

A brilliant piece of writing by Lucian Leape, MD that appeared as an Op-ed piece in the Boston Globe on Tuesday, 1/12/99. Many of you may be familiar with the error in question - a massive chemotherapy overdose at the Dana Farber Cancer Institute (DFCI) that resulted in the death of Globe health reporter Betsy Lehman. James Conway, Chief Operating Officer at DFCI, received a copy of the piece before publication and has expressed strong support for it, as well as strong support from his organization for the 18 nurses involved.

“Faulty systems, not faulty people”

The decision by the Massachusetts Board of Registration in Nursing to begin disciplinary hearings for 16 nurses involved in the tragic death of Betsy Lehman due to an overdose of chemotherapy is misguided, inappropriate, and harmful. It should be rescinded.

The decision is misguided because it focuses on the individuals when it has been shown that the errors were caused by major failures in the design of the medication system. It is inappropriate because it assumes that the errors resulted from carelessness or negligence which deserve punishment. It is harmful because it needlessly and publicly humiliated people by providing their names to the press. It is also harmful because the threat of such punishment is a powerful deterrent for other nurses to identify, report, and analyze errors in order to develop methods to prevent them.

The Board action is based on the traditional, now discredited, assumption that all errors are misconduct or negligence. In fact, errors are rarely misconduct, and in this case specifically they clearly were not. Rather, they resulted from a complicated system in which the doses of drugs received by patients varied widely according to which of 100 or more protocols were being used at the time in this research hospital. The doses in question were no higher than those nurses had seen used in other patients, so they were not questioned. This happened not once, but repeatedly over several days. Does the Board of Registration really believe that all 18 nurses involved in this case were careless?

The ostensible purposes of revocation or suspension of a license are to teach the individual to be more careful, to deter others from similar misconduct, and to protect the public by removing a dangerous person from practice. In the absence of misconduct or willful intent, punishment accomplishes none of these objectives. Specifically, there is no evidence whatever that punishment for unintentional errors makes the recipient less likely to make future mistakes, nor that it deters others.

This is not to say there is no role for punishment. Punishment is indicated for willful misconduct, reckless behavior, and unjustified deliberate violation of rules. But not for errors.

The delay in the Board's action raises important questions as to its intent. If the Board really believes that these 18 nurses are threats to patient safety, it is unconscionable that they waited four years to take action. That they did so suggests that neither reform of individuals nor protection of the public was their aim, but rather retribution stemming from the belief that error equals sin, and therefore it must be punished.

This concept of error as sin and the use of punishment for its control was abandoned long ago by industries outside of health care. There is an immense body of scientific knowledge that demonstrates both that errors are common -- everyone makes errors every day -- and that errors have causes. Many of the causes are familiar: hurry, interruption, anxiety, stress, fatigue, overwork, etc.

More importantly, error prevention specialists have learned how to design tasks and conditions of work to minimize the effects of these factors, to make errors more difficult to make. Simple things like standardization of processes, use of checklists to prevent forgetting, appropriate work loads, and adequate sleep all reduce the likelihood of an individual making an error. This focus on the design of systems rather than on the individual has been highly successful in reducing errors in a number of hazardous enterprises. The airlines are a familiar example.

Following Betsy Lehman's death, the Dana Farber Cancer Institute examined their systems and found them wanting. They overhauled the entire organization. In addition to extensive administrative reorganization, including changing leadership and assigning specific responsibility for patient safety, they re-designed their entire medication system. Specific changes included a nurse, physician and pharmacist pre-approval system for all high dose chemotherapy, computerized maximum dose checking and potential error identification, multidisciplinary review of all medication errors, and nurse and pharmacist participation in protocol review and approval.

The institution did what the public would want a hospital to do after a tragic accident. It held itself accountable for the error and made extensive efforts to correct its faulty systems so it and other errors would not recur. In this process, it found the nurses involved were not at fault and therefore carried out no disciplinary actions against them. Subsequent review by both the Department of Public Health of the Commonwealth and the Joint Commission on the Accreditation of Healthcare Organizations led to approval, even commendation, for this aggressive response. To help others improve, over the last three years Dana Farber staff have openly shared their learning and improvements with other institutions nationwide.

It is important to emphasize that attention to systems design to prevent errors does not in any way diminish personal accountability. It does, however, redefine it somewhat. Since only the institution can modify its systems, it is the institution that must be held accountable for safe systems. In turn, the institution must hold individual nurses, doctors, and other health care workers accountable for maintaining high standards of performance, following rules, and working within their levels of competence. Hospitals can, should, and do, refer nurses and doctors to their respective Boards for disciplinary action when there is reckless, negligent, or irresponsible behavior.

Betsy Lehman's tragic death was a "wake-up call" for health care. Since then a sea-change has occurred in the willingness of hospitals, doctors, and nurses to face their mistakes and to make systems changes to prevent errors. Many hospitals, like the Dana Farber, are redesigning their medication systems. The AMA has formed a National Patient Safety Foundation to bring together all interested parties - health care professionals, regulators, industry, patient representatives, and even lawyers - to develop more effective means of preventing errors, disseminate information, and educate health professionals and the public about non-punitive systems approaches to error prevention.

The Veterans Health Administration has made patient safety a priority and initiated a number of programs, including computerized medication ordering, rewards for safety ideas, and a non-punitive reporting system. In Massachusetts, regulators, professional societies, consumer representatives, hospitals and safety experts have formed a Coalition for the Prevention of Medical Error to work together to develop more effective methods of error prevention. The Massachusetts Hospital Association has launched a medication safety improvement program with its member hospitals.

We have learned a great deal in the past few years about how to make health care safer. While we must still hold individuals responsible for high standards of performance, we now recognize that most errors result from faulty systems, not faulty people. To identify systems failures, we need to know about the errors they cause. We need to make it safe for all health care workers to report errors. It is time for the Board of Registration in Nursing to help that process by stopping punishment of nurses for their mistakes.

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