

Q&A

Dr. Kaveh Shojania

Dr. Kaveh Shojania is a scientist in the veterans and community research program at Sunnybrook Research Institute and a professor at the University of Toronto. He holds the Canada Research Chair in Patient Safety and Quality Improvement and is director of the U of T Centre for Patient Safety, a partnership among the university, Sunnybrook Health Sciences Centre and the Hospital for Sick Children.

The Centre for Patient Safety launched in 2009. How's it going so far?

It's going well. A lot of the work has been just getting the centre up and running, but one exciting initiative already is a course we've been teaching. It's geared toward researchers and clinicians, most of whom come with a project they want to develop in their area. We introduce them to core topics in patient safety, like the epidemiology of adverse events, including common types of events and their causes, investigation techniques for critical incidents and human error factors—for instance, those related to equipment design.

How have people responded?

Very positively. Several members asked for more process design and incident investigation material, so now we cover in more detail how to walk through a “root cause analysis,” say, for a major medication overdose, which is a bit like the accident investigation following a plane crash. You address categories of causes—equipment failure, fatigue, scheduling—then look at the order of events and contributing factors for a structured approach.

How does that knowledge play out on the ground?

Many front-line clinicians face complex problems in patient safety and quality improvement. They may know experts with knowledge on certain facets of a problem, but often they won't know how best to tackle the whole problem. So bringing together a well-rounded cadre of people that can expose clinicians to various aspects of a problem, and ways of solving it, is a big plus.



DR. KAVEH SHOJANIA

There's some tension around how much research should be done before implementing an intervention.

Has thinking shifted on that issue?

I'm part of a panel in the U.S. that is trying to develop some principles on that question. The issue is this: there are a lot of ideas out there about what might improve patient safety. For some ideas, say a pre-surgery checklist to minimize infections, it's not expensive, and the side effects of implementation are small, so it's not worth too much debate about evidence. But for others, like hospital-wide computerized order entry [of medications], there are big costs and potential for unintended consequences, like disrupted workflow. On evaluating examples of those larger interventions, you'll likely find success stories and failures, and in some cases the discrepancy is due to the evaluations being of unequal rigor. But in many cases—and that's what this panel is about—it's probably a result of contextual factors. Plus, many times, even the “ingredients” of the intervention aren't clear. For instance, was it just a checklist, or were there behind-the-scenes changes in teamwork and culture required to support the intervention?

So deciding when to implement a potential improvement is becoming more complex?

Yes. Again, look at computerized order entry. There's a system in Boston that seems to work better than most. The system itself may be better, or perhaps the hospital is more invested in safety—maybe both are true. Also, it might matter how the electronic reminders sent to clinicians are designed or how quickly the hospital IT group provides support when problems arise. Even the personalities of the people who lead the program could be a factor. These are all relevant to why the intervention might have worked. The point is, widely recommended interventions can have variable effects in different hospitals. And that's where this debate is going—trying to understand those contextual factors.

Shojania's work is funded by the Canada Research Chairs Program. The Centre for Patient Safety is funded by the University of Toronto, Hospital for Sick Children and Sunnybrook Health Sciences Centre.