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BACKGROUND

The major benefits of remote physiologic monitoring (RPM) of blood pressure are usually observed in high-risk patients. Readmissions, return to acute care (RTA), is an undesirable outcome. We assessed RPM for hypertension (HTN) for patients discharged from post-acute care (PACs) facilities.

HYPOTHESIS

We hypothesized that PAC patients would benefit from RPM that would lead to reduced hypertension.

METHODS

Patients were enrolled in Medicare’s (CMS) RPM program that were being discharged from PAC facilities in Tennessee. HTN RPM began at discharge from PAC. Blood pressure (BP) was measured with cellular-connected devices and a mobile-could application (Alertive, Seattle WA). Data was equally divided into 24-hour windows, classified to JNC8 hypertension classes. Results were reported to PAC clinicians on a monthly basis.

METHODS (Cont.)

Immediate alerts were delivered to physicians for patients with systolic BP > 180 mmHg for timely intervention. Events such as ED visits and hospital readmissions were tracked by the nursing team during their calls per CMS RPM criteria. Patients were telephoned once a month, coached on their BP data, adherence to medications, and upcoming medical visits. Mean comparison of BP data before and after RPM was performed using paired t-test.

RESULTS

BP readings from 80 patients (mean age=78.3 ±8.4) were collected between March and May, 2021. A total of 3,032 readings were analyzed. 48 hypertensive crisis events and 36 hypotensive events were recorded. 4 patients were hospitalized, and 3 were referred to the ED for abdominal pain. Overall, there was a significant decrease in mean systolic BP (144.7 ± 23.1 mmHg at start of RPM vs. 135.2 ± 15.9 mmHg, post RPM; p=0.018) with a mean reduction of 9.5 mmHg at end of the program.

CONCLUSIONS

After discharge from PAC’s patients monitored by CMS’ RPM achieved a significant reduction in BP. Future work to demonstrate reduction in RTA is merited.

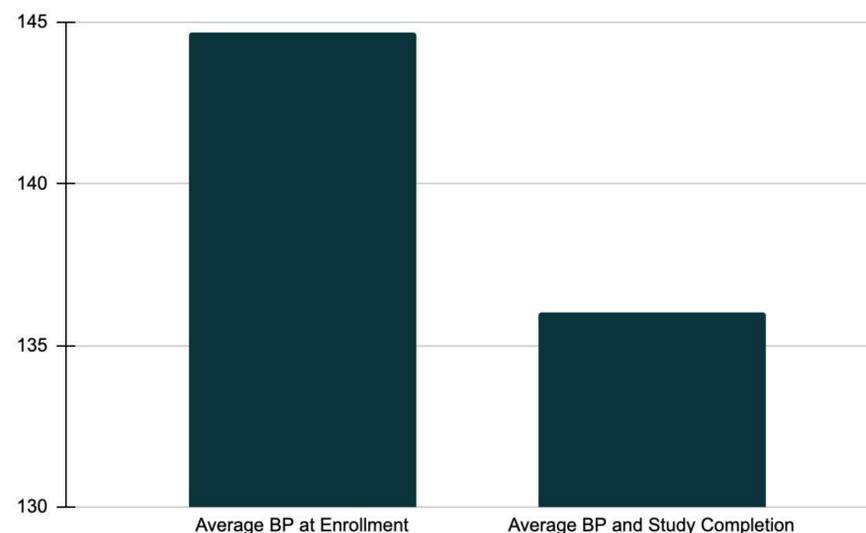


Figure 1: BP trend during remote monitoring