Errors in Medicine: Do Something Now?

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Despite a plethora of data indicating progress in patient safety, some experts in the field think that the situation in regard to medical misadventure is not improving. For example, in January 2015, the Centers for Disease Control issued its annual report on hospital-acquired infections. It said while dramatic progress in reducing infections in hospitals had been made, the results failed to reach the national goals set in 2009.
Dr. Peter Pronovost undertook a study at Johns Hopkins that, in turn, led to a multi-center study in Michigan using his five-point checklist to ensure proper, sterile insertion of central venous catheters. The study was immensely successful: 1,800 lives and $100 million were saved during the 18 months of the study.

Dr. Pronovost says that the fundamental problem with the quality of American medicine is that we’ve failed to view the delivery of healthcare as a science. Further, he says that in order to make this happen, we will need to understand disease biology, discover effective therapies, and ensure that those therapies are delivered effectively.

It would seem that the success achieved by Dr. Pronovost could well be reproduced in other areas of medicine, if the desire to do so was similarly motivated.

Of course, getting a full understanding of the complexities of medicine, and all the nuances associated with preventing errors in medicine, is a Herculean task that will probably require completely new approaches to patient interaction, diagnosis, training, and error-prevention strategies. If this is to be done properly, it will require greater national attention, robust funding, and a greater understanding of all of the elements in healthcare delivery—all supported by computer programs and systems far in excess of anything we have now.

However, one could start today by listing what needs to be done, and then asking interested groups and organizations to focus on the elements in the overall problem that they feel they can undertake right now. In this way, the ball will start to move—the Pronovost way!

Tasks that need to be addressed
The three lists below are by no means intended to be complete. But they may give some idea of the issues that need to be tackled. Further, it would seem like a good idea to introduce first those things that seem like common sense and then, if possible, evaluate and analyze all initiatives, and work toward ensuring that any change made is evidence-based.

The less difficult tasks
- Extension of the use of simple lists, similar to Dr. Pronovost’s ideas, to other areas of medicine
- Timeouts currently used, e.g., with surgery and, as appropriate, in other areas of healthcare practice
- Standards on methods for organizing thoughts
- Patient visit agendas/passports
- Providing lists of the most commonly made errors in the various sub-specialties
- Diagnostic “pearls of wisdom,” and recommendations to help in distinguishing the more serious diagnostic situations
- Learning the fundamentals of situational awareness, attention to detail, and consequential/critical thinking
- Focusing on prediction, prevention, detection, and correction
- Improving accuracy and reducing errors in healthcare professionals’ (HCP) offices that can readily become transferred to the hospital environment. Most office-based errors may appear innocuous, but via the so-called Swiss cheese phenomenon, wherein many small errors become additive, the outcome could be serious or even fatal.

The more difficult tasks
- Adoption of team concepts among all HCPs, patients, and local communities.
- Coordinated communication within and among healthcare facilities
- Reviewing what is working in the U.S. and the rest of the world to evaluate what could be introduced generally in the U.S.
- Finding sound approaches to overcoming language difficulties
- Hand-washing compliance
- Medical and allied professional education to embrace safety in each and every aspect of teaching
- Obviating pharmacy errors via bar coding and eliminating confusing abbreviations
- Introducing proven strategies to minimize laboratory and radiology errors
- Addressing electronic health record issues
- Optimizing the functionality (and privacy) of patient/HCP portals
- Adopting community prevention programs
- Systematic collection and storage of safety data
- Maximizing what can be learned from the airline and other industries
- Recommend that every HCP private office has the equivalent of a safety officer, who collects data on error incidents and regularly conveys that to the HCP and other office staff on a periodic basis for handling/correcting.

The very difficult tasks
- An accurate nationwide data-collecting system for errors in medicine
Simulator training

Countering the widespread problem of owing some measure of allegiance to a code of silence, commonly coupled with a strong desire to resist change

Correlating root cause analyses and failure modes effects analyses results with patient safety initiatives, and assessing the resulting reduction in errors

Overcoming a lack of transparency

Finding strategies to tackle the relative sense of the unimportance of prevention in medicine

An appreciation that in complex systems, changes to one part of a system can significantly affect other parts

Finding solutions to the current challenges to telemedicine

Securing the requisite data to obtain an accurate overview of the national situation

Harnessing advanced computers to help in case management and in reducing diagnostic errors

Securing sufficient funding to make all of this happen.

While there are multiple organizations participating in preventing errors in medicine, what seems to be missing is a collective and coordinated, nationwide approach to the various elements of the problem. The concept of a consortium of interested parties that would drive the process would be well worthwhile investigating. Such a consortium could become a bottom-up endeavor, passing from one group of HCPs to another. This is important, since there does not seem to be the political will in the U.S. to make this a top-down initiative.

Such a dedicated conference should have a well-defined purpose and goal, with a focus on patients. Interested patient safety organizations and specialty societies, as well as the insurance and hospital industries and other stakeholders could take on the aspects of the challenge that they, within their budgetary restraints, feel comfortable in handling. It might just be one or two small tasks or studies that an organization would be comfortable undertaking—but every small initiative would be contributing to the whole.

It would be best if each participating group could organize and fund its own projects, with any studies undertaken being done with the cooperation of hospitals and academic institutions, when and where necessary. General funding would help move the process forward, but this is not absolutely necessary to get things started and underway.

Consider: If we can put a man on the moon and are now planning to send humans to Mars, surely we can do something on a national scale that could improve patient safety.

The Institute of Medicine is, in 2015, to issue a report on errors in diagnosis (estimated now to be about one-third of all errors in medicine). The 64th Annual Scientific Session of the American College of Cardiology was held in Southern California in March 2015. The meeting, it was said, was designed to be innovative, interactive, and informative, and would leverage the entrepreneurial environment of Southern California to inspire registrants. What an invitation to attend!

So much could be done toward the goal of preventing errors in medicine with the right leadership, inspiration, and the willing cooperation of many.

**Reference**