

Why you can thank Oliver Wendell Holmes Sr. for doctors washing their hands

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In the mid-19th century, the number of women who died in childbirth was often 10 to 20 times greater in the best maternity hospitals in Europe and America compared to those attended by midwives or who delivered at home. The cause was, invariably, “childbed” or “puerperal” (from the Latin for child and parent) fever, marked by raging fevers, putrid pus emanating from the birth canal, painful abscesses in the abdomen and chest, sepsis and death — all within 24 hours of the baby’s birth.

Doctors practicing in the elite teaching hospitals of this era often began their day by conducting autopsies on the women who died the day before, usually of childbed fever. They would then examine laboring women with no rubber gloves or any other means to keep deadly bacteria from spreading from corpse to expectant mother.

Five years ago, I celebrated **the anniversary of Ignaz Semmelweis’s revolutionary plea** to the physicians and surgeons of the Vienna General Hospital to *please* wash their hands before attending to their patients — especially important doctors who helped women to deliver their babies.

But this was only the European half of the story, and it is high time we recognize the American physician, anatomist, poet and author Oliver Wendell Holmes Sr. (1809-1894), who was born on Aug. 29, 211 years ago. His son Oliver Jr., of course, was the famed American Supreme Court justice.

In 1833, Holmes traveled abroad to study in the prestigious Paris Medical School. Among his teachers at the La Pitié Hospital was Pierre Louis, who used a new method of measurement called statistical analysis to disprove the efficacy of bloodletting, once a common treatment for pneumonia. Holmes returned to Boston and was awarded his medical degree from Harvard Medical School in 1836. He quickly rose in the ranks at Harvard and the Boston Dispensary, and became an active member of the Boston Society for Medical Improvement, along with several other colleagues who had the same training.

Holmes was also a superb literary stylist and the author of hundreds of poems, essays and stories under the byline “the Autocrat of the Breakfast-Table.” In 1846, he coined the word “anesthesia” to refer to the power of ether to induce “insensibility—more particularly—to objects of touch.” In his 1860 essay, “**Currents and Countercurrents in Medicine**,” he made one of his most famous observations on the futility of most medications then prescribed to patients:

Throw out opium, which the Creator himself seems to prescribe, for we often see the scarlet poppy growing in the cornfields, as if it were foreseen that wherever there is hunger to be fed there must also be a pain to be soothed; throw out a few specifics which our art did not discover, and it is hardly needed to apply; throw out wine, which is a food, and the vapors which produce the miracle of anaesthesia, and I firmly believe that if the whole materia medica [the medications prescribed by doctors], as now used, could be sunk to the bottom of the sea, it would be all the better for mankind — and all the worse for the fishes.

Holmes became interested in childbed fever after attending a lecture in 1842, and then spent the next year studying the medical literature on the topic. The following year, he presented his research to the Boston Society for Medical Improvement and published his findings, “The Contagiousness of Puerperal Fever,” in the New England Quarterly of Medicine and Surgery, which had a tiny circulation and ceased to exist after one year of publication.

Sadly, the paper barely made a dent in the doctor’s lexicon until it was republished more than 10 years later, in 1855 as a small booklet entitled “Puerperal Fever as a Private Pestilence.” This was a few years after Semmelweis’s famous 1850 lecture on the topic, but a few years before the Hungarian obstetrician’s 1861 book, “The Etiology, the Concept, and the Prophylaxis of Childbed Fever”, was published.

Holmes's conclusion included the admonition for all physicians who treated women who succumbed to puerperal fever to burn the clothing they wore while attending them, destroy their surgical instruments, and stop seeing obstetric patients for, at least, six months, on both moral and safety grounds.

Holmes' study, like Semmelweis', was so remarkable because it predicted the contagiousness of what we now understand as a streptococcal infection. Both studies appeared decades before **Robert Koch** and Louis Pasteur demonstrated the germ theory of disease. In fact, Holmes' work was denigrated by many prominent American physicians who refused to believe they might be the cause of their patients' deaths, let alone his theory of a contagious etiology. The Philadelphia gynecologist and obstetrician Charles Meigs, for example, ridiculed Holmes's paper as the "jejune and fizzleless dreamings" of a young and inexperienced doctor who was simply unlucky when it came to the proper treatment of female patients.

It would take many more years for doctors to routinely wash their hands before attending any patient, which, of course, is now standard operating procedure — And paramount for everyone when it comes to reducing the spread of COVID-19.

The debate of who ultimately gets credit for telling doctors to wash their hands is best left to squabbling medical historians. In my humble opinion, both were brilliant observers and deserve dual credit and kudos.

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