

# Dennis Quaid

## 44<sup>th</sup> ASHP Midyear Clinical Meeting

### Opening General Session

December 7, 2009

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Thank you for having me here today and thank you for that lovely introduction. You may have a nagging question – why is he here? He is not a pharmacist...he is an actor. In fact, I don't think he has even played one in the movies, or on television. But... my family has been affected by an egregious medical error that could have changed our lives forever. The reason I am here is to fully support your programs such as the ASHP Pharmacy Technician Initiative and continuing education programs for pharmacists and technicians that can prevent these catastrophic errors from happening. God bless you for your work.

I thank you all for the opportunity to tell you the story of what happened to our newborn twins, Thomas Boone and Zoe Grace, in their near-tragic hospital stay and to give you an update on what these two beautiful children, now 2 years old, have accomplished in their short lives, pertaining to advances in patient safety and the reduction of medical errors.

Because of the horrible event that happened when they were only 10 days old, public awareness about the pervasiveness of hospital errors has been raised. This has led to some astounding changes at Cedars-Sinai Hospital, which is the hospital where the babies were being treated. Many lives will be saved and families will benefit from our twins ordeal. But these changes would not be possible without you good people, who lead hospital pharmacies and medication safety programs, find ways to reduce harm, and act on them. Because of your work, countless lives have been saved. Because of your leadership and implementation of safe practices, we are in a new age of healthcare. And so, up front, I and my family thank you from the bottom of our hearts.

Before the medical error that happened to T. Boone and Z.G., as we call them, I was probably like most people in my attitude and awareness of medical errors. Oh, sure, I had heard my share of hospital horror stories. But they were mostly second-hand, or articles in a newspaper. I, myself, had my portion of hospital stays, for tonsils as a child, a broken leg as a teenager, a double hernia as a middle-aged man and, most recently, a staph infection, which required a short hospital stay. But I had faith that I was in a safe place. Faith that the doctors, nurses, and pharmacists knew what they were doing and never made mistakes. I had confidence that I would live to see another day. Because....after all, the reason I was in the hospital to begin with wasn't life-threatening. Little did I know how dangerous a place any hospital can be.

Let me pause at this time to tell you that I am not here to denigrate doctors, nurses, pharmacists or any caregivers. I revere them. They have dedicated their lives to curing the sick and easing human suffering. They are over-worked and under-appreciated. They are also human. And all humans make mistakes. I have now learned from the safety experts that the overwhelming majority of medical errors are due to systems failures. And, that these failures allow absolutely predictable human error to occur.

This clip shows that we have 21<sup>st</sup> century methods that are operating with 20<sup>th</sup> century systems...and there is where our major safety problems exist.

Thomas Boone and Zoe Grace Quaid were born on November 8, 2007. On their tenth day of life, Kimberly noted an irritation on T. Boone's belly button and another on Zoe Grace's finger. Being nervous new parents, we took them to the pediatrician immediately. And, after examining them, he sent us to Cedars-Sinai for a more in-depth diagnosis. Lab tests at Cedars revealed that both infants had a staph infection and we were told that we would have to be admitted into the hospital and put on a continuous drip of antibiotics.

Our hearts sank as we accompanied our twins to the pediatric ward, where they were placed in a room to begin treatment. At about 11 a.m. the next day, a nurse came into the room and said she needed to replace the now empty bags of antibiotics. As per procedure, she also flushed the IV lines connected to their little arms with a blood thinner medication, through a Heplock. What was not procedure was that she mistakenly injected our twins with a massive overdose of 10 thousand units of Heparin, which is one thousand times the normal dose of 10 units of heparin our babies should've received. This happened while my wife and I were present in the room.

Unaware of the catastrophic event that had just occurred, Kimberly and I spent the afternoon and early evening standing vigil over our twins until the doctor suggested we go home and get some rest. We were exhausted, having not slept the night before, and the twins seemed to be resting comfortably, so we decided to go home. But not before leaving expressed instructions to the doctors and nurses to call us if anything changed in our infants' condition. We had no way of knowing, at that point, that the potentially lethal quantity of Heparin in their tiny bodies was turning their blood to the consistency of water.

