
State of Wyoming



Department of Health

ADVERSE HEALTH EVENTS IN WYOMING HEALTHCARE FACILITIES: First Annual Report, 2006

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**State of Wyoming
Department of Health**

**Adverse Health Affects in Wyoming
Healthcare Facilities:
First Annual Report, 2006**

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Background

In 2000, the Institute of Medicine (IOM) published *To Err is Human: Building a Safer Health System*¹. This report introduced many Americans to the idea that medical errors in hospitals kill between 44,000 and 98,000 people each year, making medical errors the 8th leading cause of death in this country¹. The data presented in the aforementioned report did not come as a surprise to most healthcare professionals; however, the IOM report helped to focus the efforts of healthcare workers to address the systemic causes of medical errors.

Medical errors, as the IOM confirmed, were largely the result of failures within complex systems and processes in healthcare rather than the careless actions of any one healthcare provider. According to the report, "People working in health care are among the most educated and dedicated in the workforce in any industry. The problem is not bad people; the problem is that the system needs to be made safer."¹

The IOM concluded that the most effective way to redesign the system for improved patient safety was to learn more about preventable adverse events. They recommended the implementation of a mandatory reporting system in which the most serious events would be reported, persistent safety problems would be identified, and action would be taken to prevent these errors¹. Wyoming is one of many states to respond to this recommendation with legislation to implement an adverse events reporting system.

In 2005, the Wyoming Legislature enacted Wyoming Statute 35-2-912: Mandatory Reporting of Safety Events. The statute mandates that licensed healthcare facilities report any occurrence in a defined set of patient safety events to the Wyoming Department of Health. Each licensed facility is also required to designate a Patient Safety Officer who is responsible for reporting such adverse events. (For more information on the mandatory reporting of adverse events in Wyoming, see Appendix B.)

Events reported to the Wyoming Department of Health are part of a passive surveillance system to monitor and learn from adverse events occurring within Wyoming healthcare facilities. The Wyoming Department of Health is required to complete a number of activities related to the adverse event reports including:

- Tracking, assessing, and analyzing incoming adverse event reports and findings
- Publishing an annual report of events including a trend analysis and recommendations for systemic improvements that are likely to enhance patient safety and healthcare
- Providing feedback to Wyoming healthcare agencies, healthcare facilities, and the governor with the purpose of continuously improving patient safety within the state

It has been one year since Wyoming fully implemented the Mandatory Reporting of Safety Events system, and the analysis and feedback process is just beginning. The following summary describes the events reported during this first year (July 2005 – June 2006) and will be a baseline from which to compare future reports. In this first year, 19 Wyoming healthcare facilities reported a total of 58 adverse events. In order to create a culture of safety and to encourage the accurate reporting of adverse events, no one facility has been identified in this report and all data has been aggregated. Tables with overall, state-wide information as well as tables containing event-specific information begin on page 4.

How to Use This Report²

¹ L.T. Kohn, J.M. Corrigan and M.S. Donaldson, Editors, *To Err is Human: Building a Safer Health System*, National Academies Press, Washington, DC (2000).

² MDH Adverse Health Events in MN Hospitals, 2005

Consumers and patients should understand that events listed in this report represent a very small fraction of all of the procedures and admissions in Wyoming hospitals.

With relatively low occurrence of serious events, it is important to recognize that variation in event reporting among healthcare facilities exists. This variation stems from differences in reporting procedures, interpretation of the law, as well as the quality or safety of a hospital in general. As clearly and concisely as the Wyoming law is written, there will always be variation in what gets reported based on interpretation of which events are reportable, in addition to the level of awareness of healthcare staff in identifying potentially harmful situations and reporting them. The Wyoming Department of Health, hospitals, and other patient safety stakeholders continue to work to reduce this disparity in interpretation and application of the law.

The reality that healthcare providers in Wyoming hospitals are watching for potentially dangerous situations and subsequently reporting them with the intent to learn and prevent harm to patients is a major step forward in patient safety. Consumers should use this report to identify situations of interest to them and ask their hospital or healthcare provider what is being done in their facility to prevent this type of event from occurring.

