~~PATIENT~~ SAFETY CULTURE IN PERIOPERATIVE NURSING

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ORNAP ANNUAL CONVENTION
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PRESENTATION AGENDA

- **Introduction to the essentials in health care**
- **Health care scenario**
- **Challenges of perioperative arena**
- **Common hazards in the Operating room**
- **Mitigating the results of the hazards**
- **Creating a culture of safety**
- **Elements of high reliability organization**
- **Critical challenges in creating a safety culture**
- **Take home message**

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Introduction

Ensuring the safe care of patients in any health-care setting is paramount for all health-care professionals most especially for nurses

Recent research has shown that there are thousands of preventable adverse events happening each year in health care.

Introduction

Sixteen years after the Institute of Medicine's report " To Err is Human" galvanized a worldwide initiatives to improve the quality and safety of health care.

There had been several positive developments but measured against the magnitude of problems, the overall impact has been **underwhelming**.

Adverse events still experienced by patients...

- **Health care associated infections**
  - **surgical site infections**
  - **harmful medication errors**

- **Errors during transitions from one health care setting to another**
- **Operations on wrong patient or wrong body part**
  - ➢ **50 times per week in the US)**
- **Fires breaking out in the OR during surgery**
  - ➢ **6oo times a year**

Source: Chassin, M., Loeb, J. 2013. High Reliability Health Care. The Joint Commission

Health care outcomes have significantly improved due to advances in science and technology:

- **growing commitment to safety worldwide**
- **increasing risk to patients**
- **enhanced competency of health care providers**

Significant advances in safety in the operating room

- Improved surgical techniques,
- technology for patient monitoring such as pulse oximetry to prevent hypoxemia, and
- fail-safe systems
  - pin-indexing systems for gas cylinders and
  - lines to prevent delivery of hypoxic gas mixtures.
- Teamwork among health professionals improved operating room safety.

However, the operating room (OR) environment continues to have significant safety risks for patients as well as the health care providers who work there.

Perioperative arena as a unique environment

Numerous challenges :

1. complex clinical care,
2. dealing with the health care professionals with diverse medical backgrounds,
3. unclear team relations ,
4. managing supplies, equipment and other resources ,
5. stressful situations and
6. presence of numerous hazards.

10 highest priority safety issues

- **wrong site/procedure/patient surgery,**
- **retained surgical items,**
- **medication errors,**
- **failures in instrument reprocessing,**
- **pressure injuries,**
- **specimen management errors,**
- **surgical fires,**
- **perioperative hypothermia,**
- **burns from energy devices, and**
- **difficult intubation/airway emergencies.**

Source: Steelman, VM , et al. AORN. *Priority patient safety issues identified by perioperative nurses. April 2013*

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Why Do Errors Occur—Some Obstacles

- **Workload fluctuations**
- **Interruptions**
- **Fatigue**
- **Multi-tasking**
- **Failure to follow up**
- **Poor handoffs**
- **Ineffective communication**
- **Not following protocol**

- **Excessive professional courtesy**
- **Halo effect**
- **Passenger syndrome**
- **Hidden agenda**
- **Complacency**
- **High-risk phase**
- **Strength of an idea**
- **Task (target) fixation**

Analysis of common hazards in the operating room

- **Research has shown that communication failures with in interprofessional teams are causes of medical errors and negative patient outcomes.**

Further studies of the Joint Commission revealed:

- **Adverse events caused:**
  1. **Human factors,**
  2. **Inadequate or ineffective leadership, and**
  3. **Communication failures**

Impact of errors
(The Joint Commission.2011)

- **Root causes of unintended retention of foreign objects**
  - **leadership (79%),**
  - **human factors (66%),**
  - **communication failures (64%)**

Root causes of wrong-patient, wrong-procedure, and wrong-site events
  - **inadequate or ineffective leadership (82%),**
  - **communication failures (68%), and**
  - **human factors (67%)**

