

William Henry Harrison didn't die of pneumonia: Reexamining the myth and medicine of America's shortest Presidency

W. T. Hillman Terzian, MD '08

Hampden-Sydney College, Hampden-Sydney, VA 23943

Article

The one thing almost everyone thinks they know about our ninth president and Hampden-Sydney alumnus, William Henry Harrison (1773-1841), is that he caught a cold at his inauguration that led to his sudden death one month later. But that often-repeated story probably isn't true.

Born in Charles City County, Virginia, Harrison came from a prominent political family: His father, Benjamin Harrison V, was a delegate to the Continental Congress, signer of the Declaration of Independence, and governor of Virginia. His grandson, Benjamin Harrison, would one day become the twenty-third president. At age 14, Harrison entered Hampden-Sydney's celebrated Class of 1791 but withdrew after three years to briefly study medicine at the University of Pennsylvania before joining the newly formed United States Army.

Long before his presidential campaign, Harrison rose to national prominence as a soldier and commander during the early American Indian Wars and Tecumseh's War, where he earned the nickname "Old Tippecanoe." He later fought in the War of 1812. He was elected as a non-voting delegate to the U.S. House of Representatives from the Northwest Territory and was later appointed Indiana's first territorial governor. He went on to represent Ohio in both the U.S. House and Senate. In 1828, President John Quincy Adams appointed him minister to Gran Colombia—a state that encompassed present-day Colombia, Ecuador, Panama, Venezuela, and parts of Peru and Brazil.

Harrison ran for president in 1840 as a Whig. His Democratic opponents tried to typecast him as an out-of-touch, backwoods, hard cider-drinking old man living in a log cabin—but he turned the caricature on its head by adopting the imagery as part of his campaign. "Old Tippecanoe" used these simple emblems to portray himself as a humble frontiersman, connected to the common man—despite his privileged upbringing in a wealthy, slaveholding Virginia family. On election day, he handily defeated the incumbent president, Martin Van Buren.

Unfortunately, Harrison's reputation rests largely on being not only our shortest-tenured president—with a term of just 32 days—but also as the first president to die in office. His sudden death triggered a constitutional crisis when his vice president and fellow Virginian, John Tyler, claimed not just to act as president, but to fully assume the office—a point of constitutional ambiguity at the time. (Prior to the 1967 passage of the 25th Amendment, the vice president's

automatic succession to the presidency was not clearly defined.)

Until Ronald Reagan in 1980, the 68-year-old Harrison was our oldest elected president, and the cause of his premature death has long been attributed to pneumonia—the "old man's friend," as it was called in the pre-antibiotic era. Historians have rarely questioned that diagnosis, but there's a lot of mythology surrounding it: The story, often repeated for comic effect, is that Harrison caught a cold after giving the longest inaugural address in American history on a freezing, rainy day in March wearing neither coat nor hat. Harrison did, in fact, give the longest speech ever (clocking in at one hour and 45 minutes, the record still stands), but it wasn't raining on March 4, 1841, and Harrison didn't fall ill until three weeks later, suggesting that the illness had nothing to do with the swearing-in.

In a 2014 article in *Clinical Infectious Diseases*, Jane McHugh and Philip A. Mackowiak reviewed the notes of Harrison's physician, Dr. Thomas Miller. According to Miller, Harrison began experiencing fatigue and anxiety on March 26—symptoms both patient and physician attributed to the stress of the recent campaign and the demands of Harrison's new office. The president also reported abdominal discomfort, consistent with prior episodes of his chronic dyspepsia (upset stomach).

The next day, Miller was summoned to the president's bedside for a severe chill. Miller applied mustard to Harrison's abdomen and prescribed Spiritus Mindereri (ammonium acetate) to induce sweating and treat fever. Harrison also complained of constipation, leading Miller to prescribe mercury- and apple-based laxatives.

By the third day of his illness, Harrison's symptoms worsened. He developed pain in his side and forehead, persistent thirst, and nausea. Miller responded with enemas, mustard plasters, Seidlitz powders (an obsolete 19th- and early 20th-century laxative), and increasingly aggressive laxatives since the enemas had only produced a small amount of liquid, foul-smelling stool. In the evening, the president was in too much pain to be touched.

The following day, Miller diagnosed the president with right lower lobe pneumonia and "congestion of the liver," but chose not to bleed Harrison due to his slow heart rate (bloodletting was still a standard treatment for pneumonia at the time). Instead, he continued laxatives and added laudanum (tincture of opium) for pain. Harrison's condition worsened: he passed dark, possibly bloody stools, produced little urine, and began coughing up yellow,

blood-tinged mucus. He grew confused and delirious, eventually only sitting in bed while muttering to himself and picking at his clothes.

