

Straight Shots

PHD District One
Immunization Program

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Immunization News
You Can use!



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N.M. Immunization Registry: Coming Soon to a Provider Near You

On March 3rd, the SIIS, or Statewide Immunization Information system, came another step closer to reality when Governor Richardson signed the bill authorizing its implementation. “Doctors will now know if their patients have missed any of their shots,” said Anna Levy, executive director of the New Mexico Immunization Coalition (NMIC), “The doctor can then use the opportunity to immunize a child who may be in the office for other reasons and may be missing a shot.”

The NMIC, with the First Lady as honorary chair, has led the effort to put in place the state-wide computer tracking system that is so vital for improving immunization rates for New Mexicans. The Coalition was formed in December 2002 and includes many public and pri-

vate partners, including clinicians, Salud providers, medical societies, school nurses, social service agencies, child care agencies, advocacy agencies, pharmaceutical companies, service clubs, local immunization coalitions and many state agencies, with a common goal of boosting the states low immunization rates.

The next step for the coalition is not only to get the registry running but to market it to physicians and parents. “Health care providers as well as parents need to know how the registry works, why it is important and necessary,” Levy said. The registry is Internet-based, and has the ability to interface with a provider’s current system, thereby avoiding the need for double data entry. It is HIPAA-compliant, and has built-in safeguards to ensure the security of the information entered.

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Save the Date!

On April 19, 2004 Dr. Bill Atkinson, Medical Epidemiologist with the CDC National Immunization Program will speak on “Improving Pediatric Immunizations in Your Practice” and include an update on current events in the immunization field.

Two lectures (same topics)

4 PM at UNM School of Nursing and Pharmacy Auditorium

7 PM Provider Awards Event at the Albuquerque Hilton

1 hour CME/CNE provided

To register call Anna Levy :

505-272-5796

"Shots on Time" Demonstration Project

The New Mexico Immunization Program has received a special Federal grant, supported by the Governor's Office and Secretary of Health Patricia Montoya, to fund a demonstration project aimed at improving our immunization rates. The project has contracted with SHOT (*SHots On Time*) nurses throughout the state to work with interested providers to suggest and help implement practice improvements in their offices. These nurses, who have been specially trained by the Program, can supplement the nursing capacity of the selected practice in a variety of ways. They can provide on-site training, technical assistance and implementation support for "best practices"; review records to locate children who have fallen behind and give immunizations where indicated; and assist the practice to put in place ongoing changes that will result in permanently improved immunization rates.

Providers participate on a strictly voluntary basis, and sign a Memorandum of Agreement which specifies the responsibilities of the contract nurse, the practice, and the immunization program staff. The contract nurses work under the protocols and auspices of the provider, and aim to collaborate in whatever strategies are agreed upon between them. They may provide small incentives and/or educational materials to the parents and children; they may make home visits, conduct special clinics, or do whatever will work with a given population and practice. The time period spent in each practice will vary, but typically will be from two to eight weeks. At the end

of the Project, participating practices will receive a framed Certificate of Appreciation signed by NM's First Lady, Barbara Richardson.

This exciting project is a first for New Mexico, and the sponsors will be closely evaluating this demonstration project to see if this kind of inter-

Increasing the percent of New Mexico children who are up-to-date with their age-appropriate immunizations is one of the highest priorities for the NM Department of Health and the Richardson Administration.

vention has both a short term impact on coverage rates, as well as leading to longer term improvements in immunization practices in the participating sites.

Thanks to recent progress, and the high priority given to childhood immunization by the Richardson administration, our coverage in New Mexico has now risen to 71% of two-year old children being up to date with ACIP-recommended vaccinations. While this improvement is something to celebrate, it is not good enough; too many of our children and communities remain susceptible to outbreaks of vaccine-preventable disease. With the continued support of the Administration, the NMIC, the implementation of the SIIS, and collaborations between the private and public sectors, we have a real opportunity to positively impact the health of New Mexicans. Maybe we will even make the "top 10" of a *good* list!

The Next Influenza Pandemic

Experts at the World Health Organization (WHO) are warning countries around the world to make preparations for a possible influenza pandemic. The last human influenza pandemic occurred in 1968, but the recent bird flu epidemic has sparked concerns about the virus' potential to spread to human beings.

The head of the global influenza program says that while vaccines are the most important protection against a major pandemic, it is also im-

portant to improve detection and surveillance programs in order to slow the progression of the disease in its early stages. Of concern is the fact that it takes months to develop adequate supplies of vaccines and anti-viral drugs, and many developing countries lack the capacity to respond rapidly with those measures.

As we learned last year in the CDC broadcast, it is not a question of "if", but of "when" the next flu pandemic will occur.

On the Horizon: Vaccine Research News



SARS Vaccine

A team of University of British Columbia microbiologists and scientists are entering three potential severe acute respiratory syndrome (SARS)

vaccines into animal clinical trials, with human clinical trials expected to begin in the fall. The key is to test the vaccines during an outbreak with enough SARS cases to prove the vaccine is effective. Researchers will have a main SARS vaccine product by March based on animal testing. Development of new vaccines usually can take up to 12 years, but accelerated research on the SARS vaccine has yielded three potential vaccines in just a year.