After we left, a nurse on duty did notice that Zoe Grace had an abnormal seepage of blood coming from a previous blood stick draw on her foot. No alarms were raised. Incredibly, at around 7:45, four nurses, one of them in training, entered the room and injected both babies with yet another 10 thousand unit dose of Heparin. This was done as one nurse prepared the medication and then handed it to the instructor nurse. She then handed it to the nurse in training and instructed her on how infants only receive a 10 unit dose of heparin. Then they left the room and continued their busy rounds.

At about 9 o'clock that night, my wife and I were at home trying to get some restless sleep, when Kimberly was suddenly struck with a hammer blow of overwhelming dread. She became inconsolable, crying out with a mother's intuitive certainty that our babies were in trouble. "They're passing," she said. Being a man, this did not make sense to me. I had called the nurses' station an hour and a half earlier and had been told that the twins were fine. But to calm her fear, I called again and was put through to the nurse in our room.

In fact, we came to learn that an accidental dose of Heparin had occurred in Indianapolis a year and a half earlier that had killed three infants and severely injured others.

Early the next morning, my wife and I arrived at the hospital only to be met at our babies' room by our pediatrician and hospital staff. We were taken aside and told what had happened. Suffice to say, it was the beginning of the most frightening day of our lives. It was spent caring for our infants who were still bleeding profusely and severely bruised from internal bleeding. They were both screaming in pain and God only knows what they were feeling.

At one point, as the doctors tried to clamp a bleeding wound in the remnant of T. Boone's umbilical cord, blood spurted six feet across the room and splattered on the wall. The twins continued to bleed all day. Although they had been administered Protamine, a medication to counteract the Heparin, their blood's inability to coagulate literally remained off the charts all day and well into the night. Kimberly and I did a lot of praying. Finally, after 41 hours, their coagulation levels dropped into the measurable scale and continued to fall slowly into the normal range. T. Boone and Zoe Grace had survived, apparently, with no damage, though we have no way of knowing what the long-term effects may be.

How had this happened? The answer became all too apparent after interviewing the doctors and nurses. We discovered that the bottle of 10 units of Heparin and the 10 thousand unit bottle of Heparin were deadly similar in labeling and size. You as pharmacy leaders know that the 10 thousand unit label is dark blue and the 10 unit bottle is light blue and if the bottles are slightly rotated, they are hard to tell apart. The similar labeling is what led to the tragic deaths and injuries of the infants in Indianapolis the year before and also was the major factor in the overdosing of our twins.

This brings me to the issue of human performance factors.

Caregivers have dedicated their lives to curing the sick and easing human suffering. They are over-worked and under-appreciated. They are also human. And all humans make mistakes. It's called human error and this combined with systems failure causes the majority of harm due to medical accidents. I am an actor. If I make a mistake, it's called Take 2, or 3, or 4, or 37. And, oh yeah, I've been there. But if a caregiver makes a mistake, it could mean somebody's life. Hospital staff, more often than not, are working without a safety net. Working, sometimes, 24 hour shifts, they are expected to make

crucial decisions with clarity and sound judgment for every patient in their care. Often, without any back-up except for maybe the over-worked caregiver working beside them.

In regards to patient safety, hospitals need more of what the airline industry figured out long ago, technological back-up for human factors related error. Most of us are afraid of flying, yet passenger air travel is safer than walking. Why? A big reason is the technological back-up available in modern airplanes. The auto-pilot, color-coded radar and the GPS are two of the innovative instruments installed in modern airplanes. They are, essentially, a safety net to aid a pilot in flying the airplane safely, even when conditions are zero visibility and to alert him if he makes a mistake. Even the pilots with "The Right Stuff," a personal career reference there, know that mistakes happen when they operate an aircraft outside of the safety performance envelope. That envelope is defined by their own human performance and the airplane's technology.

Why have there been so many timely technological advances in flight safety? Because when airplane crashes happen, they make world news. The pilot is the first one at the scene of the accident. The NTSB investigates the accident, finds the cause, and then the airline industry acts to fix the problem.

Take, for instance, a bird strike, like what recently happened to US Airways Flight 1549. Right now, you can bet the airlines are ardently searching for a technological answer, whether it be low-tech, or high-tech to protect airplanes from the impact of bird strikes.

Because their business is based on public confidence. And if they don't have that, they are out of business.

