



In partnership with:





















Cardi-OH ECHO

Innovations in Diabetes and Cardiovascular Health

January 12, 2023





Cardi-OH ECHO Team

FACILITATOR

Goutham Rao, MD
Case Western Reserve University

CONTENT EXPERTS

Karen Bailey, MS, RDN, LD, CDCES
Ohio University
Kristen Berg, PhD
Case Western Reserve University
Elizabeth Beverly, PhD
Ohio University
Danette Conklin, PhD
Case Western Reserve University
Kathleen Dungan, MD, MPH
The Ohio State University

Carolyn levers-Landis

Case Western Reserve University

Ian Neeland, MD

Case Western Reserve University

Adam Perzynski, PhD

Case Western Reserve University

Yasir Tarabichi, MD

Case Western Reserve University

Chris Taylor, PhD
The Ohio State University
Kelsey Ufholz, PhD
Case Western Reserve University
James Werner, PhD, MSSA
Case Western Reserve University
Jackson Wright, MD, PhD
Case Western Reserve University





Spring 2023 Cardi-OH ECHO Participant Sites

10 5 9 6 4 3 8 7

- MetroHealth Medical Center Cleveland Heights
- 2 Salem Regional Medical Center Internal Medicine Center Salem
- Ohio University Heritage College of Osteopathic Medicine

 Athens
- Ohio University Diabetes Institute
 Athens

- Ohio State University Wexner
 Medical Center
 Columbus
- 6 Jackson County Health Department
 Chillicothe
- **7** Equitas Health Cincinnati
- Crossroad Health Center
 Cincinnati

- 9 University of Cincinnati Health West Chester Family Medicine West Chester
- Five Rivers Health Centers, Family Health Center Dayton
- University of Toledo, Comprehensive Care Center, Family Medicine
- University of Toledo, Comprehensive Care Center,
 Internal Medicine
 Toledo

Disclosure Statements



- The following speakers have a relevant financial interest or affiliation with one or more organizations that could be perceived as a real or apparent conflict of interest in the context of the subject of their presentation*:
 - Danette Conklin, PhD; Kathleen Dungan, MD, MPH; Ian Neeland, MD; Adam T. Perzynski, PhD; Goutham Rao,
 MD; Christopher A. Taylor, PhD, RDN, LD, FAND; Yasir Tarabichi, MD; Jackson Wright, MD, PhD
- The remaining speakers have no financial relationships with any commercial interest related to the content of this activity:
 - Karen Bailey, MS, RDN, LD, CDCES; Kristen Berg, PhD; Elizabeth Beverly, PhD; Carolyn levers-Landis, PhD; Kelsey Ufholz, PhD; James Werner, PhD, MSSA
- The following members of the planning committee DO NOT have any disclosures/financial relationships from any ineligible companies:
 - Shari Bolen, MD; Richard Cornachione; Carolyn Henceroth; Gillian Irwin; Michael Konstan, MD; Elizabeth Littman; Devin O'Neill; Steven Ostrolencki; Ann Nevar; Claire Rollins; Catherine Sullivan

^{*} These financial relationships are outside the presented work.

^{**} For more information about exemptions or details, see www.acme.org/standards





Elizabeth Beverly, PhD

Professor

Co-Director of the Diabetes Institute

Osteopathic Heritage Foundation Ralph S. Licklider, D.O.

Endowed Professor in Behavioral Diabetes

Department of Primary Care

Ohio University of Heritage College of Osteopathic Medicine

Person-Centered Language Recommendations



The ADA and the APA recommend language that emphasizes inclusivity and respect:

- **Gender**: Gender is a social construct and social identity; use term "gender" when referring to people as a social group. Sex refers to biological sex assignment; use term "assigned sex" when referring to the biological distinction.
- **Race**: Race is a social construct that is used broadly to categorize people based on physical characteristics, behaviors, and geographic location. Race is not a proxy for biology or genetics. Examining health access, quality, and outcome data by allows the healthcare system to assist in addressing the factors contributing to inequity.
- **Sexual Orientation**: Use the term "sexual orientation" rather than "sexual preference" or "sexual identity." People choose partners regardless of their sexual orientation; however, sexual orientation is not a choice.
- **Disability**: The nature of a disability should be indicated when it is relevant. Disability language should maintain the integrity of the individual. Language should convey the expressed preference of the person with the disability.
- **Socioeconomic Status**: When reporting SES, provide detailed information about a person's income, education, and occupation/employment. Avoid using pejorative and generalizing terms, such as "the homeless" or "poor."
- Violent Language: Avoid sayings like 'killing it,' 'pull the trigger,' 'take a stab at it,' 'off the reservation,' etc.





