# Medical Errors...Is it any safer out there? 2013 Update

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#### **Objectives**

- Define the factors that impact the occurrence of medical errors
- ▶ Recognize error-prone situations
- Describe the processes to improve patient outcomes
- Define the responsibilities for reporting medical errors
- Describe the safety needs of special populations
- Describe public education needs related to patient safety

# November 1999, the Institute of Medicine (IOM) reported

"Health care in the United States is not as safe as it should be—and can be. At least 44,000 people, and perhaps as many as 98,000 people, die in hospitals each year as a result of medical errors that could have been prevented...Even using the lower estimate, preventable medical error in hospitals exceed attributable deaths to such feared threats as motor-vehicle wrecks, breast cancer, and AIDS." (From 'To Err is Human: Building a Safer Health System, 2000)

# November 1999, the Institute of Medicine (IOM) reported

 Also noted in the IOM report, health care is "a decade or more behind other high-risk industries in its attention to ensuring basic safety

#### IOM definition of an error...

The IOM report defines an error as "the failure of a planned action to be completed as intended (i.e., error of execution) or the use of a wrong plan to achieve an aim (i.e., error of planning)."

#### Costs of medical errors...

- According to the IOM report, "To Err is Human: Building a Safer Health System", medical errors cost the economy from \$17 to \$29 billion each year (1999)
- Preventable medical errors during and after surgery may cost employers nearly \$1.5 billion/year (AHRQ, 2008)
- For MCR beneficiaries between 2006 and 2008, patient safety events resulted in \$8.9 billion in excess costs (HealthGrades, 2019)

#### Costs of medical errors...

- The previous slide outlines costs from hospital studies...add in the errors that occur in ambulatory clinics, nursing homes, and other settings...111
- This does not include the costs associated with the personal cost of patient suffering caused by medical errors

#### Common Causes of Medical Errors

- Communication Factors
  - Lack of clear oral an written communication among nurses, patients, other providers
  - · Culture, language barriers, gender differences
  - · Personality differences
  - Communication failure results from perceptions of physicians as autonomous agents, lack of team training, hierarchy/power issues and trust issues.
- Environmental issues that jeopardize safety include interruptions, noise, time constraints, heavy workload, multiple conversations and conversations that are not face-to-face.

#### **Common Causes of Medical Errors**

- Inadequate Information Flow
- Flow of information among staff, agencies, across agencies, patients...creates multiple opportunities for error
- Decentralized and fragmented system encourages poor documentation and lost information
- · Patient hand off is a frequent opportunity for error

#### Common Causes of Medical Errors

- ▶ Human Problems
  - Fatigue
  - Illness
  - Drug use
  - Affect the ability to follow P&Ps, guidelines, best practices
  - Disruptive and intimidating behaviors include rude language and hostile behavior among healthcare professionals.
  - If bullying is not checked, many negative effects result; work stress not only affects staff but also trickles down to patients.
  - The Joint Commission's standard requires accredited organizations to create a code of conduct defining acceptable and unacceptable behavior and to establish a formal process for managing unacceptable behavior.
  - For a fact sheet on lateral violence and bullying, go to The Center for American Nurses' website.

#### Common Causes of Medical Errors

- Patient-Related Issues
  - Inadequate identification
- Incomplete patient information and assessments
- Inadequate patient education
- Organizational Transfer of Knowledge
- Deficiencies and orientation and training
- Identification of the level of knowledge needed to perform the necessary skills

#### Common Causes of Medical Errors

- Staffing Patterns
- Too busy
- Inadequate staff and the skills...inadequate supervision
- Equipment Failures
- Inadequate P&Ps

#### Interventions

- Communication:
- Education on communication and team building skills
- · Accountability for appropriate communication
- SBAR Approach to convey key information
- Situation: brief statement of the problem
- · Background: relevant for the situation
- Assessment: summary of underlying cause and severity
- Recommendation: what is needed to resolve the situation
- The goal is to improve communication and teamwork skills (AHRQ, 2010)

#### Interventions

- ▶ Inadequate Information Flow
  - Face to face discussions
  - Standardized format
- Human Problems
  - Safe work hour limits
  - Accountability and consequences
- Patient-Related Issues
- Two identifiers (WHO)
- Bar coding
- · Standardized approach to patient identification
- · Formal standardized patient education

