Restraint Use and Preventing Patient Falls

June 23, 2011
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Program Summary

This page provides an overview of the program content and learning objectives. Please refer to the Table of Contents and Program Outline for a detailed list of the topics covered. The information included in this Resource Guide is intended to support but not duplicate the video presentation content. There may be additional information available online for this topic.

Program Description

Organizations strive to reduce the use of restraints to the lowest possible level while also reducing injuries related to falls. At the patient level, an effective fall prevention program begins with a robust process for assessing the patient's risk of falling and the patient's risk of injury. At a minimum, assessment needs to occur on admission, following a change in the patient's condition, after a fall, and when the patient is transferred. If it is determined that the patient is at risk for falling, then regular assessment must continue.

Once the patient is determined to be at risk of falling or injury, it becomes a priority to communicate this risk to all staff, the patient, and the patient's family. This is accomplished through the medical record, hand-off communications, signage (door, wall, wristband), and other modalities that continue to alert staff to the patient's risk. Patient-level interventions to prevent falls and injuries include medication adjustment, environmental adjustment, alarm devices, calcium and vitamin D, exercise interventions, toileting regimens, and treatment of other underlying disorders.

Obvious organizational-level activities include creating safe environments (in general and specific to patients) and educating all staff about falls and injury prevention. A secondary, but critical, organizational activity related to falls prevention is measurement and improvement. Honest, transparent reporting of falls must be encouraged to analyze conditions associated with falls, identify patterns of risk, and develop improved care processes.

This video conference focuses on these important issues surrounding fall prevention and restraint use, with an emphasis on how these areas are evaluated during Joint Commission surveys.

Program Objectives

After completing this activity, the participant should be able to:

1. Identify Joint Commission requirements that relate to patient falls and restraint use.

2. Identify how The Joint Commission evaluates a hospital's approach to fall prevention and restraint use during surveys.

3. Discuss ways to educate and communicate with staff, patients, and families about falls.

Target Audience

This activity is relevant to all organization staff, medical staff, volunteers, and contract staff, particularly those responsible for life safety-related activities, including safety officers and committees, department managers and supervisors, performance improvement staff, training and education staff, and risk managers.
Continuing Education (CE) Credit

After viewing the JCR Quality & Safety Network presentation and reading this Resource Guide, please complete the required online CE/CME credit activities (test and feedback form). The test measures knowledge gained and/or provides a means of self-assessment on a specific topic. The feedback form provides us with valuable information regarding your thoughts on the activity’s quality and effectiveness.

NOTE: Effective January 1, 2009, the Learning Management System web site URL changed as noted below.

Prior to the Program Presentation Day

1. Login to the JCRQSN Learning Management System web site at http://jcrqsn.mcnhealthcare.com
2. Enroll yourself into the program
   Note: Your administrator may have already enrolled you in the program
   • Select All Courses from the courses menu.
   • Select the course category for the current year, 2011 Programs.
   • Select the course for this program, Restraint Use and Preventing Patient Falls
   • When prompted, choose Yes to confirm that you would like to enroll yourself.
3. Display and print the desire documents (Resource Guide, etc.).

Online Process for CE/CME Credit

1. Read the course materials and view the entire presentation.
2. Login to the JCRQSN Learning Management System web site at http://jcrqsn.mcnhealthcare.com
3. Select Restraint Use and Preventing Patient Falls from the courses menu block.
   Note: This assumes you have already been enrolled in the program as described above
4. If you didn’t view the broadcast video presentation, view it online.
5. Complete the online post test.
   • You have up to three attempts to successfully complete the test with a minimum passing score of 80%.
   • Physicians must take the post test to obtain credit.
6. Complete the program feedback form.
7. On the top right corner of the main course page, you will see your completion status in the Status block.
8. Select Print Certificate from within the Status block to print your completion certificate.

Process for VA Knowledge Network Participants

1. Read the program’s Resource Guide and view the entire video presentation (speak with your administrator for broadcasting times – do NOT log in to view the program).
2. Complete the Viewer Response form (speak with your administrator to obtain a paper copy that will be completed manually – do NOT log in to take the online test).
3. Complete the Program Evaluation.
4. Record the answers to the post test where indicated on the Viewer Response form.
5. Return the Viewer Response form by the program due date listed in the upper left corner of the page.
   Forms received after this due date will not be eligible for CE credit.
6. Please allow 6 weeks for processing your Viewer Response Form.
* If you have any questions please contact Rose Monfore at 714-283-4746.
Program Outline

Restraint Use and Preventing Patient Falls
June 23, 2011

I. Introduction
   A. Program Content
   B. Objectives
   C. Faculty

II. Joint Commission Falls and Restraints Requirements

III. Issues in Education and Communication

IV. Individual Tracer #1

V. Individual Tracer #2

VI. Conclusion

VII. Live Question and Answer Session
   A. Audio only telephone seminar with program faculty – for 30 minutes following the program.
   B. Call 1-888-206-0090; enter conference code: 7925428.
      Or e-mail your questions or comments to: Questions@jcrqsn.com

<table>
<thead>
<tr>
<th>Program Broadcast Time</th>
<th>Eastern: 2:00 p.m. to 3:00 p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Central: 1:00 p.m. to 2:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>Mountain: 12:00 p.m. to 1:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>Pacific: 11:00 a.m. to 12:00 p.m.</td>
</tr>
</tbody>
</table>
Mock Survey Scenarios

Audie Murphy Memorial Veterans Administration Hospital, San Antonio, Texas

Simulated patient is 75-year-old male with history of schizoaffective disorder and dementia secondary to alcohol abuse that caused chronic liver disease. The patient was admitted to the hospital's geriatric psychiatric unit after inappropriate behavior at a nursing home. Patient exhibits no purposeful activities. He paces constantly, checks all doors, and has attempted to leave but can be re-directed without struggle. Patient has had numerous falls while physicians were attempting to control aggressive behavior without sedating to the point of ataxia. Falling resulted in one broken arm during current admission and an elbow abscess in the nursing home prior to admission.

Tracer Interviews:
• Unit assistant nurse manager
• Physical therapy supervisor
• Pharmacist
• Psychiatrist
• Fall prevention coordinator

Harlem Hospital Center, New York, New York

Simulated patient is 64-year-old female with a history of a stroke that occurred in 2010, resulting in left-sided weakness. She lives at home in a second floor walk-up apartment; uses leg brace and cane at home. Patient has comorbid hypertension (treated with oral medication), diabetes mellitus (insulin coverage), and osteoporosis. She has a history of falls at home since 2010; discharge did not result in serious injury. She also has impaired balance while transferring/ambulating.

For current admission, patient fell at home, was transported to Harlem Emergency Department (ED) via ambulance, received operating room (OR) surgical hip repair, and was transferred to 11th floor Surgical Unit. Rehabilitation Consult was ordered; receiving off-unit rehabilitation treatment on 3rd floor. She has pain experience.

