Oregon patient safety Commission

2010 Nursing Home Report

Reporting Summary & Tools for Improvement

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A Message from the Director

The Patient Safety Commission established an adverse event reporting program for Oregon nursing homes in 2007. As a participant, your organization is receiving the *2010 Nursing Home Report: Reporting Summary & Tools for Improvement*. This report shares aggregate data obtained from participating nursing homes in the state from 2010 and previous years and offers applicable tools to guide improvement efforts. Please utilize the information in this report as a resource to strengthen your organization's culture of patient safety.

As a nursing home, you are an important participant of our adverse event reporting system. Your participation in our reporting program demonstrates your commitment to patient safety and demonstrates to the public that your organization is committed to safe care. To improve, we must commit to transparency to reduce preventable injury and harm. By reporting, we learn from the opportunities we have to identify and correct underlying system failures. It is the very cornerstone of creating a culture of safety. Oregon is unique with a voluntary reporting system and it can be preserved by your full participation.

Please consider the Commission to be your partner in patient safety. We are committed to providing resources and support so you can provide high-quality, reliable and safe care for your residents and families. Some examples include:

1. Offering guidance through the adverse event reporting process.
2. Providing meaningful feedback to your organization, and the larger long term-care community, in order to prevent recurrence of the same problem.
3. Standardizing quality improvement tools based on needs identified through the reporting program (championing the wide-spread adoption of well-tested, evidence-based approaches such as *Oregon's Guide to Root Cause Analysis in Long Term Care* and the *Nursing Home Expert Panel's Falls Investigation Guide Toolkit*).

Valerie Van Buren is your contact at the Commission for the nursing home adverse event reporting program (503.227.2632 or val.vanburen@oregonpatientsafety.org). Please email or call Valerie with any questions regarding this report. We welcome your thoughts and ideas about how we can best support you in the coming year.

Sincerely,

Bethany A. Higgins
Administrator

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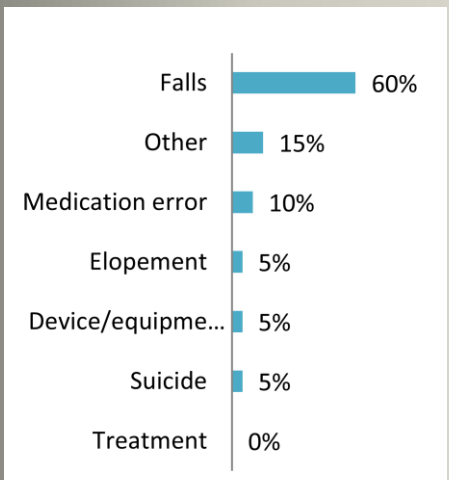
2010 Nursing Home Report

Reporting Summary & Tools for Improvement

Oregon nursing homes have been submitting adverse event reports to the Oregon Patient Safety Commission since 2007. This report summarizes those submissions and provides a platform to share aggregate data with participating nursing homes across the state. It is our goal that nursing homes will utilize the information in this report as a tool, in conjunction with evidence-based best practices and quality improvement tools, to build and strengthen your organization's culture of patient safety.

Oregon's 2010 Adverse Event Reporting Snapshot

The following section offers a high-level overview of participating Oregon nursing homes' adverse event reports to the Patient Safety Commission in 2010, as well as a comparison of reporting frequency to previous years.



Reported Adverse Events (2010)

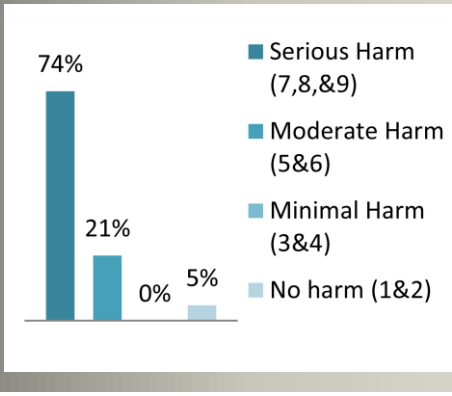
The Patient Safety Commission recognizes that reports of adverse events may be higher in a facility that is vigilant in searching for potential problems. Those facilities may be safer than facilities that do not look diligently for problems. Through a nursing home's commitment to submit and learn from adverse events, they are demonstrating a commitment to patient safety. Learning organizations base decisions on data and look for lasting solutions rather than relying on quick fixes and "Band-Aid" approaches.