#### Interventions

- Organizational Transfer of Knowledge
- Better orientation of all staff including temporary staff, agency staff, students, volunteers
- Ongoing education
- Staffing Patterns
- Adequate staffing, skill mix, & competencies
- Equipment failures
- Maintenance of equipment with checklists
- Simulating equipment failures
- Inadequate P&P
  - Standardization of processes
- Safe practice manuals

#### **Common Types of Medical Errors**

- System-Based Errors
- Medication Errors
- Surgical Errors
- ▶ Healthcare-Associated Infections
- Diagnostic Errors

#### **System Based Errors**

- > Rapid, hectic environment promotes errors
- Complex systems
- System failure and poor system design
- Improving:
  - · "Red Rules": rules that cannot be broken
  - Should not be overused and re-evaluated frequently
  - Example might be identification for medication
  - Morbidity and mortality reviews
  - Examine system processes...system or process variations such as medication confusion
  - Standards of care and protocols

#### **Medication Errors**

- Most frequent type of error
- ▶ 1.5 million patients annually
- >7000 deaths per year
- It is estimated that the average hospitalized patient experiences one med error per day
- Most med errors occur in prescribing and administering
- · Omission errors: failure to administer
- · Improper dose/quantity errors
- Unauthorized drug errors: med not authorized by prescriber

#### Medication Errors

(Institute for Safe Medication Practices (ISMP))

- Top six high-alert drugs
  - Heparin
- Insulin
- Opioids
- Injectable potassium/potassium phosphate concentrate
- Neuromuscular blocking agents
- Chemotherapy drugs
- Account for 25% of adverse drug events
- Chosen related to error reports, experts, surveying
- Sound alike/look alike errors (list at the ISMP website)

#### Medication Errors

- Other Causes/Contributing Causes
- Staffing issues
- · Inexperienced or temporary staff
- Insufficient staffing
- Distractions
- Workload increase
- Patient issues
- Shift change

#### **Medication Errors**

- Prevention
  - · Machine-readable labeling such as bar coding
- Unit dose packaging
- Two sided labeling for IV medications
- · Tall man lettering for look alike drug names
- Capitalizing certain letters to draw attention
- Infusion pumps with error reduction software
- Protocols for high alert drugs
- Computerized prescriber order entry and use of eprescriptions coordinated with medical record
- Eliminating confusing and dangerous abbreviations

#### **Medication Errors**

- Prevention (continued)
  - · Chart alerts for allergies
  - Two identifiers
  - Remove nurse distractions and interruptions
  - "Do not disturb" red vests over nurse's uniforms
  - Medication reconciliation
  - Pharmacist participation
  - Medication standardization-strict adherence to protocols

# **Surgical Errors**

- Wrong site- most frequent sentinel event
- Wrong procedure
- Wrong person
- Communication failure is leading cause of surgical errors
- Universal Protocol
- Marking the incision before the procedure
- Time out immediately before

#### Health-Associated Infections

- Leading cause of death: 1.7 million infections and 99,000 associated deaths
- ▶ \$28-\$33 billion in excess healthcare costs
- Difficult to identify the rate related to errors or near-misses (CDC estimates 50%)
- Four categories
- Surgical site
- $_{\circ}$  Central line associated blood stream infections
- CAUTI
- · Ventilator-associated pneumonia
- MRSA, C-diff, etc.

#### **Health-Associated Infections**

- Prevention
- Hand hygiene
- Checklists in ICU with central line catheters based on EBP from the CDC
- Question...why is hand hygiene so difficult???
- · ARN list-serv April 2012
  - · Lot of conversation over difficulty in compliance
  - · Everyone looking for the perfect solution

### Diagnostic Errors

- Missed diagnoses
- Wrong or delayed diagnoses
- Rate of these errors is difficult to determine
- Prevention:
- · Reduce reliance on memory
- Checklists
- · Computer-based decision support systems
- Reduce noise and distractions
- · Clinical decision rules and algorithms
- EMR: can filter, organize and provide information to assist in diagnosis and tracking results

## **High Risk Populations**

- Elderly
- Children
- Under-educated
- Those with a language barrier
- What makes these populations higher risk than others?

## CNN November 5, 2012

- 10 Shocking Medical Mistakes
- "Mistakes are happening every day in every hospital in the country that we're just not catching," says Dr. Albert Wu, an internist at Johns Hopkins Hospital.
- Medical errors kill more than a quarter million people every year in the United States and injure millions. Add them all up and "you have probably the third leading cause of death" in the country, says Dr. Peter Pronovost, an anesthesiologist and critical care physician at Johns Hopkins Hospital.

