The New Hypertension Guidelines - Frankly Speaking EP 52

Transcript Details

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Dr. Frank Domino:

A patient comes in for a physical and a flu shot and mentions that he's heard about the new blood pressure guidelines and wonders if he needs to be treated. His blood pressure today is 134 over 78. Does this qualify for medication? Hi. I'm Frank Domino, Professor in the Department of Family Medicine and Community Health at the University of Massachusetts Medical School, and joining me today to discuss the new blood pressure guidelines is Alan Ehrlich, Associate Professor in the Department of Family Medicine and Community Health at the University of Massachusetts Medical School and executive editor at DynaMed. Welcome to the show, Alan.

Dr. Alan Ehrlich:

Thanks, Frank.

Dr. Domino:

I am so glad you brought this forward, this new blood pressure guideline. Can you give us a brief synopsis of what the guideline recommends, and how evidence-based it is?

Dr. Ehrlich:

First of all, this guideline is meant to be an update to JNC 7. Now, many of you out there may recall JNC 7 was already replaced by JNC 8. And they sort of glossed over that and they're focusing mostly on changes vis-a-vis JNC 7. JNC 8 was actually somewhat more conservative in

some of its approaches and this is getting a little more aggressive in diagnosis and treatment. So to highlight what I think are the key changes people need to be aware of, the first is that there's a new classification system for hypertension. If the systolic blood pressure is 120 to 129, that's classified as elevated. If it's 130 to 139, that's now called stage one hypertension. And if it's 140 or over, it's called stage two hypertension. For diastolic, stage one hypertension would qualify between 80 and 89, and stage two hypertension is a diastolic reading greater than 90. So they've added this stage one and stage two, along with a classification of elevated. And as before, you're in the classification if either the diastolic or the systolic measurement gets you into it, so it's not, you pick the lower, you pick the higher one. So that's the first change, is that there's a new classification.

Dr. Domino:

Okay. I'm curious, so we have elevated stage one and stage two. Stage two seems like our former cut-off for initiating treatment. What do we do for patients with elevated and stage one hypertension?

Dr. Ehrlich:

At first glance, it sounds like stage one hypertension is gonna be a change. Elevated is really no change. You give them lifestyle advice that anybody should be doing, even if their blood pressure is normal. We talk to people about exercise, limiting their alcohol intake, things like that. But for stage one, it's now recommended that they be started on medication if they meet one of the following criteria. Either they have known coronary vascular disease, or they have a 10-year predicted risk of 10% or higher of developing cardiovascular disease using the pooled cohort equations, or you could use a Framingham calculator, or something like that. So previously, people who had known heart disease or other similar types of vascular disease were often advised to have treatment for blood pressure at lower thresholds, so this is more formalizing that. But now, you have a group of people who don't have any increased risk by comorbidities, and let's say their 10-year risk is less than 10% and now they're still being called a stage one hypertension, even though medicine isn't being recommended for them. Lifestyle changes only is the suggested treatment.

Dr. Domino:

So that's really important, and I think that was somewhat missed in all the media blitz on this, is that stage one hypertension is a diagnosis we give patients, but unless their 10-year risk is over 10% or they have known heart disease, the management is the same as elevated. It's aggressive lifestyle change, exercise, etcetera.

Dr. Ehrlich:

That's right.

Dr. Domino:

Wonderful. That actually makes me feel better. Now, one of the big things this guideline recommends is an approach to taking blood pressure. Can you speak to that?

Dr. Ehrlich:

This isn't a new recommendation from them, but what I think has happened is, now that they have this new classification system where, as you said, the headline was, "Okay, we're gonna start treating people with a blood pressure of 130 over 80," there's been a lot more attention given to, "Well, okay, what exactly do we mean by a blood pressure of 130 over 80?" And so, there's a couple of things about that. First of all, the standard advice for how you take blood pressure for, and this is how it's done in all the major trials, is that patient's taken into a room, they're allowed to sit quietly for five to 10 minutes. Somebody comes, they take their blood pressure with the right-sized cuff with their arm at the same level as their heart and nobody talks while they're taking the blood pressure, all this kind of stuff, and you're using those readings.

