The Missing Vital Sign - Postural Ones

by Christopher C. Frank MD FCFP

Postural (orthostatic) hypotension is a common problem in older patients, and is usually brought to the family physician. Diagnosis and treatment can be more difficult than would appear on the surface, especially when patients are taking multiple medications and have co-morbidities. The Canadian Geriatrics Society (CGS) has helped to compile articles about postural hypotension; they can be found at www.posturalhypotension.ca and provide practical help for busy family physicians. Despite working with older patients for many years, the "weak and dizzy" person can still be challenging. I have picked up a few tips and strategies to add to the information in these articles.

How long to wait before checking? They just re-tested the idea that you need to wait till 3, 5 or even 10 minutes before checking the BP drop in all patients. A study published in July of 2017 http://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2645147?resultClick=1 found that bad outcomes of hypotension (including motor vehicle accidents) were associated with hypotension at 1 minute in patients with low risk of major autonomic dysfunction. One minute is not a lot less time than waiting for 3 minutes, but is a long time in a family medicine office, especially if you are sitting there watching the patient as the clock ticks. It is pointless to measure the vitals if the patient has only been recumbent for a short time, as fluid will not have had time to distribute. There is quite a bit of variability in how long physicians dictate that the patient must lie before standing up. Fortunately, it appears that 5 minutes is adequate to obtain a reasonable measurement; quite helpful in a busy clinic. The recommended protocol is found at: https://www.rcplondon.ac.uk/projects/outputs/measurement-lying-and-standing-blood-pressure-brief-guide-clinical-staff.

Besides the timing of measurement, are there other ideals to strive for? The first thing is to ensure you actually check for a BP drop! Researchers in the UK found that only 16% of hospital inpatients over age 65 had postural blood pressure readings done in the first few days of admission. Given that these patients are at high risk of falls due to postural hypotension (triggered by dehydration, infection, meds, etc.) this is a major shortcoming. The National Audit of Inpatient Falls suggests that manual cuffs seem to be better, but that automatic machines can be used if they are actually able to read the pressure after standing. This recommendation resonated with me as I have found that with automatic cuffs, BP readings often seem to go up with standing.

What should the routine be in clinics? The finding that postural vitals are neglected in many wards is unfortunately often true in outpatients also. In our outpatient clinic, the loss of a dedicated geriatric nurse meant that we share a registered practical nurse who is stretched too thin to routinely do postural vitals (even if she just waits a minute!) and we have to ask for postural vitals in select patients or do them ourselves. We are comfortable doing this but from a "time crunch" perspective, are hard pressed to do them with every patient. Developing protocols in a family medicine practice is worthwhile as patients do not always report postural symptoms and identification can help decrease the risk of falls.

Meds and falls? As noted in the CGS article by Dyks and Sadowski (http://canadiangeriatrics.ca/2015/04/volume-5-issue-1-interventions-to-reduce-medication-related-falls/), when in doubt about the cause of postural hypotension or falls, blame the medications (never bad advice with any presentation in an older person). Being alert to hypotension caused by over treatment of hypertension is important as people become more clinically frail. Over-treatment is associated with falls and may increase cardiovascular events. An Australian blood pressure deprescribing trial found that a significant proportion of patients who were able to stop their BP meds due to tight control were able to remain off medications.

I have emphasized the identification and diagnosis here but do suggest reviewing the article by Klair et al (http://canadiangeriatrics.ca/2017/07/treatment-of-orthostatic-hypotension-in-older-patients-the-geriatric-perspective/) which covers treatment of postural hypotension, including use of more potent agents like midodrine and fludricortisone.

The article by Klair et al (http://canadiangeriatrics.ca/2017/07/treatment-of-orthostatic-hypotension-in-older-patients-the-geriatric-perspective/) covers treatment of postural hypotension, including use of more potent agents like midodrine and fludricortisone. I have emphasized the identification and diagnosis here but do suggest reviewing the summary published in this issue, and going to the full article at www.geriatricsjournal.ca .