

PROFESSION



NTSB reports prompted changes in how pilots communicate and helped improve aviation safety, says Capt. Chesley B. Sullenberger III. "Some call those soft skills as opposed to hard skills. ... In high-risk endeavors like aviation and medicine, they are critical." Sullenberger is among those calling for a new agency to investigate cases of medical harm. [Photo by Shea Walsh / AP / Wide World Photos]

Celebrities make pitch for patient safety panel

An independent entity modeled after the National Transportation Safety Board could transform patient safety, proponents argue. Skeptics say the agency would be redundant.

By **KEVIN B. O'REILLY**, amednews staff. Posted May 14, 2012.

When actor Dennis Quaid's 12-day-old twins developed infections in 2007, he and his wife took them to a Los Angeles hospital. But a medical error nearly killed the babies when they received 1,000 times the intended dose of heparin.

Look-alike packaging on the 10,000-unit strength and 10-unit strength vials of heparin and a failure to keep the higher-concentration vials out of patient-care areas contributed to the mistake, patient safety experts said.

Yet the same error had occurred only 14 months earlier at an Indianapolis hospital, when six infants got heparin overdoses and three of them died. The case received widespread news coverage, but it was not enough to spare the Quaid family its ordeal.

Quaid says hospitals should not need to see a serious error in their own facilities before taking preventive action to protect patients. He has joined with patient safety and aviation experts to call for an agency akin to the politically insulated, independent National Transportation Safety Board to investigate cases of medical harm and report deidentified findings to physicians, hospitals and the public.

"We do not have bad people, we have bad systems," Quaid said in an article he co-wrote in the most recent issue of the *Journal of Patient Safety*.

The proposal is the latest iteration of a decade-long push for medicine to imitate the safety success achieved by commercial aviation, which slashed the risk of death in a crash from 1 in 2 million in the 1970s to 1 in 10 million today.

The NTSB's so-called blue-cover reports of accidents often lead to direct changes in federal regulations, airline policies and in the cockpit, said Capt. Chesley B. "Sully" Sullenberger III. The pilot became a national hero when he successfully landed US Airways Flight 1549 in New York's Hudson River in January 2009 after it was struck by a flock of geese that disabled the plane's engines. All 155 people on board survived the accident.

"Virtually every one of [the blue-cover reports] has had a direct impact," said Sullenberger, who provides aviation-based training to health care organizations and co-wrote the journal article. "Pilots generally can enumerate, often by date, location, by flight number, the major effects of the accident and what we learned from each of these things. We can tell you chapter and verse what happened, why and what we changed as a result."

Such a direct link between accident investigation and preventive action is desperately needed in medicine, said Charles R. Denham, MD, the lead author of the proposal and chair of the Texas Medical Institute of Technology. The institute participates in a broad array of patient-safety efforts and produced a documentary, "Surfing the Healthcare Tsunami," that is airing in May on the Discovery cable channel.

“The NTSB has pioneered wonderful best practices that are public domain, and a similar idea could be implemented to keep doctors from having accidents,” said Dr. Denham, a retired radiation oncologist whose father was a fighter pilot and later a rocket scientist in the Apollo space program. “These accidents can range from missed critical test results to decision-making problems to medication errors to wrong-site surgeries. . . . If we just took 10 or 15 or 20 high-volume, high-preventability, high-impact problems and went nationally with lessons on how to avoid them, we could spare the agony that caregivers go through. Doctors don’t come into the office to make mistakes. They come in to take great care of patients, and we’ve just started to learn what we can learn from aviation.”

Crucial knowledge not widely shared

Medicine already has implemented many ideas from aviation, such as simulation training, checklists and incident-reporting systems. The problem with these systems, say proponents of the NTSB for health care, is that knowledge about adverse events and how to prevent them often stays confined within the walls of the hospital where they happened.

A major goal of the Patient Safety and Quality Improvement Act of 2005, supported by the American Medical Association, is to tackle that barrier by allowing for voluntary, confidential, privileged reporting of safety information to designated patient safety organizations. So far, 77 PSOs have been recognized by the Dept. of Health and Human Services after a long delay in adopting regulations to govern them.

Experts say it is too early to tell whether these organizations are improving safety. Dr. Denham and others say PSOs can help but may lack the nationwide reach and investigative prowess that make NTSB’s reports so influential.

The proposed NTSB for health care is promising, said James P. Bagian, MD, a former flight surgeon and astronaut with NASA who helped drive safety efforts at the Veterans Health Administration and now is professor of engineering practice at the University of Michigan College of Engineering.

“There should be a place that is able to methodically and thoroughly investigate issues, figure out what the learning points are, what are the contributing factors and be able to formulate recommendations that are actionable,” Dr. Bagian said. “To tell people to be more careful next time you use something isn’t particularly helpful.”

While proponents of a health care NTSB say it does not need to be a government agency, Dr. Bagian said only a taxpayer-funded entity would be able to do its work without pressure from industry to tone down recommendations. NTSB board members are appointed to five-year terms by the president.

Other patient safety experts were more skeptical of the proposal, saying the volume of incident reports in medicine dwarf those in aviation and would make it difficult for the entity to achieve the NTSB’s success. Carolyn Clancy, MD, director of the HHS Agency for Healthcare Research and Quality, said medicine can learn much from aviation but added that “some aspects of safety in health care . . . are fundamentally different.”

The Joint Commission periodically issues reports on seriously harmful adverse events and offers recommendations on how to prevent them. The commission did not respond to requests for comment.

Yet another body releasing patient-safety reports is unlikely to help much, said Michael R. Cohen, president of the Horsham, Pa.-based Institute for Safe Medication Practices, which issued an alert after the Indianapolis heparin-overdose incident.

“The biggest problem is we’ve been sharing learning for years,” said Cohen, a pharmacist by training. “We’ve had lots of reporting going on in this country, now even more so with PSOs. All of us put out this material that’s peer-reviewed, evidence-based and system-based as much as possible. That doesn’t mean anybody does anything with it — that’s what’s so frustrating.”

ADDITIONAL INFORMATION:

How aviation safety investigations are reported

Pilots and other aviation experts say the National Transportation Safety Board’s accident reports highly influence federal regulation, airline policy and cockpit procedures. Some physicians are joining actor Dennis Quaid and hero pilot Capt. Chesley B. “Sully” Sullenberger III to propose an NTSB-like entity to tackle preventable medical harm. The general format of NTSB aviation accident reports is:

- Detailed factual information, including the history of the flight, injuries, damage, personnel, weather, communications, flight recorders, wreckage, medical, tests and studies conducted.
- Analysis of the accident and factors contributing to it, such as human performance, situational awareness, pilot impairment, weather systems and emergency communications.
- Conclusions with findings and assessment of the probable cause of the event.
- New recommendations derived from the investigation and reiteration of previous recommendations.

Source: National Transportation Safety Board

WEBLINK

“An NTSB for health care: learning from innovation: debate and innovate or capitulate,” *Journal of Patient Safety*, March (www.ncbi.nlm.nih.gov/pubmed/22343800/)

Agency for Healthcare Research and Quality’s list of patient safety organizations (www.pso.ahrq.gov/listing/psolist.htm)

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