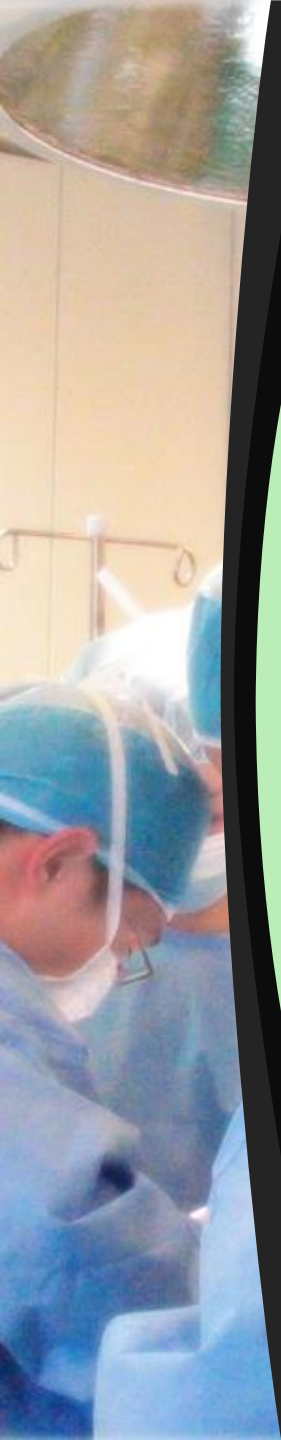**COMPANY LOGO**

Workplace Safety Equals Patient Safety

For many years, AORN has been a leader in creating a safe environment for the patient in the OR and other procedural areas. Perioperative nurses provide care that adheres to the AORN standards and recommended practices. AORN provides orientation tools like Periop 101: A Core Curriculum™. Collaborations among AORN staff members, member volunteers, and representatives of other organizations have resulted in tool kits to address safety factors such as surgical briefings, time out, and debriefings.

I believe that workplace safety is an integral part of patient safety. There are many pieces to creating a safe work environment, and much work has been done by AORN in cooperation with experts in various fields and health care organizations.

Therefore, I have asked my colleagues to discuss a variety of topics related to workplace safety, including fire safety, sharps safety, safe patient handling, and smoke in the OR environment. I have also solicited general discussions on workplace safety in the OR and the sterile processing department and on workplace safety issues from AORN's perspective. I posed the following question:

From your professional perspective, what work related to workplace safety have we done, and what has been its impact on the surgical team?

DEBORAH SPRATT
MPA, BSN, RN, CNOR, NEA-BC, CRCST, CHL
AORN PRESIDENT

- **Perioperative nurses may be exposed to a variety of workplace hazards in the course of performing their functions posing personal risks.**

The type and degree of exposure is dependent upon a variety of individual factors :
  - **patient related factors**
  - **environmental issues.**

Occupational Hazards

- **Unsafe workplace contributes to work-related injuries and diseases that often result in physical, emotional, and financial difficulties for the perioperative nurse.**

Occupational hazards

Occupational injuries resulting from an unsafe workplace have a financial impact to the health care organization through increased costs and a reduced ability to provide services

SIX COMMON SAFETY AND HEALTH HAZARDS IN THE PERIOPERATIVE SETTING

1. Biological hazards,
2. Ergonomic hazards,
3. Chemical hazards,
4. Physical hazards,•
5. Psychosocial factors, and
6. Organizational issues.

SOURCE: Tatterstall, M. Workplace Safety, *AORN*.2010

Biological Hazards

- **Blood and other body fluids**

- **According to the University of Rochester 50 percent of blood and fluid exposures occur after use.**

Follow all established safety guidelines to minimize the risk of exposure and infection.

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Ergonomic Hazards

• **Ergonomic hazards are found throughout the perioperative environment and are created by patient handling or the physical environment.**

Some of the most common hazards in operating rooms.

Ergonomic Hazards

- Forceful tasks
- Repetitive motion
- Static posture
- Moving or lifting patients or equipment;
- Carrying heavy instruments or equipment;
- Overexertion
- Cuts
- Slips and falls
- Electric shock and burn

Chemical Hazards

- **Exposure to waste anesthetic gases**
- **Disinfectants and other cleaning and sanitizing agents**

  - **Eye, nose and throat irritations**

- **Chronic poisoning long term exposure to medications, sterilizing fluids (e.g., glutaraldehyde), anesthetic gases, etc)**

Physical hazards

- Exposure to radiation from x-ray and radioisotope sources
- Exposure to Lasers
- Excessive noise
- Temperature

Operating room fires remain a significant source of liability for anesthesia providers and injury for patients, despite existing practice guidelines and other improvements in operating room safety.

(Kaye, Kolinski, Urman.Journal of Anesthesia.2014)

HOT SPOT
Endotracheal tubes, drapes and towels frequently fuel OR fires.

Fire hazard management

Nurses must be familiar with the fire triad :

- **fuel supply,**
- **an oxidizing agent, and**
- **an ignition source**

Communication and coordination among members of the OR team is essential to creating a culture of safety.

