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Technological Advancements Have Led to More Traces of Infectious Disease—Now How to Assign Blame When They Cause Harm?

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Natalia Steele

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Natalia Steele co-authored a column titled “Technological Advancements Have Led to More Traces of Infectious Disease—Now How to Assign Blame When They Cause Harm?” for *Texas Lawyer*. The column highlighted the advances in public health and epidemiology that allow health officials to trace and track infectious disease outbreaks. It also examined the issues related to the potential liability of individuals and companies associated with some part of the transmission process.

The column states:

“Science had been blinded by its own success. By the late 1960s most public health officials had come to believe that thanks to antibiotics the age of infectious disease was fast receding behind us. That mindset and the unexpected stealth capabilities of bacteria kept their secrets hidden for years. Now that the search is on in earnest and thanks to technological developments that allow quick and cheap sequencing of tiny amounts of genetic material that can then be compared to vast libraries of genetic code from tens of thousands of strains of microorganisms, the genetic fingerprints of microscopic perpetrators are being found at the scenes of harms that nobody ever suspected of having been caused by infectious agents.

*By tracing these genetic fingerprints, investigators can follow say norovirus' path from sample to bedrail to wheelchair to elevator button to a patient on another floor. They can trace foodborne illness from contaminated food to factory to a microscopic crevice on the surface of a stainless steel mixer to the biofilm anchored to it which harbors seemingly harmless microorganism but which are in fact themselves inhabited by *Listeria monocytogenes*. Other examples include tracing an infection from patient to hospital to operating room to a reusable medical device to a component of the device that couldn't effectively be cleaned; and, tracing Legionnaire's disease from a handful of patients to an apartment complex to a swimming pool to a*

biofilm on a dirty drain cover that served as a reservoir of Legionella pneumophila. Do you see where this is going? You not only figure out where the pathogen came from, you identify everyone and everything that facilitated the spread of the pathogen. There's potential liability each step of the way, and some of the liability questions posed aren't easy to answer.

Certain metals like copper are natural-born microbe killers. Should copper-clad examining tables become a thing? There's a new UV sterilizing system that costs ten times as much as the one your client is using and it promises to destroy 50 percent more microbes on your sterile wipes packaging line—what's a reasonable manufacturer to do? If a useful diagnostic medical device that costs \$5,000 is notoriously hard to completely sterilize who ought to bear the loss when a patient is infected as a result of the device's reuse?"

To read the entire article, visit the [Texas Lawyer website](#).