A Pediatrician’s View

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Immunization Rates: Where Is the Help When We Need It?

Explain something to me. Why have we had so much trouble immunizing our children? Why can’t we do a better job of keeping track of each patient’s immunization status and giving vaccines when they are due? And while you are at it, explain why, in an era in which industry can access electronic information about so many of our characteristics, we lack immunization registries that track each child’s immunizations. We can withdraw money anywhere in the world with an ATM card and a pin number and companies can get our individual credit ratings and purchasing habits easily, but it is almost impossible to find what immunizations a child has received from other regional offices and clinics.

Current Status of Immunization Rates in the US

The best national data has been compiled by the National Immunization Survey (NIS) in conjunction with the Centers for Disease Control and Prevention. The latest report was collected by random-digit dialing for a weighted sample of 33,063 children from all 50 states, the District of Columbia, and 27 selected urban areas. This survey, taken between July 1996 and June 1997, estimated that only 78% of US children aged 19 to 35 months were up to date for 19 months by having four or more doses of diphtheria, tetanus, and pertussis vaccine; three or more of polio virus vaccine, and one or more measles immunizations (i.e., the 4:3:1 series). Comparable data for 4:3:1:3 series (which adds three doses of Hemophilus influenzae type B) were 76%. Comparable data collected by NIS during 1996 were virtually identical: 78% had received the 4:3:1 and 77% the 4:3:1:3 series.

The good news is that these 1996 and 1997 rates were improved compared with the 4:3:1 coverage of 75% found by NIS in April to December 1994, and 1997 rates reached the goal of getting three DPT, three polio, and one measles vaccine to at least 90% of children. The bad news is that progress stalled, leaving more than 20%, or approximately one million children, not up to date. When compared with 1996 data, there was no significant change in 1997 except that coverage with hepatitis B vaccine increased, from 81.8% to 83.8%, whereas children receiving one dose of the newest vaccine (varicella) went from 19% to 25% at these ages. This leveling of rates in 1997 makes it doubtful that we will achieve the year 2000 objective of at least 90% up to date for the complete series.

Why are We Not Up to the Task of Immunizing Almost All Children in the United States?

This issue describes barriers to immunizations and ways to get around them in a scientifically objective, evidence-based format. The following presents a different slant by describing six “excuses” that a hypothetical pediatrician might make to himself about this problem. You can probably add to this list.

“Immunizations have become too complicated. I do not have the time or resources to keep up with all the latest about each vaccine, changes in the immunization schedules, and most of all, the tricks that have to be used to increase immunization coverage a few percentage points. The best I can do is to review the immunization record I have available at each well child visit and try to keep my patients up to date.”
"It is unreasonable for me to try to retrieve a child's past immunization history from all of the other pediatricians, family practitioners, nurse practitioners, and public health clinics that he/she has attended, here or elsewhere. Financial realities mean I have less time per patient and I don't see any centralized immunization registry out there to help me now. Tracking immunization histories takes too much time and money, even if office staff do the footwork. Besides, isn't a child's immunization status confidential like the rest of the medical record?"

"If most parents aren't interested in keeping their children completely immunized, doing this is an uphill battle for me. As a pediatrician, I focus on the reasons my parents bring their children to the office. If this is for a well child visit and an immunization is needed, it will get done. If it is a visit for an acute problem, I take care of that. If the mother is anxious about the acute problem, why should I confuse things by pushing a routine immunization on her?"

"Adverse reactions to vaccines have been a real threat to pediatricians and children. They have been a major source of malpractice claims. I am conservative and defensive in immunizing my patients to keep from setting myself up for a malpractice suit."

"Nobody else seems to care if immunization rates are 77% or 67% or 87%. The parents who bring their children don't complain; the insurance companies that pay the bills don't complain; my hospital and accrediting boards, and my medical society do not consider my immunization rates important enough to even track. So why should I?"

"The all too rare excitement I get from practice comes from solving a difficult diagnostic problem and finding just the right treatment. Physicians were trained to be and always have been experts in diagnosing and treating disease. Someone else should be taking care of the mundane aspects of practice that require less education and skill."

The Sources of These Problems

Okay, before you get mad, or feel excessive guilt, remember that these are hypothetical "excuses" and intended to be provocative. None are fully true but you may find some partial truths that relate to you. Since you know where they came from, you know I wonder how much these impact me in a conscious or unconscious way. However, it is reasonable to look further for problems behind the six "excuses" in the same order. Are they totally our fault?

Keeping on top of all the new vaccines, new immunization schedules and techniques to increase immunization rates is difficult because these are all complicated. However, when people fail to solve a problem because of complexity, the cause is usually the lack of an effective system to manage the problem rather than a failure of individuals. We should have systems available to us that get patients in when they need immunizations and give clear guidance as to what vaccines are indicated and when.

