

A Case-Based Exploration on How We Address High Blood Pressure Concerns in Urgent Care

Urgent message: High blood pressure is a common incidental finding in urgent care. Distinguishing patients who may need treatment from those who should be advised to follow up for further evaluation is well within the urgent care provider's field of expertise.

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Patients often present to urgent care with concerns about their blood pressure readings. Additionally, high blood pressure (BP) is frequently a very incidental finding among patients presenting to UC for other concerns. In my practice, I see primary care patients as part of a service line offered through our UC center. From this vantage point, I see a wide range in how high blood pressure is managed by the UC providers I work side-by-side with. This article will address some of the common scenarios I've observed involving patients with elevated BP readings and review the most recent guidelines and evidence-based approaches to such cases.

Case 1

A 35-year-old with stable hypertension on lisinopril/HCTZ 10/12.5 mg daily just moved to the area. They have an appointment to establish care with a primary care physician in 2 months. On presentation, their blood pressure is 118/70. They are requesting a refill because they only have 1 week of medication left. How would you respond to this request?

- Turn them away because "this isn't the purpose of urgent care."
- See them but insist on an electrolyte and renal function panel before refilling the medication. Tell the patient the following day's provider will review



- the labs and consider a refill if they're normal.
- Offer for them to see your Urgent Care's Primary Care service line provider next week.
- Refill their medication for 90 days.

The correct answer is D. It is appropriate in this setting to refill the patient's medication. Checking electrolytes and/or renal function is not indicated in asymptomatic adults.¹ While this is not technically "urgent," it is exactly the kind of care we can and should provide when patients are in the lurch—trying to do the right thing for their health, and unable to see another provider. They have an upcoming primary care appointment already arranged; they simply need medication to cover

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them until that time. The additional benefit to helping them with this very reasonable request is that they are likely to remember your kindness with gratitude and keep your clinic in mind for the next time they have an urgent need.

Case 2

A 74-year-old presents after cutting their finger on a piece of broken glass in the kitchen. They are very anxious about needing stitches and needles in general. Their blood pressure is 192/105 and they have never been diagnosed with hypertension. They have a regular primary doctor and their blood pressure has been normal as recently as their last routine visit 2 weeks ago. What should you do about this patient's blood pressure?

- Send them directly to the emergency department. They have a high risk of stroke in the next 24 hours.
- Address the laceration but ignore the BP because that is best left to discuss with their primary doctor.
- Prescribe the patient an oral antihypertensive right away and refer them to their PCP for follow-up.
- Repeat the BP measurement after repairing the laceration. If the BP remains elevated, ask them to follow up with their PCP in the next few weeks.

The correct answer is D. Their BP is almost certainly elevated due to the catecholamine surge associated with their high level of anxiety. Additionally, the short-term risk for patients with asymptomatic high BP readings is fairly low.² Starting elderly patients on BP-lowering medications without established hypertension can lead to orthostatic hypotension, gait instability, and falls. In the short-term, an asymptotically elevated BP is generally a safer situation. High BP is rarely an emergency, but a BP that is so low as to cause symptoms is immediately dangerous, especially in older adults.

Case 3

A 56-year-old woman comes in after rolling her ankle. You note on chart review that her BP is elevated every time she's in urgent care. She doesn't have a PCP. She's a daily smoker and admits to occasionally using cocaine. Her BP is 174/105 at the time of this visit. How should you address this patient's elevated blood pressure?

- Address her ankle sprain and tell her she should really stop smoking and using drugs and that she should find a PCP.
- Give her 30 days of amlodipine 5 mg daily and tell her to find a PCP.
- Ignore her blood pressure entirely and focus only on the ankle injury.

- Discuss what barriers she may have to regular care. Ask if she is willing and able to see a PCP that works out of your UC center. Offer support with a substance treatment referral if she is willing.

The correct answer is D. Her pressure is high but it's not so urgent that it needs to be treated today. Outcomes of immediate vs delayed hypertension treatment are similar over subsequent months.³ This patient has a complex social situation and several risk factors for long-term negative health outcomes that make it unlikely for them to fill or continue any blood pressure prescription given today. Additionally, controlling hypertension for a month without any follow-up plan is unlikely to change her long-term outcomes. It's best to be compassionate and offer what you can, and hearing a healthcare provider call out high-risk health behaviors can be surprisingly impactful at times.

Case 4

An 86-year-old man is brought in by his adult child for confusion. His BP at home was 210/150. His child is not sure if he takes his medications as directed. How should you respond to this patient's high BP?

- Tell them to go to the ED immediately.
- Get a urinalysis to see if he's confused because of a UTI. If indicated, prescribe an antibiotic because the 2+ leukocyte esterase (LE) is the likely cause of his confusion. Tell them to call his primary doctor tomorrow about his blood pressure.
- Repeat a full set of vital signs and perform a thorough general and neurological exam while your staff calls 911.

The correct answer is C. This may be a hypertensive emergency (eg, posterior reversible encephalopathy syndrome, or PRES) and his confusion may represent evidence of end organ damage.⁴ Sending such a patient away without an evaluation is an exceptionally risky practice. This evaluation can be (and is best) kept brief. Acute confusion has a broad differential, but almost all conditions on this list require ED-level care.

