

## Patient Portal Reminders + Behavioral Science Strategies = More Flu Shots Given?

August 3, 2021

Every fall, I am excited when we can start offering flu shots to our patients - and I have long been an advocate for contacting families to make it easier for them to make appointments to come and get their flu shots, because evidence shows that these efforts result in increased vaccination rates.

Rachel Y. Moon, MD, Associate Editor, Digital Media, Pediatrics

**Content License:** FreeView

**Article type:** [Blog](#)

---



Every fall, I am excited when we can start offering flu shots to our patients - and I have long been an advocate for contacting families to make it easier for them to make appointments to come and get their flu shots, because evidence shows that these efforts result in increased vaccination rates. But there is usually resistance to directly contacting families – there are the staff costs and time for calling families, postage costs for sending reminders in the mail, and logistical issues with sending out automated messages by phone, email, or more recently, text messages.

With most practices now using electronic health records (EHR), reminders through the patient portal of the EHR are now possible and fairly easy to implement. But there have been mixed results from using patient portal reminders to increase vaccination rates.

This week, *Pediatrics* is early releasing an article by Dr. Carlos Lerner and his colleagues at UCLA and Children's Mercy Hospital that describes a randomized clinical trial that uses patient portal reminders – plus messages that use behavioral science strategies – to increase flu vaccination rates ([10.1542/peds.2020-048413](#)).

Specifically, the authors tested 2 behavioral science strategies to improve behavior:

- Framing of messages as gains (the positive consequences of receiving the vaccine) or losses (the negative consequences of not receiving the vaccine).
- Asking parents to pre-commit to having their child vaccinated, as pre-committing to an action increases the likelihood of carrying out that action.

The authors randomized >22,000 patients to 3 concurrent interventions:

- Reminders: patients were randomized to 1) no reminder, 2) three gain-frame reminders, or 3) three loss-frame reminders
- Pre-commitment message: patients were randomized to no message or to a message asking them one question, which would let their provider know if they planned to have their child vaccinated that season.

- Reminders for 2<sup>nd</sup> flu vaccine: patients 6-36 months of age who had received a 1<sup>st</sup> flu vaccine were randomized to receive a reminder for the 2<sup>nd</sup> flu vaccine or no reminder.

The authors found that, for the first flu vaccine, there were no differences between those who received no reminder and those who received a reminder. Behavioral strategy (gain-frame, loss-frame, or pre-commitment) did not make a difference. However, there was a 25% increase in the rates of those receiving the 2<sup>nd</sup> flu vaccine if they received a reminder for that 2<sup>nd</sup> dose.

Why did this work only for the 2<sup>nd</sup> flu vaccine? You should read the entire article and the accompanying commentary ([10.1542/peds.2021-049932](#)) by Chelsea Wynn, Dr. Ashley Stephens, and Dr. Melissa Stockwell from Columbia University to understand all of the potential reasons. One important factor is that these interventions did not directly address vaccine hesitancy. The 2<sup>nd</sup> vaccine intervention only included patients who had already received the first vaccine, so vaccine hesitancy was not an issue.

An important consideration with regards to whether patient portal messages are a good strategy is patient access to the portal. We have had challenges with registering families for patient portals. In our institution, parents can get proxy access to the patient portal on behalf of their child, but the process is not easy, since the parents have to verify in multiple different ways that they are in fact the parent or guardian of that child. Additionally, barriers, such as inconsistent internet access or lack of comfort with technology, can be overwhelming for many. Thus, while patient portal messages may be effective as a strategy for some, this study indicates that it is not sufficient as a sole strategy to increase flu vaccination rates among children.

- [Patient and Family Partnership for Safer Health Care](#)
- [Just Do It: Incorporating Bedside Teaching Into Every Patient Encounter](#)
- [Principles of Pediatric Patient Safety: Reducing Harm Due to Medical Care](#)
- [Facebook](#)
- [Instagram](#)

Copyright © 2021 American Academy of Pediatrics