

Effects of Remote Patient Monitoring on Patients Prescribed Biologic Medications

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Accepted Poster, AAAAI 2024

Session Date / Time: 2/25/2024, 9:45 am - 10:45 am

Abstract:

Rationale: There aren't adequate remote tools for home asthma management. Patients prescribed a biologic need adequate remote monitoring for their disease.

Methods: The Keva Health program was introduced to 15 patients, of which 4 were on biologic medications, in a traditional specialty care office. Patients received a spirometer and oximeter which they used to take readings over a 7 month period. The data was received through the app and monitored by physicians. Additionally, patients used a colored system to track symptoms: green (none), yellow (mild), and red (severe). If a patient's spirometer readings or colored check-ins were considered above a certain parameter (a red or three consecutive yellow), pulmonologists would be in contact.

Results: Mean age was 49 years. Data for FEV1, FEV6, PEF FEV1/FVC, as well as the best predicted & LLN values was reviewed daily. Patients completed 363 spirometry sessions and 361 oximetry sessions. 6 alerts were sent out by the care team to the physician's office. The patients on biologics made a total of 385 colored check-ins. From month 1 to month 7, on average, the patients on biologics saw a 9% decrease in mild symptom days, a 32.5% increase in no symptoms days, and no change in severe days they experienced.

Conclusion: Remote patient monitoring helped patients on biologic medications understand their symptoms, monitor possible medication side effects, and get rapid physician care allowing them to more efficiently manage their condition and prevent ER visits.