

Dear Clinicians,

When we think about home blood pressure monitors, we often assume that our patients are using upper arm devices. However, our patients commonly use wrist blood pressure cuff devices. They are cheap, small, lightweight and easy to carry. Although wrist devices can provide accurate BP results, most hypertension societies discourage their use because the results often lack reliability in real-life conditions. Wrist devices require the wrist to be placed EXACTLY at heart level. Wrists kept at a higher level in comparison with the heart lead to a false lower BP value, and wrists at a lower level lead to a false higher BP value.

Proper use of these devices requires proper instructions, demonstrations and re-training ... much more so than the easy to use upper arm devices. For these reasons, upper arm measurement remains the gold standard. Obese patients are one exception when wrist cuffs should be considered over upper arm devices. "Undercuffing" of obese arms can result in inaccurate readings. Even when the circumference of the cuff is accurate, the cone shape of some obese arms and relative short length of the arm (in relation to the circumference) can result in the bladder of the cuff not being able to properly occlude the brachial artery.

Fortunately, a new technological advance has made wrist cuff readings more reliable ... some devices will only record a measurement when the monitor is held at heart level!! Bottom-line, wrist cuffs should not routinely substitute for upper arm readings in clinical practice. Check out this great resource to determine whether a particular wrist cuff has been validated: the website is www.dableducational.org. Keep in mind that even though the cuff has been validated, it will only produce accurate results if used correctly!

If you have specific questions related to hypertension management in your patients, Dr. Williams can be reached by email at Stephen.Williams@nyumc.org or by phone at 646-320-8075 (cell).

THE BP VISIT PROJECT TEAM
www.CDNetwork.org/BP-Visit