Consulting physicians agreed with Miller's diagnosis and treatment plan. Harrison became somnolent but lucid when aroused. He had several large-volume bowel movements and was given squill root to induce vomiting and urination. By April 2, his diarrhea worsened, his abdomen grew distended, and his arms and legs became cyanotic—consistent with septic shock from perforated bowel. Miller continued with his various treatments, including enemas, but the president's condition rapidly deteriorated and he died shortly after midnight on April 4, 1841.

Although historians have never questioned the diagnosis of pneumonia, Dr. Miller himself was uncomfortable with the diagnosis and offered it largely to satisfy public demands for an explanation of the president's death. In retrospect, Miller's doubts about the pneumonia diagnosis appear well-founded: Harrison did develop a cough, but not until several days into his illness. Moreover, his gastrointestinal symptoms appeared first, something not typically seen in pneumonia.

In their 2014 article, McHugh and Mackowiak concluded that all of Harrison's signs and symptoms were consistent with a form of enteric fever—typhoid fever. Caused by the bacterium *Salmonella enterica* serotype Typhi, typhoid is transmitted through the ingestion of food or water contaminated with feces from a human carrier. Today, most cases occur in Asia, Africa, and Latin America, where the disease still claims hundreds of thousands of lives each year—primarily among children and young adults.

Early signs and symptoms of typhoid include fever, headache, abdominal pain, and general malaise. Interestingly, many adults present with constipation rather than diarrhea. When bowel movements do occur, they are often notably foul-smelling. For reasons not entirely understood, some bacterial infections—including typhoid—cause bradycardia (a slow heart rate) in the presence of fever. As the disease progresses, additional symptoms may include respiratory complaints, mental dullness, and worsening diarrhea. The disease can ultimately progress to severe dehydration. In rare cases, inflammation of the portion of small intestine near its junction with the large intestine can ulcerate and bleed, or rupture.

Those signs and symptoms of typhoid are certainly consistent with Harrison's tragic experience: The president suffered from fevers, headaches, and overall weakness. His main complaints were abdominal pain and constipation, which is also consistent with typhoid, and Miller focused his

treatment on those symptoms, dosing the president with sometimes-toxic concoctions to induce bowel movements.

Miller documented the president's slow heart rate, cough, and mental dullness. Toward the end, Harrison showed signs of intestinal bleeding and perforation. This final complication from typhoid normally happens in less than three percent of cases, but toxic laxatives might well have increased the president's risk of intestinal perforation.

In 1841, when Harrison took up residence in the White House, there was no sewer system in Washington, D.C. According to Wilhemus Bogart Bryan's *History of the National Capital* (1916), until the 1850s sewage from local buildings flowed onto city property a short distance from the White House, where it stagnated in a foul-smelling marsh. Furthermore, the water supply for the White House came from a spring just seven blocks south of a public cesspit for "night soil," the 19th-century euphemism for the city's collected excrement. McHugh and Mackowiak surmised that drinking such contaminated water may have been the direct cause of the president's illness after his arrival in the nation's capital.

Even if Miller had recognized typhoid, no effective treatment existed at the time beyond supportive care, and the laxatives he administered for the president's abdominal distress were the standard of care for 1841. One hundred and eighty-five years later we recognize that some of these substances are highly toxic and can contribute to dehydration, septic shock, and intestinal bleeding and perforation. Whether Harrison died of pneumonia, typhoid, or perforated bowel, these conditions would be survivable in the United States today.

Some historians argue that the untimely death of our ninth president may have profoundly altered the course of American history. Harrison supported most Whig initiatives, and had he completed his term, it is likely that the Second Bank of the United States would have been re-established. His successor and former Democrat, Tyler, vetoed Henry Clay's National Banking Act, effectively dooming the Whig economic agenda. And while speculative, some argue that this disruption in federal banking policy set the stage for decades of instability that eventually led to the creation of the Federal Reserve.

It can also be argued that Harrison would have been less inclined than Tyler to push for the annexation of Texas—an action that provoked the Mexican-American War. Following the American victory in 1848, tensions between North and South intensified over whether slavery should expand into the newly acquired western territories. These debates

inflamed the country and dominated congressional discourse in the decade leading up to the Civil War.

Of course, we'll never know the true impact of Harrison's death. But in today's world, it's shocking to picture a president's agonizing death from proximity to raw sewage and misguided treatment with toxic medications. As a Hampden-Sydney student, I recall chuckling at the folly of our sole presidential alumnus dying of a cold caught at his swearing-in. But perhaps it's time to lay that fable to rest and instead recognize President Harrison's extraordinary life of service to his young country—a life cut short by well-meaning, but uninformed, mid-19th century medicine.

About the Author

W. T. Hillman Terzian, MD '08, is an assistant professor of surgery at the University of Nebraska Medical Center (UNMC) in Omaha. He serves as Medical Director of Surgical Quality for Nebraska Medicine and as Emergency General Surgery Medical Director at UNMC. He practices acute care surgery, including trauma, surgical critical care, and emergency general surgery. He can be reached at wterzian@unmc.edu.