

Cleanliness Is Next to Godliness

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This paper discusses the role of litigation in reducing the spread of hospital-acquired infections. Given the prophylactic nature of litigation, it is suggested that legal action serve as part of a multifaceted approach to improving American medical care and that there be a balance between the burden of an environment occasioned by the specter of potential lawsuits with the benefit of improved care through pecuniary responsibility for failing to meet the standard of care. This paper concludes that while we should not over-employ litigation in the health care environment, we should also not abandon it. It is one treatment modality for the illnesses that compromise the American health care system.

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Additionally, Steinbuch serves as a commissioner on the Arkansas Commission for the Newborn Umbilical Cord Blood Initiative. The 11-member commission will establish and oversee a statewide network that will contribute to a central bank of blood donated from umbilical cords otherwise discarded after childbirth. Once the network has been established, Arkansas will be connected to a national and international network of cord blood banks that supply potentially life-saving cells for transplants to children and adults with cancer all over the world. The University of Arkansas School

of Medical Sciences, which has one of the largest adult blood cell transplant centers in the country, will serve as the statewide network's main storage site.

Steinbuch currently teaches business associations, law and economics, legal profession and evidence. He has published numerous papers on topics such as health law, commercial law, criminal procedure, and election law, in both medical and legal journals. He often focuses his research on the intersection of law and process improvement in health care and other public services.

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Hospital-acquired infections (HAIs) are as old as medicine itself, reaching even the most notable of patients. President James A. Garfield died as a result of several factors, including a HAI. On July 2, 1881, Charles Guiteau, a rejected ambassadorial applicant, shot the newly elected president.² Over the next 11

weeks, squabbling doctors probed Garfield with unclean hands and instruments. Unaware of the infections that they were transmitting, these doctors ultimately contributed to the president's untimely and unnecessary death.² Indeed, compounding the tragedy, Garfield's death could well have been prevented based on scientific knowledge available even at that time.

Approximately 30 years before Garfield's death, Dr Ignaz Semmelweis realized that women with babies delivered by medical students had much higher mortality rates than those employing midwife trainees.³ Dr. Semmelweis recognized that the medical students spread infections to patients by transferring contaminants from autopsied cadavers.³ After ordering that medical students disinfect their hands between autopsies and the patient examinations, the mortality rates of women in both cohorts equalized.³ Dr Oliver Wendell Holmes Sr, father of the noted US Supreme Court Justice Oliver Wendell Holmes Jr, made similar findings in 1843.⁴ Despite the fact that the findings of these great doctors were well documented and the results of adopting improved procedures were dramatic, the medical establishment pursued changes in the way health care workers addressed the spread of infections with abysmal speed.³

The groundbreaking conclusions of these doctors, along with many subsequent studies, have demonstrated conclusively that the best method to reduce the risk of the contraction of HAIs, including superbugs such as methicillin-resistant *Staphylococcus aureus* (which can survive for weeks on surfaces in a hospital), is simple hand washing and other inexpensive hygienic procedures.⁵ The Centers for Disease Control (CDC) confirms that basic prophylaxis significantly diminishes the likelihood of contracting HAIs: 36% of these infections are preventable merely through adherence to existing cleanliness guidelines by health care workers.⁶ Indeed, for this reason health care agencies have recommended basic hygiene protocols for the last half century.

In 1961, the US Public Health Service prescribed that health care workers wash their hands before and after patient contact.⁴ In both 1975 and 1985, the CDC published written guidelines on hand washing practices for hospitals, and in 1988 and 1995, the Association for Professionals in Infection Control (APIC) published similar guidelines. Although the majority of hospitals have adopted these guidelines, health care worker compliance remains low.⁴ The CDC estimated adherence at a mere 48%.⁴ Tragically, conformity with the guidelines inversely related to the greater need for hand hygiene.⁴ Thus, health care workers showed a greater failure to abide by hand washing and antisepsis procedure in intensive care units compared with internal medicine wards, during procedures that carried a high risk of infection, and when the intensity of patient care was high.⁴ In the United States, scientists estimate that 2 million patients contract nosocomial infections per year,

resulting in costs exceeding \$20 billion annually.⁷ HAIs double the mortality and morbidity risks of patients and result in more than 90,000 deaths a year in the United States alone.⁴