# CNN November 5, 2012

- Here's a list of 10 shocking medical mistakes and ways to not become a victim:
- 1. Mistake: Treating the wrong patient
- Cause: Hospital staff fails to verify a patient's identity.
- Consequences: Patients with similar names are confused.
- Prevention: Before every procedure in the hospital, make sure the staff checks your entire name, date of birth and barcode on your wrist band.

### CNN November 5, 2012

- 2. Mistake: Surgical souvenirs
- Cause: Surgical staff miscounts (or fails to count) equipment used inside a patient during an operation.
- Consequences: Tools get left inside the hody
- Prevention: If you have unexpected pain, fever or swelling after surgery, ask if you might have a surgical instrument inside you.

## CNN November 5, 2012

- 3. Mistake: Lost patients
- Cause: Patients with dementia are sometimes prone to wandering.
- Consequences: Patients may become trapped while wandering and die from hypothermia or dehydration.
- Prevention: If your loved one sometimes wanders, consider a GPS tracking bracelet.

#### CNN November 5, 2012

- 4. Mistake: Fake doctors
- Cause: Con artists pretend to be doctors.
- Consequences: Medical treatments backfire.
   Instead of getting better, patients get sicker.
- Prevention: Confirm online that your physician is licensed.

## CNN November 5, 2012

- 5. Mistake: The ER waiting game
- Cause: Emergency rooms get backed up when overcrowded hospitals don't have enough beds.
- Consequences: Patients get sicker while waiting for care.
- Prevention: Doctors listen to other doctors, so on your way to the hospital call your physician and ask them to call the emergency room.

### CNN November 5, 2012

- 6. Mistake: Air bubbles in blood
- Cause: The hole in a patient's chest isn't sealed airtight after a chest tube is removed.
- Consequences: Air bubbles get sucked into the wound and cut off blood supply to the patient's lungs, heart, kidneys and brain. Left uncorrected the patient dies.
- Prevention: If you have a central line tube in you, ask how you should be positioned when the line comes out.

# CNN November 5, 2012

- 7. Mistake: Operating on the wrong body part
- Cause: A patient's chart is incorrect, or a surgeon misreads it, or surgical draping obscures marks that denote the correct side of the operation.
- Consequences: The surgeon cuts into the wrong side of a patient's body.
- Prevention: Just before surgery, make sure you reaffirm with the nurse and the surgeon the correct body part and side of your operation.

### CNN November 5, 2012

- 8. Mistake: Infection infestation
- Cause: Doctors and nurses don't wash their hands.
- Consequences: Patients can die from infections spread by hospital workers.
- Prevention: It may be uncomfortable to ask, but make sure doctors and nurses wash their hands before they touch you, even if they're wearing gloves.

#### CNN November 5, 2012

- 9. Mistake: Lookalike tubes
- Cause: A chest tube and a feeding tube can look a lot alike.
- Consequences: Medicine meant for the stomach goes into the chest.
- Prevention: When you have tubes in you, ask the staff to trace every tube back to the point of origin so the right medicine goes to the right place.

#### CNN November 5, 2012

- 10. Mistake: Waking up during surgery
- ▶ Cause: An under-dose of anesthesia.
- Consequences: The brain stays awake while the muscles stay frozen. Most patients aren't in any pain but some feel every poke, prod and cut.
- Prevention: When you schedule surgery, ask your surgeon if you need to be put asleep or if a local anesthetic might work just as well.

#### L.A. NOW (December 2012)

- 10 California hospitals fined for medical mistakes
- The California Department of Public Health fined 10 California hospitals \$785,000 Thursday for errors that caused "immediate jeopardy" to the health and safety of patients.
- The civil fines, ranging from \$10,000 to \$100,000, were issued to hospitals throughout the state for errors that occurred in 2010 and 2011.
- Two facilities in Los Angeles County and two in Orange County were among those fined.
- All of the incidents either caused or were likely to cause the death or serious injury of a patient and occurred because the hospital failed to comply with licensing requirements, officials said.

