




**BEST  
PRACTICES  
IN BLOOD  
PRESSURE**



**Hillrom**<sup>TM</sup>

Confidently assess, diagnose  
and manage hypertension



## ACCURATE BLOOD PRESSURE READINGS ARE NON-NEGOTIABLE WHEN DIAGNOSING HYPERTENSION.

High blood pressure—or hypertension—is the #1 risk factor for heart attack, stroke and kidney disease.<sup>1,2</sup> The American Heart Association (AHA) now defines high blood pressure as 130/80 mm HG or higher.<sup>3</sup> With these guidelines, nearly half of American adults (46%) have high blood pressure—and many may not know it.<sup>4</sup>

## Feel Confident in Your Blood Pressure Readings

We understand that accurate blood pressure readings are critical to support a diagnosis and treatment plan you can feel confident in. Hillrom offers the Welch Allyn® line of digital blood pressure devices, enabling you to:



**IDENTIFY**  
In the Office



**CONFIRM**  
Outside the Office



**MANAGE**  
At Home

## New Recommendations for Measuring Blood Pressure

The American Heart Association's latest scientific statement explores the best methods for obtaining accurate blood pressure readings.<sup>5</sup> Because precise measurements are critical for hypertension diagnosis and monitoring, the AHA discusses the benefits of in-office and out-of-office devices.

Oscillometric devices provide an automated office blood pressure reading that can reduce common user errors—like improper technique, rounding and transcription mistakes—associated with auscultatory measurements.<sup>5</sup> Automated devices that can average a series of blood pressure readings may also provide a more accurate in-office blood pressure measurement.<sup>5</sup> Evidence suggests that ambulatory blood pressure monitoring is a valuable tool and recommended to confirm hypertension diagnoses.<sup>6</sup> Home blood pressure devices can monitor blood pressure levels over time, measure medication efficacy and help identify hard-to-detect hypertension.<sup>7</sup>

It's more important than ever to assess your patients with accurate blood pressure readings inside and outside the office. That's where we come in.

# IDENTIFYING HYPERTENSION

The first opportunity to identify hypertension is right in your office.

## The Challenge

Evidence suggests that manual single-reading blood pressure methods may not be enough to identify and diagnose hypertension.<sup>8</sup> For many people, the first measurement taken during an office visit is higher than subsequent measurements.<sup>9</sup> In fact, a study of U.S. adults estimates that 35% of people with a blood pressure reading of 140-159/90-99 mmHg on their first measurement had a reading of <140/90 mmHg when three measurements were recorded and averaged.<sup>9</sup>

## The Impact

Because white-coat effect and inconsistent clinical technique can contribute to inaccurate blood pressure readings,<sup>8</sup> you need a solution that can help mitigate these challenges. Studies show automated blood pressure averaging can provide additional decision support to improve the accuracy of hypertension diagnoses.<sup>10</sup>

**IDENTIFY**  
In the Office



Automated blood pressure and vital signs devices can support attended and unattended automated in-office blood pressure readings.



## The Solution

Hillrom provides a wide range of blood pressure and vital signs devices developed with your needs in mind. Whether you want to upgrade your blood pressure devices, or need a fully connected vital signs workflow, we've got you covered.

### THE WELCH ALLYN® PROBP™ 2400

Designed specifically for smaller clinics who want to upgrade from manual blood pressure devices to an automated solution.

- Professional-grade device with blood pressure averaging
- Simple, cost-effective solution without additional vital signs or connectivity options



### THE WELCH ALLYN SPOT VITAL SIGNS® 4400 DEVICE

Built to fit smoothly into your daily routine with simple, easy-to-use, all-in-one vitals capture.

- Blood pressure averaging available in one tap via the home screen
- Send vital signs to your EMR with basic USB connectivity



### THE WELCH ALLYN CONNEX® SPOT MONITOR

Delivering multi-parameter vital signs in one configurable device for IDNs and clinics that want a fully automated workflow.

- Easy-to-use touchscreen with blood pressure averaging, spot checking and more
- Wired and wireless connectivity to your EMR



Automated office blood pressure devices can be programmed to record and average multiple blood pressure readings— with or without a clinician present—and can provide a more accurate blood pressure measurement than auscultation.<sup>5</sup>

# CONFIRMING HYPERTENSION DIAGNOSES

Once you detect high blood pressure, make sure you're seeing the whole picture.

## The Challenge

Patients with elevated in-office blood pressure readings often require additional monitoring outside the office during normal state conditions to be properly diagnosed.<sup>11</sup>

## The Impact

Ambulatory blood pressure monitoring is an important step in confirming a hypertension diagnosis. This method collects multiple measurements for a comprehensive picture and can help identify patterns—like sustained, white-coat, masked or nocturnal hypertension—that cannot be detected with blood pressure readings in the office.<sup>6</sup>

**CONFIRM**  
Outside the Office



Confirm your hypertension diagnoses with ambulatory blood pressure monitoring.

