

The Intersection of Respiratory Therapists & Patient Safety

Tom Lamphere BS, RRT-ACCS, RPFT, FAARC

Executive Director, PSRC

Instructor, RC Program, Gwynedd Mercy College

Staff Therapist, Hospital of the University of PA

What's All The Fuss About Safety?



Mortality

- 1999, the Institute of Medicine (IOM) published “*To Err Is Human: Building a Safer Health System*”
- Extrapolated from two studies of adverse events in hospitals
- Estimated 44,000– 98,000 patients die from preventable medical error in the U.S.

Mortality

- Over the past 20 years estimates have increased to 250,000 or even 400,000 deaths and proclaimed it to be the 3rd leading cause of death in the U.S.
- According to CDC, about 700,000 people die in hospitals each year.
- If above is true, 35-57% of deaths would be preventable.
- A 2020 study out of Yale found the number is likely closer to 22,165 deaths per year (3%)

What's All The Fuss About Safety?



Money!

- Betsy Lehman Center for Patient Safety 2019 “The Financial and Human Cost of Medical Error”
- Found that 62,000 preventable “harm events” occurred in Massachusetts in one year at a cost of \$617 million.

Patient Safety & The Respiratory Therapist



Increased number of adverse events will
increased costs and ultimately decrease the
number of allied health workers including RTs!

Patient Safety & The Respiratory Therapist



A decreased number of adverse events will reduce costs and ultimately increase the number of allied health workers including RTs!

Institute of Medicine (IOM)

Domains of Quality Care

- 1. Safe care**
- 2. Effective care**
- 3. Patient-centered care**
- 4. Timely care**
- 5. Efficient care**
- 6. Equitable care**

Institute of Medicine (IOM)

Domains of Quality Care

Safe Care

Avoiding harm to patients from the care that is intended to help them.

Effective care

Providing evidence-based care to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively)

Institute of Medicine (IOM)

Domains of Quality Care

Patient-Centered Care

Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.

Timely Care

Reducing wait time and sometimes harmful delays for both those who receive and those who give care.

Institute of Medicine (IOM)

Domains of Quality Care

Efficient Care

Avoiding waste, including waste of equipment, supplies, ideas, and energy.

Equitable Care

Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

National Patient Safety Goals 2020

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. Identify patient safety risks.
6. Prevent mistakes in surgery.

Which of the 2020 NPSG Involve Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. Identify patient safety risks.
6. Prevent mistakes in surgery.

A Word About Common Sense...

DEFINITION:

- Sound judgment not based on specialized knowledge; native good judgment
- Use of one's conscious logic or reasoning to ascertain a predictable outcome or result learned through experience.

If everyone used common sense, patient safety would improve!