Psychosocial and organizational factors

- Psychological stress caused by a feeling of heavy responsibility towards patients.
- Contact with sick patients, especially when patients don't recover from the operation.
- Stress, strained family relations, and burnout due to shift and night work, overtime work,
- Problems of interpersonal relations with surgeons and other members of the operating team.

Source: International Hazard Datasheets on Occupation. 2000

Mitigating the hazards

Key component of a health and safety program :

- identify and assess hazards and
- determine appropriate controls.

A systematic approach to hazard assessment and management

1. List all work related tasks and activities

2. Identify potential biological, chemical, physical and psychological hazards
   associated with each task

3. Assess the risk of the hazard by considering the severity of consequences of
   exposure, the probability that the exposure will occur and the frequency the task is done.

4. Identify the controls that will eliminate or reduce the risk.

5. Implement the controls for each hazard.

6. Communicate the hazard assessments and required controls to all
   workers who perform the tasks.

7. Evaluate the effectiveness of controls periodically.

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Health care is the most complex o f human endeavors
(Institute of Medicine,2000)

Culture of Safety

The term culture of safety or safety culture was introduced after the 1986 Chernobyl nuclear accident.

The International Atomic Energy Agency identified a "poor safety culture" as a contributing factor.

The aviation industry has been credited with introducing a culture of safety to the United States after an aviation accident that killed 14 people in 1991.

Source: Wiegmann D, Zhang H, von Thaden T, Sharma G, Mitchell A. A synthesis of safety culture and safety climate research. Technical Report ARL-0203/FAA-02-2, prepared for Federal Aviation Administration. 2002. http://www.humanfactors.uiuc.edu/reports&paperspdfs/techreport

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WHAT IS SAFETY CULTURE?

"A safety culture exists within an organization when each individual employee, regardless of their position, assumes an active role in error prevention and that role is supported by the organization."

(Wiegmann D,et al. 2002)

We preach "quality" but can we say we have a true "culture of safety"

- **Culture**
  - **"The way we do things around here"**

- **Safety**
  - **Avoiding injuries from care intended to help patients**

Elements of "Quality"

- <u>Safe</u>: avoiding injuries to patients from the care that is intended to help them

- <u>Timely</u>: reducing waits and sometimes harmful delays for both those who receive and those who give care

- <u>Effective</u>: providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse)

<u>"STEEEP" Framework</u> outlined by the Institute of Medicine ("IOM")

Elements of "Quality"

- <u>Efficient</u>: avoiding waste, in particular waste of equipment, supplies, ideas, and energy

- <u>Equitable</u>: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

- <u>Patient-Centered</u>: providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

"STEEEP" Framework outlined by the Institute of Medicine ("IOM")

Developing a safety culture

- **Declare Patient Safety as a priority**

  - **create a high reliability organization**

- **Establish executive responsibility**

- **Install a blameless reporting system**

- **Develop accountability**

- **Develop organizational learning through updated learning and development programs**