As an aside, Capt. Sully Sullenberger accomplished one of the most amazing feats in aviation history, the very first successful ditch of a commercial airliner. This was a testimony to training that respected human performance factors in crisis.

Now that I have become a full fledged patient safety advocate and have been learning about the Swiss Cheese holes in our healthcare systems, I have found out that most hospitals and healthcare systems have not provided the training in human factors and real-time risk management that we have in aviation. A lot of our accidents occur more in slow motion and we are just starting to use simulation. Sully had only three and a half minutes to act and avoid a crash. He knew exactly what he needed to do because he was trained to act in a certain way. Did you notice how he said he had to use his training and force calm on the situation? Did you hear how he was comforted as he heard his crew swing into action and follow their training and implement crash preparation protocols?

Finally, after they made the almost impossible safe landing, did you hear how they did not take time to congratulate themselves, they pulled out their checklist and maintained the discipline that had been instilled in them...They still had a job to do. That was to keep their passengers safe.

Let's not forget some other unsung heroes behind the scenes. Sully's heroic efforts would have been for naught if some engineer had not foreseen that ditched airplanes need automatic seals to air intakes in the event of a water landing. Where is that guy? Let's give him a medal too.

How about the JetBlue pilot who made a perfect landing with a nose out of commission in LA which was an amazing testimony to teamwork and training.

The pilot of this airplane consciously went un-noticed. He captures the essence of being a team player and servant leader. He declined to be interviewed by the talk shows or news channels because he felt that it would take credit away from the team. Most people don't know it; however JetBlue, AirBus – the airplane manufacturer, and the pilots were in communication, downloading computer files, and solving the problem real-time in the cockpit and in multiple cities. This was a first. It was also a first, in that passengers saw their own story played out on the TV screens in their seats. It would be terrific to see great leadership, technology, and training merge in healthcare like it did in this story.

One of the articles written about the medication accident that occurred with our twins compared the performance envelopes of aircraft like those we addressed in the movie *The Right Stuff* to the performance envelope of people and technologies in hospitals.

Innovation in airline safety seems obvious. So, why has it taken so long for this same safety back-up systems technology and training to universally come to the hospital pharmacy or the hospital nurses' stations....or the patient's bedside? I believe one of the main reasons is that the staggering number of deaths due to medical errors goes unnoticed by the general public. The tragic incidents happen one at a time over the course of each year and they are spread out over a broad geographic area.

Often the blame is laid at the feet of you fine people. A case in point is the Ohio pharmacist sitting in jail today because of predictable human error. Human error is rock solid predictable and we know that our systems will fail. We can no longer let our caregivers take the hit when bad things happen. It is my belief and that of the people I am working with in patient safety that it is time that leaders of hospitals have the moral fortitude to step up and take responsibility.

In 1999, the Institute of Medicine reported that there were almost 100 thousand deaths each year, due to medical errors alone. That is the equivalent of more than one major airline crash every day of every year. Now, I understand when we include infections and other events, that the number is more than 200,000 and it is the third leading cause of death in the United States.

So, what needs to happen? I must say that after the near-deaths of our twins, that Cedars-Sinai has made great efforts to improve patient safety. We never wanted to make the hospital the bad guy. We all need hospitals. Cedars-Sinai was just one link in

the chain of systems failures that started at the drug manufacturer and went to the hospital pharmacy and then to the nurses' station and finally, to our babies' bedside. Because of T. Boone and Z.G. Cedars has spent \$100 million on bar-coding from pharmacy to bedside, computerized sterile cockpits to retrieve medications for patients, and also, electronic record keeping. I applaud their efforts. And I am really proud of T. Boone and Z.G. Because of them, many lives will be saved, countless tragedies averted, other boys and girls will not have to grow up without a mom or dad and other parents will not have to suffer the immeasurable grief of the loss of a son or daughter.

So, where does it go from here?

Although I am honored to play a role in this low tech solution that is being used by a creative frontline hospital team to help pharmacists and nurses differentiate the high dose from the low dose heparin bottles - it is just a quick fix.

Thanks to our accident, drug manufacturers have changed the packaging of Heparin to prevent the look-a-like error from happening. But...that is not enough.

I think we have to go back to systems solutions that will safeguard against predictable human performance errors. This is where you good people come in – we need more leadership, more resources, and more safety systems.

