



The KHEA website is now up and accessible.

Check it out at
www.kheaks.com

Creating a Culture of Safety

Susan E. Mazer

Healing HealthCare Systems

When a patient is admitted to the hospital, is patient safety a wish or a promise? Whether it is a reality for every patient, every day, under all circumstances is dependant upon the caregiver and the environment where care is given. In reality, patients by virtue of their diagnoses are not safe; they are ill enough to qualify for an overnight stay at the hospital, threatened by their condition, and by what they know and don't know. Therefore, they continually seek visible, palpable evidence that the hospital is a safe haven and that those who care for them will protect them. They see and hear everything, looking and listening for signs and symbols that they are in safe hands. So, asking whether patient safety is a wish or a promise is a real question and one worth answering.

To a degree, the intention to promote safety is everywhere to be seen. For the patient, the sign in the bathroom that speaks to staff washing their hands is a good start. The orange skull and cross-bones warning on the stainless steel dirty needle container faces them in every room. The nurse call button confirms that someone is there for them. The bars in the bathrooms and along the corridors say that all efforts have been made to prevent them from falling. Caregivers wear gloves, another safety indicator. So, if all this is being done, what are the signs that continue to confront patients with the unfortunate reality that hospitals are not always safe?

Clemenceau Medical Center, a facility in Beirut, Lebanon, managed by Johns Hopkins, designed their facility to be inherently safe and of the highest quality, believing that one cannot exist without the other. Hassan Fakih, Director of Engineering, defines active failures as those made by provider error. He defines latent conditions as conditions present in the system or environment that contribute to the errors made. Mr. Fakih includes in his list of latent conditions: (1) poor facility design, (2) poor patient visibility and high noise levels, (3) lack of standardization, (4) excessive patient movement, and (5) inappropriate or complex processes. (Fakih, 2006)

What each of these conditions has in common is that they exist in the day-to-day environment. Habituation and complacency are the greatest contributing threats to both patients and staff. Nonetheless, as Florence Nightingale stated, the sick room itself will interact with the disease and cause harm to the patient (Nightingale, 1860). The environment of care becomes the place where safety is, itself, at risk.

While institutional care has certainly progressed since the mid-19th century, the risk of infections, patient falls, and poor outcomes remains. We now have hermetically sealed windows and ventilation systems that are not bacteria proof. Super-bugs are getting smarter, bypassing filters, antiseptics, and what used to be effective efforts to hold them at bay. There is a continual battle between hard, cleanable floors and carpets that keep the hospital corridors quiet. Clean laundry on a daily basis remains a challenge, sometimes negotiated on the basis of convenience rather than safety. Medication errors and misdiagnosed symptoms of distress, while being addressed, remain at an unacceptable level.

In spite of these factors, there are some steps that can be taken to increase safety that involve common, daily circumstances easily changed once identified.

1. Auditory clutter: ambient noise in the hospital, regardless of source, can be at cause for everything from sleep deprivation to medication errors, from patient falls to breaches in confidentiality. Because the general noise occurs in the same frequency-range as the spoken voice, it is easy for words to be misunderstood. Sound-alike drugs, sound-alike instructions spoken into a sea of babble, incur a high risk of error. "While historically, noise was considered more of a nuisance than a health hazard, it is now increasingly being recognized as a serious health hazard and a threat to safety and performance" (Reiling, 2005). If every individual paid attention to where they were

KHEA NEWS

Creating a Culture of Safety (cont. from Page 1)

and remembered what was appropriate, noise would be far more manageable. Mandates have not worked yet.

2. Equipment that needs maintenance but still functions:

Let the squeakiest door get the oil!! All equipment should be well maintained; hard wheels should be replaced with rubber wheels; monitors should be set to lower volume levels, especially at night; doors should not slam. And, when all of these potential noise sources are addressed, you will be able to finally hear where the people noise is coming from. Remember, the louder the ambient noise, the louder the people noise.