- **Collaborative structure takes over in situations of high risk**

- **Accelerate change for improvement**
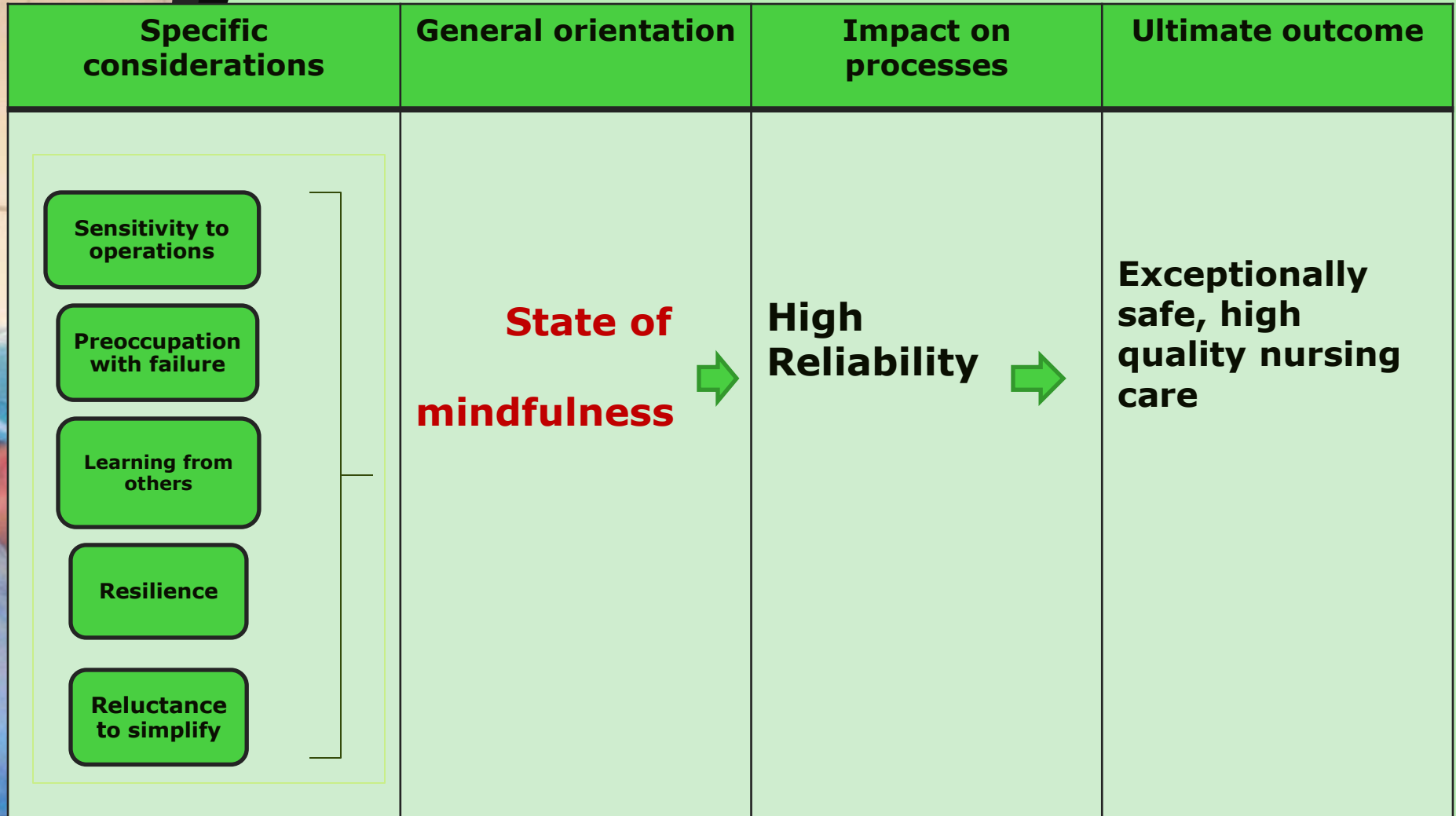
High reliability and Health Care

(AORN.2015, The Joint Commision 2013)

1. **Sensitivity to operations**
    –   **Know and follow standardized practices;**
2. **Preoccupation with failures;**
3. **Learning from others;**
4. **Resilience**
5. **Reluctance to simplify**

" The hallmark of an HRO is not that it is error- free but errors don't disable it. "

(Weick and SutCliffe , 2004)

High reliability framework

Specific considerations	General orientation	Impact on processes	Ultimate outcome
Sensitivity to operations Preoccupation with failure Learning from others Resilience Reluctance to simplify	**State of mindfulness**	**High Reliability**	**Exceptionally safe, high quality nursing care**

High Reliability– Five Key Concepts

1. **Sensitivity to Operations**

    (situational awareness)

    – **Health care workers at all levels routinely observe unsafe conditions, behaviors, and practice.**

Several factors contribute to this gap.

1. Poor communication both within and between teams is a common condition in health care.

2. Transitions from one care setting to another (so-called handoffs) are characterized by incomplete or inaccurate communication of crucial patient informatio

n.

New Research from HealthGrades

Poor Communication Can Mean:

27% more safety events*

15% more safety events

Poor Nurse Communication

Poor Doctor Communication

See 10 Things You Can Do To Reduce Your Risk

*Nurses tend to interact with patients more often and for longer periods of time than doctors.
Source: HealthGrades 2012 Patient Safety & Patient Satisfaction Report

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Increase sensitivity to operations

- Observe every system and action that affects patient safety:
- Identify risks and prevent them
- Effective communication at all levels
- Clear and properly disseminated safety guidelines

IT IS YOUR RESPONSIBILITY !