The new National Quality Forum Pharmacy Leadership practice gives you more recognition and authority to do what you know is right. I am honored to have contributed as a patient advocate to this new federal standard. We need hospital leaders to allocate more resources to your work...and I am dedicated to help that happen. Finally we need to accelerate adoption of technologies we know work.

We have to make bar-coding, CPOE, and electronic record-keeping common in all hospitals in this country. The U.S. should lead the way. A small town hospital must be able to afford the same life-saving technology as a big city hospital like Cedars.

The next big step, will be making all of this new technology inter-operable. Bar-coding for medications must become universal from the point of manufacturer to the hospital, to the bedside, readable to any bar scanner by any manufacturer. This system already exists in every supermarket in America.

Now in hospitals with universal standards set to make these systems interoperable, the cost of medical care could decrease dramatically. Why can't the impact of the new revolution in electronic medical record keeping, extend not only to the hospitals, but also to drug store pharmacies, private practice offices, clinics, a doctor's jacket pocket, the insurance companies, Medicare, Medicaid, and finally to the most important person of all, the patient.

I imagine a future when every doctor in his office or hospital, will be able to write a prescription on his iPhone or Blackberry that could be electronically sent to a pharmacy

or drug store. It will just take leadership to drive the standards and adoption.

Leadership of policy makers, of hospital CEOs who need to invest, your leadership and and the servant leadership of frontline caregivers.

As you know hospital's routinely send a patient's x-rays and reports to doctor's offices in real time. This is because radiology has pioneered standards. We need standards in medication management and medical records. I can foresee a patient – that's all of us – carrying a card, much like an ATM card, with his or her complete medical record on it that would be secure, that would allow that person to give access to it to any medical facility or caregiver anywhere in the world. I can imagine a time when a patient in a hospital would be able to access his own hospital records right there in his room on a TV screen or on a cell phone in real time. Much like what is already available in many hotels.

After all, the patient is the customer. He should know what he's getting and how much it costs. Of course, all of these systems would be secure to ensure privacy for all the participants. By setting standards and making all of these systems interoperable, no matter who manufactures them, it will not only save thousands if not millions of lives over the course of time, but will save us all billions and billions of dollars. Medicare fraud, insurance fraud, needless redundant testing, and even the ordinary but overwhelming cost of keeping paper records. The most important result is that we, as patients, can become empowered in our own medical care.

President Obama's healthcare stimulus plan calls for 19.1 billion dollars to be invested in the medical IT industry. That will certainly be good for business. Let's make sure that this money is spent wisely. Short term gain will only lead to long term loss if it is not. So I am calling on everyone, to work together with the government, the hospitals, the doctors, the nurses, pharmacists, the insurance companies and finally all of us, the patients, to set standards to bring interoperability and security to this amazing revolution in medical care.

Your leaders have asked me to share with you a little about my life as part of this presentation. So, here goes. There are four great loves in my life. My family, making movies, golf, and horses. I have told you about the medical accident that disrupted our family life for a time and thank God that it turned out so well. Let me share a little insight with you on movie making and story telling. Perhaps you can take something from that to help you on your road to save lives.

Whether I am an actor, or writing a script, or trying to get a movie made as a producer...in the end I am a story-teller. In my business, the better storyteller you are the greater your chances of succeeding. I am learning that storytelling can even help you in your quest for helping patients heal and get better. I'd like to share with you my perspective on applying storytelling to what you do. I have been formulating these thoughts for an article entitled *S tory P ower* that will be published in one of your patient

safety medical journals in 2010.

Whether you are a doctor in training reciting a patient's history at rounds, an actor playing the part of a hero in a movie, a parent telling a bed time story, or a pharmacy leader inspiring the troops at a hospital, the power of your words rests on telling a story. The art and even the science of story telling are core to living, learning, and leading.

"Story power" lies in the ability to change or reinforce behavior of others. The relatedness of rhetoric can change the course of a person's destiny, the success of a team, and even the history of a nation.

Consider Churchill, Gande, and even Jesus Christ as examples of story tellers whose words ever ring in our ears and impact our behavior. Journalists tell us that every story has a hero, victim, villain, crisis and a resolution. A screen play has a beginning, middle, and an end. Stories come in many forms and can be framed in many ways, yet the power of all good stories is what touches the reader and an audience.