Tracer Interviews:
• Surgical Unit team
• Emergency Department physician's assistant and nurse
• Physical therapist and head nurse, rehabilitation medicine
• Transporter

Data Management System Tracer Session
Appendix A: Evaluating Patients' Risk for Falls

Assess Risk to Prevent Falls Before They Occur

Patients who are weakened from illness or injury and who may also be disoriented by medications and an unfamiliar environment can easily be prone to falls. Falls can result in additional injury to the patient, thus impeding recovery. Therefore, many health care facilities are attempting to better predict which patients are at greatest risk for falling. A comprehensive program designed to prevent patient falls can also help organizations meet The Joint Commission’s National Patient Safety Goal 9: Reduce the Risk of Patient Safety Harm Resulting from Falls, Requirement 9B.

While some facilities have developed their own screening tools, some existing tools have been scientifically tested and validated. These include the Johns Hopkins Fall Risk Assessment Tool, the Morse Fall Scale, the Schmid Fall Risk Assessment Tool, the Hendrich Fall Risk Assessment, and the General Risk Assessment for Pediatric In-Patient Falls Scale. Each tool has a slightly different focus, so an organization should try to find one that best meets the needs of its patient population. For example, the Morse scale identifies a patient’s level of risk, while the Hendrich tool focuses on the individual factors that pose the highest fall risk to a patient.

Health care facilities looking to adapt a fall risk assessment and prevention program or develop one of their own should be sure to include the following elements.

1. **History of Previous Falls** – Patients who have fallen before are at increased risk for falling again—the odds increase by as much as 1.5 times with each fall.¹ This is because past falls may have caused additional injuries, making the patient less physically able, or because the causes of previous falls may not have been addressed adequately.

2. **Review of Medications, Gait, and Alcohol Consumption** – Patients who have been prescribed multiple medications are at an increased risk of falling. In addition, certain types of drugs increase a patient’s likelihood of falling. For example, psychotropic drugs, such as antidepressants, hypnotics, antipsychotics, sedatives, and benzodiazepines, as well as anticonvulsants can affect patients’ balance as well as their mental awareness; diuretics and cathartics can result in patients attempting to move more quickly than their abilities allow; and narcotics and opiates can cause extreme dizziness and fatigue.²

   A patient’s gait can be rated to determine whether it might affect the person’s fall risk. For example, someone with a steady gait is at less risk than a patient who walks steadily but uses a walker or cane, and a patient who is unsteady and uses no assistive devices is at the highest risk.

   While inpatients cannot consume alcohol, outpatients and those in community settings who drink may put themselves at greater risk for falls. One study found that alcohol consumption increased elderly patients’ odds of falling by more than 0.5.¹

3. **Balance Screening** – Patients with insufficient balance—whether due to an existing injury, a visual disability, bad posture, or another cause—are more likely than others to fall. Studies suggest that in these cases, a balance screening that includes activity-based measures may provide useful data.⁴

4. **Environmental Assessment** – Certain basic safety interventions should be taken with all patients to prevent falls. These may include the following: providing sufficient lighting; removing excess furniture and equipment from rooms and hallways; coiling and securing tubes, electrical cords, and telephone and monitor wires; cleaning up all spills immediately and using signs to indicate that the floor may be wet; and restricting window openings.³
5. **Assistive Technologies and Protective Devices Assessment** – Based on the results of a patient’s fall risk assessment, caregivers should determine whether assistive technologies or protective devices may help further prevent falls. These might include a wheelchair or walker, slip-resistant chair mat, shower chair, wheelchair seat belt, or an alarm to notify staff when the patient has gotten out of bed. Note that bed rails, frequently recommended in the past as a fall-reduction measure, have been found in some studies to actually increase fall risk as they require patients to get out of bed in an awkward manner.5

**References**


Appendix B: Preventing Falls Among Older Populations: Creating a Community Education Program

Each year, one in three adults older than 65 years old unintentionally falls.¹ As a result of these falls, older adults risk their independence and health. They can also incur the cost of hospitalization, nursing home care, rehabilitation, and more.

To reduce the number of falls among older people in the community, health care workers need to involve other community members, such as those involved in municipal governments, and reach out to the older populations that are at risk for falling.

According to Victoria Scott, Ph.D., R.N., senior advisor on Fall and Related Injury Prevention, BC Injury Research & Prevention Unit and Ministry of Healthy Living and Sports, Victoria, British Columbia, Canada, the first step to creating a community education program for preventing falls is to identify the scope and nature of the problem.

“It’s important to understand who is falling, where they are falling, and why they are falling,” says Scott. Thereafter, Scott explains, the most effective fall prevention programs are tailored to the high-risk fallers. “It’s necessary to use scientific evidence at the base of a fall prevention program, but the important step is to translate that research into everyday practice,” says Scott.

Thus, all the important pieces of a fall prevention program—assessing the person’s risk for falling, getting regular medical checkups and eye exams, reviewing medications, exercising regularly, and conducting a home safety assessment—need to be present in a community education program. However, these elements need to be applied based on a population’s or individual’s specific needs and priorities.

A key step to tailoring a fall prevention program to community needs is to assess each person’s readiness for change and understand which changes he or she deems to be a priority. “For example, with a home safety assessment, you don’t just go in with a checklist of physical hazards in the home to fix,” says Scott. “Instead, you go in with a process for engaging people and ask them what they think the problems are and what they think the solutions should be. Then you work with them to bring about modifications that reflect the evidence and match their priorities.”

Scott offers the following strategies for creating a community-based fall prevention program, but cautions that these strategies should be applied only when appropriate for the target population’s specific needs and priorities.

Furthermore, these strategies may also be used to help comply with The Joint Commission’s National Patient Safety Goal 9, which aims to reduce the risk of patient harm resulting from falls. Additional fall prevention resources are listed in the box at right.

**STRATEGY Understand how, when, and where falls commonly occur.** Even though health care organizations should conduct a thorough assessment of how falls occur among older people in their service areas, Scott offers some of the trends she has found in her research. “The circumstances around falls differ depending on various groups of seniors,” says Scott. “The active seniors tend to fall outdoors when they are engaging in risk-taking behaviors, such as climbing ladders, running, or biking. And the frailer elders often fall in the home due to a cumulative effect of multiple risks.”

For example, a frailer elder may fall in the morning when he or she is still drowsy from a sleeping pill, has trouble moving due to his or her arthritis, and is adjusting to new bifocals.
Furthermore, Scott notes that falls among the more frail elders tend to peak in the morning, but she has also found an increase in falls later in the evening, which may be attributed to low blood sugar before a meal. Finally, walking, bending, or getting out of a bed or chair are the most frequently reported activities that occur just before a fall in the home.²

**STRATEGY** **Encourage older adults to discuss their feelings about falls.** “It’s helpful for older adults to tell their stories about a previous fall,” says Scott.

If this storytelling is done with peers and health care professionals, it can be a great learning experience for all, adds Scott. For older adults who have not fallen, it might be helpful for them to express their fears about falling. “People stop being active because they are afraid that will increase their risk, but they actually put themselves at more risk. We need to get them to talk about their fears of falling.”