Report Frequency by Year

Reports submitted to the Commission saw a steady climb from 2007 through 2009 but have seen a notable decrease in 2010. We interpret the initial rise not as an increase in the number of reportable events occurring, but rather as improvement on the part of Oregon nursing homes in recognizing and reporting adverse events. Similarly, we interpret the decrease in 2010, not as a decrease in number of reportable events but as a decrease in the reporting of events. The Patient Safety Commission encourages consistent reporting of all event types to allow individual nursing homes to monitor their performance over time in relation to specific patient safety goals.

77% of Oregon's nursing homes are participants in the Patient Safety Commission's adverse event reporting program; however, only 8% submitted a report in 2010.

For questions about your nursing homes participation, contact Valerie Van Buren (503.227.2632 or val.vanburen@oregonpatientsafety.org)



Harm Levels (2010)

Although reporting serious adverse events (harm levels 7-9) to the Patient Safety Commission is required, nursing homes are also encouraged to report lower level harm events. Each one of these events offers an opportunity for investigation and root cause identification, process improvements, and shared learning to improve patient safety — without waiting for serious harm to occur.

Adverse Event Reporting in Oregon Nursing Homes

To understand why adverse events occur, the Patient Safety Commission uses root cause analysis (RCA) as the foundation for its reporting program. RCA requires a systematic, in-depth review to learn the most basic reasons for the adverse event. The goal is to understand the problem in sufficient depth to effectively eliminate the chance of future occurrence. The adverse event report walks the investigator though the RCA process in order to:

1. Determine **what** happened.
2. Determine **why** it happened.
3. Develop an **action plan** to prevent similar events.

The following section addresses these three areas as they relate to adverse event reports from Oregon nursing homes.

Types of Adverse Events

"In the long-term care setting, 29% to 55% of residents are reported to fall during their stay… injury rates are reported to be up to 20%, twice that of community dwelling elderly."

Fall and Injury Prevention, Currie, Leanne.

The "Event Type" answers the most basic question about an adverse event: "What happened?" The nursing home adverse event report contains 15 different Event Types (including "Other"). Tables 1 and 2 (next page) offer an overview of the types of adverse events Oregon nursing homes have reported.

Table 1: 2007-2010 Event Types

Reported Event Types	2007-2010	2010
Falls	**68%**	**60%**
Device or equipment related	12%	5%
Medication error	8%	10%
Other	7%	15%
Elopement	2%	5%
Suicide	1%	5%
Treatment related	1%	0%

Characteristics of reported events for 2010

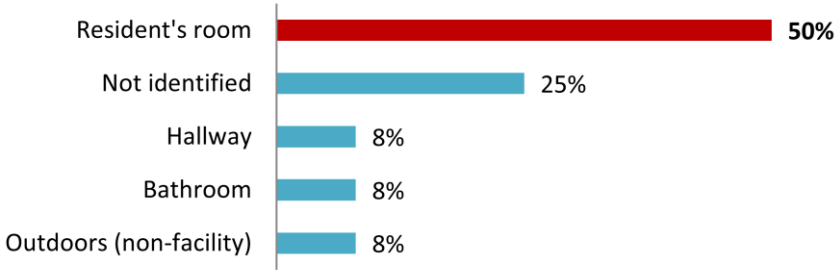
Table 2: Event Type by Age Group

	Age Groups					
Reported Event Types	**<20**	**30-39**	**60-69**	**70-79**	**80-89**	**90+**
Falls				**25%**	**35%**	
Device/equip related					5%	
Medication error			10%			
Other	5%					10%
Elopement				5%		
Suicide		5%				
% of annual	5%	5%	10%	**30%**	**40%**	10%

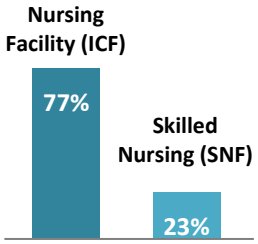
"The chances of falling and of being seriously injured in a fall increase with age. In 2009, the rate of fall injuries for adults 85 and older was almost four times that for adults 65 to 74."

Falls Among Older Adults: An Overview, Center for Disease Control and Prevention.