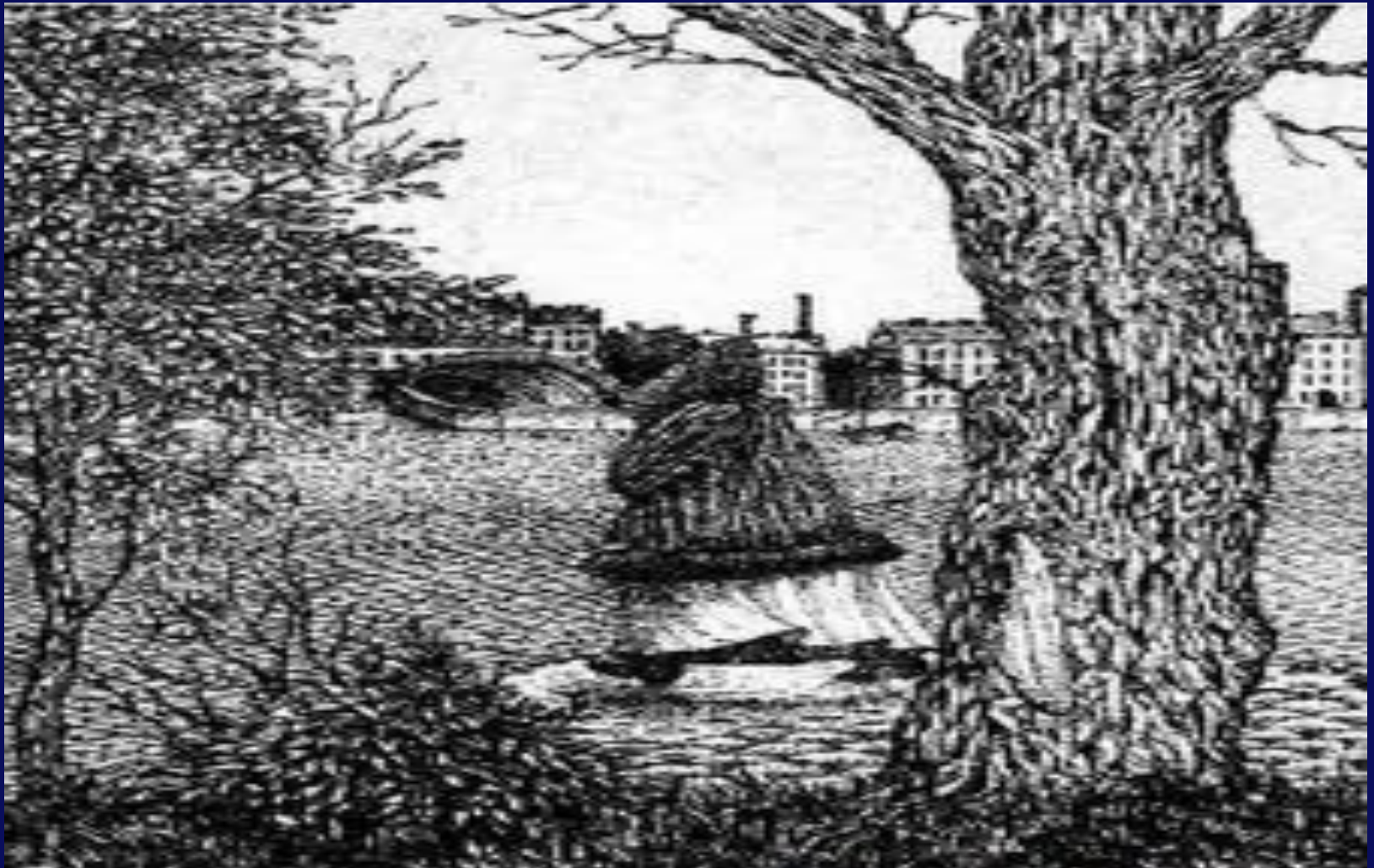
Common Sense Is Not So Common...



Which of the NPSG Affects Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. Identify patient safety risks.
6. Prevent mistakes in surgery.

When Treating A Patient, Make Absolutely Sure....



Identify Patients Correctly

- Use two patient identifiers (usually name and date of birth)
- Do NOT use a room number to identify a patient (i.e. “The patient in room 326”). If a patient is unable to provide information, use wrist band to identify patient.
- Label specimens in the presence of the patient (ABGs, Sputum, etc.)

Which of the NPSG Affects Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. Identify patient safety risks.
6. Prevent mistakes in surgery.

The “Evolution” of Communication



Worked but wasn't very good....

The “Evolution” of Communication



....better.....

The “Evolution” of Communication



....even better.....

The “Evolution” of Communication



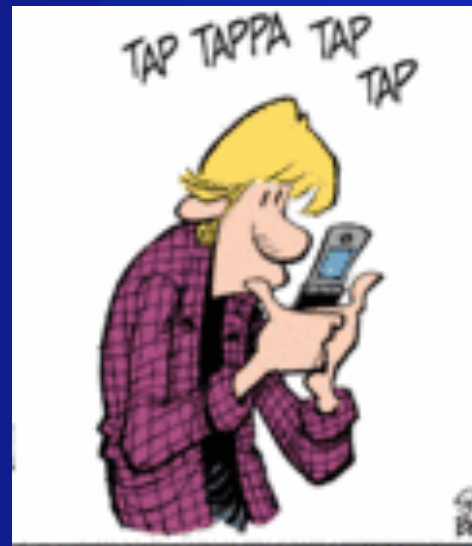
Best????