While some older adults may fear falling, others may be in denial about their fall risk. A study found that older people living in a community considered falls to be an important, preventable health issue but minimized their personal susceptibility.³ In these situations, health care providers can ask older adults to perform a fall self-assessment, which asks questions about their medications; any difficulty walking, standing, or getting out of a chair; feelings of weakness or dizziness; vision or hearing problems; exercise routine; alcohol use; and any chronic conditions such as diabetes, high blood pressure, and arthritis.¹

**STRATEGY** **Promote regular visits with physicians, including the eye doctor.** Older adults should discuss their fall risk or the occurrence of previous falls with their primary care physician, recommends Scott. At these visits, the physician should check for any medications that can impair balance and cognition, such as benzodiazepines and antidepressants. Routine eye exams and maintenance of appropriate visual aids are key to preventing falls. Older adults who have visual impairments may not be able to detect important changes in surfaces, such as cracks in sidewalks or clutter in the hallway.⁴ Eye exams can also lead to the correction of eye diseases that reduce and distort the visual field, such as glaucoma, age-related macular degeneration, and cataracts.⁴

**STRATEGY** **Outfit older adults with proper shoes and appropriate assistive devices.** Older adults may recognize the benefits of hip protectors, canes, walkers, or appropriate—sometimes unstylish—shoes, but some may be reluctant to use them. “Older adults often feel there is a stigma associated with walkers and canes—that they will look old if they use them,” says Scott. In these situations, health care providers should gauge an older person’s willingness to change and encourage expression of his or her reservations.

With open discussion, the patient and health care provider may come to the realization that the assistive device can be used for safe exercise or independent grocery shopping, resulting in the older adult feeling more independent and healthier, rather than older. “A football player wouldn’t play football without padding. Likewise, an older adult who is prone to falls should wear hip protectors or use a cane so that he or she can be more active and independent,” says Scott.

**STRATEGY** **Provide an exercise routine that is challenging and safe.** Exercise has been shown to be the most effective intervention to reduce falls among older adults in the community.⁵ “There is good evidence to support any exercise program that improves balance, strength, and coordination,” says Scott. For example, a popular exercise form among older adults is tai chi because it emphasizes unilateral weight bearing, constant weight shifting, postural alignment, and coordinated movements with synchronized breathing.⁵
STRATEGY  Conduct a home safety assessment. There are many checklists available to help health care providers and older adults assess homes for fall risks, but passive checklists can miss valuable information. “Providers need to ask older adults to show them what their routine is in the household,” says Scott. “For example, we found that one woman went in her living room every morning and stood on a rickety chair to open her blinds because the rod was broken. That was a huge fall risk that may not have been noted with a checklist.”

In addition, health care providers should consider priorities when conducting a home assessment. “Providers think that scatter rugs need to be automatically removed,” says Scott. “But if the scatter rugs are only decorative and in a room that the person hardly enters, then that change is set at a lower priority compared to the telephone cord that is draped across the floor.”

After implementing these strategies and creating a comprehensive fall prevention program, the last step is to ensure that the interventions made a difference. “Did the severity or number of falls go down? Did you prevent falls from happening in certain locations? You need to collect the data to evaluate whether you’ve made a difference,” says Scott.

References

Fall Prevention Resources
- Fall Prevention Center of Excellence (http://www.stopfalls.org)
- Centers for Disease Control and Prevention resources, including Preventing Falls: How to Develop Community-Based Fall Prevention Programs for Older Adults (http://www.cdc.gov/ncipc/duip/fallsmaterial.htm)
- British Columbia Injury Research and Prevention Unit, including fall risk assessment tools (http://www.injuryresearch.bc.ca/categorypages.aspx?catid=1&subcatid=7#toolrepository)
- The National Council on Aging resources, including The Creative Practices in Home Safety Assessment and Modification Study (http://www.healthyagingprograms.org/resources)
- University of Victoria online course, titled Canadian Falls Prevention Curriculum (http://www.uvcs.uvic.ca/health/courses.aspx)
Appendix C: Addressing In-Hospital "Falls" of Newborn Infants

Linda Helsley, R.N., C.N.S.; John V. McDonald, M.D.; Valerie T. Stewart, Ph.D.

During postpartum hospitalization, close physical interactions between mother and newborn facilitate attachment, breastfeeding, and relationship competence. The challenge during this time is to support these important interactions in the hospital while ensuring the safety of the newborn. A literature review indicated that newborn “falls” and drops—referred to collectively as falls for the purpose of this article—in the hospital remains largely unaddressed, with the exception of a report by Monson et al. in 2008.1

A report from the Royal College of Midwives (RCM) in the United Kingdom described a nationwide audit of 100 maternity units in 2004 to identify “bed/sharing incidents.”2 This work was initiated following the high-profile media report of the death from a fall of a well baby in a British hospital linked to maternal sleeping during bed sharing. A project involving the RCM, the World Health Organization (WHO), the United Nations Children’s Fund (UNICEF), and the Baby-Friendly Initiative (http://www.babyfriendlyusa.org/eng) resulted in the development of “guidelines for assessing the level of risk for mothers and babies when they are sharing a bed in the hospital” and a delineation of the levels of supervision required on the basis of risk-assessment results.3 Queries to the Council of Women’s and Infants’ Specialty Hospitals (http://www.cwish.org) and the Vermont Oxford Network (http://www.vtoxford.org) resulted in little information about newborn falls in the hospital.

Given the limited extent of available information on this topic, it is important to report rates in other hospital systems and to identify possible guidelines for assessing and improving safety of the hospitalized newborn.

This report summarizes the experiences of a seven-hospital system in Oregon and offers a template for understanding how and why infant falls occur in hospitals with the intent of helping others address this issue and work to eliminate the risk of fall-related harm to newborns.

Article-at-a-Glance

Background: During postpartum hospitalization, close physical interactions between mother and newborn facilitate attachment, breastfeeding, and relationship competence. The challenge during this time is to support these important interactions in the hospital while ensuring the safety of the newborn. A literature review indicated that newborn “falls” and drops—collectively referred to as falls—remains largely unaddressed. Experience of a seven-hospital system in Oregon offers a template for understanding how and why infant falls occur in hospitals and how to address the issue.

Identifying the Problem: For a two-year period (January 2006-December 2007), a query of a live voluntary event database yielded 9 cases of newborn falls (from 22,866 births), for a rate of 3.94 falls per 10,000 births.

Responding to Newborn Falls: A newborn falls committee made preliminary recommendations for interventions to reduce newborn falls, including (1) expanding the patient safety contract, (2) monitoring mothers more closely, (3) improving equipment safety, and (4) spreading information about newborn falls within the state and throughout the hospital system. For example, staff use the patient safety contract to improve awareness and prevention of falls. The mothers and significant family members are asked to review the safety information and sign the contract.