## The Solution

### THE WELCH ALLYN® ABPM 7100 AMBULATORY BLOOD PRESSURE MONITOR

Designed to bring comprehensive blood pressure monitoring to the comfort of your patient's home

- Lightweight, compact and quiet 24-hour monitoring
- Comprehensive reporting and analysis tools
- Identify and confirm hypertension; can also be used to monitor the impact of hypertension treatment



The U.S. Preventative Services Task Force calls ambulatory blood pressure monitoring “the best method for diagnosing hypertension.”<sup>12</sup>

# MANAGING HYPERTENSION

Set your patients up for long-term success with a compressive monitoring solution.

## The Challenge

Home blood pressure monitoring solutions often lack clinical accuracy and rely on patients to correctly communicate their readings to physicians.

## The Impact

Clinician-connected remote patient monitoring has been proven to help get patients to their target blood pressure.<sup>13</sup>

**MANAGE**  
At Home



Help your patients effectively manage hypertension with self-management tools.

## The Solution

### WELCH ALLYN HOME® HYPERTENSION PROGRAM

Designed to help your patients reach their target blood pressure

- Accuracy and critical connectivity—from the home to your office
- Clinically accurate blood pressure monitoring
- Secure and efficient practice workflows



When paired with patient feedback, counseling and other adherence strategies, home blood pressure monitoring is associated with an improvement in blood pressure control.<sup>14</sup>

We're here to help you identify, diagnose and manage hypertension across care settings. Learn more at [hillrom.com](http://hillrom.com).



Hillrom™

[hillrom.com](http://hillrom.com)

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#### References

- <sup>1</sup> Mayo Clinic. High blood pressure dangers: Hypertension's effects on your body. Mayo Clinic website. <http://www.mayoclinic.org/diseases-conditions/high-blood-pressure/in-depth/high-blood-pressure/art-20045868>. February 18, 2014. Accessed October 17, 2016.
- <sup>2</sup> World Heart Federation. Cardiovascular disease: Risk factors. World Heart Federation website. [http://www.world-heart-federation.org/fileadmin/user\\_upload/documents/Fact\\_sheets/2012/PressBackgrounderApril2012RiskFactors.pdf](http://www.world-heart-federation.org/fileadmin/user_upload/documents/Fact_sheets/2012/PressBackgrounderApril2012RiskFactors.pdf). Accessed October 17, 2016.
- <sup>3</sup> <http://www.acc.org/latest-in-cardiology/articles/2017/11/08/11/47/mon-5pm-bp-guideline-aha-2017>
- <sup>4</sup> [http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/GettheFactsAboutHighBloodPressure/The-Facts-About-High-Blood-Pressure\\_UCM\\_002050\\_Article.jsp#.WjgSFVWnGUn](http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/GettheFactsAboutHighBloodPressure/The-Facts-About-High-Blood-Pressure_UCM_002050_Article.jsp#.WjgSFVWnGUn)
- <sup>5</sup> Muntner, Paul et al. "Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association." *Hypertension* 73, no. 5. pg.e35. (May 1, 2019). Doi:10.1161/hyp.0000000000000087.
- <sup>6</sup> Muntner, Paul et al. "Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association." *Hypertension* 73, no. 5. pg.e41. (May 1, 2019). Doi:10.1161/hyp.0000000000000087.
- <sup>7</sup> Muntner, Paul et al. "Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association." *Hypertension* 73, no. 5. pg.e46. (May 1, 2019). Doi:10.1161/hyp.0000000000000087.
- <sup>8</sup> Pickering, Thomas G., MD, DPhil, et. al: Recommendations for Blood Pressure Measurement in Humans and Experimental Animals. *Circulation*. 2005; 111:697-716.
- <sup>9</sup> Muntner, Paul et al. "Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association." *Hypertension* 73, no. 5. pg.e40. (May 1, 2019). Doi:10.1161/hyp.0000000000000087.
- <sup>10</sup> Robert Smith, MD. Blood pressure averaging methodology; Decreasing the risk of misdiagnosing hypertension
- <sup>11</sup> [http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/KnowYourNumbers/Monitoring-Your-Blood-Pressure-at-Home\\_UCM\\_301874\\_Article.jsp#.WnDR\\_q6nGUk](http://www.heart.org/HEARTORG/Conditions/HighBloodPressure/KnowYourNumbers/Monitoring-Your-Blood-Pressure-at-Home_UCM_301874_Article.jsp#.WnDR_q6nGUk)
- <sup>12</sup> Margaret A. Piper, PhD, MPH; Corinne V. Evans, MPP; Brittany U. Burda, MPH; Karen L. Margolis, MD, MPH; Elizabeth O'Connor, PhD; and Evelyn P. Whitlock, MD, MPH: Diagnostic and Predictive Accuracy of Blood Pressure Screening Methods With Consideration of Rescreening Intervals: An Updated Systematic Review for the U.S. Preventive Services Task Force
- <sup>13</sup> Green B et al. Effectiveness of Home Blood Pressure Monitoring, Web Communication, and Pharmacist Care on Hypertension Control. *JAMA* 2008;299(24):2857-2867
- <sup>14</sup> Muntner, Paul et al. "Measurement of Blood Pressure in Humans: A Scientific Statement From the American Heart Association." *Hypertension* 73, no. 5. pg.e47. (May 1, 2019). Doi:10.1161/hyp.0000000000000087.

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