Patients and families are a vital part of the healthcare team and play an important role in ensuring safe healthcare. Many resources are available for patients interested in what they can do to help make their healthcare safer. One such resource is the Federal Agency for Health Research and Quality (AHRQ). AHRQ has compiled research pertaining to patient safety and has developed many tips for patients that can be found at <http://www.ahrq.gov/qual>. Some of these tips are highlighted in this report, and can be found on page 7.

Table 1: Categories of Reportable Events as Defined by Law*

SURGICAL EVENTS
• Surgery performed on a wrong body part;
• Surgery performed on the wrong patient;
• The wrong surgical procedure performed on a patient;
• Foreign objects left in a patient after surgery; or
• Death during or immediately after surgery of a normal, healthy patient.
PRODUCT OR DEVICE EVENTS
Patient death or serious disability associated with:
• The use of contaminated drugs, devices, or biologics;
• The use or malfunction of a device in patient care; and
• An intravascular air embolism.
PATIENT PROTECTION EVENTS
• An infant discharged to the wrong person;
• Patient death or serious disability associated with patient disappearance; and
• Patient suicide or attempted suicide resulting in serious disability.
CARE MANAGEMENT EVENTS
Patient death or serious disability:
• Associated with a medication error;
• Associated with a reaction due to incompatible blood or blood products;
• Associated with labor or delivery in a low-risk pregnancy;
• Directly related to hypoglycemia (low blood sugar);
• In newborn infants during the first 28 days of life associated with hyperbilirubinemia;
• Due to spinal manipulative therapy; and
• Stage 3 or 4 ulcers (very serious pressure sores) acquired after admission to a facility.
ENVIRONMENTAL EVENTS
Patient death or serious disability associated with:
• An electric shock;
• A burn incurred while being cared for in a facility;
• A fall while being cared for in a facility;
• The use or lack of restraints or bedrails while being cared for in a facility; and
• Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances.
CRIMINAL EVENTS
• Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider;
• Abduction of a patient of any age;
• Sexual assault on a patient within or on the grounds of a facility; and
• Death or significant injury of a patient or staff member resulting from a physical assault that occurs within or on the grounds of a facility.

*Detailed definitions are included in Appendix B

Events Reported in Wyoming Hospitals

Table 2: Summary of Adverse Health Events Reported from July 2005 – June 2006

A. Total Events				
			Severity Details	
	Frequency (# Events)	Percentage (%)	Disability	Death
Surgical	6	10.3	0	1
Products or devices	3	5.2	0	0
Patient Protection	0	0	0	0
Care Management	19	32.8	4	1
Environmental	25	43.1	19	4
Criminal	5	8.6	0	0
Total	58	100	23	6
*Of 55 events with reported disability status, 23 resulted in serious disability.				
**Of 57 events with reported survival status, six resulted in death.				

As shown above, 58 adverse health events were reported and 23 of the events resulted in serious disability and six resulted in death. Care management and environmental events comprised the largest percentage of reported events (32.8% and 43.1%, respectively). Detailed events stratified by category are presented in Exhibit 3, below.

Table 3 (a-f): Statewide Reports by Category (July 2005-June 2006)

3A. Surgical						
	Wrong body part	Wrong patient	Wrong procedure	Foreign object	Intra/Post-op death	Total
Frequency	1	0	0	4	1	6
Severity details						
Disability	0	-	-	0	0	0
Death	0	-	-	0	1	1
* Of the reported surgical events, none were associated with the wrong patient or procedure; one was associated with the wrong body part and did not result in death or disability, four were associated with a foreign object and did not result in death or disability, and one death was categorized as an intra/post-operative death.						

