We know that inappropriate usage of antibiotics for viral infections has been the subject of a myriad of studies. Such studies have even led to one of the initial "Choosing Wisely" recommendations first released in 2013 to limit unnecessary antibiotic use whenever possible. But how best to provide good antibiotic stewardship is easier said than done. Factors working against antibiotic stewardship are well known—parent or patient demand, time constraints in a busy practice, and other practice factors. Kronman et al (10.1542/peds.2020-0038) provide a solution from a cluster-randomized study involving 19 practices either in the Pediatric Research in Office Settings Network or the NorthShore University Health System involving a modular online distance learning program that educated practitioners on antibiotic overuse and strategies for communicating with families.

The online intervention called the Dialogue Around Respiratory Tract Illness Treatment (DART) Quality Improvement Program focused on four steps to achieve lower inappropriate antibiotic use including: (1) reviewing your findings for a viral infection with the family, (2) providing a specific diagnosis that is non-bacterial in origin, (3) offering positive treatment recommendations like hydration and fever control, and (4) offering a contingency plan if the child does not get better. The intervention also came with “booster” video vignettes over the 11 months the program ran and provided provider feedback reports as well. The good news is that as a result of using their intervention over 72,723 visits for an acute respiratory tract infection (ARTI) involving 29,762 patients, there was an overall 7% decrease in antibiotic usage for ARTIs that persisted 2-8 months after the intervention ended. In addition, second line antibiotic prescribing decreased for strep pharyngitis and sinusitis but not otitis media.

Why was this intervention successful in many but not all respects? We asked Drs. Rana Hamdy from Children's National Hospital in Washington DC and Sophie Katz from Vanderbilt in Nashville to share their thoughts in an accompanying commentary (10.1542/peds.2020-012922). They note the strengths of this study and discuss the effect that each of the components of the DART intervention might have played. (Kronman et al bundled all these intervention steps together so was unable to do what Hamdy and Katz suggested in their study.) The commentary authors offer additional suggestions as to how to further increase the outcome improvements noted in the Kronman et al study. If you want to try the DART modules in your practice, they are publicly available online here. Link to this study and commentary and decide if the DART hits the target when it comes to reducing unnecessary use of antibiotics in your practice.