



What Happens If We Do Nothing?



In its most modern form, medicine revolves around action. We are trained as clinicians to assess, diagnose, and intervene, but it's the intervention part that patients expect most. This is especially true in urgent care (UC), where patients usually present in anticipation of some swift action for whatever is bothering them.

I recently saw a healthy, middle-aged man in our clinic who was complaining of some mild chest pain. He wore a white, pristinely starched shirt and tie with suspenders and cufflinks. I could tell he'd come from one of the nearby office buildings. I began reviewing his chart as he recounted the details of his pain.

The first thing that leaped out from his medical record was a note from the emergency department (ED) from two days prior.

"I see you were seen for chest pain in the emergency department a few days ago," I said.

He nodded.

"And what did they do for you there?" I asked.

"Nothing. They just did some tests and sent me home."

I looked through his ED note more. He had had several EKGs, two sets of troponins, and a CT angiogram of his chest, which were all normal. The ED physician caring for him called a cardiologist and arranged an outpatient follow-up visit for him in a few weeks. It was a thorough work-up to be sure.

"I see. Well, it looks like they evaluated you for the dangerous causes of chest pain, and everything looked okay. You have a cardiologist appointment next week as well. Has something changed?"

"No," he said, pulling his shoulders back, "but the pain's still there, and I need someone to do something about it!"

We repeated an EKG, which was normal again. I probed his history a bit further to be sure I wasn't missing something. He gave short, staccato replies but never looked me in the eye again. Clearly, in his mind, I was just as reckless and callous as the ED doctor who hadn't intervened either. The tension in this encounter arose because the other physician and I didn't share his sense of urgency or bias towards intervention. But of course, regardless of

patients' expectations, intervention isn't always the best clinical decision.

Iatrogenesis and The Death of Two Presidents

On a hot July day in 1881, President James Garfield was shot twice in the back by a troubled political activist, Charles Guiteau, while boarding a train in Washington, D.C. One of the bullets became lodged in his retroperitoneum between the spine and pancreas.

A comedy of what would now be considered misguided attempts to remove the bullet ensued. Over the subsequent days and weeks, the well-meaning doctors attending to Garfield—who were among the most respected of their time—proceeded with multiple failed efforts to retrieve the bullet using unwashed hands and unsterilized instruments. After all, the then recent and controversial work of Joseph Lister on antisepsis had yet to meet widespread acceptance.¹ The president was taken to New Jersey for some reprieve from the summer heat of D.C. where he died of complications of sepsis—79 days after being shot.

Most medical historians believe Garfield, a robust 49-year-old man, would have likely survived the shooting had the bullet just been left in place.² However, his doctors clearly believed that intervening to remove the retained projectile was the most prudent course of action.

Roughly 80 years earlier, America's first president met his demise under the "care" of similarly well-intentioned physicians. In December 1799, George Washington developed acute throat pain and swelling that led to difficulties with swallowing, which was attributed to "quinsy"—the antiquated term for severe throat infections, such as peritonsillar abscess.

He initially asked a friend to assist him with a lancet to induce hemorrhage—a widely accepted medical practice for a variety of ailments at the time—while awaiting medical assistance. When his team of doctors assembled, he continued to implore them to continue the blood-letting. They obliged. As was the case with Garfield, the doctors who tended to the former president were considered among the best in America at the time. But ultimately, their treatment proved more injurious than the infection itself. After draining over 2 liters of blood, Washington died the next day in his Mt. Vernon home.³

Intervention Bias is a Two-Way Street

Both of these examples demonstrate that the compulsion to act in the face of an acute medical issue can be driven by either party at the bedside. However, most commonly, there's collusion from both sides. And clearly this is not a novel phenomenon.

Retrospectively, it's obvious that both plans of treatment for our presidents were misguided. But these were serious situations, so the urge to intervene was seemingly justified. As Hippocrates acknowledged, "extreme remedies are only appropriate for extreme diseases." I wonder, however, how the presidents' outcomes may have changed had anyone involved considered and advocated for less aggressive interventions? Or perhaps for no interventions at all?

