Hypertension with ABPM is defined as the following:

- ABPM is a wearable device, similar to a Holter monitor, that records the blood pressure of the patient at preset intervals and transmits this data electronically for interpretation.
- ABPM has many indications for use, including white coat hypertension, episodic hypertension, resistant hypertension, and early detection of pre-eclampsia in pregnant patients.
- Despite these indications, ABPM were rarely used in the internal medicine clinic due to antihypertensive side effects, suggesting that patients are not being adequately managed on current antihypertensive medication regimens.

In 2017, the ACC/AHA released new hypertension guidelines advocating the use of ambulatory blood pressure monitors (ABPM) as the gold standard for diagnosis.

ABPM is far superior to office blood pressure readings at predicting target-organ damage and cardiovascular events.

The aim of our project was to:

1. Increase provider use of ABPM for (a) White coat hypertension (b) Hypertension despite antihypertensive therapy (c) Side effects of antihypertensive medications
2. Monitor patient medication changes following ABPM

The number of patients who had hypertension that was not well-controlled on their current medication regimen was higher than expected.

- This data suggests that many patients who are currently on antihypertensives may benefit from ABPM for medication management.
- As predicted, a large proportion of patients who were hypertensive in clinic had true hypertension, but a significant portion did not, suggesting hypertension may be over-diagnosed if using only clinical measurements.
- A significant number of patients who completed the ABPM did not receive a follow-up appointment to review their results.
- The majority of follow-ups were in clinic.
- Very few patients were referred for ABPM due to antihypertensive side effects, suggesting that patients are either not discussing side effects with their provider, or providers were unaware of this indication for ABPM.
- All ABPM’s were placed by the cardiology tech team, as the internal medicine clinic did not have any in-house ABPM’s.
- ABPM raw data was subject to some variation in interpretation dependent on cardiologist.

For example, one cardiologist did not transmit the daytime and nighttime average BP, but only the overall averages – this makes it difficult to truly diagnose or exclude hypertension.

The clinic has purchased ABPM’s to begin in-house monitoring to increase patient access to ABPM.

More providers are referring patients for ABPM – this will likely continue on an upward trend.

Patients who are diagnosed with hypertension and treated with antihypertensives based on blood pressure readings in clinic are likely overtreated.

Patients on antihypertensive medications may benefit from ABPM for medication management.

In conclusion, ABPM are far superior to office blood pressure readings at predicting target-organ damage and cardiovascular events.