

ASHP BEST PRACTICES AWARD

Addressing Digital Health Equity to Improve Cardiovascular Health Outcomes Using Pharmacist-led Remote Patient Monitoring

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Authors of this presentation disclose the following relationships with commercial interests related to the subject of this poster:

Authors have no relationship or interests to disclose.



Introduction

Mount Sinai Health System

- The Mount Sinai Hospital founded in 1852
- Not-for-profit health system
- Services five boroughs in New York City as well as Westchester and Long Island
 - Eight hospital campuses
 - Over 400 ambulatory practice locations
 - More than 3.7 million outpatient visits annually
- Provides exceptional care to many diverse communities

Pharmacy Services

- Condition Management
- Clinic and telehealth referrals for complex medication management
- HEDIS Medication Adherence & Quality
- Medication Access Program
- Medication Utilization
- Care Management Integration

Background

- Healthcare systems across the country quickly adopted telemedicine services on the onset of the COVID-19 pandemic
- Patients continue having trouble accessing care and technology
- Remote Patient Monitoring (RPM) enables monitoring of physiologic data such as blood pressure
- RPM has been proven to be more effective in achieving blood pressure control compared to usual care^{1,2,3}

Purpose

- To improve cardiovascular and utilization outcomes through RPM
- To help patients monitor, manage, and maintain their chronic conditions by providing connected devices

Description of the Program

What is the Condition Management Program?

- Offers pharmacist-led RPM services for patients with uncontrolled blood pressure
- Aims to address the digital divide by increasing access to care through digital technologies
 - Target population: patients with a diagnosis of hypertension
 - Exclusion: heart transplant, dialysis

Care Team Members: provide exceptional care and support through the program journey

- Clinical Pharmacists
- Registered Dieticians
- Patient Engagement Coordinators
- Supervising Physician

Clinical Operations Team: manages day-to-day operations and program strategy

- RPM Specialist
- Program Manager
- Program Director

Process

- 1) Physician submits patient referral. Patient engagement coordinator completes digital assessment, enrollment, and consent
- 2) Patient receives and is set up with device within two weeks of enrollment
- 3) Condition Management team manages care through frequent touch points with patient and collaboration with supervising physician.
 - Medication adjustments, titrations, and education
 - Patient takes blood pressure daily
- 4) Patient achieves blood pressure goal; assessed for graduation or surveillance after one year

Experience with the Program

Overview

- Launched in June 2020 in five embedded pharmacy practice sites
 - In 2022, offered in 30+ ambulatory sites across the health system
- Devices are easy to use and require no additional technology from patients