Figure 1: Falls by Location (2010)



77% of reported events (indicating level of care) were for ICF residents.



Falls Investigation Guide Toolkit

In response to the number of adverse event reports related to falls, the Patient Safety Commission worked with its community partners to develop a simple, easy to use, guide to investigate falls. The guide is structured around Root Cause Analysis (RCA), just like the adverse event reporting form, and incorporates other evidence-based quality improvement principles. Utilizing a structured format to investigate falls allows better understanding of the event and allows for action plan development to prevent recurrence. The toolkit can also be used to evaluate your current system and ensure it contains the necessary components. Visit *www.ohca.com/* to attend a training on falls investigations and the toolkit.

Available at: *www.oregon.gov/OPSC/*

Contributing Factors Cited in Reports

Identifying things that may have contributed to an event (the contributing factors) and the thing(s) that ultimately caused the event (the root cause(s)), gives us an understanding about "Why the event happened." The adverse event report lists 62 potential contributing factors which are categorized for analysis purposes (see Table 3 for categories).

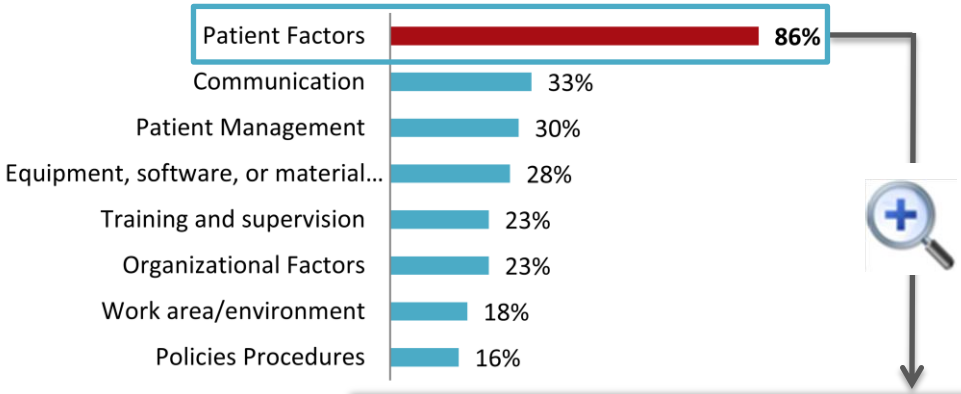
Table 3: Most Common Contributing Factors by Event Type (2007-2010)

Contributing Factor Category	Falls	Device/equip related	Medication error
Communication	33%	40%	63%
Equipment, software, or material defects	28%	**90%**	0%
Organizational Factors	23%	30%	38%
Patient Factors	**86%**	60%	38%
Patient Management	30%	30%	25%
Policies Procedures	16%	10%	**75%**
Training and supervision	23%	60%	63%
Work area/environment	18%	20%	63%

Keep in mind… 68% of reported events and 60% of 2010 reported events were falls.

Since falls are the most frequently reported event type, understanding why they occur is critical. How contributing factors impact individual residents, staff, or situations can differ significantly. Figures 3 and 4 take a closer look at contributing factors for falls reported to the Commission.

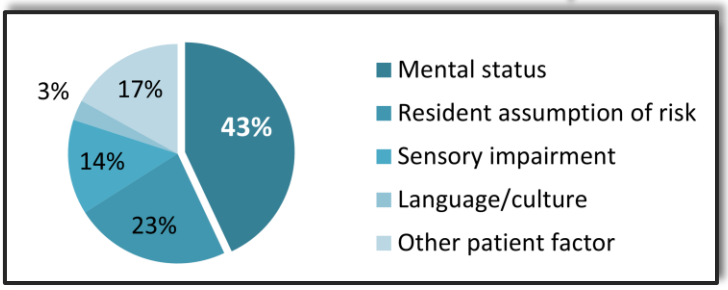
Figure 3: Contributing Factors for Fall Events (2007-2010)



65% of Oregon's nursing home residents are cognitively impaired (very mild to severe).

Oregon Alzheimer's Statistics, Alzheimer's Association.