Conclusion: Newborns experience in-hospital falls at a rate of approximately 1.6-4.14/10,000 live births, resulting in an estimated 600-1,600 falls per year in the United States. Additional reports of rates of newborn falls are urgently needed to determine the true prevalence of this historically underreported event. Standardized evaluation and management guidelines need to be developed to aid the clinician in the appropriate care of newborns experiencing this infrequent event.
Identifying the Problem

SETTING

Providence Health & Services, a not-for-profit health system based in Renton, Washington, and active across five states (Alaska, Washington, Montana, Oregon, and California), includes 27 hospitals, more than 35 nonacute facilities, physician clinics, and a health plan, among other health services.

REPORTED EVENTS

Since May 2001, a voluntary event-reporting system has existed in the system’s hospitals to capture unusual events in patient care not necessarily rising to the level of harm or death. Previous analyses for the three Portland hospitals of the total of seven in Oregon indicated a count of approximately 30,000 events reported during a two-year period (April 1, 2002-April 30, 2004), 9% of which were categorized as falls. Further analyses showed that cases with reported events were 17% more expensive than case controls and had a length of stay 22% longer. To increase likelihood of use, all reports were, and continue to be, anonymous.

We sought to identify the newborn events within the falls category. For a more recent 24-month period (January 2006–December 2007), we queried the live voluntary event database for any nonvisitor falls occurring on obstetrics (OB)/maternity units. Because there was no field in the database that specifically identified a fall as involving a newborn, we cast a wide net at the first stage to pick up any falls on units identified as locations where newborns and mothers were admitted. The query output produced key fields from the voluntary event database: fall date and time, location of the fall, observer’s narrative, and manager comments. The most important field was the observer’s narrative. The narrative explained in detail how the event occurred, what person fell, and why the observer thought it happened. This information was then categorized into one of three types of falls: infant fall, mother fall, or other. “Other” was often a family member who fell on the maternity unit.

The most important aspect of this query was to first determine for every hospital the units where mothers and newborns could possibly be admitted for the study time period. Next most important was review of the descriptive narratives to determine which of the three types of falls had occurred (newborn, mother, or other). After we completed this retrospective procedure, we began to track events in real time. It is not possible to know whether infant falls were underreported in this event registry during the study period.

CASE REPORTS OF THE NINE FALLS

For the two-year period, newborn falls and drops were monitored in the seven system hospitals in Oregon. During this period, 22,866 babies were born, and 9 newborn falls were reported, for a rate of 3.94 falls per 10,000 births. This rate was higher than expected on the basis of the sole previously published report of 1.6 falls per 10,000 births. We do not know if these higher rates are due to more incidents, a higher reporting rate, or some other cause. We collected qualitative comments about each event.

Sidebar 1. Sample Cases of Newborn Falls

Case 1. A Newborn Dropped from the Arms of an Adult Falling Asleep
Several hours following birth, a mother in the postpartum unit fell asleep in her hospital bed while holding her newborn. She awakened some time later to the sound of crying. She discovered that her newborn had apparently slipped between the rails at the side of the bed and fallen onto the floor.

Case 2. A Fall During Repositioning or Transferring of the Mother or Newborn
A mother had just completed breastfeeding her twins using a circular nursing pillow to support positioning. She placed the pillow on the surface of a counter in her room, and while transferring one of the newborns to a bassinet, the other fell to the floor, incurring a skull fracture.

Case 3. A Fall in Conjunction with Another Person Who Falls or Trips
A mother carrying her newborn tripped on her intravenous line tubing while walking across her room. In the process, she dropped the newborn, who struck its head on a metal portion of the bed, resulting in a skull fracture.
Three sample cases illustrating the typical circumstances reported are provided in Sidebar 1 (above). Outcomes for the nine newborns that fell during this time period are shown in Table 1 (below). Of the nine falls, two experienced skull fractures (Cases 2 and 3, Sidebar 1), whereas the remainder had bumps, bruises, or no apparent injury. Figure 1 (page 16) shows the distribution of occurrence by time of day; more than half of newborn falls occurred in the early morning hours.

<table>
<thead>
<tr>
<th>Case</th>
<th>Explanation of Fall</th>
<th>Fall Responded by</th>
<th>Time of Day of Fall</th>
<th>Physical Exam</th>
<th>Diagnostic Workup</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mother fell asleep in her bed with newborn in her arms—fell to the floor</td>
<td>RN after hearing the mother scream</td>
<td>23:00</td>
<td>No apparent injury</td>
<td>None</td>
</tr>
<tr>
<td>2</td>
<td>Mother fell asleep in her bed with newborn in her arms—fell to the floor</td>
<td>Mother reported to nurse she woke up with infant crying on the floor</td>
<td>07:45</td>
<td>No apparent injury</td>
<td>None</td>
</tr>
<tr>
<td>3</td>
<td>Mother fell asleep in her bed with newborn in her arms—fell to the floor</td>
<td>Pediatrician was told on entry to the room by the crying mother</td>
<td>07:30</td>
<td>No apparent injury</td>
<td>Head CT scan—normal</td>
</tr>
<tr>
<td>4</td>
<td>Mother fell asleep breastfeeding and woke up when she heard the newborn crying on the floor</td>
<td>Mother called RN to report fall</td>
<td>23:50</td>
<td>No apparent injury</td>
<td>Head CT scan ordered for behavior change of head trauma—none</td>
</tr>
<tr>
<td>5</td>
<td>Mother had twins on a nursing pillow—turned partially to place one twin back in the bassinet—the other twin rolled off the pillow to the floor</td>
<td>Nurse heard mother gasp and state she had dropped her</td>
<td>17:00</td>
<td>Head trauma</td>
<td>Head CT scan—skull fracture</td>
</tr>
<tr>
<td>6</td>
<td>Mother fell asleep in her bed with newborn in her arms—fell to the floor</td>
<td>Mother told the nurse after a period of time—stated she wasn’t going to report it initially</td>
<td>02:35</td>
<td>No apparent injury</td>
<td>None</td>
</tr>
<tr>
<td>7</td>
<td>Father holding newborn on the couch and fell asleep—newborn fell to the floor</td>
<td>Father told the mother that the baby had fallen to the floor—denied it to the nurse initially—then confirmed the fall</td>
<td>06:00</td>
<td>No apparent injury</td>
<td>None</td>
</tr>
<tr>
<td>8</td>
<td>Mother got out of her bed with newborn in her arms and tripped—baby’s head hit metal bar on the hospital bed</td>
<td>Mother reported to the RN at the time of the incident</td>
<td>05:00</td>
<td>Quarter-size lump on side of head</td>
<td>Head CT scan—skull fracture</td>
</tr>
<tr>
<td>9</td>
<td>Mother breastfeeding in her bed—while adjusting her pillows the newborn fell to the floor</td>
<td>Mother called RN at time of fall</td>
<td>15:00</td>
<td>No apparent injury</td>
<td>Head CT scan—normal</td>
</tr>
</tbody>
</table>

*RN, registered nurse; CT, computerized tomography.*

Many of the case narratives reflect parental reluctance to report the newborn fall. One case narrative quoted a mother as saying she was not going to tell anyone about the fall because when she jumped out of bed and picked him up off the floor, she thought he was “just fine” (Table 1, Patient 6). The mother only reported the fall to her nurse when the baby suddenly stopped crying and became very quiet, which increased the mother’s anxiety about a potential injury. Family members speak of being extremely upset at the event and ashamed that it happened. Only in the face of increasing concern about inflicted injury reflected by their newborn’s behavior do they tend to report the event. This was true for mothers and fathers.