The “Evolution” of Communication



Worked but not good.....better.....even better.....

Best??



The World Is Full of Examples of Poor Communication



We Need To Communicate Clearly!



Improve Staff Communication

- Write down information received verbally or by phone and “Read back” orders or test results received.
- Person providing the information should confirm information was read back.
- Policy for reporting “critical values” must be in place and followed. ABG results fall into this policy and must be reported to a “responsible licensed caregiver” for the patient.

Improve Staff Communication Between MDs, RNs, & RTs.....

What's the difference in these ventilator modes?

- Pressure Regulated Volume Control
- Adaptive Pressure Ventilation
- Volume Control Plus⁺
- Autoflow

How many doctors, residents or fellows know?

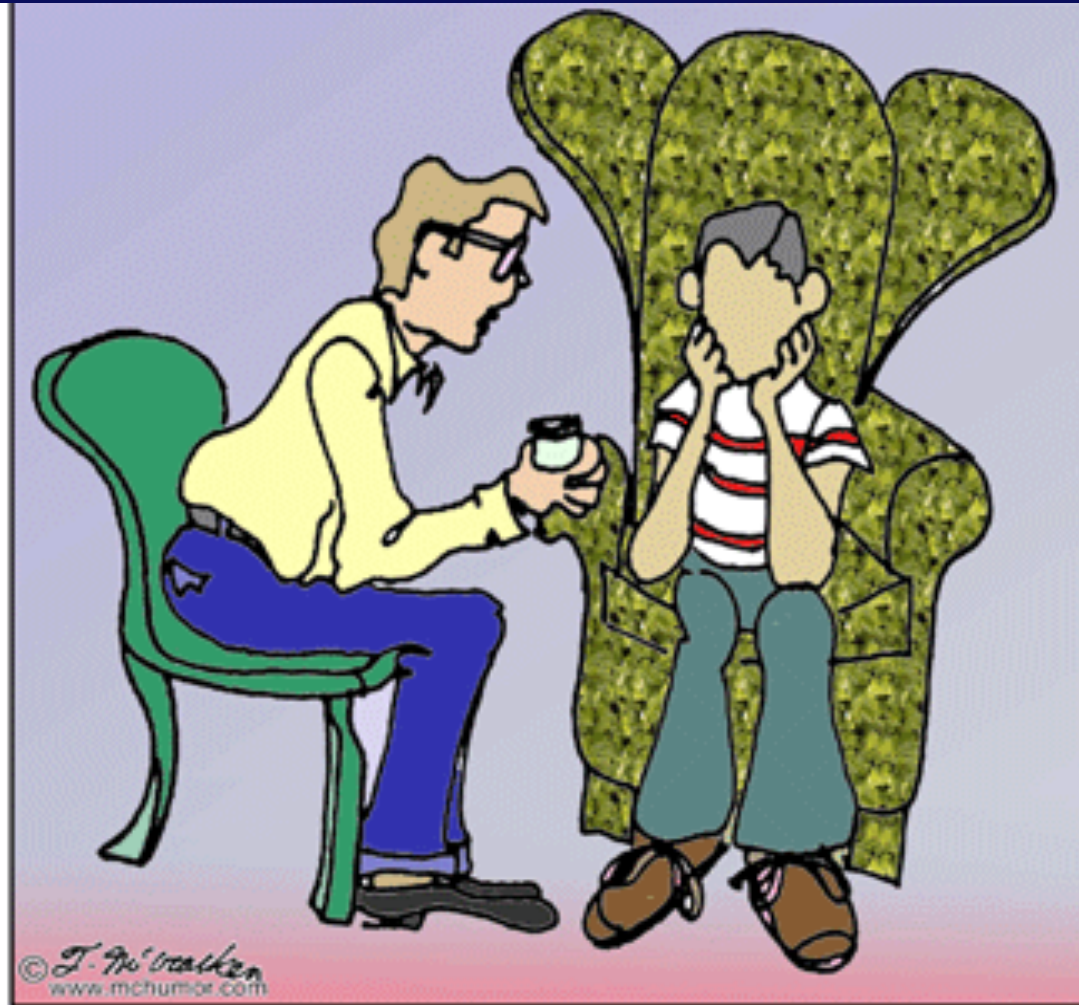
How many nurses know?