- Every health care worker must accept responsibility for using good judgment in all situations;
  - **ASK IF IN DOUBT**
  - **FOLLOW APPROVED POLICIES AND PROCEDURES TO CREATE A SAFE ENVIRONMENT;**
- The health care worker has a legal responsibility to protect the patient from harm and injury.
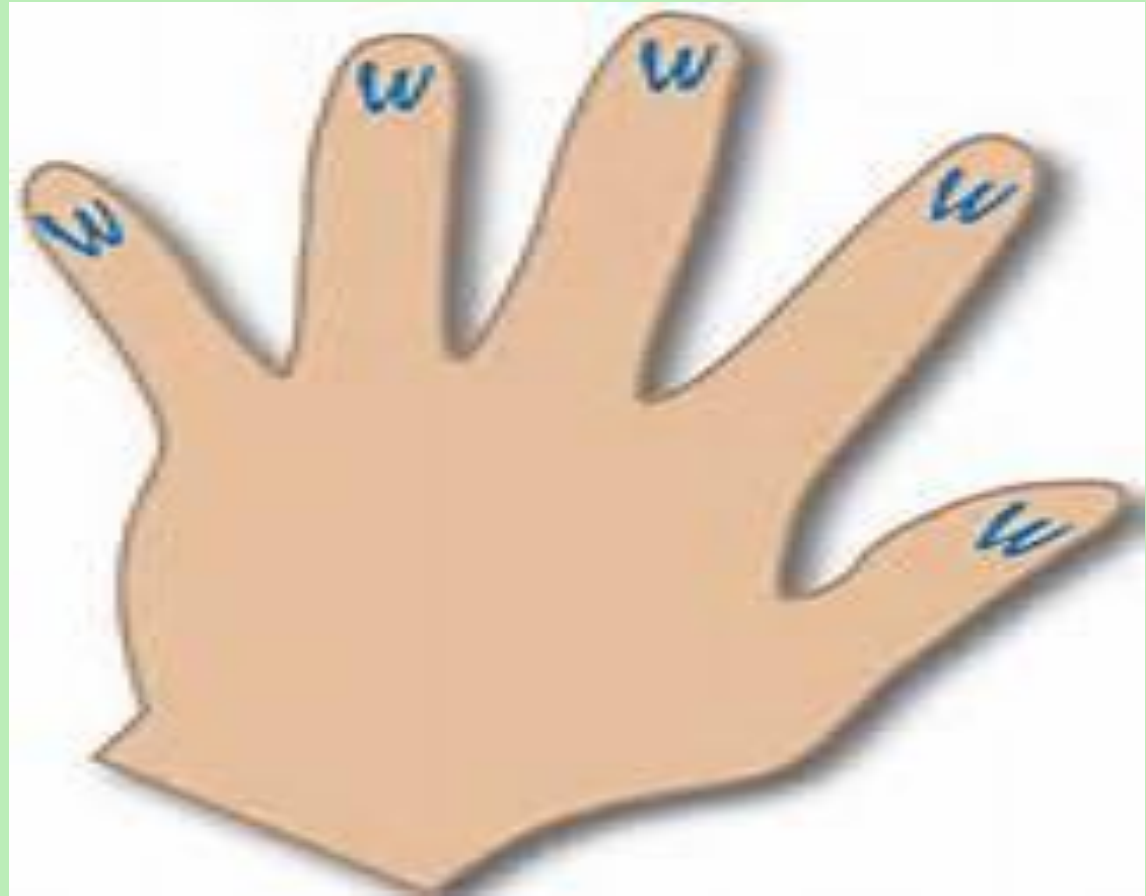
High Reliability Concepts

2. Reluctance to Simplify

    – Avoid overly simple explanations of

    – failure (for example, "inadequate training")

    – seek and understand the true reasons patients are at risk. .

(Take nothing for granted.)

Probe and know the real reason for safety failures

The London protocol : five whys

High Reliability Concepts

3. Preoccupation with Failure

- Analyze the potential safety risks and reasons for safety failures: look closely at every "near-miss" or failure that might harm a patient as a possible symptom of a broader problem.

Viewed as invitations to improve rather than as proof that a system has enough checks to prevent a catastrophic failure.

Preoccupation with Failure

- **Sense of shared attentiveness**
- **Focus on possibilities of failures to check on effectiveness of safety processes**
- **Share information and open to adapting best practices**

High Reliability Concepts

- **4. Deference to Expertise**
  - Information is freely shared and staff are engaged at all levels.
  - In a crisis, the person with the most expertise leads.
  - Listen to the front-line experts
  - Redefine "meetings." The best place for conversations between leaders and staff is in the work area.