Avoid	Recommend		
Suffers from X	Lives with ✓		
Diabetic, schizophrenic, drug user X	Person with 'diabetes,' 'schizophrenia,' 'who uses drugs' ✓		
Good/bad/poor control X	A1C level, blood pressure reading ✓		
Obese, morbidly obese, fat X	Body weight, BMI ✓		
Compliance or adherence X	Medication-taking ✓		
Regimen X	Plan, choices ✓		
Test X	Monitor ✓		
Control X	Manage ✓		
Committed suicide X	Died by suicide ✓		



Out of Office Blood Pressure Monitoring CARDINOH Pressure Monitoring

Goutham Rao, MD, FAHA

Chief Clinician Experience and Well-Being Officer, University Hospitals Health System

Jack H. Medalie Endowed Professor and Chairman

Department of Family Medicine and Community Health

Division Chief, Family Medicine, Rainbow Babies and Children's Hospital

Case Western Reserve University School of Medicine & University Hospitals Cleveland Medical Center

Learning Objectives



- Describe the procedures, advantages, and disadvantages associated with 24-hour ambulatory BP monitoring.
- 2) Describe the advantages and disadvantages of home BP monitoring.
- Describe where and how patients can obtain home BP monitors





- BP measured at least every 30 minutes over 20 hours (minimum 30 daytime and 7 nighttime measurements)
- Currently accepted gold standard for measurement worldwide
- More closely correlated with cardiovascular risk than office BP
- Indications: Identifying white coat and masked hypertension; nocturnal hypertension and non-dipping; monitoring response to treatment



A Few More Words on 24-hour ABPM

- Hypertension threshold is:
 - an average of at least 130/80mmHg over 24 hours
 - a daytime average of at least 135/85mmHg
 - a nighttime average of at least 120/70mmHg
- Disadvantages: availability; disturbance of sleep; cost of devices



« Back | Diagnostics :: Blood Pressure :: Ambulatory Blood Pressure Monitors

Welch Allyn ABPM-7100 ABPM 7100 Ambulatory Blood Pressure Monitor

No Reviews Write the First Review Ask a Question



By Welch Allyn | MFR#: ABPM-7100 | TIGER#: TM70883











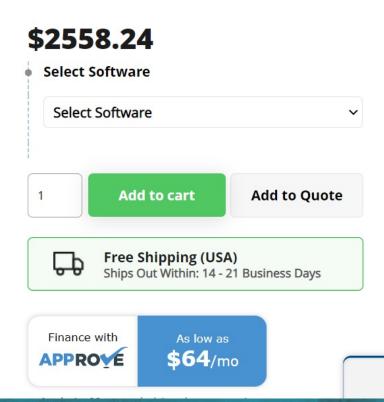


Highlights

- · Includes: Monitor Pouch, Adult Sleeve Cuff, Adult Plus Sleeve Cuff, USB Cable, 4 Alkaline AA **Batteries**
- Optional CardioPerfect® WorkStation software
- 24-hour ABPM reduces false BP results due to white coat hypertension
- · Compact, lighweight, and easily portable
- · Powerful software detects potential patient complications
- · Auto Feedback Logic inflation technology enhances patient comfort

More Product Details What's Included

Item Brochure



My Own Experience



- PI, Improving Diagnosis of Hypertension in Children (IDHC)
 AHRQ
- PI, Center to Improve Clinical Diagnosis

Video Clip





Every patient with hypertension should be measuring BP at home



- Home BP monitoring (HBPM) is better correlated with 24-hour ABPM and cardiovascular morbidity
- HBPM encourages patient-centered care
- HBPM improves patient outcomes
- HBPM devices are inexpensive and widely available (Roughly 2/3rds of patients with hypertension already have a device)
- HBPM devices are easy to use
 - https://youtu.be/rAwliNWe1bl
 - Text link to a patient's cell phone at the time of prescribing HBPM
- Consistent with remote care
- Promotes health equity



Health Equity

RESEARCH ARTICLE | HEALTH EQUITY

HEALTH AFFAIRS > VOL. 37, NO. 3: ADVANCING HEALTH EQUITY

Promoting Health Equity And Eliminating Disparities Through Performance Measurement And Payment

Andrew C. Anderson, Erin O'Rourke, Marshall H. Chin, Ninez A. Ponce, Susannah M. Bernheim, and Helen Burstin