How many RTs know??

Which of the NPSG Affects Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. Identify patient safety risks.
6. Prevent mistakes in surgery.

Use Medications Safely



"Son, just how much of this extra strength pimple remover did you use?"

Use Medications Safely

- Write down information received verbally or by phone and “Read back” orders or test results received.
- Person providing the information should confirm information was read back.
- Standard is aimed primarily at test results and orders but should be extended to patient hand-off during shift report.

Use Medications Safely

- Label all medications including MDIs, Albuterol bottles, and even unit doses!
- Always check the remaining doses in an MDI or DPI.
- Always assess drug effects both before and after administering a treatment....especially the FIRST time it's given!

Use Medications Safely

- Make sure dosage is correctly ordered.
- If a drug is dosed by weight, is it ACTUAL body weight or IDEAL body weight?
- An overdose of Albuterol or Ipratropium Bromide likely won't harm a patient but an incorrect dose of inhaled prostacyclin is a different story!!

Another Word About Common Sense...



Thank goodness there's a sign....

Which of the NPSG Affects Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. **Use alarms safely.**
5. Identify patient safety risks.
6. Prevent mistakes in surgery.

Use Alarms Safely

- The Joint Commission (TJC) issued a Sentinel Event Alert that named frequent exposure to non-actionable alarms “the most common contributing factor to alarm-related sentinel events”
- Released a National Patient Safety Goal NPSG-06.01.01 in 2014 to their >3300 accredited hospitals, requiring implementation of measures to improve alarm management by 2016

Alarm Fatigue

- “Alarm fatigue occurs when staff members are exposed to an excessive number of alarms, which can desensitize them to alarms and result in sensory overload.” - **ECRI** Institute (Emergency Care Research Institute)
- Desensitization can result in delayed alarm response or missed alarms.

Alarm Fatigue

- ECRI's "Top 10 Health Technology Hazards" published in 2018.
- #4 on the list - Missed Alarms May Result from Inappropriately Configured Secondary Notification Devices and Systems
- Ventilators have lots of alarms. Those most frequently sounding include High PIP, High RR, Low VE, and Low Insp. Pressure.

Alarm Fatigue

- Currently, no existing national standard settings for ventilator alarms. Different RT texts give different alarm setting values or a wide range.
- There have been multiple ways to address alarm fatigue including the use of middleware to contact the RT when certain alarms are sounding or using external room alarms that sound when the ventilator alarm has activated for a specified period of time (i.e. 20 seconds)

Alarm Fatigue

- One of the biggest causes of alarms that either over OR under activate is the Respiratory Therapist themselves.
- Many RTs set alarms that are too far above or below the patient's current level.
- This is a result of not having standard guidelines, a lack of RT knowledge, laziness and more.

Alarm Fatigue

- One easy solution to help reduce alarm errors is to use.....

COMMON SENSE

- RTs should be told to not set alarms based on some random values but to set them to a level where they would want the ventilator to notify them of a significant change in patient status.

Which of the NPSG Affects Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. **Identify patient safety risks.**
6. Prevent mistakes in surgery.

Identify Patient Safety Risks

- General safety risks including fire and electrical safety.
- Send equipment with frayed electrical cord to Bio-Med
- Malfunctioning equipment should be **TAKEN OUT OF SERVICE!!!**

Identify Patient Safety Risks

Be aware of both general safety risks and those specific to RT including....



Which of the NPSG Affects Respiratory Therapists?

1. Identify patients correctly.
2. Improve staff communication.
3. Use medications safely.
4. Use alarms safely.
5. Identify patient safety risks.
6. **Prevent mistakes in surgery.**

Wrong Site Surgeries....

- “I’m a Respiratory Therapist, not a surgeon! Why should I worry about *wrong site* surgeries”?



Wrong Site Surgeries....

- The JC looks at all “procedures” including those not normally considered a “surgery”.



