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## Our North Star Goal:

***Oregon will have the safest health care system in the country by 2010.***

## Contact Us

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## *From the Reporting Program:*

### Hidden Risk with Sleep Apnea?

In a discussion several months ago, a hospital's medical director for quality raised the issue of [sleep apnea](#) and its role in adverse events, believing it to be an under-recognized risk factor. Just recently, the Commission received a report in which the pain management program for a patient with sleep apnea contributed to a patient death.

Pain management is a priority in the care of all hospitalized patients and nurses regularly and frequently assess patients to assure that pain is adequately controlled. The treatment of acute and chronic pain, however, poses special risks for a patient with sleep apnea. An [FDA Advisory](#) in November 2006 cautioned that life-threatening changes in breathing and heart rate might occur with use of methadone for pain control.

Patients with sleep apnea have a greater risk of post-surgical complications and increased length of stay. In order to protect our patients, we need to recognize the risks posed by sleep apnea and identify those patients at risk. According to the American Society of Anesthesiologists (ASA), estimates for overt obstructive sleep apnea prevalence is around 2% of women and 4% men in the general population, and for sleep-disordered breathing, 9% in women and 24% in men.

The ASA has issued a set of evidence-based guidelines for patients with obstructive sleep apnea (*Anesthesiology* 2006; 104:1081-93). The September-October issue of *Sleep Diagnosis and Therapy* has a brief review of important considerations in caring for sedated patients with sleep apnea. (See Hansen, K. (2008). Care of patients at risk for sleep apnea who receive sedation. *Sleep Diagnosis and Therapy* 3, 6:20-21 available [here](#)). The author recommends that patients receive sleep apnea screening prior to receiving pain medications, sedation, or anesthesia. She recommends, at a minimum, the following questions:

"Do you snore?"

"Have you been noted to stop breathing during your sleep?"

"Do you have difficulty staying awake when sitting quietly or while driving?"

Sleep apnea is an important consideration in patient care for all types of patients, though surgical patients may be at higher risk. [Return to Top](#)

## Journal Brief: Unanticipated Day Surgery Deaths



The paper below provides some interesting information regarding deaths in patients usually considered relatively low risk (those meeting American Society of Anesthesiologists (ASA) criteria classifications of [1, 2, and 3](#)). An unanticipated finding of the study was that a number of the deaths occurred between the conclusion of surgery and the final transfer of care in recovery. This provides another indication that transitions in care are particularly important points in delivery of safe patient care. While communication remains the most frequently cited contributing factor in adverse events, the communication gaps are often at transitions in care: from shift to shift, provider to provider, or unit to unit.

Bishop MJ, Souders JE, Peterson CM, Henderson WG, & Domino, KB. Factors associated with unanticipated day of surgery deaths in Department of Veterans Affairs hospitals. [Anesth Analg](#). 2008 Dec; 107(6):1924-35.

**BACKGROUND:** Patients of ASA physical status 1, 2, and 3 undergoing elective surgery do not have underlying conditions that are a constant threat to life, and hence should not be expected to be at significant risk for death on the day of surgery.

**METHODS:** We analyzed 815,077 ASA physical status 1, 2, and 3 elective surgery patients in the Department of Veterans Affairs National Surgical Quality Improvement Program database to identify patients who died on the day of surgery. We then attempted to identify factors predictive of unexpected death and to identify potential areas for improvement in care. A subset of the cases underwent individual chart review as well to identify areas for improvement in anesthesia care.

**RESULTS:** Of the total patients, 0.08% died on the day of surgery. The strongest predictive factor by multiple variable regression was the type of surgery, with aortic surgery resulting in an odds ratio of 13.67, (95% CI 9.76-19.17). Other factors predictive of death were identified by multiple variable regressions and included low albumin, existence of dyspnea, and elevated bilirubin or creatinine. Chart reviews of 88 of the deaths found that opportunities for improved anesthesia care were present in 13 of the 88. We estimated that a death that might have been prevented by improved anesthesia care occurred in approximately 1/13,900 cases. Myocardial infarction and hemorrhage were frequently identified factors. An unexpected factor was that the period between the conclusion of surgery and the final transfer of care in recovery was a time when many of the deaths occurred.

**CONCLUSIONS:** We conclude that, although patient and surgical factors lead to the vast majority of deaths on the day of surgery, there are identifiable areas for reducing the incidence of such deaths by improvements in anesthesia care

**Follow-up on rounding:** In November, we noted the effectiveness of rounding in emergency departments. A recent article in the radiology literature also reports on the success of patient safety rounding within a Radiology Department in reducing the number of serious safety events. See:

Donnelly LF, Dickerson JM, Lehkamp TW, Gessner KE, Moskovitz J, & Hutchinson S. (2008) Operational rounds: a practical administrative process to improve safety and clinical services in radiology.\* [J Am Coll Radiol](#). 2008 Nov; 5(11):1142-9.

\* *International Radiology Quality Network (IRON) award paper*

## Heard on the Net: Technology and Safety

There was a very lively discussion recently about the contribution technology makes to medical errors/adverse events. Many of the comments discussed workarounds (shortcuts) and whether technology is ever a cause for error. In reading the postings, I could identify three main themes around technology and error.



First, *technology failure*, such as the example given of an infusion pump recall for "button bounce" (e.g., press "5" and get "55"). This type of failure is easily handled through removal of the unit. Second, *user failure*, in which staff uses the technology incorrectly. If this is due to lack of knowledge, it, too, is a relatively

easy problem to address. If, however, the user's "failure" is due to poor equipment design, it is a much more difficult problem. One example is the list of patient names in CPOE systems. With nothing to differentiate the names, mistaken clicking on the wrong name is liable to occur. Post-it notes placed in strategic locations often indicate these types of "failures-in-waiting." The third type of failure is a *technology system failure*.

