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COVID, Science, Vaccines, and Public Trust

Check for updates

As I debated about what to focus on in my editorial for this issue of the *Journal of Pediatric and Adolescent Gynecology* (JPAG), I wondered if I should focus on something *other* than the COVID-19 pandemic. Surely readers are tired of hearing about the pandemic by now. I'm tired of it, and ready for us to be "back to normal." BUT, as of yesterday, October 23, the number of people infected with the SARS2-COVID-19 virus hit an all-time 1-day high in the United States: more than 85,000 new cases were diagnosed. So, as much as we would like a return to "normal," we must remain vigilant to avoid transmission. We are all eager for news of an effective vaccine.

President Trump keeps promising that a vaccine is imminent, suggesting that everyone will be able to be vaccinated soon. It is notable that there has been a major push for development of a vaccine-termed Operation Warp Speed, created by the Trump administration to spearhead vaccine development. In the past, vaccine development typically took years, so the efforts with the novel coronavirus vaccine are truly remarkable. Currently, 48 vaccines are in clinical trials on humans, with nearly 90 vaccines under active investigation in animals.¹ Ten vaccines have reached the final stages of testing. Vaccine trials from AstraZeneca and Johnson & Johnson were paused after serious illnesses in study volunteers were found; those trials were recently restarted, after it was determined that there was no evidence that serious medical events were caused by the experimental vaccines.²

Yet public confidence in the safety of a coronavirus vaccine is declining. A poll conducted recently by Stat and The Harris Poll found that 48% of individuals in the United States were willing to be vaccinated as soon as a vaccine was available; this number had been 69% in August.³ Some of this skepticism is based on reports that the federal office charged with overseeing vaccine safety has been merged with an office focused more broadly on infectious diseases. Experts charge that this leaves a vacuum in leadership in coronavirus vaccine development. Other contributors to skepticism include our President's misstatements, underestimations, and frankly, propensity toward falsehoods with regard to the pandemic and the vaccine. As Kamala Harris stated in the vice-presidential debate, "If public health professionals, if Dr. Fauci, if the doctors tell us that we should take it, I'll be the first in line to take it, absolutely. But if Donald Trump tells us that we should take it, I'm not taking it."⁴

There are few discussions that I find more difficult than talking about vaccines with a family that is opposed to all vaccines. Most days I just conclude that a discussion about vaccines in general isn't worth the time that it would require, with little likelihood of success. Of course, the vaccine that most pediatric and adolescent gynecologists discuss most frequently is the human papillomavirus (HPV) vaccine. If a parent's opposition to vaccination is focused on the HPV vaccine, I typically do take the time to address it. My personal tact is to address the cancer-prevention aspect of this vaccine, and I may state, "There aren't many things that we know that prevent cancer, but the HPV vaccine is one of them." Parents often tell me that they are waiting until their daughter is older and "needs" the vaccine, referring to their daughter's supposed lack of sexual activity/exposure to HPV. However, our confidential assessments may determine this belief to involve a false sense of reassurance. But, in talking to the parent, I will typically stick to the science, stating that "The CDC recommends vaccination at ages 11-12 years old, as the younger an individual is when she or he is vaccinated, the stronger the immune response to the vaccine." The 2017 review "HPV Update" in JPAG addresses talking points for patients, and lists resources, and the North American Society for Pediatric and Adolescent Gynecology (NASPAG) patient education handout is available at https://cdn.ymaws.com/www.naspag.org/ resource/resmgr/patient/2020/hpv_vaccine_2020.pdf.⁵

We are now increasingly in an age when science is suspect, and Americans are more and more suspicious that the coronavirus vaccine may be pushed through to approval without appropriate safety measures. Even the CDC's credibility has been undermined by internal errors, questions about leadership, and potential political efforts to control its messages.⁶ One concern about the early vaccines is that efficacy will likely not have been demonstrated in subpopulations, such as elderly individuals or minority ethnic communities.⁷ The threshold for vaccine approval will likely be protection of at least half of those who receive it. Determining which of several vaccines is better or best for which populations will be a scientific challenge.

It is my belief that when a vaccine becomes available, we will each need to examine the science, pay attention to the true vaccine experts, and prepare to explain and clarify the science to our patients and their families, as we have done and continue to do with the HPV vaccine.

As for PAG subjects, this issue of JPAG addresses the usual potpourri of topics. Be sure to see the joint NASPAG/Society of Adolescent Health and Medicine (SAHM) Position Statement on the 21st Century Cures Act and Adolescent Confidentiality, available on the NASPAG website and published in JPAG.⁸ My Stanford colleagues, Drs Jen Carlson, Rachel Goldstein, and Nichole Tyson, and Dr. Kim Hoover provide an update on the requirements of this act, which addresses the sharing of health information with patients and

families—an important issue, but one that also poses challenges for the important principle of adolescent minors' right to confidential care. The statement includes important recommendations for advocacy of appropriate health care privacy for adolescents, with attention to electronic medical records that incorporate adolescent confidentiality protections within each state's minor consent and federal confidentiality laws. Kudos to these colleagues for the hard word that has gone into addressing this issue, drafting the joint statement, and modeling advocacy in an effort to protect our patients' confidentiality.

Today's adolescents and young adults have been called "digital natives," in that they have been exposed to digital technologies since birth. This issue of JPAG includes a review addressing "hot topic" social media themes including body image and privacy concerns, and also considers social media as a reproductive health education tool.⁹ Although I am not at all a Luddite, I am quite far from being a digital native, and I appreciate the glimpse that this review provides into the social media world of my patients.

Other important articles in this JPAG issue include the study exploring illness representations, self-concept, psychological distress, and self-esteem among individuals with Mayer–Rokitansky–Küster–Hauser (MRKH) syndrome.¹⁰ I also appreciate the original articles that address some of the problems that I see in my clinical practice: I can now counsel my patients with paratubal cysts that the risk that a paratubal cyst will recur is slightly greater than 10%.¹¹ The authors of the study on vulvovaginal graft-versus-host disease (vvGVHD) post-hematopoietic stem cell transplantation (HSCT) confirm my clinical concerns and the conclusions of a previous study by Cizek et al¹² that vvGVHD is underdiagnosed in post-HSCT patients, and that regular surveillance by clinicians experienced in diagnosing and managing this condition is warranted.¹³ The study from the Bronx assessing fertility desires of adolescent females provides useful information that, overall, nearly 90% of adolescent females (including those who had been told by a medical professional that they may have compromised fertility) wanted children, but that those with moderate/ severe depression were less likely to desire children, as were those who identified as transgender or gender diverse.¹⁴ This study addresses the importance of understanding these desires for our individual patients, and the possibility that wanting children may be affected by depression; the authors encourage us to revisit these conversations with our patients, including those who identify as transgender or gender diverse, and those who may have had potential fertility-compromising treatments. As usual, the case reports in JPAG encourage us to think about unusual or uncommon diagnoses.

Finally, we continue the annual tradition of listing and acknowledging those volunteers who have served as peer reviewers for JPAG. We thank you for your service to evidence-based science.

May JPAG inform your clinical care.

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