Reluctance to report is a major challenge in determining the true incidence of these events, which are commonly not observed by members of the health care team.
Responding to Newborn Falls

The newborn falls committee was established (co-chairs, J.V. McD. & L.H.), consisting of members from all of the system’s hospitals in the state—including a neonatologist, a quality/safety nurse, a hospital educator, perinatal unit registered nurse (R.N.) representatives, a material services member, a lactation consultant, and a computer services member. The committee’s charter was to evaluate previous events, come to a greater understanding of the problem, and make preliminary recommendations for interventions to reduce newborn falls. The committee’s initial approach to intervention has entailed (1) expanding the patient safety contract, (2) monitoring mothers more closely, (3) improving equipment safety, and (4) spreading information about newborn falls within the state and throughout the system. These interventions are described in detail, along with their respective challenges, in the following section.

INITIAL INTERVENTIONS

Safety Contract. To improve awareness and prevention of falls, staff use a “safety contract” on admission—referred to as the Newborn Safety Information for Parents (page 21). The contract outlines the risk factors that appear to increase the risk of a newborn fall during the postpartum period. These risk factors include marked maternal fatigue from the labor and delivery process, postpartum administration of pain medications, and the characteristics of hospital beds compared to beds at home. The mothers and significant family members are asked to review the safety information and sign the contract.

Challenges with the patient safety contract have to do with the sheer amount of information presented to patients on their arrival—at an emotionally exciting time. Although a signature is obtained, it does not ensure that the information has been processed or understood. During hospitalization, the nurses are asked to remind the patient and family members about the risks of newborn falls, but our approach is not standardized across staff and we do not know whether new parents understand the significance of the information provided to them. We currently are assessing the effectiveness of the communication of this information during the admission process and subsequent hospitalization.

Monitoring. The nursing staff was educated about the need for vigilance when newborns are placed in the maternal bed. This content was incorporated into the nursing practice guidelines for newborn care. A “no co-sleeping” policy was introduced to help ensure that the newborn was moved back to the bassinet by the mother, family members in the room, or nursing staff when the mother was preparing for sleep, was becoming drowsy, or had fallen asleep.

There are challenges associated with closer monitoring of the mother. Nursing staff are asked to separate mother and infant when mother is sleeping. When checked, a mother may seem alert and then drift off to sleep shortly after the observation. Staff and families often voice concern that separating the mother from her newborn may reduce success in establishing breastfeeding. We are developing individualized newborn fall prevention plans by adjusting the amount of nurse observation time as deemed necessary given results from a maternal clinical assessment tool of risk of newborn fall. A recommendation that an awake adult monitor the newborn while he or she is in the maternal hospital bed with its mother may depend on the mother’s risk status.

| Time of Fall for the Nine Cases |

Figure 1. The figure shows the distribution of occurrence by time of day; more than half of the newborn falls occurred in the early-morning hours.
**Equipment Safety.** The fact that for a number of the cases of newborn falls, the mother fell asleep in the maternal hospital bed while holding the newborn in her arms, only to wake up to the newborn crying on the floor next to the bed, led to an evaluation of the bed’s design. Most manufactured hospital beds seem to have similar upper and lower side rails; a space between the two sets of side rails allows the head of the bed to be elevated. When the head of the bed is elevated by 45 degrees, which is frequently the case, an opening on each side of the bed is thereby created at the mother’s hip level which is more than ample for the newborn to fall through. Many of the bed models also have openings within the side rails which are large enough for the newborn to accidently fall through. As the mother falls asleep and her arms relax, the newborn falls to the floor through the openings.

In the United States, the bassinet is designed as a separate and independent unit frequently placed some distance from the mother’s bed, which discourages the mother from using it. In contrast, in the United Kingdom the bassinet is integrated into the design of the maternal hospital bed and attached parallel to one side of the bed.\(^5\)

The newborn’s location in a hospital room creates potential for engineering design with greater attention to newborn safety considerations, including guardrail construction that eliminates all gaps, attention to the space between the mattress and the rails, and integration of a newborn crib with the mother’s bed. We are initiating a safe medical device reporting process to bring focused attention to the bed design relative to newborn safety issues. We are also working with our system’s leadership and manufacturing partners to develop safer mother/baby beds.

**Newborn Fall Unusual Occurrence Report (UOR) Debrief Form Postevent**

![Image of Newborn Fall UOR Debrief Form]

**Figure 2.** A newborn fall debrief form, reported online, was designed to capture additional details for continued evaluation of factors involved in the event. PSVMC, Providence St. Vincent Medical Center; NICU, neonatal intensive care unit; L&D, labor and delivery; MD, physician.
Spreading Our Learnings. To educate clinicians, the rates of newborn falls and the analyses and summaries of cases are now regularly reported to nursing and medical staff. We are developing our collection tools to improve our understanding of these events. A newborn fall debrief form (Figure 2, page 17; full-size version on pages 22 and 23) was designed to capture additional details for continued evaluation of factors involved in the event. A newborn fall must now be reported using an online version of this form, which ensures that additional objective information will be captured above and beyond qualitative observations. Analysis of data from the form is pending.

The Oregon Patient Safety Commission collects voluntary information about all sentinel events that occur in participating hospitals within the state. Because Providence Health & Services–Oregon is a participating member, we supported a state wide alert to all hospitals about the risk of newborn falls in perinatal units. Moreover, the seven Oregon hospitals alerted the five-state system about the possibility of newborn falls via a systemwide safety alert so that all hospitals affiliated with our organization could take action to reduce the risk of newborn falls.

STANDARDIZING WORKUP FOR NEWBORN FALLS

As the committee reviewed all newborn fall reports, it discovered a significant variability in the diagnostic workup among pediatric providers. For example, in Case 8 (Table 1), a provider was not inclined to order diagnostic testing in the face of a normal physical examination. When pressed by nursing staff concerns, he ordered a head computerized tomography (CT) scan, which led to identification of a skull fracture. Because of the lack of literature on in-hospital newborn falls, there is little guidance on the evaluation and management of the newborn who falls.

As a result, in February 2010 we convened a work group of physicians (emergency department pediatric provider, pediatric hospitalist/medical director, pediatric radiologist, and neonatologist) from the largest Oregon hospital with an NICU to develop a standardized algorithm for evaluation and management of the newborn who falls. The workup being developed focuses on a physical examination by the provider; a 12-hour observation period with neurologic checks; and, if criteria for clinical symptoms are present, a CT scan of the head. Criteria for the CT scan will likely include loss of consciousness of any time duration, abnormal behavior per parental opinion, and vomiting.

