vaccine fights the intestinal infection caused by rotavirus which is the leading cause of severe diarrhea in children under 2 years of age, with 75 percent of children infected before the age of five. Rotaviral disease is widespread and highly contagious and results in approximately 3.5 million cases annually in the U.S. Clinical trials show the vaccine to be 49% to 83% effective in preventing rotaviral gastroenteritis of any severity, and up to 95% effective in preventing severe rotavirus infection.

The vaccine was officially recommended by the Advisory Committee on Immunization Practices (ACIP) on October 21, 1998 with the passing of a resolution to include rotavirus vaccine in the Vaccines For Children program. The vaccine is indicated for use in all infants 6 weeks to 12 months of age with doses given orally at 2, 4, and 6 months of age. The resolution will become effective when the ACIP's recommendations are published in the MMWR which is expected by the end of February. The vaccine will be available for VFC-eligible children once a contract is in place with CDC for the purchase of the vaccine. The State Immunization Program will notify all vaccine users once Rotavirus is able to be ordered.

On November 5, 1998, the American Academy of Pediatrics (AAP) endorsed the use of rotavirus vaccine. The AAP has officially published their statement regarding, the "Prevention of Rotavirus Disease: Guidelines for Use of Rotavirus Vaccine" in the December 1998, *Pediatrics* journal volume 102, Number 6. The 1999 harmonized childhood immunization schedule will reflect the use of rotavirus vaccine.

The vaccine manufacturer is currently marketing the vaccine to private providers, however, mechanisms for reimbursement are not yet in place for all managed care organizations, hence purchasing has been limited. The AAP feels that the decision to use rotavirus vaccine should be made by the parent or guardian in consultation with their physician or other health care provider. ■

VACCINE PREVENTS INFANTS FROM MENINGITIS

Sept. 25, 1998 LOS ANGELES-Reuters

A vaccine to protect children against bacterial meningitis and ear infections is 100 percent effective and may be available in the United States as early as next year, researchers say. A three-year trial of the vaccine against the pneumococcus bacteria was called off a year early after a study of 38,000 children showed no infections among those who were vaccinated, they told a meeting of the American Society for Microbiology in San Diego.

The vaccine, known as PNCRM7, was developed by Wyeth Lederle Vaccines, a unit of American Home Products Corp., and tested by nonprofit health care company Kaiser Permanente. The vaccine grows antibodies in the blood so that when a child becomes infected the antibodies stop the bacteria before it moves into the spinal cord. Previous trials have shown it is effective in babies. Pnemococci cause several illnesses including bacterial meningitis, a common ear infection called otitis media, pneumonia and bacteremia, an infection of the bloodstream.

In the U.S. each year these diseases cause about 40,000 deaths, 3,000 cases of meningitis, 50,000 cases of bacteremia, 500,000 cases of pneumonia and seven million cases of otitis media. It is responsible for 1.2 million deaths worldwide annually from pneumonia in children under five. Many children who survive bacterial meningitis are left blind, deaf or paralyzed. There is no vaccine currently available for otitis media, but several companies have similar vaccines in the works. While there is an adult vaccine for bacterial meningitis it is not given to all children since it was not formulated specifically for infants. "We hope we will practically eliminate invasive disease due to the pnemococcus bacteria, which is the most common cause of bloodstream infections and meningitis in infants of this age since the elimination of haemophilus influenza", said Dr. Henry Shinefield, co-director of Kaiser's Vaccine Study Center. Shinefield said he expects it to be available by next year. "I believe this will be approved within a year by the U.S. Food and Drug Administration and included as part of a routine vaccine program for all infants and toddlers", he said. The infections covered by the vaccine have previously been treated using penicillin and other antibiotics but over the past decade the pnemococcus bacteria has grown resistant to drugs increasing the risk of death or complications. The vaccine targets seven strains of the bacteria which cause 85 percent of pneumococcal disease. It will be a four dose vaccination series. ■

INSIDE:

REGISTRY UPDATE

Before long, CT immunization providers will have the immunization history of every child born in the state at their fingertips. Plans to roll out the statewide immunization registry are in the works and are soon to be executed.

Software

The CIRTS data base will run with an Oracle data base engine. It will have a front end windows interface developed by Computer Data Systems Incorporated (CDSI). Customization of the software is being done in Maryland by CDSI. State Immunization Program Staff are working with the City of Hartford on screen design.

Hardware

CIRTS will run with two alpha servers for the data base, two application servers to balance resources, one voice response unit (VRU) for incoming requests, one fax back server to fax back reports from the VRU and one security server for authentication and access rights.

Telecommunications

A contract has been established with SNET to provide Remote Network Access Service. There will be a virtual private network (Intranet) from the providers office to DPH central registry. Phone/Fax Back service, with toll free access will be provided across the state for both services.