Other Patient Safety Tips for RTs

Prevent Infection



Wash your hands.....OFTEN!!!

Hand Washing - CDC Guidelines

Visibly Soiled Hands

- Use soap and water
- Scrub for least 20 sec.

Not Visibly Soiled Hands

- Wash with soap and water OR use alcohol-based hand rub containing at least 60% alcohol.
- Use liberally and rub until dry.
- Use before and after entering room EVEN if gloves are worn.

Quick RT Quiz.....



Which one of these devices can transmit infection?

Evidence Based Medicine & The RT

- “We have met the enemy...and they are us!”
- We need to increase our efforts to establish EBM in our profession.
- RTs must begin practicing and pushing EBM care and reduce risk
- Failure to do so is not an option!!

[Search for an Article](#)

[Past Issues](#)

[Search for Abstracts from Past
AARC OPEN FORUMS](#)

[PubMed](#)

[General Guidelines for Authors](#)

[Preparing the Manuscript](#)

[Categories of Articles](#)

[Check Status of Your
Manuscript](#)

[Send a Letter to the Editor](#)

Clinical Practice Guidelines

[Search for Guidelines:](#)

[Search](#)

Guidelines are available in the following categories:

- [AARC Evidence-Based Guidelines](#)
- [AARC Expert Panel Guidelines](#)
- [AARC Combined and Retired Guidelines](#)
- [Guidelines from Other Organizations](#)

Evidence-Based Guidelines

Format

Weaning and Discontinuing Ventilatory Support

[HTML](#)

[PDF](#)

Care of the Ventilator Circuit and Its Relation to
Ventilator-Associated Pneumonia

[HTML](#)

[PDF](#)



SEARCH

EDUCATION | CHEST 2007 | INSTITUTES | MEMBERSHIP | NETWORKS | PRACTICE RESOURCES | JOURNAL | FOUNDATION | ABOUT ACCP

ACCP Evidence-Based
Guidelines

ACCP Evidence-Based Guidelines

"Evidence-based medicine requires a bottom-up approach that integrates the best external evidence with individual, clinical expertise and patient care."

David Sackett, Former Director of the Center for
Evidence-Based Research in Oxford, England

What is the Function of the Health and Science Policy (HSP) Committee?

The HSP Committee makes recommendations to the ACCP Board of Regents (BOR) on issues related to health, science, and clinical policy in areas of chest medicine. The committee is responsible for overseeing the development and review of evidence-based clinical practice guidelines. Practice guidelines are one of the many important features of the ACCP's endeavor to provide "Patient-Focused Care".

NEW! Definitions of
ACCP Evidence-Based
Guidelines.

Consensus
Statements, and
Other
Reviews and Projects

Current ACCP
Guidelines

Common Reasons Clinicians Do Not Practice Evidence-Based Medicine

- They do not recognize the evidence (laziness)
- They do not read the literature
- They do not attend conferences
- They do not talk to their colleagues
- They do not believe the evidence (ignorance)
- They believe that incorporating the evidence into practice is someone else's job

Hess, Dean - Respiratory Care 2004;49(7):738



- A monkey can be taught to nebulizer treatments.
- The time is coming if we don't show ourselves to be therapists instead of treatment jockeys....the monkeys will be hired!

Evidence Based Medicine & The RT

- Evidence-based respiratory care will not only reduce costs, but has tremendous potential to improve patient safety!
- Examples include:
 1. Ventilator Associated Pneumonia
 2. Reduced Ventilator Days
 3. Eliminating Unnecessary Therapy....

Patient Safety & The Respiratory Therapist

Remember the National Patient Safety Goals

- Identify patients correctly
- Improve staff communication
- Use medications safely
- Use alarms safely
- Identify patient safety risks
- Prevent mistakes in surgery

Tom's New National Patient Safety Goals

1. Utilize Evidence Based Medicine!!
2. Utilize Common Sense ALL The Time

A Final Word About Common Sense...



Never shake the hand of a person who doesn't have any common sense. You never know where it's been....



Thomas Lamphere BS, RRT-ACCS, RPFT, FAARC
Email: ExecutiveDirector@psrc.net