Review written by: Gregory Metz, MD

Original Article:

Brown W, Odenthal D. The uses of telemedicine to improve asthma control. J Allergy Clin Immunol Pract. 2015 Mar-Apr;3(2):300-1.

Review of Article:

Differential access to medical care is one of the many factors that contributes to health disparities between rural and urban patients with asthma. This study sought to investigate the use of telemedicine to provide asthma education to rural patients who were medically underserved. A HIPPA-compliant videoconference system was set up in a community pharmacy and patients were either referred by area providers or self-enrolled in the program. During the first visit, the pharmacy staff obtained informed consent, performed spirometry, administered the ACT questionnaire and accessed whether the participant was using his/her inhalers properly. Next, a certified asthma educator (AE-C) who was located 120 miles away provided real-time telemedicine educational visits with the patient.

The patient then met monthly with the AE-C for three consecutive months and then every 3 months for a total of one year. The visits lasted 30 minutes and were individualized for each patient. The AE-C contacted the patient's provider if any changes to asthma management were recommended. Twenty patients participated in the program with 85% completing the entire year of visits. At the beginning of the program, only 29% had ACT scores $\geq$ 20 compared to over 75% at the end of the study. Visits with the AE-C also reinforced the need for routine follow-up with the patient's provider or asthma specialist. Patients living in rural settings may experience financial difficulties resulting from the need to travel to see a specialist or from lost wages from having to take off work for these visits. This study demonstrated that telemedicine with a remote AE-C has the ability to reach patients who are medically underserved and can result in improved asthma control.