Funding and Support

A grant was received from the Robert Wood Johnson Foundation, All Kids Count Program in February of 1998. The major foci of the grant were:

- to implement a provider based training program for all pediatricians statewide in the use of the registry software
- to build linkage to major billing systems
- to evaluate the effectiveness of the registry

In that same month, the State Immunization Program established a contract with the Connecticut chapter of the American Academy of Pediatrics. Essentially this contract would support CIRTS in the following ways:

- bring every pediatric and family practice in the state on-line with CIRTS within 12-15 months after roll out
- support a Project Coordinator and two field trainers
- dispatch the field trainers to conduct training sessions designed to instruct pediatricians and their office staff on how to enter and retrieve patient immunization histories from CIRTS

In May, the AAP mailed a provider technology survey to over 1300 licensed pediatricians and family practitioners in the state. The purpose of the survey was to assess providers capabilities for reporting immunization events to the state registry and to assist DPH in determining the process for rolling out the system statewide. The results have been analyzed and are currently being used for these purposes.

Implementation

The Hartford Health Department staff and IAP Coordinators will be instrumental in the implementation of CIRTS. They will be trained by CDSI on-site staff to use the new software and then will in turn, visit providers in their area to install the software and train them in how to report immunization information to CIRTS. The IAP Coordinator will serve as the state Immunization Program's front line link for feedback on how providers are accepting the software. They will promote CIRTS through meetings with providers and be accessible to anyone in their area who has access to CIRTS to answer questions and act as an initial troubleshooter.

Provider enrollment process

The registry staff is in the process of developing an enrollment form for providers who wish to be on-line with CIRTS. In addition, a database is being created of all CT pediatric and family practitioners to identify those offices who would potentially go on-line. Staff are developing answers to commonly asked questions when phone calls are received. They are also working with CDSI to evaluate the necessary information to set up accounts for access.

Training

A training data base will be set up for end users to practice using the different screens of CIRTS. End users will be trained using IAP and RWJ trainers at three sites. Initial training will be done in the training lab at DPH and instructed by CDSI staff.

Roll Out

Hartford will be first along with any existing users of the old (ICES) system, followed by New Haven, and Bridgeport. Implementation timelines for the remainder of the state have yet to be determined. Usage will be monitored to determined when to move on to the next area.

VACCINE UPDATE

AAP Revised Recommendations

Polio

Since 1997, when the American Academy of Pediatrics (AAP) issued guidelines for the prevention of poliomyelitis, substantial progress in global eradication of poliomyelitis has occurred and the use of inactivated poliovirus vaccine (IPV) has increased considerably in the United States with a corresponding decrease in the use of oral poliovirus vaccine (OPV). Surveys indicate that the majority of physicians now routinely immunize children with the sequential IPV-OPV or IPV only regimens. Nevertheless, vaccine-associated paralytic poliomyelitis (VAPP) continues to occur, albeit infrequently, in children who have received the OPV-only regimen and their contacts. To reduce further the risk of VAPP, the AAP now recommends that children in the US receive IPV for the first 2 doses of the polio vaccine series in most circumstances. Exceptions include a parent's refusal to permit the number of injections necessary to administer the other routinely recommended vaccines at the 2 and 4 month visits. Either IPV or OPV can be administered for the third and fourth doses. Assuming continuing progress toward global eradication, a recommendation of IPV-only immunization for children in the US is anticipated by 2001. The full statement is available on the AAP's website, http://www.aap.org.

ACIP VFC Resolutions October 1998

MMR

1. Clarifies contraindications and precautions to the administration of MMR (or component) vaccines. MMR is contraindicated for people with hypersensitivity to gelatin. Originally the recommendations had indicated contraindication with an anaphylactic allergy to egg protein.
2. Clarifies MMR vaccine use in infants during outbreaks. Eligible groups include children at least 12 months of age through 18 years with the exception of an outbreak. In the event of an outbreak, children as young as 6 months of age may be given the vaccine. Children vaccinated before the first birthday during an outbreak should be revaccinated at 12-15 months of age and an additional dose of vaccine should be administered at the time of school entry. Doses of MMR or other measles-containing vaccines should be separated by at least 28 days.

VARICELLA

1. Expands the eligible age groups through 18 years of age. The previous resolution only covered those who were at least 12 months of age and who were born after 1/1/83.
2. Clarifies contraindication and precautions in order to be consistent with the ACIP statement.

POLIO:

1. Changes the timing of the third dose of IPV to reflect the current recommendation which is at 12-18 months instead of 6 months.
2. Clarifies eligible groups which are all children who are 6 weeks of age through 18 years. ACIP recommends 2 doses of IPV followed by 2 doses of OPV.
3. Clarifies contraindications and precautions.

