The Value of Vitals – Part I

Recently, a PA I supervise called me about a young woman who came in for hematemesis and melena at home. The provider, let's call him Tom, told me that the patient had normal vital signs, but he thought she should still go to the ED.

I could sense some reluctance in his voice though. It was probably because the patient was just 32 years old and looked well. Understandably, Tom was conflicted, so he called me. I could only interpret the situation through his account.

"So, she's been vomiting blood and has black stool?" I asked.

"That's what she told me," Tom said, "and it looked like melena when I did a rectal."

There seemed to be a disconnect between the patient's appearance and her history and exam. I realized we needed more data. I asked Tom to repeat her vital signs while standing. He called me back 5 minutes later.

"She got hypotensive and nearly passed out," Tom said. "EMS is on the way."

In the hospital, the patient required a transfusion and underwent emergent endoscopy at which time a bleeding ulcer was identified and cauterized. She survived, but her course may have been much rockier had Tom sent her home or even to the ED by private vehicle.

Collecting vitals is a routine part of urgent care practice, but it's also fundamental—like blocking and tackling in football. While focusing on vitals may seem mundane, they can make a major difference in how we keep our patients safe.

This is the first of several pieces to come that will examine our approach to vital signs and how we integrate them into UC practice.

Patients presenting to urgent care are usually relatively healthy and have minor illnesses or injuries. And we do an excellent job of caring for the vast majority of these patients definitively. For these patients—the stubbed toes and sore throats—one set of vitals is usually plenty. This is good because we need to move through such patients quickly to meet their expectations and manage flow. However, it's this pressure for efficiency and rapid decision-making with limited data that makes paying attention to vital signs that much more, well, *vital*.

Patients do not necessarily self-triage appropriately and, though ambulatory, may present to UC with early signs of serious illness. Finding the metaphorical needle in the haystack is challenging, especially when hurried and fatigued.

To reduce the risk of missing dangerous diagnoses, it's important to develop a habit of running through several checkpoints when evaluating every patient: reviewing the MA's note and prior visits, for example. Atul Gawande advocates for this approach in his treatise, *The Checklist Manifesto*.[1] He argues that a sequential routine of checkpoints for every patient will train habits to ensure critical steps aren't missed. This is how the airline industry has created such an astounding track record of safety.

Consciously or unconsciously, habits arise automatically based on our routines. Hans Mesmer famously said, "Habits are like masters we can't see." Since we all develop a habitual clinical approach, it's worth choosing these "masters" with intention. After a few months, these intentions are no longer required; the behaviors become automatic. It no longer takes effort to "remember" to check your patient's past visits, for instance, if you've practiced doing it every time.

Perhaps the most important habit, however, is ensuring that there is a complete, plausibly accurate, *and* reasonably normal set of vital signs for every patient before they're discharged.

For many patients, the value of complete vital signs is, admittedly, questionable. You'd be hard pressed to convince me that checking the temperature of a 16-year-old with an ankle sprain would meaningfully affect management. However, this doesn't mean we should be checking vitals less routinely.

In fact, checking vitals on every patient offers a number of benefits for both patients and clinicians.

First, collecting vital signs is a very safe and noninvasive way of making patients feel cared for. Patients generally report feeling comforted by appropriate physical touch from healthcare providers and checking vitals provides a universal opportunity for this.[2,3]

More specifically, checking vitals also is an effective way to screen for hypertension (it's called the silent killer for a reason). Most importantly, the value of vital signs, or lack thereof, can only be determined *after* evaluating the patient.

In other words, we can't prospectively determine if one or more of the vital signs is unnecessary and/or irrelevant.

Let's consider a common example. Imagine you are caring for a well-appearing 7-year-old with a fever and cough. Your clinical gestalt suggests that this is a viral URI and not pneumonia. If the patient's oxygen saturation is 99%, you might think, "Well, I didn't need that data because I knew the child had a URI." However, if the oxygen saturation were 87%, you'd (hopefully) reconsider your impression.

We can't be sure when vitals will prove useful or impact management until we have already reviewed them and integrated them into our clinical impression. Furthermore, we certainly cannot expect our medical assistants to determine which patients do (or don't) require a full set of vitals.

Clinical assessment in UC is a hard task. We see many patients every shift, most of whom we've never met before and for whom we have little objective data available to guide us. Getting a reliable set of vital signs on every patient quickly provides a tremendous amount of information about the patient's clinical status, with no additional cost or risk. And, when vitals are normal, it bolsters the confidence with which we can reassure those that we care for that they're alright. But not always.

Sometimes one set of vitals, even if normal, isn't enough—as was the case with the young woman Tom saw with the GI bleed. There are occasions when rechecking the vitals proves critical for capturing patients at high risk for bad outcomes. And we'll discuss in which cases we'd be wise to recheck vitals next time.

Joshua W. Russell, MD, MSc, FCUCM, FACEP
Editor-in-Chief, *JUCM, The Journal of Urgent Care Medicine*
Email: editor@jucm.com • Twitter: @UCPracticeTips

References
1. Gawande A. *The Checklist Manifesto: How to Get Things Right*. New York, NY: Picador; 2009.
2. Cocksedge S, George B, Renwick S, Chew-Graham CA. Touch in primary care consultations: qualitative investigation of doctors' and patients' perceptions. *Br J Gen Pract*. 2013;63(609):e283-e290.
3. Singh C, Leder D. Touch in the consultation. *Br J Gen Pract*. 2012;62(596):147-148.