Setting a process where the user has the right to request repair of the equipment they use, the responsibility for every piece of equipment, not just those technological advanced, would be better maintained and the responsibility would be shared.

3. Stored equipment in public areas: I am not sure when it happened, but a common practice is to make hallways a storage area for equipment in waiting. Risks to visitors of patients tripping over a wheel out of place, staff falling when in a rush for an emergency are high. If there is no alternative, the minimum equipment that is needed should be tolerated, but no more. Good planning and a commitment to safety will create creative and effective alternative storage options that are far safer than hallways.

4. Hospital room clutter: Florence Nightingale, in her *Notes on Nursing*, said that nothing in the patient's room should prevent the nurse of seeing dust and dirt for fear of it not being clean. In the hospital room, it is keeping clutter away, clothing, trays, basically everything not needed immediately for the patient... keeping the room clean is requisite to keep the patient safe. The **solution** is difficult but should be mandatory Patients and families will appreciate the need for keeping the room safe.

5. Work Area Clutter: Nursing stations must be kept so that everything that needs to be seen can be seen. Cluttered desks mean that there are layers; if there are layers, most of what is there cannot be seen. Organize the paperwork so that it can be found, but don't let piles of records hide themselves in plain view of everyone else.

6. General Lack of Cleanliness: What is not clean looks cluttered. What is cluttered does not look clean. A study in the UK showed that hospitals that were perceived to be unclean had a 10% higher rate of infection. Perception confirms the otherwise invisible reality. Anything else need be said?

The bottom line for Clemenceau and for the patient safety movement is that ultimately there must be a "culture of safety whereby each individual, whether on the receiving or delivery end of care, is preoccupied with safety, is armed with the skills to evaluate his or her environment for potential harm..." (Frankel et al., 2003). Hardly in dispute, safety requires diligence and a zero-tolerance for error. The risks are simply too high. If the hospital is promising safety, then everyone and every department must be aware that the whole hospital is their own personal and professional domain, to be tended to for the sake of both staff and family.

In a study that compared safety in industries with high intrinsic risks, what became obvious, is whether there is a 'climate' or 'culture' of safety. The difference is whether safety is a surface appearance or intrinsic to how the organization functions and, as well, the conscious understanding and practice of each individual within it (Gaba et al., 2003).

While these are questions that cannot be easily answered, within the realm of practice lay the values and norms that determine whether patient safety and staff safety trump other competing considerations. Each of the latent conditions identified has a cost and poses a risk. Multiple studies have now shown that the cost of multiple patient rooms is higher than the investment in single patient rooms, a single factor that reduces risks on every level (Chaudhury, Mahmood, & Valente, 2003). Increased patient safety, enhanced efficiency, improved job satisfaction; decreased costs of insurance and malpractice litigation can all justify the investment in safer practices and design (Bogner, 1994);(Joseph, 2006).

The challenge of patient safety demands an open and honest evaluation of the norms and values of the organization as well as the individual. However, because outcomes are systemic, only the hospitals that commit to being a culture of safety will be successful over the long term. And, each person within the performance of their daily tasks and in playing their part in providing care can be proactive in addressing the most obvious of issues that will make a substantial difference to patients who are counting on the promise, not making a wish.

REFERENCES:

- Cadbury, H., Mahmood, A., & Valente, M. (2003). *A Review of Literature Regarding Single vs Multiple Occupancy Patient Rooms*: Coalition of Health Environments Research.
- Fakih, H. P. E. (2006). *New Designed Hospital Can Enhance Safety*. Paper presented at the MedHealth.
- Frankel, A. M., Graydon-Baker, E., Neppi, C., Simmonds, T. R., Gustafon, M. M., MBA, & Gandhi, T. M., MPH. (2003). Patient Safety Leadership WalkRounds. *Joint Commission Journal on Quality and Safety*, 23(1), 16-26.
- Gaba, D., S., S., Sinaiko, A., Bowen, J., & Ciavarelli, A. (2003). Differences in Safety Climate between Hospital Personnel and Naval Aviators. *Human Factors and Ergonomics Society*, 45(2), 173+.
- Joseph, A. (2006). *The Role of the Physical Environment in Promoting Health, Safety, and Effectiveness in the Healthcare Workplace*. Martinus, CA: The Center for Health Design.
- Nightingale, F. (1860). *Notes on Nursing: What it is and What it is not* (First American Edition ed.). New York: D. Appleton & Co.
- Reiling, J. G. (2005). Creating a Culture of Patient Safety through Innovative Hospital Design. *Advances in Patient Safety*, 2, 425-439.