#### L.A. NOW (December 2012)

- Four of the hospitals fined were Kaiser facilities. At Kaiser South Bay, a patient died after mistakenly being given a blood thinner instead of medication to stop bleeding in the digestive track. The state fined the facility \$50,000. At Kaiser San Diego, surgeons removed a patient's incorrect kidney, resulting in a \$75,000 fine.
- A few of the penalties were due to surgical items being left behind in patients during operations. At Methodist Hospital of Southern California in Arcadia, surgeons left in a sponge when removing a patient's gall bladder. The fine was \$50,000.

# L.A. NOW (December 2012)

- Two hospitals -- Mission Hospital Regional Medical Center and Kaweah Delta Medical Center in Tulare County -- were fined twice. And one facility, UC San Francisco Medical Center, received its sixth fine.
- The goal of the penalties and of publicly reporting them is to reduce surgical and medication errors, said Debby Rogers, deputy director of the department's Center for Healthcare Quality.

#### When Doctors Feel Pain After a Medical Mistake (ProPublica, January 2013)

- Dr. David Ring, an associate professor at Harvard Medical School and board certified orthopedic and hand surgeon, once performed the wrong surgery on a patient's finger
- Ring quickly noticed and fixed his mistake, but it was one of the worst experiences of his life

# When Doctors Feel Pain After a Medical Mistake (ProPublica, January, 2013)

- Sometimes doctors or nurses who cause harm to a patient are the perpetrators:
  - They're careless, negligent, taking on too many cases because they're greedy, sloppy or incompetent.
- But often this is not the case. A wellmeaning, expertly-trained provider makes an honest error and feels deep remorse.

# When Doctors Feel Pain After a Medical Mistake (ProPublica, January, 2013)

- Plus, there are often extenuating circumstances that contribute to the mistake. In Ring's case, a series of events contributed to confusion in the operating room that day. As Allen noted:
  - The nurse marked the correct arm, but not the incision site.
  - Surgeons were behind schedule, so people were stressed.
  - The nurse who prepped the patient for surgery wasn't present for the procedure, because the patient had been moved to a different operating room.
  - The nursing team changed in the middle of the procedure.

# When Doctors Feel Pain After a Medical Mistake (ProPublica, January, 2013)

- In these cases, health care providers, like Ring, are sometimes called the "second victim" of medical mistakes.
- The term recognizes that being part of an error also takes an emotional and psychological toll on the provider
- But Wu is among those who believe that recognizing the phenomenon and changing medicine's culture of silence could help doctors heal and benefit patients, too.
- "If people are consistently beaten up when there's a bad outcome, you create a climate in which no one talks about anything," Wu told Health Leaders Media's Cheryl Clark, "and a conspiracy of silence leads to mistakes being repeated."

# When Doctors Feel Pain After a Medical Mistake (ProPublica, January, 2013)

- Wojcieszak said providers have also told him that disclosure is one of the best ways to aid personal healing and learn from mistakes.
- "The organizations that are really good at this will tell you that the biggest benefit is patient safety," he said. "When we own our mistakes, we have a chance to learn."

#### A Costly Equation: Medical Dollars Wasted Are Greater Than the U.S. Defense Budget (ProPublica, September, 2012)

- IOM (2009):
- The report outlined the varieties of waste: Care is provided that's not based on evidence; discretionary care is used too much; high cost options are chosen rather than avoided; care is fragmented; insurance administration and paperwork are inefficient; and fraud is at every level. The estimates of money poorly spent included:
- \$210 billion on overuse and unnecessary care.
- \$130 billion in inefficiency, including mistakes and harm.
- \$190 billion in excess administrative costs.
- The \$765 billion total estimate is about \$100 billion more than the Defense Department budget for the same year.

# A Culture of Safety

- Acknowledges the inevitability of error and proactively seeks to identify the threats
  - An environment that supports reporting errors or near misses without retribution
  - Collaboration across the organization to seek solutions
  - Demonstrate willingness to direct resources to address the safety concerns

#### National Patient Safety Foundation

(Lucien Leape Institute)

- Strategic guidance for achieving safe healthcare
- Open, transparent, supportive, committed to learning
- Trust and respect
- Patient interests are the most important
- Patient/family engagement
- Errors define the boundaries of safe practice, the culture focuses on preventing blame...throughout all levels of the organization

# National Patient Safety Foundation

(Lucien Leape Institute)

- To achieve this, five transforming concepts
  - Transparency must be practiced in everything the organization does
  - Care must be delivered by teams working together in integrated care platforms such as rehab, ICU, etc
  - Patients must be fully engaged in all aspects of their own healthcare
  - Healthcare workers must find joy and meaning in their work
  - Health professionals' education must be redesigned to prepare new care providers to function in the new environment