3B. Products or Devices				
Patient death or serious disability associated with:				
	Contaminated drugs, devices, or biologics	Misuse or malfunction of device	Intravascular air embolism	Total for Products or devices
Frequency	1	2	0	3
Severity details				
Disability	0	0	-	0
Death	0	0	-	0
* Of the reported product or device events, one was associated with contaminated drugs, devices, or biologics and two were associated with misuse or malfunction of a device. None of the events in this category resulted in death or disability.				

3C. Patient Protection				
	Wrong discharge of infant	Patient disappearance	Suicide or attempted suicide	Total for Patient Protection
Frequency	0	0	0	0
Severity details				
Disability	-	-	-	-
Death	-	-	-	-
* No events were reported in this category.				

3D. Care Management								
Patient death or serious disability associated with:								
	Medication Error*	Hemolytic Reaction	During low-risk pregnancy, labor, or delivery	Hypoglycemia	Failure to treat hyperbilirubinemia	Stage 3 or stage 4 pressure ulcers acquired after admission	Spinal manipulation	Total for Care Mgmt
Frequency	6	0	0	0	0	13	0	19
Severity details								
Disability	3	-	-	-	-	1	-	4
Death	1	-	-	-	-	0	-	1
<p>*Of the events reported in care management, none were due to hemolytic reaction, death or disability during a low risk pregnancy, labor, or delivery, hypoglycemia, failure to treat hyperbilirubinemia, or spinal manipulation. Three of the six reported medication errors were due to improper dosage administration to a patient as a result of misinterpretation of units or transposing numbers. For example, 50 mg of a medication was given to a patient instead of 5 mg, as prescribed.</p>								

3E. Environmental						
Patient death or serious disability associated with:						
	Electric shock	Wrong gas or contamination in patient gas line	Burn(s)	Injury associated with a fall*	Restraints	Total for Environmental
Frequency	0	0	1	24	0	25
Severity details						
Disability	-	-	0	19	-	19
Death	-	-	1	3	-	4
<p>* Of the reported environmental events, none were associated with an electric shock, gas contamination in a patient line, or use of restraints. Death was the outcome for the one event associated with a burn. Eighty seven percent of the falls reported resulted in a fractured or broken bone.</p>						

3F. Criminal					
	Care ordered by someone impersonating a physician, nurse, or other provider	Abduction of patient	Sexual assault of a patient	Death or injury of patient or staff from physical assault	Total for Criminal
Frequency	0	0	3	2	5
Severity details					
Disability	-	-	0	0	0
Death	-	-	0	0	0
<p>*None of the reported criminal events resulted in death or disability.</p>					

Selected Safety Tips from the Agency for Health Quality and Research³

Be Involved in Your Healthcare

1. The single most important way you can help to prevent errors is to be an active member of your healthcare team. This means taking part in every decision about your healthcare. Research shows that patients who are more involved with their care tend to get better results.

Medicines

2. Ask for information about your medicines in terms you can understand—both when your medicines are prescribed and when you receive them:

- What is the medicine for?
- How am I supposed to take it, and for how long?
- What side effects are likely? What do I do if they occur?
- Is this medicine safe to take with other medicines or dietary supplements I am taking?
- What food, drink, or activities should I avoid while taking this medicine?

Hospital Stays

3. If you have a choice, choose a hospital at which many patients have the procedure or surgery you need. Research shows that patients tend to have better results when they are treated in hospitals that have a great deal of experience with their condition.

4. If you are in a hospital, consider asking all healthcare workers who have direct contact with you whether they have washed their hands. Hand washing is an important way to prevent the spread of infections in hospitals. Yet, it is not done regularly or thoroughly enough. A recent study found that when patients checked whether healthcare workers washed their hands, the workers washed their hands more often and used more soap.

5. When you are being discharged from the hospital, ask your doctor to explain the treatment plan you will use at home. This includes learning about your medicines and finding out when you can get back to your regular activities. Research shows that at discharge time, doctors think their patients understand more than they really do about what they should or should not do when they return home.