Figure 4: Patient Factors Identified for Fall Events (2007-2010)



With 75% of reported medication events indicating policies or procedures were a contributing factor, the majority subcategorized as "not-followed/compliant," further information is needed to understand why. Through analysis of the key processes that make up a medication management system (i.e., prescribing, documenting, dispensing, administering, and monitoring), a facility can determine the true problems or areas in need of improvement. Failure to understand why policies or procedures are not followed often leads to punitive responses, seeking to assign blame and to discipline the individual involved; in which case, the system issue, left unaddressed, is likely to persist. Leaders are encouraged to leverage adverse medication events related to policies and procedures as an opportunity to evaluate current medication management systems. Consider the following guidance during policy development.

Guidance for Medication Management Policy Development

- Start the process of policy development by reviewing the medication management policies provided by the contracted pharmacy.
- Based upon the unique needs and priorities of your facility, develop policies for medication management that are not provided by the pharmacy.
- Consider forming a medication safety committee to study, implement, and analyze changes in the medication management processes in your facility.
- Ensure that a medication safety committee has representation from all disciplines.
- Changes in policies and procedures related to medication management should be effectively communicated to all clinical practitioners.
- Focus on patient safety when developing medication management policies.
- Keep the focus on patient safety when reviewing errors in the medication management system.
- Avoid blaming an individual when an error in the medication management system occurs.
- Focus on systems analysis and redesign when an error in the medication management system occurs.
- Institute an annual policy refresher for staff to prevent loss of institutional memory regarding policies and procedures that can occur. This is particularly important if there has been a significant turnover in staff.

A Systems Approach to Quality Improvement in Long-Term Care: Safe Medication Practices Workbook, The Commonwealth of Massachusetts.

A similar systems approach can be applied to other contributing factors (e.g., training and supervision, communication, etc.). The following section offers insight into the analysis process to better understand why adverse events occur.

In addition to the ethical issues related to understanding medication safety, it is also a business issue for nursing home leaders. ***Excess cost to nursing facilities due to adverse drug events is reported at $7.6 billion.***

A Systems Approach to Quality Improvement in Long-Term Care: Safe Medication Practices Workbook, The Commonwealth of Massachusetts.

Identifying Root Causes

The root causes, or the most basic reason(s) for the event, are those that, if corrected, will minimize the recurrence of that event. Because root causes have the potential to be so diverse, they are individually identified by the reporting facility in the "Findings" section of the adverse event report and have not been categorized. Use the following tips as guidance for identifying root causes.

Tips for identifying Root Causes

2. **Use the 5 Whys** (a question-asking method to uncover underlying causes of an event; continue to ask "why" until it is no longer reasonable)
3. **Clearly show a cause and effect relationship** (i.e., if you eliminate this cause/contributing factor, will you minimize/prevent future events?)
4. **Identify the preceding causes, NOT the "human error"**
5. **Identify the preceding causes of procedure violations** (i.e., "why was the care plan not followed?" → Distractions, workarounds, time-management, knowledge, etc.)
6. **Failure to act is only causal when there is a pre-existing duty to act** (i.e., was there a procedure in place to justify an expectation?)

298 Oregon long-term care providers and state agency staff attended one of the RCA Trainings offered in 2010. For those who were unable to attend, the Commission has great RCA resources available on our website.

Oregon's Guide to Root Cause Analysis in Long Term Care

To understand why adverse events occur, the Patient Safety Commission uses root cause analysis (RCA) as the foundation for its reporting program. RCA requires a systematic, in-depth review to learn the most basic reasons for the adverse event. The goal is to understand the problem in sufficient depth to effectively eliminate the chance of future occurrence. In an effort to develop a common understanding of RCA, a guide was developed and a series of trainings were held across the state in 2010 for both nursing home providers and state agency staff.

Available at: *www.oregon.gov/OPSC/*

Action Plans to Prevent Recurrence

Action plans have been identified as an area for improvement in Oregon nursing homes based on submitted adverse event reports in 2010.

Action plans are the critical component of the RCA. Strong and well-crafted actions plans have a clear link to the root causes or contributing factors and are easily understood. Strong action plans are those that are more likely to be successful in accomplishing system changes (i.e., they give you the "biggest bang for your buck").

The table below presents some categories and types of actions that might be considered. The strongest, most effective actions re-design processes, devices, software, and workspaces rather than trying to change individual memory or vigilance.