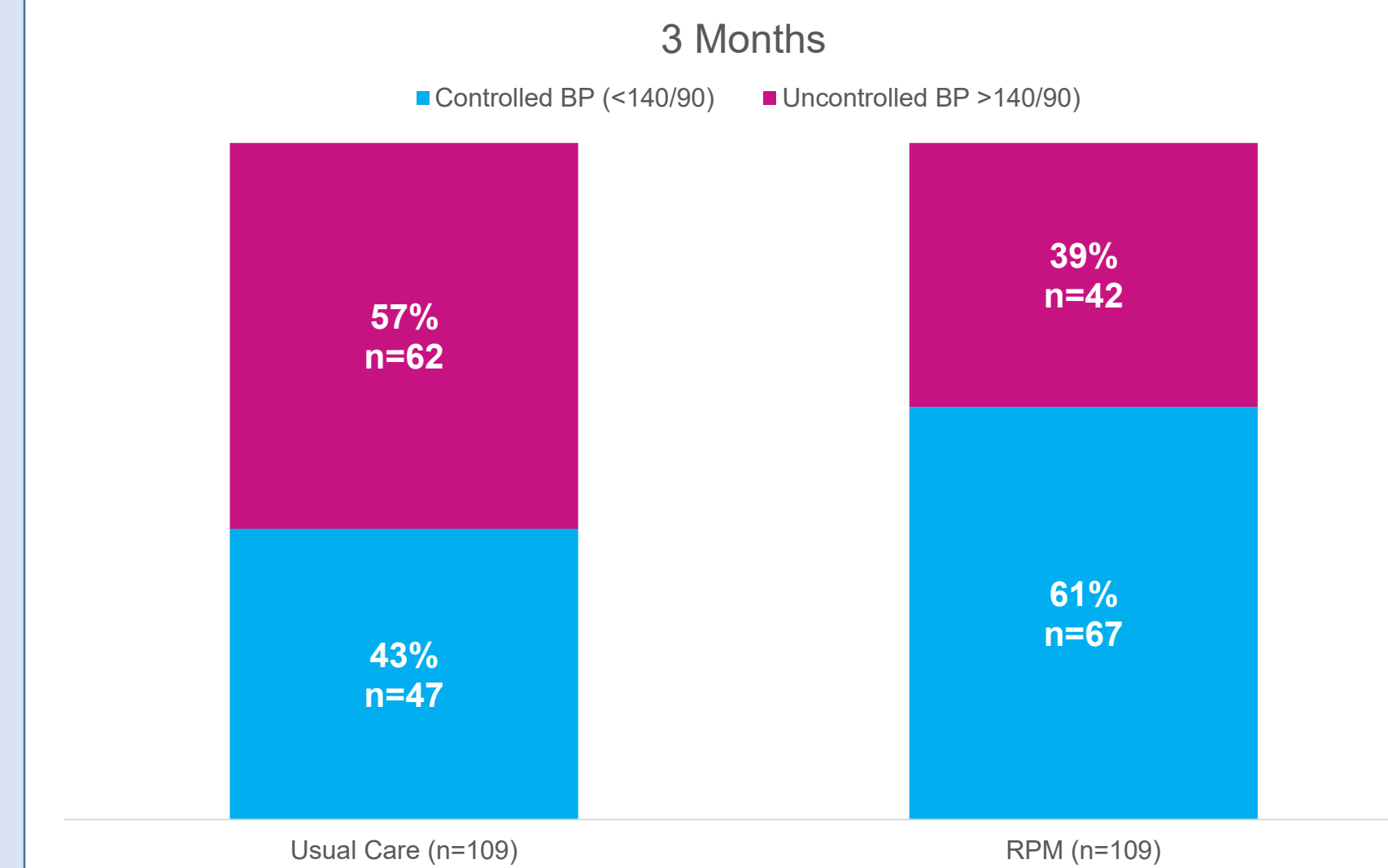
Results

- Matched cohort analysis of 218 patients examined effects of RPM on blood pressure control compared to usual care