Susan E. Mazer is president of Healing HealthCare Systems (www.healinghealth.com), a Reno, NV, company that produces The C.A.R.E. Channel and other products and services that help healthcare organizations create healing environments that support the clinical process and patient recovery. She can be reached at smazer@healinghealth.com.

MARK YOUR CALENDARS! for the fall conference and vendor show. It will be held September 18 – 20 in Junction City at the Courtyard by Marriott. For hotel reservations, call 785-210-1500.

A golf tournament will be held on Tuesday, September 18 at Chisholm Trail Golf Links starting at 10:00 a.m. The course is located off I-70, Exit 372 3 miles west of Abilene. Go north ½ mile and you will see the sign. Cost is \$19.50 per person for green fees and ½ cart rental. To sign up, call 785-650-2750.

Wednesday's session begins at 8:30 a.m. with the annual KHEA business meeting & board elections. First-day conference topics are as follows:

- Boiler Operator Certification & New Regulations – Don Jenkins
- Terminology & A Preop Check – John Peacock; Kim Gorman
- Emergency Preparedness – Bonnie Spalding
- Medical Gas Pipelines & What It Means to a Facility – Mike Roach
- NFPA 99, 70: ASHE – Tim Adams
- Construction Management – Bob Black
- Four Rivers Software Systems – Rebecca Leaverton

The annual vendor show follows the conference from 4:00 to 6:30 p.m. **VENDORS, IF YOU HAVEN'T SENT IN YOUR REGISTRATION AND WANT TO PARTICIPATE, CALL 785-650-2750!**

The meetings continue Thursday morning as follows:

- Round Table Discussion
- Managing Energy Performance During & After Expansions & Renovations – Skanda Skandaverl
- Speaker from Draeger
- Kansas State Fire Marshall/Plan of Corrections K-Tags and How to Fill Them Out – Brenda McNorton; Barbara Sumpter

We hope to see you all there!!!!

Since 1995 KHEA set aside money for 2 - \$250 scholarships to give away each semester. Applicants must be a current member of KHEA or an immediate family member of a current KHEA member. Applicant can be attending college, a university, junior college, or vo-tech, or members can use the money for additional training in his/her field of expertise.

A one page essay on the topic below must be submitted by September 17, 2007. Application forms are available at www.kheaks.com.

Fall 2007 Scholarship Topic:
Education – Fact or Fiction?

Please send entries to the attention of:

Rich Canning
Atchison Hospital
1301 N. Second
Atchison, KS 66002-1297
rcanning@atchhosp.org

We extend a warm welcome to our 2007 Star Vendors listed below, and to all interested vendors planning to attend our fall conference and vendor show in Junction City!

Without your continued support, we would be unable to supply quality education for our members! THANK YOU!

The following vendors have met particular requirements in support of our organization!