Surgery

6. If you are having surgery, make sure that you, your doctor, and your surgeon all agree and are clear on exactly what will be done. Doing surgery at the wrong site (for example, operating on the left knee instead of the right) is rare, but even once is too often. The good news is that wrong-site surgery is one hundred percent preventable. The Academy of Orthopedic Surgeons urges its members to sign their initials directly on the site to be operated on before surgery.

Other Steps You Can Take

³ Agency for Health Quality and Research, Patient Fact Sheet: 20 Tips to Help Prevent Medical Errors Online. Available: <http://www.ahrq.gov/consumer/> [Accessed October 2006]

7. Speak up if you have questions or concerns. You have a right to question anyone who is involved with your care.
8. Make sure that someone, such as your personal doctor, is in charge of your care. This is especially important if you have many health problems or are in a hospital.
9. Make sure that all health professionals involved in your care have important health information about you. Do not assume that everyone knows everything they need in order to provide you with proper care.
10. Ask a family member or friend to be there with you and to be your advocate (someone who can help get things done and speak up for you if you can't). Even if you think you don't need help now, you might need it later.
11. Know that "more" is not always better. It is a good idea to find out why a test or treatment is needed and how it can help you. You could be better off without it.
12. If you have a test, don't assume that no news is good news. Ask about the results.
13. Learn about your condition and treatments by asking your doctor and nurse and by using other reliable sources.

Resources:

National Patient Safety Foundation

<http://www.npsf.org/>

The Agency for Health Quality and Research

<http://www.ahrq.gov/qual/errorsix.htm>

Recommendations for Healthcare Facilities

One year has passed since the full implementation of Wyoming's Mandatory Reporting of Safety Events system. In order to more accurately describe the patient safety environment, it is important for healthcare facilities to become familiar with the reporting requirements defined by Wyoming law. Accurate and complete reporting of adverse events will allow the Wyoming Department of Health to more accurately describe trends in patient safety and to make recommendations that will ultimately improve patient safety in the state. The following recommendations will serve to increase reporting of adverse events, which is an important step in creating a safer healthcare system. These recommendations should not be seen as all-inclusive, but as a starting point from which to create a culture of safety.

1. If your facility has not already done so, designate a patient safety officer who will be responsible for reporting adverse events;
2. Become familiar with reporting requirements defined in Wyoming law (see appendix); and
3. Complete reports on adverse events and report them to the Wyoming Department of Health in a timely manner.

To designate a Patient Safety Officer or find out more about the requirements pertaining to Wyoming's Mandatory Reporting of Safety Events system, please visit the Wyoming Department of Health's Patient Safety Website at <http://wdh.state.wy.us/PHSD/ser.asp>.

APPENDIX A: **Definitions**

ADVERSE EVENT An untoward, undesirable, and usually unanticipated event, such as death of a patient, an employee, or a visitor in a healthcare organization. Incidents such as patient falls or improper administration of medications are also considered adverse events even if there is no permanent effect on the patient.⁴

AGGREGATE DATA Data collected and reported by organizations as a sum or total over a given time period, for example, monthly or quarterly.⁶

CULTURE OF SAFETY The product of individual and group values, attitudes, perceptions, competencies, and patterns of behavior that determine the commitment to, and the style and proficiency of, an organization's health and safety management. Organizations with a positive safety culture are characterized by communications founded on mutual trust, by shared perceptions of the importance of safety, and by confidence in the efficacy of preventive measures.⁵

ERROR 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).⁶

PATIENT SAFETY Freedom from accidental injury; ensuring patient safety involves the establishment of operational systems and processes that minimize the likelihood of errors and maximizes the likelihood of intercepting them when they occur.⁷

DISABILITY "Person with a disability" means an individual who has a mental or physical impairment which substantially limits one or more major life activities.⁸

SURVEILLANCE Ongoing monitoring using methods distinguished by their practicability, uniformity, and rapidity, rather than by complete accuracy. The purpose of surveillance is to detect changes in trend or distribution to initiate investigative or control measures. Active surveillance is systematic and involves review of each case within a defined time frame. Passive surveillance is not systematic. Cases may be reported through written incident reports, verbal accounts, electronic transmission, or telephone hotlines, for example.⁶