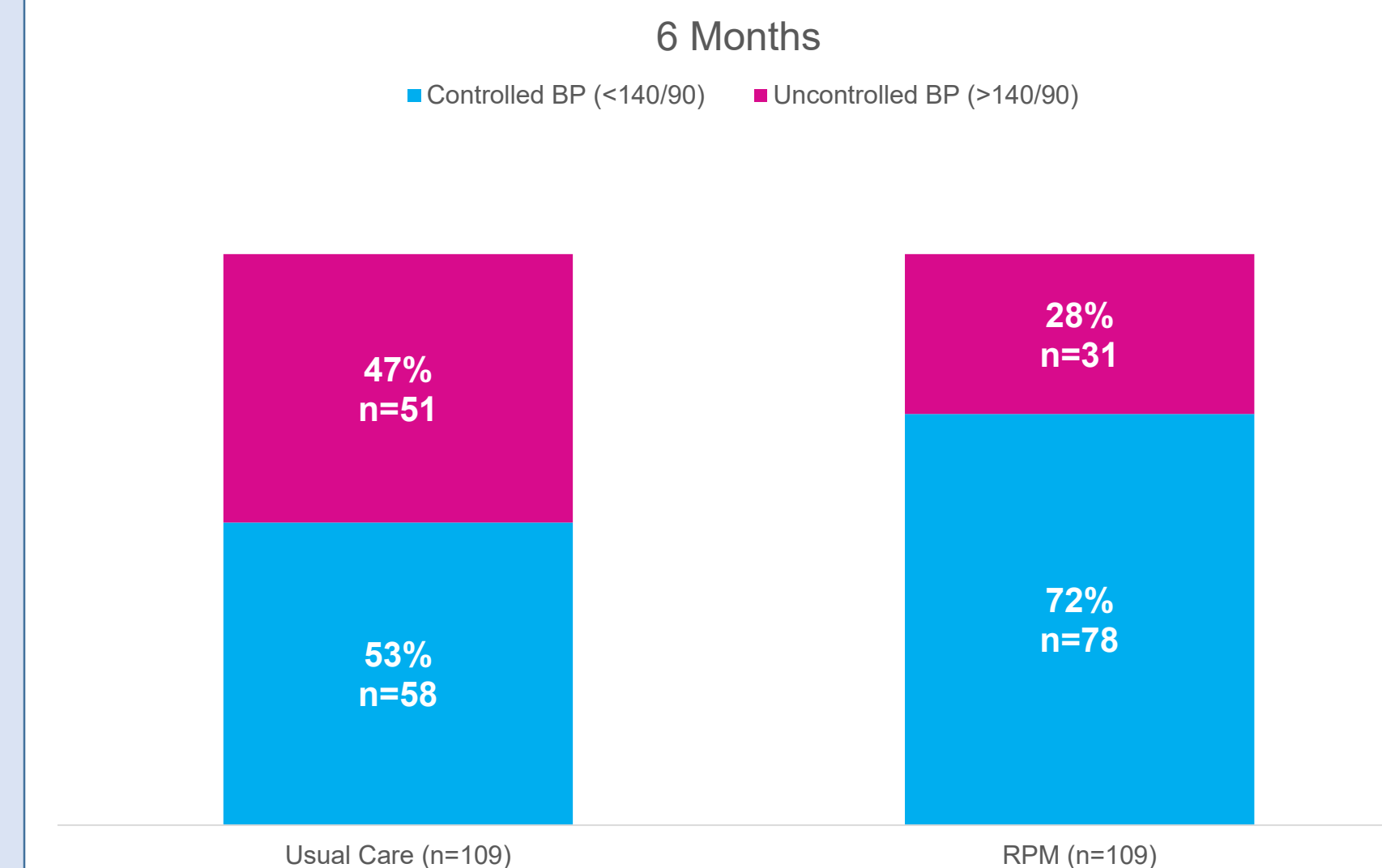
Experience with the Program (cont.)

	RPM (n=109)		Usual Care (n=109)	
	n	%	n	%
Gender				
Female	77	70.6%	77	70.6%
Male	32	29.4%	32	29.4%
Race				
White	31	28.4%	31	28.4%
Black	39	35.8%	39	35.8%
Asian	2	1.8%	2	1.8%
Unknown	37	33.9%	37	33.9%
Ethnicity				
Hispanic	33	30.2%	33	30.2%
Non-Hispanic	76	69.8%	76	69.8%
Age				
65 years and older	97	89.0%	97	89.0%
Less than 65	12	11.0%	12	11.0%

- 61% of patients in the RPM group achieved blood pressure control from baseline at 3 months compared to 43% of patients in the usual care group (p=0.010)



- At 6 months, 72% of patients in the RPM group achieved blood pressure control, compared to 53% of the usual care group (p=0.005)



Experience with the Program (cont.)

- RPM patients experienced on average a 7-point decrease in systolic blood pressure at 3 months
 - 90.2% were able to sustain the 7-point difference for an additional 3 consecutive months
- RPM patients experienced 19 hospitalizations compared to 56 by usual care patients (p<0.001)

	RPM Enrolled (n=109)	Usual Care (n=109)	p-value
All Cause Visits (Mean, SD)			
Emergency Department Visits	25 (0.23, 0.60)	33 (0.30, 0.67)	0.396
Inpatient Admissions	19 (0.17, 0.45)	56 (0.51, 0.79)	<0.001

Discussion / Conclusion

- Pharmacist-led RPM has shown significant clinical benefit for patients
- Providing patients with digital technology can empower patients to take control of their health
- Interdisciplinary approach by pharmacists, dieticians, and supervising physician allows for timely medication management
- Payers should continue to support and expand coverage of RPM as a critical tool for patients with uncontrolled chronic diseases
- Medicare law should expand to include pharmacists as billable providers for this scope of services

Acknowledgements

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