INFLUENZA:

1. Clarifies the recommended schedule and dosage intervals: the previous influenza resolutions were missing these sections.
2. Clarifies contraindications and precautions in order to be consistent with the ACIP statement.
3. Expands the groups eligible to receive influenza vaccine to include: children and adolescents who are residents of nursing homes or other chronic-care facilities that house persons at any age who have chronic medical conditions, adolescent females who will be in the second or third trimester of pregnancy during influenza season, and children and adolescents who are household members of persons in high-risk groups.

ROTAVIRUS:

1. Includes rotavirus vaccine in the Vaccines For Children Program. Eligible groups include all infants who are at least 6 weeks old and under the age of 12 months.

All full documents of VFC resolutions can be found on the VFC home page. www.cdc.gov/nip/vfc

NOTABLE ACHIEVEMENTS

East Hartford

On October 10th, 1998, Carol Walsh had a "Child Health and Safety Night" promotion at McDonald's in Glastonbury. The promotion was a great success! Allstate Insurance fingerprinted and photographed 70 children during the event. Carol spoke with all of the children's parents about immunization and gave stickers, books, and crayons to the children.

Officer Ken Rosa from the East Hartford Police Department spoke to the parents about Halloween safety tips. He gave out information to the parents and badges to the children.

The event was advertised in the Journal Inquirer, the East Hartford Gazette, and on Channel 5, the local cable access channel.

Danbury

In an effort to identify risk factors for missed opportunities to vaccinate, Sue Gran conducted a study in the Danbury area to determine if immunization rates are different among hospitalized children than among children in the general community. In addition, to determine if a correlation existed between immunization rates and acute disease vs. chronic disease. A sample of 50 children aged 12 to 60 months old from 10 participating practices was obtained. The results concluded that while immunization rates are different among hospitalized children and the general community, this difference is not significant. While there is a difference in immunization rates among children hospitalized with acute vs. chronic diseases, these rates are not significant either.

Norwalk

Pam Bates incorporated timely childhood immunization into the "Mom's Program " in the Norwalk area. Pregnant women and mothers of infants are followed by outreach workers in local community groups. They are instructed about the importance of childhood immunization and reminded periodically to keep their children up-to-date. Women enter the program at pregnancy and receive services until the baby reaches the first birthday. Literature is provided. Approximately 30 women (English and Spanish speaking) are enrolled at a time.

Naugatuck Valley Health District

On August 19th, the NVHD provided a free information clinic about vaccination in cooperation with McDonalds restaurant on Division Street in Derby. The event ran from 11-2 PM, during which time health officials provided information, answered questions and distributed free coloring books, pens and balloons for the children. McDonald's donated cookies, balloons, Band-Aids and immunization banners. Over 50 children attended. Three children were found to be behind on immunizations and were linked to their private providers.

1999 NATIONAL IMMUNIZATION PROGRAM CALENDAR

FEBRUARY
Live satellite broadcast-Preparing for the Next Influenza Pandemic: Feb. 25

MARCH/APRIL
Live Satellite broadcast-Epidemiology and Prevention of Vaccine-Preventable Diseases: March 25, April 1, 8, 15

All Kids Count Annual Immunization Registry Conference, Radisson Hotel, St. Paul, Minnesota: April 27-30

JUNE
33rd Annual National Immunization Conference: Adam's Mark Hotel, Dallas, Texas: June 22-25

SEPTEMBER
Live, satellite broadcast-Immunization Update: Sept. 16

DECEMBER
Live, Satellite broadcast- Surveillance of Vaccine-Preventable Diseases: Dec. 2

♥ Ask the Experts ♥

Editor's note: This information is provided by the Centers for Disease Control and Prevention's National Immunization Program.

♥ ***Do you believe that there is a causal link between DTP vaccine and SIDS?***

No. Although many theories have been proposed, the specific cause of SIDS is unknown. Based on a review of the available scientific evidence in 1991, the scientifically independent Institute of Medicine determined that, " The evidence does not indicate a causal relation between DTP vaccine and SIDS".

♥ ***Considering that a safer acellular version exists of pertussis vaccine, why is the whole-cell Pertussis vaccine- the "P" portion of DTP still on the market and purchased under the Vaccines For Children (VFC) program?***

Whole-cell vaccines continue to be considered safe and effective, however, acellular pertussis (aP) is preferred because it is less reactive (e.g., less likely to cause fever and other common side effects). The CDC ACIP currently recommends the use of DTaP for all five doses of the routine childhood vaccination series, with DTP as an acceptable alternative.