PASSIVE SURVEILLANCE Surveillance in which either available data on reportable diseases are used or reporting is mandated or requested with the responsibility for the reporting often falling on the healthcare provider or facility. The completeness and quality of the data reported thus largely depend on this individual and his or her staff who often take on this role without additional funds or resources. As a result, underreporting and lack of completeness of reporting are likely.⁹

⁴ Joint Commission on Accreditation of Healthcare Organizations, Sentinel Event Glossary of Terms, Online. Available at http://www.jointcommission.org/SentinelEvents/se_glossary.htm. [Accessed October 2006]

⁵ Health and Safety Commission, Third report of the Advisory Committee on the Safety of Nuclear Installations - Organizing for Safety. 1993.

⁶ National Quality Forum, Serious Reportable Events in Healthcare. Washington D.C., 2002.

⁷ Institute of Medicine, To Err is Human: Building a Safer Health System. Linda T. Kohn, Janet M. Corrigan, and Molla S. Donaldson, eds. Washington, D.C.: National Academy Press, 2000.

⁸ Wyoming State Statute 35-13-205. Available at <http://legisweb.state.wy.us/statutes/titles/Title35/T35CH13AR2.htm>. [Accessed October 2006]

⁹ Epidemiology. Leon Gordis. Philadelphia, 2004.

APPENDIX B:

Reportable events as defined in the law

Below are the events that must be reported under the Mandatory Reporting of Safety Event system. This language is taken directly from Wyoming Statute 35-2-912.

SURGICAL EVENTS

1. Surgery performed on a wrong body part that is not consistent with the documented informed consent for that patient. Reportable events under this clause do not include situations requiring prompt action that occur in the course of surgery or situations whose urgency precludes obtaining informed consent;
2. Surgery performed on the wrong patient;
3. The wrong surgical procedure performed on a patient that is not consistent with the documented informed consent for that patient. Reportable events under this clause do not include situations requiring prompt action that occur in the course of surgery or situations whose urgency precludes obtaining informed consent;
4. Retention of a foreign object in a patient after surgery or other procedure, excluding objects intentionally implanted as part of a planned intervention and objects present prior to surgery that are intentionally retained; and
5. Death during or immediately after surgery of a normal, healthy patient who has no organic, physiologic, biochemical, or psychiatric disturbance and for whom the pathologic processes for which the operation is to be performed are localized and do not entail a systemic disturbance.

PRODUCT OR DEVICE EVENTS

6. Patient death or serious disability associated with the use of contaminated drugs, devices or biologics provided by the facility when the contamination is the result of generally detectable contaminants in drugs, devices or biologics regardless of the source of the contamination or the product;
7. Patient death or serious disability associated with the use or function of a device in patient care in which the device is used or functions other than as intended. "Device" includes, but is not limited to, catheters, drains, and other specialized tubes, infusion pumps, and ventilators; and
8. Patient death or serious disability associated with intravascular air embolism that occurs while being cared for in a facility, excluding deaths associated with neurosurgical procedures known to present a high risk of intravascular air embolism.

PATIENT PROTECTION EVENTS

9. An infant discharged to the wrong person;
10. Patient death or serious disability associated with patient disappearance for more than four (4) hours, excluding events involving adults who have decision making capacity; and
11. Patient suicide or attempted suicide resulting in serious disability while being cared for in a facility due to patient actions after admission to the facility, excluding deaths resulting from self-inflicted injuries that were the reason for admission to the facility.