Trends in Rates of Newborn Falls

We have engaged our system in looking more widely at the problem of newborn falls. With recent reporting from 22 of these hospitals, we have observed a rate of 4.14 falls/10,000 live births (Figure 4, page 19), which is remarkably similar to our initial data from our 7 hospitals in Oregon—3.94 falls/10,000 live births (Figure 3, right). Extrapolating a range of 1.6 – 4.1 falls/10,000 births across the United States would suggest that 600 to 1,600 newborns are experiencing an in-hospital fall every year.
Discussion

After implementing the interventions and spreading information about newborn falls, we have continued to document incidents. We have recently begun to use a new analytical database to store the post-falls debrief information, including results of the standardized workup. Fortunately, these events are very rare, which however makes comparative statistical analyses impossible for several years unless large geographical data sets are used (which may be a possibility in the future). On the basis of observations of what has happened since we educated staff, we have decided to adopt reporting practices from quality improvement studies of rare events.8

We plan to begin reporting for each hospital in Providence Health & Services–Oregon the “number of days since last newborn fall.” We also plan to begin analysis of events using geometric distributions, or g-charts, in consultation with computing experts who can advise on mining our large databases over time on a regular basis. For example, we may be able to learn whether factors such as the number of deliveries affect the probability of falls.

We have recently performed a Failure Mode and Effects Analysis, in which we considered 68 possible events along three dimensions—(1) frequency of occurrence, (2) ability to detect these situations, and (3) severity of outcome. A team of risk and nurse specialists rated these 68 events as a group, scoring them for each dimension on a scale of 0 to 10. Multiplication of all three values yielded a possible range of 0 to 1,000. Events with the highest criticality for attention were revealed by using a cutoff score of over 240 points from all three dimensions. Table 2 (page 20) shows the nine situations that result in the highest risk of infant falls. We are also using cause mapping9 to design effective and targeted actions to this problem.

Figure 4. Reporting from 22 hospitals in five states yields a rate of 4.14 falls/10,000 live births.
**Conclusion**

Newborns experience in-hospital falls at a rate of approximately 1.6–4.14/10,000 live births, resulting in an estimated 600–1600 falls per year in the United States. Additional reports of rates of newborn falls are urgently needed to determine the true prevalence of this historically underreported event. We are implementing several strategies in our attempt to eliminate the risk of harm to newborns during their initial hospitalization and will continue to measure the rates of falls to see if we have been able to decrease their incidence. Standardized evaluation and management guidelines need to be developed to aid the clinician in the appropriate care of newborns experiencing this infrequent event. We call on others to measure their rate of newborn falls and work with us to call for the development of safer mother/baby beds in our hospitals.

**References**

For your Baby’s Safety:

We want this to be a safe environment for you and your baby. Parents, staff, and visitors all play an important part in helping us reach this goal. To help ensure you and your baby have a safe and enjoyable stay with us, here is a list of some of the security measures we use on our unit:

• Specialized training for staff in maintaining a secure and safe environment

• Security doors and video cameras throughout the Family Maternity Center

• Cards with a sample of your baby’s cord blood which contains your baby’s DNA
  – We do not keep a copy of this card; you have the only one
  – Store this card in a cool, dark safe place and in the provided glassine envelope
  – DNA samples are more reliable than foot or finger printing for identification purposes and in case of your child’s disappearance, this safety precaution will help with identification

• Bracelets with matching numbers for you, your baby, and your primary support person
  – You and your baby’s band numbers will be checked whenever your baby is separated from you and again when your baby is returned

• Do not sleep with your baby in your bed or while relaxing on the couch or chair
  – When you feel sleepy or plan on sleeping, place the baby in the bassinet
  – If you should fall asleep with your baby in your bed or arms, your nurse will move the baby to the bassinet
  – Accidental infant falls happen because of unfamiliar surroundings, the effects of medication and design of the hospital bed, couch, or chair
  – Obtain information regarding co-bedding at home from your newborn’s care provider.

• Babies are moved to and from the nursery or any other procedure area in their bassinet and may not be carried in the hallways
  – Only staff, you or your primary support person may have your baby outside your room

• Babies must remain in the Family Maternity Center at all times

• We will teach you steps you can take to keep your baby safe
  – Do not give your baby to anyone who is not wearing a Providence photo name badge and additional Family Maternity bright pink identification. Be sure the photo matches the person wearing the badge
  – Do not leave your baby alone in the room while you shower or go for a walk. A family member may watch the baby or you may discuss options with your nurse
  – If in doubt about anyone in your room, immediately call for your nurse
  – We encourage you to accompany your baby to and from any procedure

I have read and understand the above information.

Parent

Family Maternity RN

Date  Time
# Newborn Fall UOR Debrief Form

## Demographics

<table>
<thead>
<tr>
<th>Date of Event (MM/DD/YY)</th>
<th>Medford</th>
<th>Milwaukee</th>
<th>Newberg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Portland</td>
<td>Seaside</td>
<td>St. Vincent</td>
</tr>
<tr>
<td>Reported Location</td>
<td>Wilmotet Falls</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Situation (Describe the event)

**Who was involved in the newborn fall?**
- [ ] Mother
- [ ] Partner/family/visitor
- [ ] Staff

**Newborn fall involving the mother:**

- [ ] Vaginal
- [ ] Cesarean Section

**Maternal medications at the time of the fall:**
- [ ] None
- [ ] Narcotics
- [ ] Epidural
- [ ] Ambien, other "sleepers"
- [ ] Magnesium
- [ ] Other medication: List:

**Time medication last administered prior to newborn fall**
- [ ] Not Applicable, if none checked above

**Documented maternal history of substance abuse**
- [ ] Yes
- [ ] No
- [ ] If yes, Pt history:
- [ ] Positive UDS

**Other adults in the room at the time of the fall?**
- [ ] Yes
- [ ] No

**Other adults awake?**
- [ ] Yes
- [ ] No

**Estimated time between newborn being placed in the maternal bed and nursing staff coming back in the room on rounds? In Minutes:**

**Estimated time between newborn being placed in the maternal bed and the fall/drop? In minutes:**

**Estimated time out of line of vision (i.e. behind privacy screens, etc.) (PSWMC NICU ONLY) In minutes:**

## Type of Newborn Fall Involving Mother of Newborn (Choose one)

- [ ] From Maternal Hospital Bed
  - Mother fell asleep, newborn fell off bed onto the floor
  - Mother awake, newborn fell off bed onto the floor

- [ ] Ambulation
  - Mother ambulating with newborn and fell/dropped with newborn

- [ ] Mother in Rocking Chair or Room Chair, fell asleep & newborn fell to floor
  - Rocking Chair
  - Room Chair
  - Other

- [ ] Other event leading to fall or drop of the newborn

**Bed detail**
- [ ] Stryker L & D Bed
- [ ] Hill Rom L & D Bed
- [ ] Hill Rom Postpartum Bed

**Side rails up**
- [ ] Yes
- [ ] No

**Bed height**
- [ ] Low position
- [ ] High position

**Head of Bed Elevated**
- [ ] Yes
- [ ] No

**Pillows lining bed rails**
- [ ] Yes
- [ ] No

**Factors in ambulation fall/drops:**
- [ ] Equipment (IV lines, phone cord, call light cord, etc.)
- [ ] Room conditions (Fluids on floor, furniture in the way, bedding on the floor, etc.)

