

Background: Partnering with a medical technology company that utilizes artificial intelligence (AI), nurse practitioners (NPs) from an academic medical center implemented an employee health continuous remote patient monitoring (CRPM) program for high-risk COVID-19 positive medical center employees.

Implementation: Patients were pre-screened by employee health. NPs contacted screened employees to assess interest in the program. Employees were consented and enrolled in the program via telephone screening. Nurse practitioners were responsible for twice daily remote monitoring of patients using AI to provide surveillance of patients recovering from COVID-19.



AI Analytics for Biosensor Data

Participating employees were contacted by NPs during monitoring if concerning clinical alerts were noted. This was done with clinical decision making. Shared decision making was utilized when deciding on an escalation of medical care (i.e., calling 911, following up with primary care provider, or going to Urgent Care).

Outcomes: During the initial 5 months of the employee health monitoring program, 67 patients were enrolled with 9 patients requiring urgent medical care. This easy to use monitoring process with a relationship driven workflow was effectively staffed with NPs.

While we cannot definitively state that because of monitoring these employees sought care earlier, anecdotally more than half of participants believed monitoring was helpful in their COVID-19 recovery.



Implications and Next Steps:

Continue to monitor high-risk employees who want to participate during the COVID-19 surge.

Review qualitative data of patient experiences during enrollment in the continuous remote patient monitoring.

Collect rich clinical data that correlates with outcomes and symptomology related to COVID-19 infection progression.



References:

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- Quer, G., Radin, J.M., Gadaleta, M., Baca-Motes, K., Ariniello, L., Ramos, E., Kheterpal, V., Topol, E., & Steinhubl, S. (2020). Wearable sensor data and self-reported symptoms for COVID-19 detection. *Nature Medicine*. <https://doi.org/10.1038/s41591-020-1123-x>