What doctors wish parents knew about kids' COVID-19 vaccine safety

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A Kaiser Family Foundation poll found that one-third of parents say they planned to get their children vaccinated right away. Yet other parents are taking a wait-and-see approach to COVID-19 vaccination for kids. But with the BA.2 Omicron subvariant, widespread vaccination is an essential tool for preventing COVID-19 deaths, hospitalizations and illnesses.

To help parents move from that “wait-and-see” mentality and calm their fears, two physicians shared what to know about COVID-19 vaccine safety for children.

The Pfizer-BioNTech and Moderna COVID-19 vaccines are both authorized for children as young as six months. Vaccine recommendations are different depending on age, the vaccine first received, and time since last dose. It’s important to stay up to date with your COVID-19 vaccines when you have received all doses in the primary series and all boosters recommended for you, when eligible.

The AMA’s What Doctors Wish Patients Knew™ series provides physicians with a platform to share what they want patients to understand about today’s health care headlines, especially throughout the COVID-19 pandemic.

In this installment, two AMA members took time to share what parents should know about COVID-19 vaccine safety for kids. They are:

- Joanne Loethen, MD, an internal medicine and pediatrics physician in Kansas City, Missouri. Dr. Loethen is also an alternate delegate for Missouri’s Delegation and a member of the AMA Ambassador Program, which equips individuals with the skills and knowledge to confidently speak to the AMA’s initiatives and the value of AMA membership.
- Luis Seija, MD, an internal medicine and pediatrics resident at Icahn School of Medicine at Mount Sinai in New York City. Dr. Seija is also a delegate for the AMA Resident and Fellow Section and the AMA Minority Affairs Section.

Children have high incidence now
“We’re at this time right now in the pandemic where we’re seeing another surge and a lot of it’s in kids., said Dr. Seija. “Something that people also forget is children in general are vectors for diseases, especially with school being back in session.”

“Children are carriers of SARS-CoV-2. Even if they don’t have symptoms, they could carry it and they could infect someone who maybe couldn’t get vaccinated,” he said.

Since the start of the pandemic, there have been more than 2 million cases of COVID-19, more than 20,000 hospitalizations and more than 200 deaths among children 6 months to 4 years in the U.S., according to the Centers for Disease Control and Prevention.

“If we have something that can help prevent kids from getting COVID and the long-term effects of that infection, I would hate for parents to regret not getting this when we could have prevented this from the beginning,” said Dr. Loethen.

COVID-19 vaccines are very safe for kids

The vaccines are extremely safe for kids “and the side effect profiles are very similar in the 16 and up” group, which is similar to what “we saw with adults,” said Dr. Loethen. “So we know they’re very safe and protect a lot of children, not only on the individual level, but also on the population level.”

“I completely understand if parents have hesitations about any new medical device, drug, vaccine that their child is potentially eligible to get,” she said. “That is completely natural to be hesitant about those things.

“What I can say is we have studied thousands of kids and hundreds of thousands have now gotten this vaccine,” Dr. Loethen added. “We know that it’s safe and effective. And when you look at the numbers, it certainly supports the vaccine because of its safety and efficacy against COVID 19.”

Side effects will be mild

For kids 6 months to 11 years old, the side effects from the COVID-19 vaccine will be like that of those who are 16 or older.

That means “pain in the arm where they got the shot, fatigue, headache, chills, muscle aches and pains,” said Dr. Loethen.
“It is a very specially designed vaccine that helps your body build immunity to COVID, but you're going to feel certain types of symptoms,” said Dr. Seija. “Your child could have a fever, they could have some body aches, or they can just feel overall—just icky.”

The good news is the side effects’ “onset is within 12 hours and usually resolve within 24 hours of getting the vaccine,” Dr. Loethen said. Parents should “always reach out to your family doctor or pediatrician if you have any questions or concerns following the vaccine.”

**Risk for myocarditis is low**

“There have been very rare case reports of myocarditis, or inflammation of the heart muscles, as it relates to the COVID-19 vaccine,” said Dr. Seija. “But again, very few, very rare.”