We need computerized central registries, accessible to pediatricians and other providers, that give immediate accurate information about a child's current immunization status. Our society is highly mobile. Families move frequently, and more often their insurance coverage is moved. When this happens, managed care often changes their provider list, making access to past immunization records more necessary than it was when patients could stay with one physician indefinitely. Again, the problem seems to be one based on system failure.

Immunization rates would jump overnight if parents were aware of the immunization schedule their child should receive, the actual indications for delaying vaccine, and the benefits of keeping up to date. This is the era of the assertive, informed patient while managed care is trying to control costs. Whose job is it to educate families about this? Again, there is only so much the individual pediatrician can do, and families need to obtain this information from several sources. Federal and state initiatives are just beginning to do this, but the answer is widespread systems to educate families.

There is no question that litigation can have a severe impact on immunizations. In the mid-1980s it became difficult to get vaccines because manufacturers, fearing suits, stopped producing them. In 1984, 18 types of vaccine were suddenly available from only one company and two of the three companies that made polio vaccine dropped out. A new system was introduced to address this in 1988. The National Childhood Vaccine Injury Act gave families an alternative to litigation for funding future care of vaccine-injured children. The Federal Vaccine Injury Compensation Program provides this alternative if the pediatrician gives parents vaccine information materials provided by the state, keeps a record of immunization specifics, and reports possible vaccine-associated adverse outcomes. A list of adverse outcomes and the reporting form is at the back of your Physician's Desk Reference. Actually, pediatricians realize this and the fear of litigation is receding. But another system that would keep track of vaccine type, lot, date of expiration, immunization site, and date, and perhaps help initiate informed consent to immunize.

There is no question that immunization rates can be brought to near 100% by a system that evaluates the status of each child and requires them to be current. We have this and it works. The schools do this when they require documentation that immunizations are up to date or on their way before a child can
begin regular school. Again, what is needed is a system that tracks and requires or provides incentives to keep immunizations current for all ages.

Our obsession with curing disease comes from our culture. So, shifting emphasis to prevention/population-based medicine will require time, education and reasons to change. These need to come from systems, although this issue might help.

If These are Primarily System Problems, From Where Should Solutions Come?

Although some collective pediatric guilt may be appropriate, new systems are what is really needed to improve immunization rates. As you read the papers of this issue, note the generalized need for systems to make immunizations happen. So who should be developing and making systems available? The answer seems obvious. This is what managed care is supposed to be about. Managed care may be trying to do this in certain areas, but their overall role is conspicuously absent. Managed care companies moved in quickly and rapidly when it came to capturing patients and being tough negotiators with hospitals and physicians to drive down costs. Where are the same companies when they are needed to set up systems for improving care, like systems to increase immunization rates? Managed care companies should have techniques that help get patients in on time for vaccinations, set guidelines as to what should be given and when; make central registries work and pay for the extra time it takes to use them; help educate parents as to when their children need immunizations, set up systems to help us track vaccine and patient specifics of immunizations; track each of our immunization rates and reward improvements; and lead the way to the "new culture" that puts more emphasis on population-based medicine and prevention.

At first glance, it seems like competing managed care companies could not have much of a role in centralized immunization registries, but a second look is different. Federal or state governments must be in charge of standardization for these systems to allow different users to access a common data base. As you will note in this issue, there are grants for setting up such registries. But federal and state agencies could go further by rewarding or legislating the use of standardized systems. An optimal system might be one that is standardized nationally, with communicating networks established within each state, using either the public health departments or the school systems as intermediaries. Basing the registries with the educational system makes sense because schools have a need for immunization data and an established track record for improving rates. Then the managed care companies could connect these registries with us. They could help finance the hardware, software, network costs, and the extra office time to use the central registries while requiring and providing incentives for their use.

The May 19, 1998, Wall Street Journal (page 1A) provided insight into why the transition to managed care insurance has not been accompanied by much management of care. The authors began with the point that health care inflation, after being brought slowly under control during the 1990s, is expected to jump considerably next year. Minneapolis, the cradle of managed care, will see premiums raised as much as 15% by three major HMOs; health plans for state employees have increased up to 22%; and some small employers coverage will rise 40%. This article concludes: "What went wrong? The short answer is that HMOs concentrated too much on managing costs and not enough on managing actual care. They go on to present the opinion that the primary focus of HMOs has been market share and comment: "I'm often surprised at how little insight health plans have at what is driving their costs."

The Wall Street Journal makes the point that, to get back on track for cost control, managed care companies are going to have to do more to help manage care. And a focus on developing systems for immunizations would be a good start.

REFERENCES


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