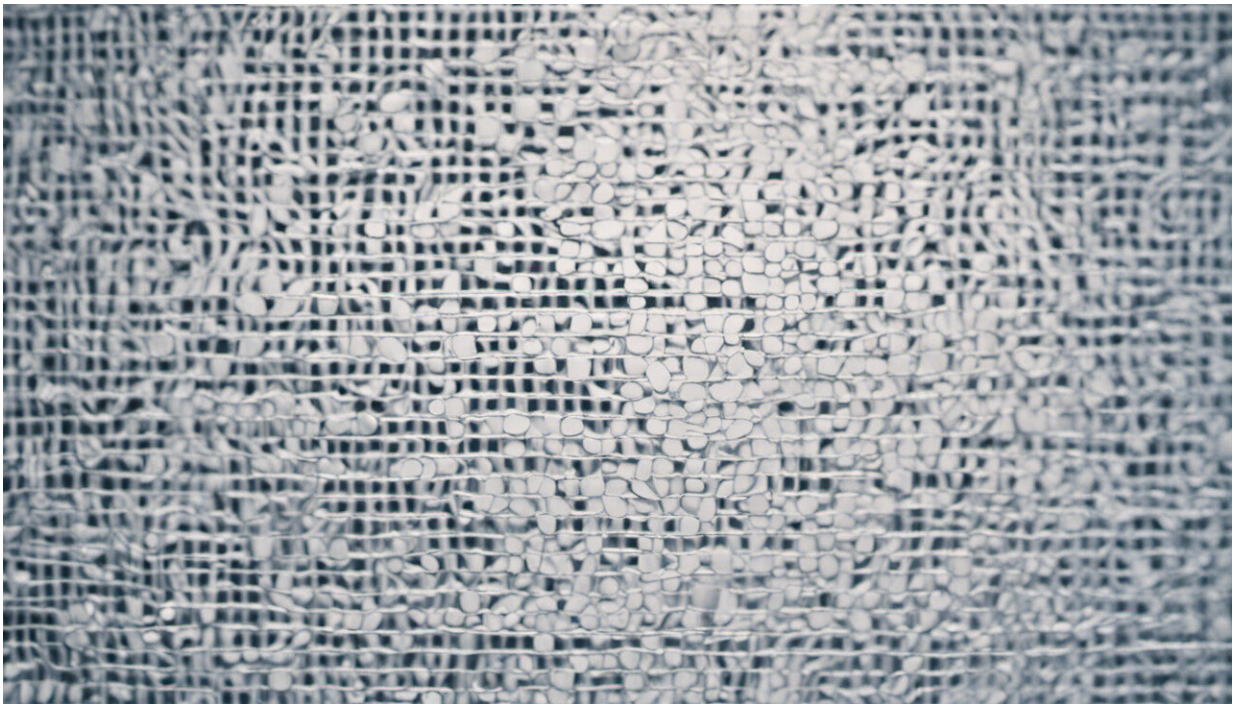


What will it take to reduce infections in the hospital?

July 19 2016, by Sanjay Saint



Credit: AI-generated image ([disclaimer](#))

Ebola. Zika. [Superbugs resistant](#) to antibiotics.

The headlines brim with news of infectious threats. Our lawmakers just battled over more than \$1 billion in funding for Zika, the mosquito-borne virus that has caused serious birth defects in [at least nine babies](#)

[born in the U.S.](#) and has been diagnosed in at least [1,306 Americans](#).

But far more mundane infections kill [thousands](#) of Americans each year – infections that patients caught in the very hospitals they've trusted to make them better. According to the Centers for Disease Control and Prevention, hospital infections affect [almost two million](#) Americans every year. About [99,000 die](#) each year as a result.

Take [urinary tract infections](#), or UTIs. About 12 percent of hospital-acquired infections are [UTIs](#). Such infections often start from microbes that attach and grow on the [urinary catheters](#) that medical teams insert into the bladders of countless hospital patients every year.

A cause of infection - and of discomfort

These catheters – which are a major source of infection – have an interesting history. Benjamin Franklin is said to have [invented one](#) for his brother, who suffered from kidney stones. And while catheters can help some patients, too many lead to harm. About [80 percent](#) of all hospital-acquired UTIs are due to catheters.

To add insult to indignity, about [30 percent of physicians](#) don't know which of their hospitalized patients have a catheter – even though it takes a doctor's order to insert one. No wonder they're such a source of infection.

About one in five hospitalized patients receives a urinary catheter, [enduring discomfort](#) for the sake of easier urine collection. Studies have found that in about one of three instances, the urinary catheter in hospital settings is [not even necessary](#).

Fortunately for patients, new results from a [national study involving 603 hospitals](#) reveals we can make a difference in infection rates and the use

of catheters. To do so, we must address [both technical and cultural aspects](#) of health care.



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Over an 18-month period, UTI rates among hospital patients in general wards dropped by a third. Catheter use dropped too. And it happened at a time when hospital UTI rates rose nationwide.

The hospitals in the study used something called a "[Bladder Bundle](#)" – a combination of protocols, checklists and training modules. The tools encourage:

- Daily checks on which patients have a catheter and whether they need it

- Less indwelling catheter use, by using safer [urine collection](#) methods
- Regular training and use of infection-prevention techniques – including handwashing – for catheter placement and maintenance.

Their success also was based on convincing enough hospital workers to alter their behavior given the emotional weight of old habits. Once a new process gains a level of group approval, nurses and doctors are more likely to [change their old habits](#).

One way to effect change is by using the universal concept of conformity, which is behaving how people around us behave.

Cleanliness is key, but a dirty look doesn't hurt

An example is [my wife and her shopping habits](#). She and I tend to shop at two places for groceries: a large chain that boasts discounted prices but no special focus on the environment, and an upscale store that clearly focuses on sustainability. At the first, she opts for the store's plastic bags. But at the other, she brings her own reusable bags. Why does she behave differently? To avoid "dirty looks" from customers at the second store.



Credit: AI-generated image ([disclaimer](#))

How can we use conformity to improve outcomes in a healthcare setting? Buy-in from medical staff leadership or involvement by a key physician or nurse is key. So when a surgeon doesn't wash his or her hands before checking a wound site at the bedside, or a nurse forgets to wash his or her hands before putting in a urinary catheter, they will feel that same "normative social pressure" that my wife does when shopping.

In short, they will get dirty looks from their colleagues. And the anticipation of such looks over time would prompt them to behave safely in the first place.

Leadership is crucial, since a hospital's culture is heavily influenced by the [worst behavior](#) a leader allows.

Just paying attention can help, too

But beyond a top-down approach, there are more personal approaches – such as mindfulness, the practice of "[paying attention, on purpose, in the present moment, non-judgementally](#)" – that could prove helpful. It's self-driven, performed quietly inside the mind during ordinary activities such as [washing one's hands](#).

Since key prevention strategies are often more cognitive and behavioral than technical, [mindfulness](#) requires no new equipment.

For example, if I was caring for a patient with urinary incontinence, before I consider using a catheter I first need to understand the possible causes of the incontinence and what approach will produce the best long-term results for my patient.

By having a flexible state of mind, I give more thought about the patient's present and future well-being – and think twice about ordering a catheter to be put in. At the same time, if I decide to order one for the sake of the patient's broader care, my hospital might [institute a reminder](#) in the patient's electronic chart, to prompt me and my colleagues to remove it as soon as we can.

Preventing infection is a team sport. Cooperation – among doctors, nurses, microbiologists, public health officials and [patients](#) – will be required to control the spread of Zika. Such teamwork is required to prevent more mundane infections as well.

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