

CDC Changes Policy on Polio Vaccine

RECOMMENDS SHOTS OVER ORAL DOSING

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Since 1979, when the last case of "wild" polio was reported in the United States, the only cases of polio occurring in the U.S. have been those associated with the oral polio vaccine (OPV). Although the risk of contracting the disease from the vaccine is small - experts estimate the odds at one in 2.4 million - between eight and 10 cases of vaccine-associated paralytic poliomyelitis (VAPP) are still reported in the U.S. each year.

For the last three years, the Centers for Disease Control and Prevention has recommended a "mixed" program in which children receive the first two doses of the vaccine via injection and the final two doses orally. The mixed vaccine program was implemented with the idea to reduce VAPP cases. However, the CDC also allowed physicians to use an all-injectible or all-oral series of vaccines as an alternative.

Because delivery of the oral vaccine is safer for patients and requires no specialized training, some physicians opted for an all-oral vaccine program. Although the average number of cases did go down from 1997-99, between nine and 12 instances of vaccine-associated polio were still reported during that time; at least one case occurred in a child who was on the all-oral vaccine schedule.^{1,2,3}

To completely eradicate the disease, the CDC has followed the recommendation of its advisory committee on immunization practices and once again revised its immunization program. Instead of a mixed oral/injectable schedule, the agency now recommends that children receive only the injectable polio vaccine (IPV).

"The recommendations" mark an historic moment in our efforts to eliminate polio in this country," said John Salamone, president of Informed Parents Against VAPP, a nonprofit parents group that represents families whose children have been afflicted with the disease. "Now it is up to physicians to make this count by relying exclusively on IPV and discontinuing the use of OPV."

The injectable polio vaccine, which was created by Dr. Jonas Salk and has been in use since the 1950s, is produced from a killed virus. IPV provides bloodstream immunity, which is less effective during epidemic situations. Because it is made from a killed virus, however, it is incapable of causing the disease.

The oral polio vaccine, meanwhile, was developed by Dr. Albert Sabin and has been widely used since 1965. It is believed to provide better immunity against the disease because it results in intestinal immunity, which is necessary in settings where polio epidemics occur.

Many doctors (and most patients) prefer the oral vaccine because it requires no sterilized equipment, is cheaper (and easier) to deliver, and involves no pain. Unlike the injectable polio vaccine, however, OPV is made with a weakened - but live - polio virus.

The new CDC recommendations state that "To eliminate the risk for vaccine-associated paralytic poliomyelitis, an all-IPV schedule is recommended for routine childhood vaccination in the United States."⁴ Children should receive four doses of injectable polio vaccine: one at age two months; one

at age four months; one between 6-18 months; and a final dose between the ages of four and six years.

The San Francisco Department of Health is one of several agencies already giving children polio shots instead of the oral vaccine.

"We let all our health centers know last fall that they wouldn't be able to get oral polio vaccine after the first of the year," said Susan Fernyak, director of communicable disease prevention for the San Francisco Department of Public Health.

Still, Fernyak admitted that some health professionals aren't too thrilled with the idea of giving their young patients another injection. "Providers like the oral vaccine better, because it's not a shot," she said.⁵

The oral vaccine, meanwhile, should be used only in cases of widespread outbreaks; for children traveling to areas where polio is endemic or epidemic; or for children whose parents stop short of all four shots in the polio vaccine program. In the latter situation, the CDC also recommends that health care providers administer the oral polio vaccine only after discussing its risks with parents or caregivers.

References

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