CARE MANAGEMENT EVENTS

12. Patient death or serious disability associated with a medication error, including, but not limited to, errors involving the wrong drug, the wrong dose, the wrong patient, the wrong time, the wrong rate,

the wrong preparation, or the wrong route of administration, excluding reasonable differences in clinical judgment on drug selection and dose;

13. Patient death or serious disability associated with a hemolytic reaction due to the administration of ABO-incompatible blood or blood products;

14. Maternal death or serious disability associated with labor or delivery in a low-risk pregnancy while being cared for in a facility, including events that occur within forty-two (42) days of post-delivery and excluding deaths from pulmonary or amniotic fluid embolism, acute fatty liver of pregnancy, or cardiomyopathy;

15. Patient death or serious disability directly related to hypoglycemia, the onset of which occurs while the patient is being cared for in a facility;

16. Death or serious disability, including kernicterus, associated with failure to identify and treat hyperbilirubinemia in neonates during the first twenty-eight (28) days of life. "Hyperbilirubinemia" means bilirubin levels greater than thirty (30) milligrams per deciliter;

17. Stage three (3) or four (4) pressure ulcers acquired after admission to a facility, excluding progression from stage two (2) to stage three (3) if stage two (2) was recognized upon admission; and

18. Patient death or serious disability due to spinal manipulative therapy.

ENVIRONMENTAL EVENTS

19. Patient death or serious disability associated with an electric shock while being cared for in a facility, excluding events involving planned treatments such as electric counter shock;

20. Any incident in which a line designated for oxygen or other gas to be delivered to a patient contains the wrong gas or is contaminated by toxic substances;

21. Patient death or serious disability associated with a burn incurred from any source while being cared for in a facility;

22. Patient death or serious injury associated with a fall while being cared for in a facility; and

23. Patient death or serious disability associated with the use or lack of restraints or bedrails while being cared for in a facility.

CRIMINAL EVENTS

24. Any instance of care ordered by or provided by someone impersonating a physician, nurse, pharmacist, or other licensed healthcare provider;

25. Abduction of a patient of any age;

26. Sexual assault on a patient within or on the grounds of a facility; and

27. Death or significant injury of a patient or staff member resulting from a physical assault that occurs within or on the grounds of a facility.

APPENDIX C:

Links and Other Resources

Wyoming's Mandatory Reporting of Safety Events Law:

- <http://legisweb.state.wy.us/statutes/titles/Title35/T35CH13AR2.htm>
- <http://legisweb.state.wy.us/2005/Introduced/SF0113.pdf>

Wyoming Department of Health Safety Event Reporting Page, including rules and regulations, instructions for reporting, and event reporting forms.

- <http://wdh.state.wy.us/PHSD/ser.asp>

The federal Agency for Healthcare Research and Quality (AHRQ) provides safety and quality tips for consumers. The mission of AHRQ is to improve the quality, safety, efficiency, and effectiveness of healthcare for all Americans.

- <http://www.ahrq.gov/consumer/>

Institute for Safe Medication Practices (ISMP) Alerts for Patients containing a list of frequent medication errors and how to avoid them, general information, and advice on medication safety for consumers.

- <http://www.ismp.org/Newsletters/default.asp>

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) evaluates and accredits more than 15,000 healthcare organizations and programs in the United States. JCAHO's mission is to continuously improve the safety and quality of care provided to the public. JCAHO provides a number of patient safety tips for patients and consumers.

- <http://www.jointcommission.org/PatientSafety/>

Consumers Advancing Patient Safety (CAPS) is a consumer-led nonprofit organization, formed to be a collective voice for individuals, families and healers who wish to prevent harm in healthcare encounters through partnership and collaboration.

- <http://www.patientsafety.org/>

The National Academy for State Health Policy (NASHP) is a non-profit, non-partisan organization dedicated to helping states achieve excellence in health policy and practice. NASHP provides resources to compare patient safety initiatives and approaches across the states.

- <http://www.nashp.org/>

The Leapfrog Group is an initiative driven by organizations that buy healthcare who are working to initiate breakthrough improvements in the safety, quality and affordability of healthcare for Americans. The Leapfrog website provides quality and safety information about hospitals that consumers can search.

- www.leapfroggroup.org

This list represents only a small fraction of the resources available on patient safety. The websites listed here provide an example of the types of information available. There are additional local and national resources on patient safety that can provide valuable information for patients, consumers, purchasers, and policy-makers.