Weak Action Plans	Intermediate Action Plans	Strong Action Plans
• Double checks • Warnings and labels • New policy/procedure • Training/education • Additional study/analysis	• Increase in staffing/decrease workload • Software enhancements/modifications • Eliminate/reduce distractions • Checklist/cognitive aid • Eliminate look/sound-alikes • Read back • Enhanced documentation/communication • Redundancy	• Simplify the process and remove unnecessary steps • Standardize equipment or process • Tangible involvement and action by leadership in support of patient safety • New device with usability testing before purchasing • Architectural/physical plant changes

From the VA National Center for Patient Safety (www.patientsafety.gov/CogAids/RCA/index.html)

Effective Action Plan Criteria

- Address the root cause(s)/contributing factors
- Are focused on systems, not on individuals
- Are specific and concrete (use ***SMARTS**)
- Can be understood and implemented by a "cold reader"
- Will be tested prior to full implementation (***Plan-Do-Study-Act**)
- Process owners (and resident and/or representative) were consulted

Action Plans with SMARTS are:
***S**pecific*
***M**easureable*
***A**chievable*
***R**ealistic*
***T**imely*
***S**upported*

**More information on SMARTS and PDSA can be found in Oregon's Guide to Root Cause Analysis for Long Term Care (www.oregon.gov/OPSC/).*

Action Plan Example

Event Summary: A resident fell in her room on the way to the bathroom and the tab alarm was sounding. The resident had an unsteady gait and a diagnosis of dementia; therefore, she was unable to remember to ask for assistance. The care plan indicated to check with the resident every two hours and assist to the bathroom as needed. The staff member, who did not typically work on this unit, was unfamiliar with the care plan and hadn't asked resident if she needed to use the bathroom in the past several hours.

Weak Action Plan: Staff member in-serviced on the importance of following resident care plans.

Strong Action Plan:

- Implement consistent assignments for CNAs and licensed nurses to ensure they know their residents well.
- Involve them in care plan development with a focus on anticipating resident needs.
- Management should proactively offer guidance on designing care plans to anticipate individual resident needs (i.e., need to use bathroom, pain, boredom/restlessness, etc.) rather than responding to them.
- Test the plan (i.e., **PDSA**, see below) on one unit and check in on regular intervals (e.g., once weekly) to make any necessary modifications.
- Once staffing and care plan processes are refined, spread to other units. Monitor on a continuous basis to ensure intended results.

Testing an Action Plan

The Plan-Do-Study-Act (PDSA) cycle is shorthand for testing a change in the real work setting — by planning it (Plan), trying it (Do), observing the results (Study), and acting on what is learned (Act). Use the PDSA to test change on a small scale (multiple times, in order to learn and make modification before implementing changes on a large scale (i.e., facility-wide).

Questions or comments about the information in this report?

Contact
Valerie Van Buren
val.vanburen@oregonpatientsafety.org
or
503.227.2632

Resources

Alzheimer's Association. *Alzheimer's Facts and Figures: Oregon Alzheimer's Statistics*. (2010). www.alz.org/documents_custom/Facts_2011/ALZ_OR.pdf?type=interior_map&facts=undefined&facts=facts. Accessed March 7, 2011.

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Commonwealth of Massachusetts. *A Systems Approach to Quality Improvement in Long-Term Care: Safe Medication Practices Workbook*. (Prepared with support from the Betsy Lehman Center for Patient Safety and Medical Error Reduction and the Massachusetts Department of Public Health). e.d. Michaud, Yvonne, MS, RN. *Commonwealth of Massachusetts; 2007.* www.mass.gov/Eeohhs2/docs/dph/patient_safety/safe_med_practices_08.pdf. Accessed March 8, 2011.

Currie, Leanne, Ph.D., R.N. *Fall and Injury Prevention. Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. (Prepared with support from the Robert Wood Johnson Foundation). e.d. Hughes, Ronda G. Ph.D., M.H.S., R.N. *AHRQ Publication No. 08-0043. Rockville, MD: Agency for Healthcare Research and Quality; March 2008.* www.ahrq.gov/qual/nurseshdbk/nurseshdbk.pdf. Accessed March 10, 2011.

"*Prozac pills*: Tom Varco" (third picture from the top on the cover page). Licensing agreement http://creativecommons.org/licenses/by-sa/3.0/deed.en