And in reality, in my office and many other offices, the blood pressure is a rushed thing. The medical assistants often walking the patient in, sitting them down. They want to get their stuff in, 'cause they gotta get to the next patient. I come in, I look at the numbers that they've given. Unless it's really off, I just often accept that and move on. And so, I think a lot more attention needs to be paid to making sure we're doing blood pressure right, because otherwise, if we have

artificially high readings that don't reflect the true blood pressure, and we start treating on that basis more aggressively, you're going to have a lot of people who are gonna be having sinkable episodes from over aggressive anti-hypertensive medication.

Dr. Domino:

That's a really important point and I think that's easily missed in how we engage patients is that, incumbent upon us is not to prescribe more, but incumbent upon us is to first make the proper diagnosis and that requires taking the blood pressure in a uniform manner. Just as you say, in my office, the patient is not sitting in a chair with their back supported and their feet on the ground, their rather dangling in space on my exam table, they're using the old standard mercury cuff, not an automated cuff, and it's done without five minutes of rest. So, we need to make a change before we go about asking our patients to make a change.

Dr. Ehrlich:

Yeah, there's some other things about this as well. You brought up the issue of the manual cuff versus the automated cuff, and it's worth noting that one of the drivers for the new guidelines is the sprint trial that was published recently. In the sprint trial, all the blood pressure readings were by automated cuffs, and there's data that shows they tend to read 10 or 20 points lower than a mercury standard blood pressure cuff. If that's the case and you're basing your treatment decisions on in-office mercury, blood pressure devices, then again, you're going to be overly aggressive in the treatment of patients with what appears to be high blood pressure. One of the things that's suggested is for patients who have what I'd call more borderline blood pressure, let's say 130 up to 150 or 160, to strongly consider ambulatory blood pressure monitoring to get a better sense of how's their blood pressure being managed or alternatively, the patient can get a home blood pressure cuff, make sure it's calibrated, and you can use those readings to help guide management.

Dr. Domino:

I'm so glad you mentioned that Alan, because I believe a year ago the US Preventive Services Task Force said, "Use home ambulatory blood pressure monitoring before making the diagnosis of

hypertension." And I think that's a really strong point. We need to get our patients more empowered, both with the diagnosis and the lifestyle management of this condition. It seems that one of the big takeaways here is that we treat greater than 140 and greater than 90 and we worry about treatment in high risk patients when it's between 130 and 140, and 80 and 90. And we get much better at making the appropriate diagnosis.

Dr. Ehrlich:

I think all those things are exactly right, Frank. I wanna mention a few other things, the first is this stage one hypertension really replaces what was something I was never a big fan of, which was pre hypertension. So pre hypertension is now gone, okay. I thought that was always a little bit of a questionable nomenclature. The second thing is, around the same time that these guidelines were published, there was also a systematic review published in JAM Internal Medicine, in November, and what they looked at was for multiple outcomes, what are the benefits when you treat, if the systolic pressure is less than 140 or at various gradations over 140. And what they found was, there's no benefit to treating at less than 140, and this systematic review included the sprint trial, and the authors discussed, well, is their data from the systematic review in conflict with it's sprint trial and they again pointed to the differences in blood pressure measurement as a potential factor. So, there's a lot of stuff out there, there's going to be a lot more discussion and I think there's still a lot of controversy around these new recommendations and how they get implemented, but it's certainly food for thought.

Dr. Domino:

That systematic review perfectly puts in perspective how we should be applying this guideline, somewhat caution until you reach that threshold where we have actual data that demonstrates beneficial outcomes. Alan, thanks so much for bringing this forward. This is hugely important and I hope our listeners appreciate all the hard work you put into making this so succinct and clear.

Dr. Ehrlich:

Thanks, Frank.

Dr. Domino:

Practice pointer. With systolic blood pressure between 130 or 139 or diastolic between 80 and 89, indications for medication include a known history of cardiovascular disease or a 10-year risk of a cardiovascular event of 10% or more. Join us next time when we talk about management of resistant C difficile infection in the outpatient setting.