The phenomenon of "intervention bias" among clinicians has been extensively discussed in the medical literature,^{4,5} however, patients' influence on these decisions made by clinicians to take action have largely remained unexplored. Authors cite reasons for clinicians' tendency to favor intervention when at a point of apparent equipoise ranging from financial incentives to defensive practice.⁴

However, patients are not simply passive bystanders when clinicians are making decisions about whether or not to intervene. Certainly in UC, where patients usually present with mild and short-term symptoms, their mere presence in the center is tantamount to a declaration that they are of a belief—albeit often an unconscious one—that medical intervention is indicated.

This common response among patients when new symptoms arise shouldn't surprise us. Every TV medical drama has a scene where a patient comes into the ED complaining of chest pain. And what happens next? A careful history and review of the patient's chart? Certainly not.

Instead, the patient is rushed to a resuscitation room and placed on all manner of monitors. Intravenous fluids and high-flow oxygen are started, and occasionally, the nurse even begins eagerly rubbing defibrillator paddles together. And this makes sense for entertainment value. Watching a tech obtain an EKG while a patient tries to gobble and chew several baby aspirin from a paper med cup wouldn't garner the same ratings.

The problem, however, arises when patients compulsively pursue aggressive care due to the conviction that aggressiveness is a surrogate for "good medicine." This belief that "more care equals better care" is compounded when we as healthcare professionals get psychologically drawn into such inappropriate strategies as well.

Respecting Natural History and Iatrogenesis

In the 21st century, consideration of the "natural history" of diseases is often relegated to more of a historical cu-

riosity. The term conjures images of neurosyphilis and leprosy for many of us. But natural history is a critical concept to consider when treating patients with almost every common UC presentation from bronchitis to urinary tract infections (UTIs) to low back pain.

In an era of open MRI scanners, "big gun" antibiotics, and COX selective anti-inflammatories, it's easy to forget that none of these conditions—or virtually any of the other most common UC diagnoses—were ever among the leading causes of human mortality. Sure, patients feel better faster if they start nitrofurantoin at the first sign of cystitis. However, even before the era of antibiotics, patients certainly got UTIs frequently, yet history isn't filled with cases of urosepsis-related deaths that started as bladder infections in otherwise healthy adults. And we know most acute back pain just gets better with time, and bronchitis usually subsides on its own within a few weeks.

In recent decades, the Choosing Wisely campaigns, supported by numerous high-quality studies, have advocated even greater prudence for the decision to delay or even avoid antibiotics for the most likely self-limited infections (eg sinusitis, bronchitis, acute diarrhea etc.).⁶ This is based on an appreciation for the natural history of these illnesses and a careful review of the abundant data supporting the inutility of antibiotics to improve upon the body's innate ability to defend itself in the face of these common infectious conditions.

If we look at the definition, natural history describes the expected course of an illness without medical intervention. For self-limited conditions, their natural history is full recovery, and it's hard to improve upon complete resolution. Conversely, iatrogenesis is defined as the risks of harm related to medical interventions and represents the fifth-leading cause of death worldwide.⁷ These are the two competing hazards we must always consider: the risk of a poor outcome if we elect not to intervene versus the risk of the intervention itself.

In weighing this balance, considering the deaths of Presidents Washington and Garfield can again be instructive. In both cases, the immediate issues they faced were undoubtedly life-threatening, and it's easily conceivable that they both might have died with or without the hazardous interventions.

However, it's important to also recognize that the belief in the potential benefit of many therapies is frequently recast when more evidence emerges (eg Lister's work on antisepsis). This is called a "medical reversal," and it is not limited to such seemingly barbaric practices of a bygone era. For example, stenting of significant, but stable, coronary artery occlusive disease was the standard of care until the early 2000s. Then more evidence emerged showing that patients were, on average, more likely to be

harmful by this practice.⁸

If you've been practicing more than a decade or so, you probably can recall at least a few examples of medical reversals that you've witnessed. In the decade or so that I've been practicing in UC, I've seen the "best practices" change with respect to concussion management, immobilization after ankle sprain, and blood pressure goals in the elderly, just to name a few. In other words, medical treatments we previously thought would be helpful are commonly proved more likely to be harmful. This is why the play on the familiar axiom is not only pithy but often sage clinical advice: "Don't just do something, stand there."