♥ ***Does the CDC continue to purchase whole-cell pertussis in spite of the reports of brain damage resulting from its use?***

There is no government contract for whole cell pertussis alone- 85 percent of pertussis vaccines purchased under government contract during the first 6 months of 1998 were acellular. The only contract involving whole-cell pertussis is for a combined DTP/Hib that accounted for the remaining 15 percent of all the pertussis-containing vaccines that were purchased.

A second issue raised in the question is that of brain damage resulting from immunization with whole-cell pertussis vaccine. If such a risk occurs it is extremely rare. The Institute of Medicine (IOM), based on the British National Childhood Encephalopathy Study (NCES), estimated that the risk of acute encephalopathy following whole-cell pertussis vaccination ranged between 0 and 10.5 per 1 million doses. A 10-year follow-up of the NCES suggested a risk of chronic nervous system dysfunction among children who had acute illness but that, "The role of pertussis vaccine as a cause or concomitant factor in the etiology of these neurological illnesses remains unclear and cause cannot be attributed in individual cases. The results confirm earlier conclusions that illnesses leading to death or brain damage after vaccine, if they occur at all are extremely rare" (British Medical Journal, 1993, vol. 307, pp. 1171-76). Results of the NCES were reviewed by the IOM, the National Vaccine Advisory Committee (NVAC) and the ACIP which all concur that the data are insufficient to determine whether DTP administered before the event caused neurologic dysfunction 10 years later.

♥ ***There are cases of vaccine-associated paralytic poliomyelitis (VAPP) from oral polio vaccine (OPV) each year in this country, yet the injected version, IPV, carries no risk for VAPP. Why don't we use only IPV in this country?***

The U.S. is moving towards all IPV use as we move toward global eradication of world polio virus infection worldwide. However, health experts agree that some OPV is important currently because it provides important immunity that IPV does not provide. The sequential 2 dose IPV/2 dose OPV schedule is effective at preventing most cases of VAPP while preventing transmission of wild polio virus, if it should be introduced into the U.S.

♥ ***Why does the CDC recommend the routine vaccination of all infants against hepatitis B? Why not just vaccinate children in families where there is the highest risk of HBV infection or adolescents who practice high risk behaviors?***

There is a large disease burden attributable to HBV infection that occur among children. Before routine infant hepatitis B immunization began, approximately 30,000 infants and children were infected each year (about 1/3 in children and adolescents) and CDC estimates that one-third of the chronic HBV infections in the U.S. occurred in infants and young children. Hepatitis B is transmitted following exposure to blood and other body fluids that contain the virus. It is about 100 times more likely to be transmitted following exposure to blood than is HIV infection. While most hepatitis B cases occur in adolescents and adults, exposure and infection can occur in persons of any age, or social or ethnic group and progression to chronic disease is more likely among children than other age groups. Because hepatitis B infection is associated with chronic infection, liver cancer and death, prevention is important. In fact, hepatitis B vaccine is the first anti-cancer vaccine.

♥ ***Will vaccination of infants or adolescents other than for infants born to HBV infected women, provide protection when the person is older and might be exposed to HBV infection?***

Ongoing studies document that protection lasts at least 15 years, with follow-up continuing. If there is evidence that protection decreases, booster dose of vaccine would be recommended, similar to what has been done for other vaccines.

♥ ***Does hepatitis B vaccination cause multiple sclerosis (MS) or other serious diseases of the nervous system?***

The cause of Multiple Sclerosis is unknown. No good scientific studies, to date, support hepatitis B vaccination causes multiple sclerosis or other serious diseases of the nervous system. A CDC study is ongoing to further investigate the MS issue. Until data are available from this study, several lines of evidence suggest that a causal link between hepatitis B immunization is unlikely: 1) MS cases occurred before there was hepatitis B vaccine 2) most hepatitis B cases occur in the tropics where as most MS cases occur in temperate regions 3) molecular mimicry and autoimmune destruction of myelin is not likely given the substantial difference in amino acid sequence between hepatitis B surface antigen and myelin basic protein; and 4) over 60 million doses of hepatitis B vaccine have been administered in the U.S. and hundreds of millions worldwide while MS remains rare. While a potential association cannot currently be ruled out, such an association seems uncommon and the risk low. Given the risk and severity of hepatitis B disease, the benefit to risk ratio is heavily in favor of hepatitis B vaccination.

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH, IMMUNIZATION PROGRAM
MORBIDITY REPORT

Disease	1/1/98-12/31/98	Total 1997
Measles	0	1
Mumps	3	1
Rubella	29	5
CRS (congenital rubella syndrome)	0	0
Diphtheria	0	0
Tetanus	0	0
Pertussis	49	36
Hib	2	3

IAP ON TIME **FALL 98**

Publication of the Connecticut State Department of Public Health, Immunization Program

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