*All Systems Designed Solutions Inc.
American Boiler & Mechanical
Cardinal Medical LLC
Door Controls Inc.
Edelman-Lyon Company
Enserv Midwest
Foley Equipment Company
Glassman Corporation
Hajoca Corporation
Hebco, Inc.
Hughes Machinery Company
J.M. O'Connor Inc.
Kansas City Air Filter Company
Kansas Trane Service Co.
Lamunyon Cleaning & Restoration
Lubrication Engineers Inc.
Mid-West Sales
Peterson Predictive Maintenance
Quality Water Systems
RamAir, Inc.
Shaw Industries
Specified Technologies Inc.
Steamin Demon*

KHEA Bulletin Board

Educational Opportunities

September – December 2007

Congratulations, KHEA – For attaining the 2005 ASHE Gold Chapter Award. In recognition, ASHE has offered three complimentary CHFMs exam registrations (worth \$275 each) for interested KHEA members. Requirements are as follows:

- **Awardees must be ASHE members,**
- **Awardees must be eligible to be a CHFMs,**
- **Awardees must register for the CHFMs before 12/1/07**

If interested, please contact Herman Hoffman or Skanda Skandaverl for more information.

Facilities Midwest Expo Provides Free Hands-On Facility Training

*Donald E. Stephens Convention Center,
Rosemont, IL
Sept. 18-19, 2007*

This free, two day conference and exposition is designed for facility professionals responsible for construction, design, operation and maintenance of commercial and institutional buildings. Valuable educational opportunities are available through seven conference tracks covering sustainability, energy and power, managing assets, safe buildings and more. A new course, the Disaster Experience, puts attendees in the middle of a real-life disaster situation as it unfolds. Pre-registration for this special course is \$49; \$249 on site.

The exhibit halls will showcase newest products and technologies. Numerous networking events provide opportunities to connect and build relationships with other facility professionals.

The show location is five minutes from O'Hare International Airport. For inquiries, call 630-271-8210 or e-mail info@rocexhibitions.com.

Online registration is available at
www.facilitiesmidwestexpo.com.

Healthcare Facilities Symposium & Expo *Navy Pier, Chicago, IL October 2 – 4, 2007*

The Healthcare Facilities Symposium & Expo is celebrating its 20th year and focuses on how physical space impacts healthcare delivery. Ideas and practices are exchanged to improve current facilities and plan for healthcare facilities of the future.

For price information, or to register, call 203-371-6322 or go to
www.hcarefacilities.com

Upcoming from the Kansas Trane Learning Center www.kansastrane.com

- Sept 10 Boilers Operation and Maintenance (Wichita)
- Sept 10 Air Cooled Rotary Operation
(Wichita – night class)
- Sept 11 IntelliPak Rooftop Operation & Maint
(Wichita)
- Sept 11 Water Cooled Rotary Operation
(Wichita – night class)
- Sept 12-13 Basic Air Conditioning Clinic (Wichita)
- Oct 22 Basics of Electricity (Hays)
- Oct 22 VAV Systems Basics (Hays – night class)
- Oct 23 Schematics & Wiring Diagrams Made Easy
(Hays)
- Oct 24 Rooftop Design & Service (Wichita)
- Oct 24 Air Conditioning for Office People
(Wichita – night class)
- Oct 25 Chilled Water Systems (Wichita)
- Oct 25 HVAC for Decision Makers
(Wichita – night class)
- Oct 26 RTAA Operation (Wichita)

If you have questions, contact
Jonathan Goering (Trane) at 316-265-9655

**There are still classes available to learn how to use
the Kansas Buildings Fire Safety Handbook. See
Locations at www.accesskansas.org/firemarshall**

METALCON International *Las Vegas Convention Center Las Vegas, NV October 3 – 5, 2007*

The 17th annual METALCON International is a trade show and conference focusing on use of metal in residential, institutional and commercial construction. Included this year is a dedicated exhibit area called "Green Island" featuring products meeting green building standards for recycled content, recyclability, durability, and energy efficiency.

www.metalcon.com

A wealthy old lady decides to go on a photo safari in Africa, taking her old faithful but aged poodle named Cuddles, along for the company.

One day the poodle starts chasing butterflies and before long, Cuddles discovers that he's lost. Wandering about, he notices a leopard heading rapidly in his direction with the intention of having lunch.

