

# Bluetooth-enabled technology pilot study shows promise for cystic fibrosis adherence

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According to the Cystic Fibrosis Foundation Patient Registry, more than 70,000 people worldwide are suffering from the disease, with approximately 1,000 new cases diagnosed each year in the United States alone. Adherence to inhaled and oral therapies for cystic fibrosis patients is discouragingly low, ranging 31-35 percent for inhaled antibiotics. Programs to enhance adherence have had mixed success; a new pilot study from Ventura County Medical Center in Ventura, California, shows remarkable improvement in adherence using Bluetooth technology.

For 28 days, patients used a Bluetooth-enabled medication delivery and monitoring tool called eRapid. The clinic used the technology to gain rapid feedback on nebulizer use and used the data to reward patients for adherence as a depression intervention method. Results not only showed 80 percent improvement in [adherence](#) but also 30 percent improvement in measures of airflow limitation and frequency of flare-ups of disease.

"eRapid decreases miscommunication and misunderstanding between the patient and the provider by replacing an error-prone self-reporting method with real-time data," says Dr. Chris Landon, lead researcher. "Ongoing assessment of the data by the health care team allows for active engagement between the patient and provider promoting shared decision making in individualized therapy and cognitive behavioral interventions."

Further study results will be shared at CHEST Annual Meeting 2016 in

Los Angeles on Wednesday, October 26, from 1:30pm - 2:30pm at the Los Angeles Convention Center Exhibit Hall, poster 975. The study abstract can be viewed on the website of the journal *CHEST*.

**More information:** Chris Landon et al, Improving Patient Adherence to Complex Medical Regimens Through Blue Tooth-Enabled Technology, *Chest* (2016). [DOI: 10.1016/j.chest.2016.08.030](https://doi.org/10.1016/j.chest.2016.08.030)

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