# **National Patient Safety Foundation**

(Lucien Leape Institute)

- Errors are viewed as opportunities for improvement
- Efforts must be consistent and sustained
- Safety officer in administration
- Everyone must contribute to the culture of safety
- Full disclosure to the patient and family

#### Identifying & Analyzing Medical Errors

- Identification of errors
- Root Cause Analysis
  - A process used to identify factors that underlie variations in performance, especially those associated with sentinel events.
- Incidents that result in serious physical or psychological injury or death are sentinel events.
- A serious error triggers an investigation aimed at improving systems and processes to reduce the likelihood of such an event in the future

#### Identifying & Analyzing Medical Errors

- Failure Mode Effect Analysis (FMEA)
  - A theory of error prevention that fosters safety in systems and the prevention of accidents.
  - FMEA assumes that errors are not only possible but also even likely despite knowledgeable and careful healthcare professionals.
  - This theory takes the onus for preventing errors off individuals by using an interdisciplinary group to engage in a never-ending process of quality improvement to assess and correct areas where errors are likely

# Patient Safety Initiatives

- WHO
- JC
- AHRQ
- US Department of VA
- ▶ US FDA
- National Patient Safety Foundation
- NQF

#### AHRQ

- The Agency for Healthcare Research and Quality offers 10 patient safety tips, distilled from research, to increase patient safety:
  - Survey staff in individual units and throughout the hospital on the need to assess and improve the culture of patient
  - safety. Limit shifts of more than 24 hours for medical residents, and make sure they do not drive home after working extended shifts.
  - Eliminate the tradition of shifts of more than 30 consecutive hours by interns working in hospital ICUs.
  - Adopt interventions to reduce the incidence of ventilator-associated pneumonia in critically ill patients.
- Count surgical instruments and sponges before and after procedures, and X-ray patients after surgery to reduce the likelihood of objects being left inside patients.

#### AHRQ

- Use senior nurses and maintain appropriate roundthe-clock staffing levels in ICUs to prevent airway tube complications.
- Ensure that personal digital assistant-based drug information is readily available at the point of care.
- Download free software tools to identify ways to improve medication safety in the ambulatory care
- Use computer-based order entry to reduce catheterrelated urinary tract infections.
- Minimize interruptions and other distractions faced by the nursing staff in their day-to-day routines.

#### JC & Sentinel Events

- The Joint Commission must review events that have resulted in an unanticipated death or major permanent loss of function not related to the natural course of the patient's illness or underlying condition, or if the event is one of the following:

  Suicide of any patient receiving care, treatment and services in a staffed-around-the-clock care setting or within 72 hours of discharge.

  Unanticipated death of a full-term infant.

  Abduction of any patient receiving care, treatment, and services.

  Discharge of an infant to the wrong family.

  Rape.

  - Discharge of an infant to the wrong family.

    Rape.

    Hemolytic transfusion reaction involving administration of blood or blood products having major blood group incompatibilities.

    Surgery and non-surgical invasive procedure on the wrong patient, wrong site or wrong procedure.

    Unintended retention of a foreign object in a patient after surgery or other procedure.

  - other procedure
  - Severe neonatal hyperbilirubinemia (bilirubin > 30 milligrams/deciliter). Severe reonatan hyperbinitoriem a common so minigrans/specified, Prolonged fluoroscopy with cumulative dose greater than 1,500 rads to a single field or any delivery of radiotherapy to the wrong body region or more than 25% above the planned

#### **IC & Sentinel Events**

- All events of surgery on the wrong patient or wrong body part are reviewable under the policy regardless of the magnitude of the procedure or the outcome.
- Sentinel event reports have increased dramatically between 1995 and 2011.

# JC Patient Safety Goals (2013)

- Identify patients safely
  - Two identifiers
  - Correct blood
- Improve staff communication
  - Important test results timely to the right person
- Use medicines safely
  - Before a procedure, label medicines that are not labeled.
- Take extra care with patients who take medicines to thin their blood.
- Record and pass along correct information about a patient's medicines.

# JC Patient Safety Goals (2013)

- Prevent infection
- Use the hand cleaning guidelines from the Centers for Disease Control and Prevention or the World Health Organization.
- Use proven guidelines to prevent infections that are difficult to treat.
- Use proven guidelines to prevent infection of the blood from central lines.
- Use proven guidelines to prevent infection after
- Use proven guidelines to prevent infections of the urinary tract that are caused by catheters.