The law has a role to play in addressing HAIs. Tort law—the area of law that covers personal injuries, including medical malpractice—generally requires *negligence* for a medical provider to be held liable for a patient's injuries. Under the negligence standard, health care workers become liable for a patient's injury if they fail to meet the established standard of care. US courts generally recognize that the spread of disease through the unclean hands of medical professionals—and other failures to meet basic hygiene standards—do not meet the current standard of care. Moreover, agency law generally imposes liability on hospitals and other employers for the unclean hands of their employees (such as doctors, nurses, and technicians).⁸

Personal anecdotes of HAIs abound. Examples include the potentially devastating situation of a medical care practitioner working with rhinovirus-caused acute coryza in an intensive care unit, rather than refraining from working, working in a different unit, or employing the most basic infection-control procedure of wearing a mask. Another involves the transfer of infections through pulse oxygen monitors that were moved from the index finger of each patient to that of the next patient without disinfection, notwithstanding these fingers have the unsurprisingly nasty habit of finding their way into various bodily orifices, across lesions, or in contact with pruritic dermatitis.

But when it comes to reported court opinions concerning nosocomial or HAIs, there are only a few. One particularly instructive case involves a maternity patient with no history of herpes contracting the virus during her stay in a hospital.⁹ Much like the situation dealt with by Dr Semmelweis, the expert witness doctor found that the patient most likely contracted the disease from the unclean hands of a nurse also caring for a patient with an active herpes outbreak.⁹ For reasons unexplained in the legal opinion, the infected patient requested to be taken off herpes infection precautions.⁹ The treating nurse passed on this request to the attending doctor, but the nurse provided incomplete information.⁹ Thereafter, the doctor removed the infection precautions without examining the patient.⁹ The jury found the hospital liable and awarded plaintiff \$125,000 and her husband an additional \$25,000.⁹

Some other cases have resulted in significantly greater recoveries. For example, in one West Virginia case, a 14-year-old girl who underwent ACL surgery contracted a HAI that destroyed her bone and the ACL graft.¹⁰ The infection abated only after 7 surgeries over 4 years.¹⁰ The jury awarded more than \$10 million.¹⁰ And in a New York case, a 25-year-old patient died of a nosocomial infection incident to gastric stapling.¹¹ The case primarily involved

the hospital's failure to address the decedent's symptoms after release, which could not have occurred absent the HAI.¹¹ Interestingly, while the plaintiff demanded \$400,000 and the hospital offered \$250,000 to settle, the jury awarded \$900,000 after trial.¹¹

Liability in HAI cases results from the legal determination that these infections are not just random agnogenic illnesses but, rather, the result of hospitals' and staffs' failure to abide by the basic procedures initially discovered by Dr Semmelweis. The broader conclusion is that the passive-voiced defense that a patient simply "contracted" an infection while in the hospital no longer will provide a justification for unhygienic practices. Much like we no longer accept that patients "die of old age," because we know that death has specific causes, the law will increasingly decline to accept for the purposes of legal liability nosocomial infections as idiopathic. Increasingly, courts are holding health care providers responsible for the transmission of infections that could have been avoided through the observance of proper sanitary precautions.^{10,12}

This is not to say that health care providers are legally responsible for every HAI. A hospital's acts or omissions must have actually caused an infection for it to be liable. Even if doctors and nurses fail to follow infectious control procedures, they might not transfer an infection.¹³ For instance, a patient could contract an infection from a relative who did not observe proper hygienic procedures and passed on the illness during a visit with the patient, regardless of what the medical workers did. Be forewarned, however, that the law does not mandate definitive proof of causation against the hospital. Malpractice cases are not criminal and therefore do not require proof beyond a reasonable doubt (>95%), merely proof by a preponderance (>50%).