HIV Vaccine

Recently, the Emeryville, Calif., vaccine company Chiron announced that it would begin testing an HIV vaccine on humans. The trial will span two years and involve 168 patients who do not have the disease in a test of the vaccine's safety and to determine if it improves the immune system's response. The trial is part of the HIV Vaccine Trials Network, a program sponsored by the National Institutes of Health.

Genetically-Engineered TB Vaccine

Vaccine development partners GlaxoSmith-Kline (GSK) and Corixa are planning human trials of an experimental genetically engineered tuberculosis vaccine. The product employs a fusion of proteins from the bacteria that causes tuberculosis, and has provided good protection against the disease in a variety of animal trials. There exists a vaccine against tuberculosis, called BCG, but the product is eight decades old and according to some scientists is only 50 percent effective in preventing the disease. GSK and Corixa will sign up 20 volunteers in a U.S. Phase I clinical trial of the vaccine, to determine its safety and what immune response, if any, it causes.

Meningitis vaccine

British scientists have made a research

breakthrough that could lead to a new vaccine against all forms of this potentially deadly disease. Experiments have successfully used genetic engineering to make mice immune to a broad range of strains, including group B strains for which there are currently no vaccines. Meningitis, an inflammation of the lining of the brain and spinal cord, affects hundreds of thousands of people worldwide, and has historically been difficult to treat because it can be caused by so many different strains.

Human Bird Flu Vaccine

The CDC says they have achieved the first step in creating a vaccine against the avian influenza virus, by breaking it apart and reassembling it without its most virulent parts. The avian disease has jumped to humans, and human immune systems have no defense against it. So far, no cases of human to human transmission have been recorded, but the potential exists for the avian virus to mix with the human virus and mutate, eventually becoming transmissible within the human population.

Anti-Cavity Vaccine

Researchers in Boston appear to have developed a nasal-spray vaccine that prevents the development of tooth cavities. The scientists say that the vaccine should help people of any age, but would be best if given to infants at one year of age, given that they do not yet have exposed teeth and would not yet be as affected by the proliferation of sugary foods that has turned tooth cavities into an international epidemic. The vaccine is expected to be able to prevent at least 75% of cavities.

Transcutaneous Anthrax Vaccine

IM Anthrax vaccines have been associated with adverse reactions, at least in part caused by the aluminum adjuvant in the vaccine. Now researchers at Walter Reed Research Institute have developed an anthrax vaccine patch, which has shown 100% efficacy in mice. The antibody titers produced by the transcutaneous vaccine were higher than those achieved with the IM antigen containing the aluminum.

Practice Pearls: Choosing the Right Needle

I am frequently asked by nurses and other staff who administer immunizations about the correct size and gauge of needle for intramuscular and subcutaneous injections. The CDC and the ACIP recommend a 1" to 1 1/2 inch needle for all intramuscular injections, even in small infants. Often staff are unwilling to follow this recommendation, particularly in the case of a very thin or premature infant. What is most important to remember is that the critical issue is to ensure delivery of the vaccine deep into the body of the muscle. (Yes, even these tiny babies have muscles, although it may not seem so!) Using a 1" needle will ensure that the necessary depth is achieved, and it will not endanger the baby. You may bunch the muscle to maximize the muscle mass, and minimize the risk of hitting bone. For these very tiny infants, it is alright to use a 7/8" needle, if your protocols allow. However, it is better to go a little too deep than to inject a vaccine formulated for intramuscular use into the subcutaneous tissue. In addition to negatively affecting the immunogenicity of the vaccine, it can cause an abscess or granuloma which will cause needless discomfort and take quite a while to resolve.

For an intramuscular injection in an older child, it is always recommended that you use at least a 1" needle, either 23 or 22 gauge.



"I guess he saw the needle."



You may also use a 25 gauge 1" needle, if available, as vaccines are not very viscous. However a wider bore needle ensures that the vaccine is dissipated over a wider area, thus reducing the risk of localized redness and swelling. For an adult, you will almost always want to use at least a 1 1/2" needle, unless they are very thin. Again, the important thing to remember is that the vaccine must go *deeply* into the body of the muscle. The World Health Organization recommended that the muscle mass be spread with the fingers of the non-injecting hand, but the CDC suggests bunching the muscle to maximize mass. I use either technique, basing my decision on the size, muscle mass, and depth of the fat layer of the patient.

For subcutaneous injections, needle length is less important, although for an obese individual you may need to use a 7/8" or even 1" needle to ensure subcutaneous rather than intradermal injection. In most cases for subcutaneous injections a 5/8" 25 gauge needle will work well.

It is no longer recommended that you aspirate before injecting vaccines, nor is it necessary to change the needle after reconstituting the vaccine, as many of us were once taught. The CDC has conducted studies on both practices, and found that they provide no benefit. The chances of injecting the vaccine into a miniscule blood vessel are remote, and changing needles is simply a waste of money. ?

The aim of education is not knowledge, but action.

- Edward Spencer