Communication scientists such as the brothers Heath and Heath of the best seller "Made to Stick" tell us that the most powerful stories have certain characteristics. They use the acronym SUCCES to capture the essence of powerful stories: Simple Unexpected Credible Concrete and Emotional Stories are what stay with us and impact our behavior.

Political activists such as Professor Marshall Ganz of the Harvard Kennedy School have shown us the power of the public narrative storytelling. He used this in the Obama campaign and inspired and activated the grass roots force of campaigners that even helped carry a future president to victory.

At first glance, the worlds of reason and that of emotion would seem to collide, yet the research in almost any industry reveals that they co-exist in great leaders. It turns out that both leadership and storytelling are what business experts consider performance arts.

Leadership is essentially a task of persuasion – of winning people's hearts and minds. By making that 18 inch connection between the mind and the heart, you activate the hands to act. The main aspiration of leadership is to build consensus and ignite the passions of the troops to pursue common goals and how to achieve them. It is more about the ends than the means. In my field we also are in the business of moving people through visual images and a relatedness so that the audience feels a part of the story.

A story expresses how and why life changes. It begins with a situation in which life is relatively in balance. Then, there is an event called in screen writing an "inciting incident" that throws life out of balance. The hero or protagonist has to deal with a challenge, discover a truth, go into the darkness, and ultimately rise to the occasion.

As I come to a close, let me share with you a peak at the future and how my life and yours may track more closely than you think. In 2010 a made for TV documentary on the

Discovery Channel will be released focusing on patient safety. It is a joint production between Discovery and TMIT led by Dr. Charles Denham who introduced one of the video clips earlier in my presentation. I will share my story and be the narrator.

An uplifting message, it will be composed of a series of “arc to action” stories that will address some of our most common patient safety challenges and then tell how frontline folks like you have solved them. It will focus on the “extraordinary impact of ordinary things”. The exciting thing about this movie is that just in the shooting of it, we have discovered things that cost no money and that save lives. We are sharing those things across hospitals that are in the movie...and this is already having an impact. If you go to [www.safetyleaders.org](http://www.safetyleaders.org) you will be able to track the making of the movie and perhaps watch how friends and colleagues are becoming a part of it.

The two hour two part program will address many of the issues I discussed today including the care of the caregiver after an accident and medication management solutions, so close to your heart.

Most importantly, we are targeting non-clinical governance leaders of boards of directors and CEOs. After it is aired on Discovery, TMIT will distribute it for free as a DVD package to every hospital board chair in the country. Discovery and TMIT will provide it as a continuing education program on the internet for pharmacists, doctors, nurses, legal folks, and even healthcare students.

In April of 2010 I will give a speech at the National Press Club, we will have a premier of the program in New York City, and then I will give a keynote at a Global Patient Safety Summit in Nice France where we will have the global premier. My speech in Nice will be a call to action for hospital leaders. Using the power of storytelling in leadership, I will challenge them to invest in patient safety in spite of our financial conditions. To invest in their people AND the technologies that can prevent the absolutely predictable harm that can come to patients in our hands as it did for my children.

As you leave this meeting hall and go back to your lives, I want you to think about your own story. If every story has a hero, a victim, a villain, a crisis, and a resolution; I want you to see yourselves as a hero. It is time to write your own story. Your villain is the status quo and the way we have always done things now fueled by cost pressures. The crisis is happening now in your facility – we are harming patients and putting our own caregivers at risk...they both are future victims. Heroes take personal risks to help others. Your patients have put a sacred trust in you. As your friend and champion, I am asking you to embrace new safe practices like the NQF leadership practice, look for ordinary things that can have extraordinary impact, look for training opportunities to equip your folks like Sully with the checklists they need, and become a storyteller to the troops. Tie stories to the great factual, precise, and qualitative knowledge that pharmacists are known for. As I will speak about in Nice with your hospital leaders, I am asking you to not be the last action hero at your hospital.

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You, more than any of the other participants in healthcare know where the opportunities are to reduce medication related harm. You are the leaders at the frontline whether you are a hospital pharmacy leader, a frontline pharmacy staff member, or student starting your career. I have faith that you will lead us to a better and brighter future in health care that will keep families like mine safe. I thank you very much for having me here today and God bless each and every one of you.