Like poor equipment design, poor design of work processes and environments in relation to technology is difficult to address. Who wants to tell the CFO that the capital expenditures for the new bar coding or computer on wheels were wasted because they cannot be used in the current delivery context? For example, the bar code scanner's cord is not long enough to reach the bedside, or the scanner is mounted onto a traveling computer on wheels that is either too heavy to push around all day long or too large to fit in patient rooms with everything else (including people) already there.

Sound, effective implementation of new technology requires three things:

3. Staff involved in using the new technology need to be involved in the decision-making from the beginning;
4. Planning for the introduction of the technology must include an explicit search for the likely failure points;
5. The use of small implementation steps (PDSA or PDCA approach) to work out the process flaws and gaps the technology may show or cause.

## In the News: IHI Initiatives for 2009

IHI is following the 5M Lives Campaign with the development of an [Improvement Map](#) that they believe will *"...make sense of the many complex and competing demands you face by offering easy-to-follow guidance through an often confusing landscape... It will enable hospital leaders to [develop] their own change agenda...establish priorities, organize work, and optimize resources."* The Map includes the 12 interventions from previous campaigns, along with updated guides and support. It also introduces three new initiatives aligned with current hospital quality and safety efforts:

- [WHO Surgical Safety Checklist](#)
- [Prevent Catheter-Associated Urinary Tract Infections](#)
- [Link Quality and Financial Management: Strategies to Engage the Chief Financial Officer and Provide Value for Patients](#)

The Oregon IHI Node has taken on the surgical safety checklist as our primary work this coming year and will be talking with hospitals across the state. We will be asking each hospital that has surgical services to commit to a Surgical Sprint by implementing the Checklist in one operating room, within a three-month period beginning in spring or early summer. Stay tuned for further information from the Oregon Node and from its member organizations: AcumentraHealth, CareOregon, Oregon Association of Hospitals and Health Systems, Oregon Medical Association, Oregon Nurses Association, and the Oregon Patient Safety Commission.

Standard Emergency Call Codes Toolkit are now available. OAHHS will be mailing one to the quality contact person in each hospital. The kit is also available online [here](#). If you have any questions, contact either Diane Waldo ([diane.waldo@oahhs.org](mailto:diane.waldo@oahhs.org); 503.479.6016) or Leslie Ray ([leslie.ray@oregonpatientsafety.org](mailto:leslie.ray@oregonpatientsafety.org); 503.224.9227)

## From the Commission

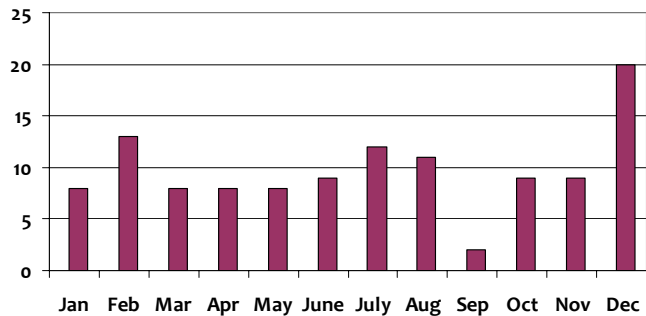
### Reports Received:

The Commission received 20 reports in December and 117 reports for the year. We are heartened by the increased number of reports and believe it reflects, in part, a growth in patient safety culture in Oregon hospitals. The new web-based form will make reporting easier and we will be working with hospitals to decrease other barriers to reporting.

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Number of Reports Received by the Patient Safety Commission

2008  
N=117



## Upcoming Events



### Commission Meeting

February 10<sup>th</sup> from 12:30 to 3:30pm at the Wilsonville Training Center of Clackamas Community College, [29353 SW Town Center Loop East, Wilsonville OR 97070](#). To request an agenda, please contact [Linda Goertz](#). All 2009 Commission meetings are on the second Tuesday of even-numbered months. Click [here](#) for a listing of meeting dates.

### Technical Advisory Group meeting

February 10<sup>th</sup> from 9 to 11:30 am at the Wilsonville Training Center of Clackamas Community College. The meeting will be open to interested hospital Quality, Risk, and Patient Safety personnel on a limited basis. If you are interested in attending the next meeting, please contact [Leslie Ray](#) by December 5, 2008.

### IHI Introductory Call:

- Link Quality and Financial Management: Strategies to Engage the Chief Financial Officer and Provide Value for Patients Tuesday, February 3, 2009 10:00 – 11:00 AM PST  
Call-in information [here](#).

### Patient Safety Officer Executive Development Program, IHI

March 5-11, 2009; The Charles Hotel, Cambridge, MA. Click links for [brochure](#) and [more information](#).

Washington Patient Safety Coalition [2009 Northwest Patient Safety Conference](#) Thursday, June 4, 2009, at the Hilton Seattle Airport & Conference Center.



## [National Patient Safety Awareness Week](#)

is coming March 8-14, 2009

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*This newsletter is being sent to interested parties and participants in the Oregon Patient Safety Commission's adverse event reporting program for hospitals. Your E-mail address will not be shared or used for any purpose unrelated to the Commission's activities. If you wish to unsubscribe, please send an E-mail to [linda.goertz@oregonpatientsafety.org](mailto:linda.goertz@oregonpatientsafety.org) with subject "Hospital Unsubscribe."*

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