**Comments**

---

Please go to page 2

Page 1 of 2
<table>
<thead>
<tr>
<th>Type of Newborn Fall involving partner, family or visitor (Choose one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Ambulation</td>
</tr>
<tr>
<td>☐ Family member/visitor walking with newborn &amp; fell/held with newborn</td>
</tr>
<tr>
<td>Factors in ambulation fall/drops:</td>
</tr>
<tr>
<td>☐ Equipment (IV lines, phone cord, call light cord, etc)</td>
</tr>
<tr>
<td>☐ Room conditions (Fluids on floor, furniture in the way, bedding on the floor, etc)</td>
</tr>
<tr>
<td>☐ Partner, family member, visitor in Rocking Chair or Room Chair, fell asleep &amp; newborn fell to floor</td>
</tr>
<tr>
<td>☐ Crib</td>
</tr>
<tr>
<td>☐ Rocking Chair</td>
</tr>
<tr>
<td>☐ Room Chair</td>
</tr>
<tr>
<td>☐ Other event leading to fall or drop of the newborn</td>
</tr>
</tbody>
</table>

| Comments: |

Complete the following sections for all newborn fall types:

Identification that newborn had fallen:
- ☐ Mother awake or woke up when newborn fell
- ☐ Nursing staff came in the room and identified the newborn had fallen
- ☐ Other identification of newborn fall
- ☐ Comments:

Did fall occur from isolette or warmer?
- ☐ Yes ☐ No

Immediate parental report to nursing staff?
- ☐ Yes ☐ No ☐ Unknown

Newborn injuries identified?
- ☐ Yes ☐ No ☐ If yes, ☐ Describe injury

Estimated distance newborn fell:
- Inches: [ ]
- Feet: [ ]

Newborn provider notified?
- ☐ Yes ☐ No ☐ Care Provider Name: [ ]

Newborn on frequent observation?
- ☐ Yes ☐ No

Newborn moved to Nursery/ICU?
- ☐ Yes ☐ No

Were there any diagnostic tests completed?
- ☐ Yes ☐ No ☐ List tests: [ ]

Newborn safety contract reviewed and signed on admission??
- ☐ Yes ☐ No

No co-sleeping policy verbally reinforced by nursing staff to mother and family members?
- ☐ Yes ☐ No

Visual reminders of no co-sleeping policy in the maternal hospital room
- ☐ Yes ☐ No

Fall appropriately documented in the medical record (event, physical exam, interventions, MD notification, no reference to a LOR)
- ☐ Yes ☐ No
Appendix D: Preventing Falls Without the Use of Restraint

Falls account for more than 40% of all sentinel events reported to JCAHO.* In their efforts to reduce the number of falls, some organizations have turned to the use of restraints to prevent falls that can lead to serious injury, especially among the frail elderly. Although many organizations have instituted restraint reduction programs, some still point to staff shortages, budget cuts, and an increasing influx of older care recipients as reasons for using restraints to prevent falls. But how do you keep your care recipients safe from injury and still reduce restraint use? There are several key elements to an effective restraint reduction program: staff education, effective assessment, use of alternative interventions, and maintenance of a safe environment.

Educating Staff

Interdisciplinary collaboration and the commitment of all care staff are prerequisites for reducing or eliminating restraint use for care recipients who are at high risk for falls. Orientation, ongoing education, and competency assessments should address the following myths and facts1-4:

**Myth:** Restraint use decreases the number of falls and fall-related injuries.

**Fact:** Although the number of falls may be higher in a restraint-free environment, studies in nursing homes and assisted living facilities have indicated that injury severity is significantly lower in a restraint-free environment than in a facility that uses restraints. Care recipients can incur more serious injuries by trying to escape restraints than in “supervised” falls.

**Myth:** Use of restraints requires fewer staff. **Fact:** Although observation and supervision of unrestrained care recipients is more labor intensive than using restraints, these tasks can be shared among the interdisciplinary team.

**Myth:** No effective alternatives exist.

**Fact:** Many organizations have found highly effective interventions to prevent falls and protect high-risk care recipients.

The more knowledge staff have about safety and appropriate interventions, and the more disciplines that participate in implementing these interventions, the more effective your falls prevention program will be.

Assessing Care Recipient Risk

The first step in preventing falls is to correctly assess a care recipient’s risk of falling and then plan care interventions accordingly. Many organizations build this risk assessment into the initial nursing assessment that is performed on admission. Some use a risk assessment tool that probes about risk factors such as a history of previous falls, mental status, communication/sensory/auditory deficits, medications, urinary alterations, and emotional upset.

Getting input from family members is also important for proper assessment. Families can tell staff about a care recipient’s habits and behaviors in advance, such as toileting habits or whether the care recipient tends to wander or becomes agitated about certain things. Soliciting this information during assessment can be an excellent introduction to falls prevention and safety.

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* As of May 1, 2002. To see all sentinel event related statistics, visit [www.jcaho.org](http://www.jcaho.org), select Accredited Organizations, then your program, and then Sentinel Events, then Sentinel Event Statistics.
To adopt a risk assessment tool, you should look for one that is easy to use and has been tested with similar care recipient populations. Consider tools that have been used in long term care settings; more than 75% of care recipients who fall in hospitals are elderly, and studies for this population can be adapted to many settings.

Finding Effective Alternatives

Falls prevention encompasses all disciplines. For example, medical-surgical patients with decreased mobility may need physical and/or occupational therapy to regain strength and coordination, which may involve therapists, nurses, pharmacists, and others. All staff should know which care recipients are at high risk of falling. An alert system can encourage any staff who pass a specific care recipient’s room to check on that individual’s safety and ask whether he or she needs water or help with toileting.

### Alternatives to Restraint Use

**Alternatives for managing aggressive behavior**
- Use deescalation and other verbal intervention techniques
- Implement behavior modification or token economy programs, which offer incentives for individuals to engage in desirable, functional behaviors
- Use time-outs
- Alter the care environment
- Offer relaxation, exercise, and diversionary activities

**Alternatives for maintaining therapy**
- Assess the need for therapy and explore therapy alternatives
- Enhance education and communication
- Encourage participation of families and volunteers
- Protect treatment devices
- Modify the care environment
- Address physiological needs
- Provide diversionary activities
- Use sensors and alarms

**Alternatives for preventing wandering and falls: physical and physiological measures**
- Offer exercise and ambulation programs
- Meet individual’s food, liquid, and toileting needs
- Maximize independence care

**Alternatives for preventing wandering and falls: psychological measures**
- Provide for companionship
- Offer diversionary activities
- Reorient the individual
- Promote relaxation techniques
- Enhance communication

**Environmental measures**
- Orient individual to care environment
- Ensure safe space layout and clear paths
- Use or modify space to enable close observation of at-risk individuals
- Ensure proper lighting and noise control
- Ensure provision and use of proper seating and assistive and positioning devices
- Ensure accessibility of objects of daily living and call lights
- Adapt beds to reduce fall risk
- Adapt or remove siderails


Distraction can also reduce agitation in both pediatric and geriatric care recipients who want to get out of bed or a wheelchair. Some organizations create lounge areas where elderly residents can play cards or watch television; others position residents in wheelchairs near nurses’ stations so that residents can see people and staff can talk to them frequently. Many organizations use pet therapy to calm agitation. Organizations with large pediatric populations often keep a variety of toys and games to calm upset patients and provide diversionary activities.