The old poodle thinks, "Oh, oh! I'm in deep doo-doo now!" Noticing some bones on the ground close by, he immediately settles down to chew on the bones with his back to the approaching cat. Just as the leopard is about to leap the old poodle exclaims loudly, "Boy, that was one delicious leopard! I wonder if there are any more around here?"

Hearing this, the young leopard halts his attack in mid-strike, a look of terror comes over him and he slinks away into the trees. "Whew!", says the leopard, "That was close! That old poodle nearly had me!"

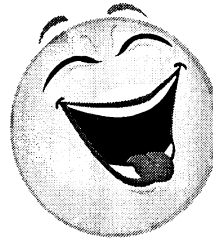
Meanwhile, a monkey who had been watching the whole scene from a nearby tree, figures he can put this knowledge to good use and trade it for protection from the leopard. So off he goes, but the old poodle sees him heading after the leopard with great speed, and figures that something must be up. The monkey soon catches up with the leopard, spills the beans and strikes a deal for himself with the leopard.

The young leopard is furious at being made a fool of and says, "Here, monkey, hop on my back and see what's going to happen to that conniving canine!"

Now, the old poodle sees the leopard coming with the monkey on his back and thinks, "What am I going to do now?", but instead of running, the dog sits down with his back to his attackers, pretending he hasn't seen them yet, and just when they get close enough to hear, the old poodle says. Where's that damn monkey? I sent him off an hour ago to bring me another leopard!

Moral of this story...

Don't mess with old farts...age and treachery will always overcome youth and skill! Bullshit and brilliance only come with age and experience.



LAUGH LINES

*You know you're getting Old
when you feel bad in the morning..
without having any
fun the night before!*



A schoolteacher injured his back and had to wear a plaster cast around the upper part of his body. It fit under his shirt and was not noticeable at all.

On the first day of the term, still with the cast under his shirt, he found himself assigned to the toughest students in school. Walking confidently into the rowdy classroom, he opened the window as wide as possible and then busied himself with deskwork.

When a strong breeze made his tie flap, he took the desk stapler and stapled the tie to his chest.

Discipline was not a problem from that day forth!

Meet Your Kansas Healthcare Engineers Board Members for 2007

President – Herman Hoffman of Lyons - hhoffman@rch-lyons.com

Immediate Past President – Skanda Skandaverl of Lawrence – svskanda@lmh.org

President-Elect – Wade Needham of Abilene – wneedham@mhsks.org

Secretary/Vendor Show Liaison – Luanne Kramer of Hays – lkramer@haysmed.com

Treasurer – Lois Balthrop of Newton – lois.balthrop@newmedctr.org

ASHE Liaison – Barry Koetkemeyer of Ellsworth – bkoetkemeyer@ewmed.com

Northeast District Rep/Scholarship Committee – Richard Canning of Atchison – rcanning@atchhosp.org

Southeast District Representative – Clay Eury of Neodesha – ceury@wilsoncountyhospital.org

North Central Representative – Francis Dreiling of Salina – fdreilin@srhc.com

South Central Representative – Rod Wedel of Newton – rod.wedel@newmedctr.org

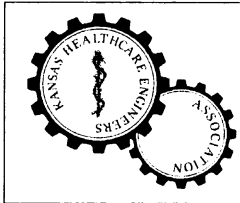
Northwest Representative – Norbert Flax of Ransom – nflax@grisell.org

Southwest Representative – Tracy Robinson of Liberal – trobinson@swmedcenter.com

Program Committee Representative – Wade Needham of Abilene – wneedham@mhsks.org

Golf & Entertainment Committee Representative – Harvey Ray of Hillsboro – hray@hcmcks.org

If you have articles, advertisements, or items you wish to communicate in the next KHEA newsletter, please contact Luanne Kramer at 785-650-2750, or by e-mail at lkramer@haysmed.com before November 15, 2007.



Kansas HealthCare Engineers' Association

If undeliverable, please return to:

**Luanne Kramer
Hays Medical Center
2220 Canterbury Dr.
Hays, KS 67601**