A full set of vital signs, general screening, and cardiac and neurologic exams should be performed at a minimum. It's also reasonable to consider an EKG, but many paramedics will also likely perform one by protocol and this should not delay transport of such patients.

It may seem more expedient to simply send such patients directly to the ED once they walk in, but this patient very well may decompensate during a car ride over to the hospital. Worse yet, they may not heed the advice at all and decide not to go to the ED, choosing instead to try another UC down the road.

Remember the Fundamentals

The fundamentals can't be overlooked when it comes to BP. I've seen frequent confusion and deviations from best practice when it comes to accurate measurement of blood pressure and making an appropriate diagnosis of hypertension.

With that in mind, let's briefly review how to accurately measure blood pressure. Ensure:

- at least 30 minutes have passed since eating, drinking, or smoking
- at least 5 minutes of sitting still
- a correctly sized cuff
- the patient's feet are flat on the floor (ie, not dangling off the exam table), legs uncrossed, arm at heart level
- no talking during measurement

If you reflect on these parameters, you'll probably realize that many of the BP measurements we take in UC are not ideal and should not be used in support of a diagnosis of essential hypertension.

Additionally, as discussed above, the diagnosis of essential hypertension requires:

- three elevated BP measurements (ie, >140/90), taken at least 2 weeks apart
- accurate reading (see above)
- no other reason for high readings (eg, anxiety, sleep apnea, stimulant use, nicotine use)⁵

In other words, you will probably not make a new diagnosis of hypertension in UC very often, if ever. Patients with high readings should be advised to get a home blood pressure cuff and measure a few times a week at different times of day and record the values so they can discuss them with their PCP at their next visit.⁶

What about when the patient is really worried about their high BP readings? This happens quite often, and reassurance and education are almost always the best approach here. Reassurance can consist of assuring patients that the likelihood of immediate danger and the short-term risks of un-/undertreated hypertension are quite low. However, the longer-term risks (most notably for stroke) aren't.

The good news for patients is that with healthy lifestyle changes many patients can avoid or get off medications to control their blood pressure. These can include some simple changes such as:

- Dietary improvements – Low-carbohydrate diets have proven more effective than low-fat diets for reducing cardiovascular disease risk.⁷
- Regular exercise – This doesn't mean just "cardio." In fact, growing evidence supports high-intensity

training with resistance as a likely more potent intervention for cardiovascular protection.⁸

- In addition to reminders about "diet and exercise," these additional factors can also contribute to improvement of hypertension:^{9,10}
 - Healthy sleep and treatment of underlying sleep apnea
 - Quitting smoking
 - Reducing caffeine and eliminating stimulant use
 - Reducing overall levels of stress

Educating worried patients about the things that they can do to control their high BP gives them a sense of agency. It also allows for a redirection of their nervous energy toward healthy lifestyle choices rather than helplessness or perseveration about the numbers they see on their home cuff. I like to use the analogy that elevated BP readings are like seeing an undesirably high number on the bathroom scale when we weigh ourselves. Yes, it's concerning. And, no, it's not an emergency. Worrying about the numbers doesn't accomplish much, but using the numbers as a source of motivation to live a healthier life can make a world of difference.

In summary, high blood pressure readings warrant our attention, but rarely much in the way of immediate medical intervention. Without evidence of end-organ injury (eg, chest pain, confusion, visual disturbance), hypertension is not an emergency. Our role in urgent care is to understand the underlying situation and respond appropriately while taking the opportunity to briefly counsel the patient about the significance of the high blood pressure and what they can do about it. ■

References

1. Gaitonde DY, Cook DL, Rivera IM. Chronic kidney disease: detection and evaluation. *Am Fam Physician*. 2017;96(12):776-783.
2. Dowd CM, Gallagher B, Kessler CS, Svingos R. Asymptomatic hypertensive urgency at a VA emergency department. *Fed Pract*. 2018;35(3):33-39.
3. Unger T, Borghi C, Charchar F, et al. 2020 International Society of Hypertension Global Hypertension Practice Guidelines. *Hypertension*. 2020;75(6):1334-1357.
4. Fischer M, Schmutzhard E. Posterior reversible encephalopathy syndrome. *J Neurol*. 2017;264(8):1608-1616.
5. Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2018;71(19):2199-2269.
6. Bello NA, Schwartz JE, Kronish IM, et al. Number of measurements needed to obtain a reliable estimate of home blood pressure: results from the improving the detection of hypertension study. *J Am Heart Assoc*. 2018;7(20):e008658.
7. Dong T, Guo M, Zhang P, et al. The effects of low-carbohydrate diets on cardiovascular risk factors: a meta-analysis. *PLoS One*. 2020;15(1):e0225348.
8. Paoli A, Pacelli QF, Moro T, et al. Effects of high-intensity circuit training, low-intensity circuit training and endurance training on blood pressure and lipoproteins in middle-aged overweight men. *Lipids Health Dis*. 2013;12:131.
9. Hartley TR, Lovallo WR, Whitsett TL, et al. Caffeine and stress: implications for risk, assessment, and management of hypertension. *J Clin Hypertens (Greenwich)*. 2001;3(6):354-361.
10. Gonzaga C, Bertolami A, Bertolami M, et al. Obstructive sleep apnea, hypertension and cardiovascular diseases. *J Hum Hypertens*. 2015;29(12):705-712.