“We did see increasing cases of myocarditis in younger individuals getting the vaccine, specifically in that teenage range,” said Dr. Loethen. “And certainly, that risk is there, but what we see from the numbers is that risk is so very low—lower than your actual risk of myocarditis from COVID 19.”

“Myocarditis is a common thing that people bring up, but the statistics show there have been 54 cases per million doses in kids 12 to 17 who had gotten the vaccine,” she said. “When you put those risks to paper and look at the numbers, the benefits still outweigh the risk.”

“Additionally, all of those cases of myocarditis that we have seen have recovered completely if it was associated with the vaccine,” said Dr. Loethen.

“From the pediatrician perspective, we have an obligation to obtain informed consent.” said Dr. Seija. “We want to tell you about the benefits and risks. That’s why we always go through certain questions before we administer any immunization to ensure it’s safe for your child and the benefits outweigh the risks.”

**The vaccine prevents hospitalization**

“No vaccine that we have to date is 100% effective,” said Dr. Loethen. “And so even with kids getting vaccinated, we will see breakthrough infections in them.

“But we do know that it helps prevent hospitalization and severe COVID,” she added. “So even if it doesn't protect you from the virus itself, if you are a victim to a breakthrough infection your illness will not be as severe had you not gotten the vaccine.”
It protects against severe illness

“While you can still get COVID—that’s always a possibility—what the vaccine does is it reduces the severity of disease and more than likely you will not be hospitalized,” said Dr. Seija.

While “kids have a lower likelihood of getting … severe COVID, they also tolerate the shot very well,” said Dr. Loethen. “Even though kids don’t get … severe COVID-19” as often, “it’s really hard to tell a parent whose child unfortunately got that infection and has aftereffects that kids don’t need to be vaccinated.

“I guarantee that every single one of those parents who now have to deal with the aftereffects of a child with COVID-19 would’ve jumped on the vaccine in a heartbeat,” she added. “I just hate for anyone to have to be that parent, so prevention is the key here.”

There are “still cases of what we call long COVID, where even after recovering from the acute illness or the most immediate illness of COVID, we still have people who have ongoing headaches, fatigue and difficulty breathing that are really debilitating and keeping kids from school, keeping people from work,” Dr. Loethen explained.

There’s ongoing monitoring

“The mRNA vaccines have been in development even since before the pandemic had started,” said Dr. Seija. It is through “that innovation in the way that we do vaccine development and vaccine” authorization that allowed for these COVID-19 vaccines to come to fruition.

“And the vaccines have been tested on hundreds of thousands and continue to be monitored,” he added. “In order for it to be authorized in this age group, there were actually children that were involved in the clinical trials.”

“It wouldn’t have been authorized in this age group if it wasn't tested on children in clinical trials first,” emphasized Dr. Seija.

Think about protecting the whole family

Just as getting immunized against influenza can help protect infants under 6 months old who are ineligible for that type of vaccination, receiving the COVID-19 vaccination can help protection to
younger family members, said Dr. Loethen.

“We need to create a bubble of immunity for the flu, so everyone in the family should be vaccinated against the flu so that we can protect your child who cannot get the vaccine,” she said, noting “it’s very similar with COVID-19 vaccination.”

**Vaccines protect against variants**

“When we know so far, COVID-19 vaccination does” provide some protection “against variants,” said Dr. Loethen. “Now we’re talking about the new variant Omicron and the evidence is still coming out about that and how effective the vaccine is against it.

“But we still know that the COVID-19 vaccines are very effective against the original virus and many of its variants,” she added.

Vaccinating children also has a benefit for the population as a whole.

“The virus looks very different than it did at the beginning of the pandemic, but our way out of this remains the same: masking, testing, physical distancing and vaccination. We have to get our children vaccinated,” Dr. Seija said.

The AMA recognizes the critical importance of scientific integrity, transparency and public trust as we fight to contain the global spread of COVID-19 and plan for the authorization, distribution and administration of COVID-19 vaccines. Stay up to date with the AMA on COVID-19 vaccine development.