Spectrum of Disease in Urgent Care

One of the principle questions of medical research is generalizability. A clinical study is done on a group of patients in Ireland or Indonesia, and we are left to extrapolate how those results apply to the patient sitting in front of us in Illinois or Indiana. Generalizability isn't limited to geographic or ethnic differences though. In UC practice, the major issue with generalizability is that there are extremely limited data published on patients presenting to UC settings, so we are forced to look to studies conducted in other settings and specialties. In many ways, this question of extrapolation is harder.

When evaluating patients, we use our history, vital signs, physical exam maneuvers, and ancillary tests to whittle down a differential diagnosis and exclude dangerous conditions. Our ability to do this relies on some understanding of the risk of certain illnesses within the populations we see in our UC centers.

For example, if we are seeing a patient with lower abdominal pain who has some mild tenderness to palpation at McBurney's point, we seek to know the risk that the patient has appendicitis. However, since there are no published studies on the prevalence of appendicitis among patients presenting to UC centers, we are left to make assumptions based on studies published in emergency medicine (EM) and primary care literature.

This leads to a phenomenon called "spectrum bias," whereby we inappropriately assume our patients are similar to a different set of patients, and therefore that they have similar risk of certain illnesses.⁹ Since there are limited studies in UC populations, if we rely on EM derived clinical decision rules (eg NEXUS, PERC, HEART score, etc.), which are likely excessively conservative for most ambulatory populations, we are likely to over-refer patients to the ED. Unfortunately, in UC, our only alternative is relying on our own arsenal of clinical experience until we have more published data.

Additionally, as UC is designed to offer highly convenient access, many patients present very early in their course of

illness. How often have you seen patients with seven hours of ear pain or two hours of eye irritation? This further shifts the spectrum of disease towards presentations that are even less likely to represent dangerous clinical entities. Think about it. If such rapidly accessible care didn't exist, many of these patients would never have sought medical attention at all. Given the test of time, it's likely (but unfortunately far from proven) that many, if not most, patients presenting to UC would return to their normal state of health without treatment.

In these settings, however, the patients are more commonly presenting because they're seeking action more than reassurance. This leads to a final issue contributing to interventionism worth noting: overdiagnosis.¹⁰

Undoubtedly, there are some patients with hours of otalgia or eye discharge who truly do have bacterial otitis or conjunctivitis, but most don't. By prescribing an antibiotic immediately at this index visit, we not only risk over-treatment by virtue of overdiagnosis at the index visit, but we also tacitly encourage patients to seek care with similar alacrity the next time a similar condition arises. It's a deeply fundamental issue for quality and safety in UC actually. Many patients firmly believe that more testing and prescriptions and referrals are better, but paradoxically, the truth is quite the opposite. And this is probably more true in UC than in any other specialty.

A Middle of the Road Approach

While the prospect of delaying imaging studies for back pain or antibiotics for generally self-resolving infections is anathema to many UC patients who seek care out of frustration over bothersome symptoms, it shouldn't be for us. In taking the Hippocratic Oath, we vowed to "first do no harm," not "first disappoint no patient." It's important to remember this when we are faced with a patient request for some action, especially if the benefits of intervening are dubious. Remember that there are always risks of iatrogenesis associated with everything we do to patients and, in UC, these often outweigh the risks of delaying testing or treatment.

If the natural history of most urgent care presentations is full recovery without treatment—which I believe is true for most UC practices—on average, we hold much more potential to harm patients than help them. With the risks of iatrogenesis, rising costs of medical care, and the self-limited nature of most mild, acute symptoms, when faced with uncertainty, rather than first asking ourselves, "what should I do?" we'd better serve our patients if we asked a different set of questions:

- 1.) What is the likelihood of a serious diagnosis?
- 2.) What happens if I do nothing?
- 3.) What does the patient expect, and what's the risk of

harm associated with it?

4.) What alternate plan can I offer that's safer?

With some practice, I've found this approach can be well received by patients. Moreover, care ultimately becomes more efficient with this approach too; I'm no longer waiting on unnecessary x-ray reads or changing prescriptions that I didn't think would help in the first place.

In short, I've found many patients are accepting of wait-and-see strategies, provisional diagnoses, and metered reassurance, but only if we are able to put them at ease. If our patients are going to be comfortable with a non-interventional approach, we must first develop comfort within ourselves with the magic art of doing nothing. ■



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