Moreover, even causation alone will not suffice to demonstrate negligence. Health care providers face liability only if they fail to meet the standard of care.¹⁴ This is the crux of negligence law. The law requires *reasonable* precautions only. Therefore, a doctor will not be found to have committed medical malpractice merely because a patient suffers an injury as a result of treatment. Indeed, patients suffer complications not infrequently as a result of medical care, notwithstanding treatment under the prevailing standard of care. Health care workers understand that even when they do everything pursuant to the latest guidelines, patients sometimes suffer harm. Patients' failure to often grasp this basic point invariably is a source of much frustration in the medical community. If health care workers were liable for any injury suffered by a patient regardless of fault, this would constitute *strict liability*.¹⁵ The law almost never imposes this level of legal responsibility on medical professionals. If it did, we would have fewer doctors and nurses willing to engage in their professions, more expensive health care for patients, and—

most importantly from a legal-economic perspective—a level of investment in precautions that outweighs the potential benefit for patients.

Despite the deferential functioning of negligence law, however, medical professionals often lament the abuses of litigation and the unfair results.¹⁶ Studies have demonstrated, though, that for the most part the legal system gets it right.¹⁶ That is, most of the time doctors who act within the standard of care do not get sued when a patient suffers an injury.¹⁷ And in those limited circumstances when good doctors get sued for bad outcomes in the absence of negligence, courts generally find in their favor.¹⁶ To be clear, good doctors who are wrongfully sued undergo enormous personal and professional burdens, regardless of whether they eventually win their cases.¹⁶ They not only face the burden of a lawsuit and the time that they must invest in their defense, but also the significant cost of rising malpractice insurance premiums needed to defend even the cases they win as well as any personal costs they have to expend outside the scope of their insurance coverage.¹⁶

Some criticize more broadly the negligence standard in the health care environment. They aptly point out that in the zero-sum world of limited resources in which we live the money expended on legal actions necessarily diminishes what remains available for other expenditures such as the treatment of patients. But this is not the end of the analysis, it is only the beginning. The law is designed not only to compensate the injured; it equally pursues the goal of regulating society's future behavior. Financial responsibility is a strong motivator. Thus, while negligence verdicts invariably reduce resources available for other patients, it has a positive effect for the health care system overall. It changes the way medical workers behave by incentivizing them not to deviate from the standard of care, and that benefits future patients as well as those who recover judgments.¹⁷

Critics complain that the legal system and its negligence standard constitute a heavy-handed method of improving care. It may very well do so. But, unfortunately, we cannot wholly rely on the eleemosynary motives of our health care system to ensure compliance with hygiene requirements. While no one method for reducing nosocomial infections should control, we must acknowledge the prophylactic nature of litigation. As a chairman of an emergency department once told me, lawsuits have contributed to improved patient care.

The real issue is the position that litigation should hold in improving health care. It must be only one aspect of a multifaceted approach. Reward also should be provided to those that are on the cutting edge of reducing the transmission of nosocomial infections. Just as Centers for Medicare & Medicaid Services rewards hospitals that follow specific treatment protocols—like giving aspirin to heart attack patients upon arrival—and adjusts overall payments based on the blended reimbursement

rate of the hospital, hospitals should receive a multiplier based on the effectiveness of their infection-prevention programs. Moreover, more effective training and education must play a critical role as well.

This comprehensive approach to systems improvement is not novel. We provide “carrots” (rewards) and “sticks” (penalties) throughout society to incentivize good behavior and discourage bad behavior. For example, local and national government agencies provide—albeit highly limitedly—prenatal care and parental training for some expectant and new mothers. That does not mean that the same governments would not—and should not—criminally pursue neglectful parents. While this latter check on parental care sometimes results in the removal of children from their parents’ charge, with the significant attendant costs directly impacting the highly limited resources of the child welfare system that remain available for other children in need, we certainly would not want to eliminate this ultimate tool from our arsenal for protecting children. The same is the case for litigation as a *final* method to assist in regulating and improving health care. While it is unfortunate that good doctors and other health care providers operate in an environment occasioned by the specter of potential lawsuits, we must also keep in mind that requiring pecuniary responsibility for failing to meet the standard of care often saves lives. When the law and medicine both pursue this goal above all others, patient care will improve. We should not overemploy litigation in the health care environment, nor should we abandon it. It is just one treatment modality for the illnesses that compromise the American health care system

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