Vaccination Reminder-Recall Systems Underused

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ATLANTA — Several strategies have been shown to increase vaccination coverage in children, Dr. Jeanne M. Santoli said at a meeting on clinical vaccinology sponsored by the National Foundation for Infectious Diseases.

Five interventions have been recommended by the Task Force on Community Preventive Services on the basis of strong evidence of their effectiveness in increasing vaccination rates (Am. J. Prev. Med. 2000;18[1 Suppl.]:97-140).

One strategy that clinicians may be able to implement in practice is a client reminder-recall system, in which families are informed by mail or by telephone that the child is due or overdue for a vaccination. A 1999 study involving 2,000 children younger than age 2 showed that immunization rates increased 20% by the end of a reminder, recall, and outreach immunization program (Pediatrics 1999;103:31-8). The researchers observed spillover benefits of the program, including an 11% increase in preventive visits, a 12% increase in anemia screening, and an 8% increase in lead screening.

“Despite this proven benefit [of recall systems], the use of this strategy is not near what we might hope,” said Dr. Santoli, deputy director of the Immunization Services Division for the National Center for Immunization and Respiratory Diseases, a part of the Centers for Disease Control and Prevention. Self-reported use of recall systems by pediatricians remains low, at less than 25% across multiple studies.

Providers might not see the need for reminder-recall systems, because most tend to overestimate vaccination coverage in their practices. Variations in the degree of computerization and the organization of medical records also can affect the feasibility of implementing such a program.

Out-of-pocket cost reductions are other interventions with strong evidence to back them. Dr. Santoli said the cost to fully vaccinate children, with fees calculated based on federal vaccine contracts, has increased dramatically, from $45 in 1985 to $894 in 2006. The addition of the human papillomavirus vaccine would bring the total cost up to $1,182, not including vaccine administration fees.

The CDC’s Vaccines for Children program is a comprehensive intervention for reducing costs, under which providers receive vaccine replacements to immunize eligible children. Dr. Santoli estimated that 40 million children in the United States under the age of 18 are eligible for the program. Studies of program participation suggest that “the program is reaching the children that it was intended to serve,” she noted at the meeting, which was also sponsored by Emory University.

Other interventions suggested by the task force on the basis of strong evidence include provider reminder-recall systems and assessment, feedback for providers, and multicomponent interventions. Interventions with ‘sufficient’ evidence include vaccination requirements for child care, school, and college; school vaccination programs (when focused on new vaccines); vaccination programs in Women, Infants, and Children settings; and home visits. “When there are state requirements [for entry into school] and they are enforced, they can have an important impact on vaccination rates,” Dr. Santoli said.

Certain interventions have not demonstrated sufficient increases in vaccine coverage. These include education-only programs, vaccination programs in child care centers, client or family incentives, and client-held medical records.

In considering strategies for increasing vaccinations, it is important to consider the barriers to vaccination. Parental attitudes, provider attitudes, and access to care were previously considered the primary barriers, said Dr. Santoli. However, the literature indicates that socioeconomic factors, a late start on vaccinations, an information gap, provider practices, and clinic factors are the key barriers to immunization. By addressing these barriers with proven interventions, clinicians may be able to improve vaccination rates in their practices.