# JC Patient Safety Goals (2013)

- Identify patient safety risks
  - Find out which patients are most likely to try to commit suicide.
- Prevent mistakes in surgery
- Make sure that the correct surgery is done on the correct patient and at the correct place on the patient's body.
- Mark the correct place on the patient's body where the surgery is to be done.
- Pause before the surgery to make sure that a mistake is not being made.

# The Just Culture Algorithm™ David Marx

- Punishment reduces reported errors, while the discipline and humiliation that administrators and regulatory boards visit upon nurses associated with errors may place more patients at risk.
- Rather than blaming nurses, administrators and review boards should take errors out of the blamediscipline structure and move them to a just culture.
- Elements of the just culture model, in which individual accountability is emphasized and discipline is reinstated include:
  - Human error.
  - Negligent conduct.
- Reckless conduct.
- Intentional rule violations.

# The Just Culture Algorithm™

- Marx defines a series of pathways, collectively known as The Just Culture Algorithm to guide and standardize organizational response to errors.
- He brings an engineer's knowledge of human performance and fallibility to this work, differentiating "simple human error" (the mistakes people can be predicted to make when performing familiar tasks) from behavioral choices that are more volitional in nature.
- Engineers interested in preventing harm generally work to improve the systems people use to produce high stakes work.
- This approach stems from knowledge that humans, no matter how well intended, will not perform perfectly.

## The Just Culture Algorithm™

- What distinguishes the Just Culture Algorithm from other approaches to error investigation and corrective action is that individuals are not punished for simple human errors like these.
- Simple human errors (termed "slips, trips, and lapses") occur most often when competent people become distracted or experience sensory overload.
- Preventing another person from making the same error involves re-engineering processes so that barriers, redundancies, and opportunities to discover errors before harm occurs become part of clinicians' daily practice norms.

# The Just Culture Algorithm™

- At-Risk vs. Reckless Behavior
  - Some errors arise because people knowingly choose to circumvent defined safety practices.
  - These choices either increase the likelihood of error or they remove downstream opportunities to catch errors.
  - Marx places behavioral choices that increase risk into 2 broad categories: "at-risk behavior" or "reckless behavior."
- Distinctions like these are important, both for determining a just course of action for the individual involved in the safety violation and for strengthening the safety processes an organization defines and implements.

# The Just Culture Algorithm™

- At-Risk vs. Reckless Behavior
- A pharmacist who chooses to dispense an oral medication in a parenteral syringe increases the likelihood that a wrong route administration error will occur. So does a nurse who chooses not to label the distal ends of a tube or line.
- For example, the motivation of a pharmacist who chooses to dispense oral medication in a parenteral syringe because he or she believes that nurses need to be "more careful" and shouldn't depend upon a device "crutch" is motivated differently than a pharmacist who uses parenteral syringes because oral syringes are not in stock.

# The Just Culture Algorithm™

- At-Risk vs. Reckless Behavior
- Organizational response in the aftermath of an error focuses on what drove the adverse event (simple human error, at-risk behavior, or reckless behavior) and not upon the severity of the outcome.
- This means that a person exhibiting reckless behavior faces punishment, irrespective of whether grievous patient harm occurs.
- Conversely, an event that leads to substantial harm is not "charged" to the professional whose simple human error reaches a patient undetected.

# The Just Culture Algorithm™

- At-Risk vs. Reckless Behavior
- Marx cycles the feedback loop around, holding leaders accountable for managing compliance barriers and, when necessary, redesigning faulty systems so that the likelihood of a simple human error causing grave harm is substantially reduced.
- But a Just Culture, as defined by Marx, has zero tolerance for reckless behavior, a characteristic that differentiates this philosophy from "no blame" approaches. People are held accountable subject to the disciplinary processes used in their organizations for patterns of at-risk behavior that jeopardize safety and for individual acts that violate organizational values and substantially endanger others, irrespective of whether harm occurs.

# The answer to the original question...

- Is it any safer out there?
  - Many of the safety practices have been identified
- The processes are there
- Many have taken it seriously and have adopted safer practices
- It has been a slow process for something that should have had a higher degree of urgency
- We have a long way to go
- The majority of the responsibility lies in with the consumer...you need to protect your self and the loved ones in your life

# **Any Questions?**

Thank you!