AFFILIATIONS \vee

https://doi.org/10.1377/hlthaff.2017.1301

Leading healthcare organizations have demonstrated promising findings using interventions designed to reduce disparities between different groups and improve the care and outcomes of at-risk populations. For example, Aetna collaborated with the Morehouse School of Medicine and Health & Technology Vector Inc. to implement a high-intensity, multimodal, culturally competent disease management program for African Americans insured by Aetna to achieve and maintain blood pressure control. The intervention consisted of telephonic lifestyle and diet counseling by trained nurses, along with the use of home blood pressure monitoring devices. The program increased the frequency of self-monitoring for African Americans and improved systolic hypertension control by 50 percent. The program could likely be applied to African Americans enrolled in other private health plans. 30

Indications



- AHA Deliberately Broad
 - Identifying white coat hypertension; masked hypertension (confirmatory diagnosis)
 - As an alternative to ABPM
 - Monitoring/medical decision making
 - Empowerment



How

- 2 readings each in AM and PM for a minimum of 3, and preferably 7 days
- Most devices will store and average values

Clinic	НВРМ	Daytime ABPM	Nighttime ABPM	24-Hour ABPM	
120/80	120/80	120/80	100/65	115/75	
130/80	130/80	130/80	110/65	125/75	
140/90	135/85	135/80	120/70	130/80	
160/100	145/90	145/90	140/85	145/90	
ABPM = ambulatory blood pressure monitoring.; BP = blood pressure; DBP = diastolic blood pressure; SBP = systolic blood pressure; HBPM = home blood pressure monitoring					

2017 ACC/AHA Guideline

Muntner P, et. al. Rationale for ambulatory and home blood pressure monitoring thresholds in the 2017 American College of Cardiology/American Heart Association guideline. Hypertension. 2018;73:33–38

Durable Equipment Providers



DME Providers for Ordering BP Monitors

Edgepark (SW, NW, CSW, NE, and MyCare)

Ph: 1-800-321-0591 or 1-844-564-1007

for the CM support line

Fax: 330-963-6172 (use the Edgepark Order form)

Email: cmsupport@edgepark.com

Home Care Delivered (NE)

https://www.hcd.com/healthcare-professionals/

Click the "Submit A Referral Form" button

on the homepage

Crosby's Drugs (CSW)

2609 N High St

Columbus, OH 43202

Ph: 614-263-9424

Fax: 614-263-2929

Advanced Home Medical (CSW)

6665 Huntley Rd

Columbus, OH 43229

Ph: 614-433-9011 Fax: 614-433-9013

Dasco (CSW)

375 N. West St

Westerville, OH 43082 Ph: 614-901-2226

Fax: 614-901-2228

The Drug Store Pharmacy (CSW)

2940 Groveport Rd. Columbus, OH 43207 Ph: 614-491-3446

Fax: 614-409-3272

McKesson Patient Care Solutions (CSW)

Ph: 1-855-404-6727 Fax: 1-800-749-0711

Email: MPCSOrders@McKesson.com

Hocks Medical (MyCare team)

732 W. National Rd. Vandalia, OH 45377 Ph: 937-898-5536 Fax: 937-890-0327

An example of one approach to writing the prescription:

Validated [Enter Manufacturer name] home blood pressure monitor with arm cuff and memory. Code: A4670

> CARDI-OH Implementing Home Blood Pressure Monitoring: Pearls for Clinicians Jackson Y. Wright Jr., MD, PND, Case Western Feserve University Sharl Bolan, MD, HPH, Case Western Reserve University Home blood pressure monitoring (HBPM) is recommended by most current national and international hypertension guidelines. HBPM in patients trained in their use is more accurate than office readings and has the potential to identify white coat and masked hypertension. This deliverable will provide key "pearls" to implement HBPM in your practice. To accurately rely on home blood pressure (BP) readings, only order validated home BP monitors. Below are links to validated BP machines and models: British and Irish Hypertension Society (devices costing less than \$65) Hypertension Canada Medaval StrideBP US Blood Pressure Validated Device Listing To simplify ordering, choose a brand that validates multiple models so that a specific model. number does not have to be prescribed. Learning common validated brands near the medical practice will help ensure patients can pick up a validated BP machine. Cardi-CH.ord | Engineering Home Bland Pressure Hanktering | 5

UPDATED AUGUST 2022

https://www.cardioh.org/assets/Implementing-Home-Blood-Pressure-Monitoring.pdf





Thank you!

Questions/Discussion