  Strengthen teamwork and collaboration

High Reliability Concepts

- **Resilience**

  – **learn how to respond when a failure occurs and find ways to prevent it in the future.**
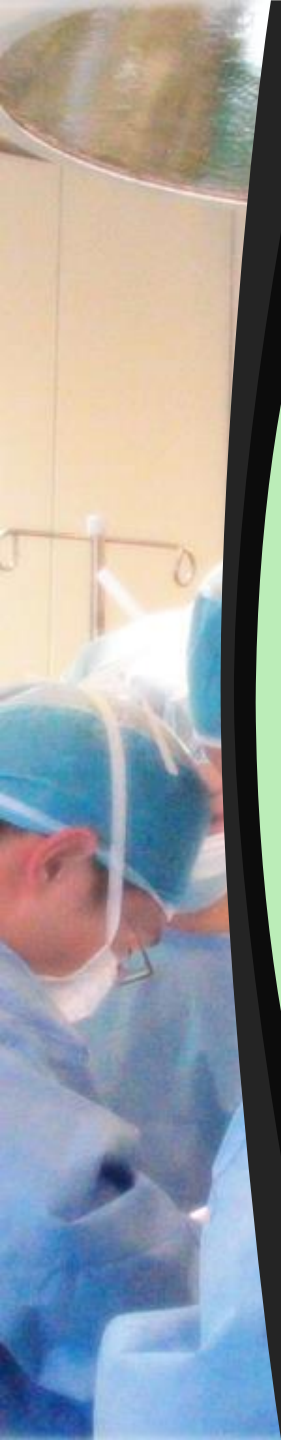
  Leaders at high reliability organizations stay the course. They are prepared to respond to failures and continually find new solutions

Three central attributes of high reliability organizations

1. Trust
2. Report
3. Improve

Source: Chassin, M., Loeb, J. 2013. High Reliability Health Care. The Joint Commission

In summary:

Critical challenges

1. Effective leadership focused high reliability is critical in setting the direction and creating the culture of safety
2. Organizational culture of safety that emphasizes trust, reporting of unsafe conditions, quality improvement not on blame
3. Utilizes quality improvement methods: review of processes, preventive measures and failures

Critical challenges

- **Teamwork and collaboration**
  - **Synchronized actions and communications to safely complete tasks**
  - **Knowledge of roles**
  - **Working collectively towards a common goal of safety**
- **Culture of safety means patient and worker's safety**

Teamwork:

Coming together is a beginning,
Keeping together is progress,
Working together
is a success.

Take home message...

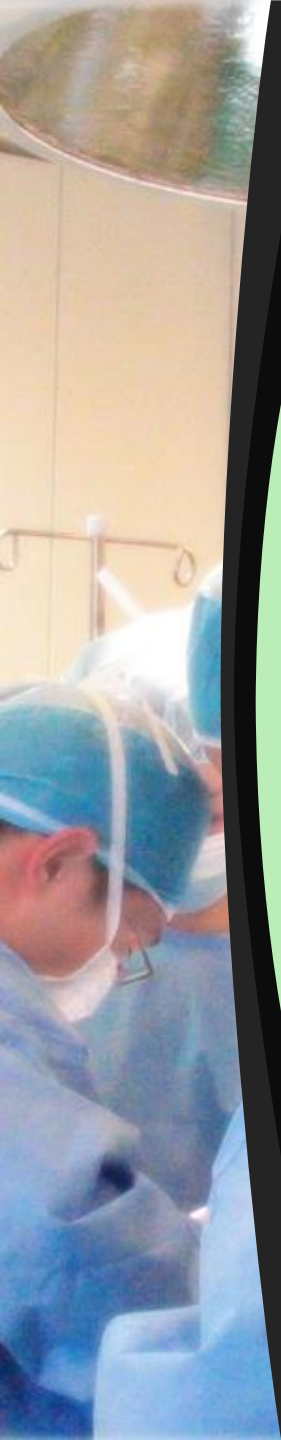# Establishing the culture of safety

- All members of the health care team must commit to safety;
- Every accident/injury must be documented and reviewed to help prevent future accidents;
- Poor judgment, physical limitation, and lack of training may be the causes of accidents;
- Study and modify environment to create safe environment;
- Education is the key to a safety of the organization.

"Creating and sustaining a culture of safety is a challenge and remains an ongoing affair Because health care facilities are risky places to give and receive care.

Nurses are central to the work of health care organizations and, therefore, central to the culture of safety."

Doreen Wagner, PhD, RN. AORN .October 2014

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