Using interventions that are appropriate to the individual care recipient is very important. Although guidelines and care plans can offer suggestions, staff need to judge the suitability of interventions for each individual.
Creating a Safe Environment

The environment can affect a care recipient’s behavior and the level of injury. Organizations cannot prevent every fall, but staff can make sure that care recipients are in a safe, supervised environment so that if care recipients do fall, they are unlikely to suffer serious injury.

Adapting the environment for high-risk care recipients ranges from taking simple, common-sense precautions to using high-tech adaptive devices. For example, moving furniture out of the care recipient’s path to the bathroom and removing all unnecessary furniture can help ambulatory care recipients. Good lighting helps those with poor vision, and reduced noise can calm agitated individuals. Confused care recipients can be reassured with familiar objects, such as family photos or bulletin boards with the date, nurses’ names, and times for meals.

Looking at What Your Organization is Doing

If your organization is still using restraints to prevent falls, it may be time to revisit your falls prevention program. Restraints affect not only the care recipient (whose emotions may range from anger to humiliation to fear) but also the staff who must apply them and often feel resulting guilt or depression. If you look at your population(s), current risk assessment tools, fall interventions, and environment of care, you might find that there are a number of small or large adjustments that can improve your program and reduce your use of restraints.

JCAHO Expectations

JCAHO standards require that the use of restraint and seclusion be limited through leadership commitment “and clinically justifiable,” addressed in an approved clinical protocol when appropriate and initiated by individual orders, and documented in the clinical record.

CAMBHC: TX.3 through TX.3.19.5; CAMH: TX.7.1 through TX.7.1.16; and CAMLTC: TX.8 and TX.8.1.

References

Appendix E: Strategies for Reducing Restraint Use

Assessing organizational, equipment, communication, and environmental factors

Restraints have caused patients significant injury, treatment complications, and even death, yet a number of hospitals and nursing homes still use them.¹

Although preventing falls and other injuries can be a challenge for health care organizations, evidence shows that health care providers can apply alternatives to restraints without increasing negative outcomes. Some research shows that these alternative methods may even decrease adverse outcomes.²

Physical restraints include any method or device that restricts a patient’s freedom of movement or access to his or her body and that the individual cannot easily remove.³ These may include the following³:

- Limb and waist restraints
- Hand mitts
- Geri-chairs
- Over-the-bed tables and trays
- Chairs or recliners from which a patient is unable to get up on his or her own
- Seclusion

Patients with dementia are at high risk for restraint due to impaired memory and cognitive declines in language, judgment, and visual perception. They are at increased risk of experiencing delirium, agitation, anxiety, or psychosis.¹ Providers may also restrain patients who are at risk of falling, those with multiple tubes and lines, and patients with behavioral symptoms.

Research shows that when frail older adults with cognitive impairments are restrained in the hospital, they experience negative emotional responses such as fear, resistance, humiliation, and demoralization, and they frequently recall the restraint event after being discharged.¹ “We interviewed women in their 80s and 90s who were very articulate yet had been restrained in the hospital,” says Lois Evans, Ph.D., R.N., F.A.A.N., professor and program director, Psychiatric-Mental Health Nursing, University of Pennsylvania School of Nursing, Philadelphia. “They fully remembered the experience and had difficulty reconciling their views of themselves with what had happened. This occurs because cognitive impairment is frequently temporary due to factors such as medications, dehydration, electrolyte imbalance, or untreated pain. Another problem is that nurses frequently assume that the elderly are demented and confused, and they want to protect them. Restraint use is often instituted quickly, particularly if the patient came from a nursing home.” (See Sidebar 1, below, for more risks associated with the use of restraints.)

Sidebar 1. Risks Associated with the Use of Restraints

<table>
<thead>
<tr>
<th>Physiological³</th>
<th>Psychological³</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Injuries</td>
<td>• Fear</td>
</tr>
<tr>
<td>• Falls</td>
<td>• Depression</td>
</tr>
<tr>
<td>• Incontinence</td>
<td>• Feelings of low self-worth</td>
</tr>
<tr>
<td>• Malnutrition</td>
<td>• Frustration</td>
</tr>
<tr>
<td>• Dehydration</td>
<td>• Anxiety</td>
</tr>
<tr>
<td>• Loss of muscle mass</td>
<td>• Anger</td>
</tr>
<tr>
<td>• Skin tears</td>
<td></td>
</tr>
<tr>
<td>• Pressure ulcers</td>
<td></td>
</tr>
<tr>
<td>• Heart rhythm disturbances</td>
<td></td>
</tr>
<tr>
<td>• Infection</td>
<td></td>
</tr>
</tbody>
</table>

Some providers are instituting behavioral approaches to reducing restraint use, and evidence is mounting to demonstrate that behavioral approaches can provide useful alternatives to reliance on seclusion, restraint, and psychotropic medications.⁴ According to Evans, the standard of care should be that patients are not restrained. “The fact that hospitals are still using restraints means we haven’t discovered all the evidence-based alternatives. They’re something to fall back on when we don’t have all the answers.” Neville Strumpf,
Ph.D., R.N., F.A.A.N., director, Hartford Center of Geriatric Nursing Excellence, and professor, School of Nursing, University of Pennsylvania, Philadelphia, agrees. “It’s my personal bias after 20 years of research that the use of restraints is never in the best interest of patients or staff. In fact, research done by myself and others suggests that restraint use actually intensifies many underlying problems. Something has to be done alternatively.”

**Strategies for Reducing the Use of Restraints**

Strategies for reducing restraint use may differ, based on whether the restraints are being used for medical/surgical reasons or behavioral issues. “No matter what the reason, whether a patient is pulling out tubes or behaving aggressively, he or she is trying to communicate a need,” says Evans. “We need to look for the underlying reasons for the behavior.” Strumpf believes the first step should be a careful assessment of what is causing the problem. “If a patient is pulling at tubes, is he or she in pain? Are all of the tubes still essential to the patient’s care? Can any of the tube sites be padded? The underlying problem needs to be examined to find an appropriate solution.”

Evans agrees, saying, “If a patient has multiple tubes or lines, we need to look at each one and ask ourselves if he or she still needs that level of care. For example, nurses sometimes leave in IV [intravenous] lines for the entire length of a patient’s stay so they don’t have to reinsert if the need arises. This can be uncomfortable for the patient, so we need to allow for alternatives, such as the use of oral medications.”

Evans also provides alternative strategies for reducing restraint use for patients who are at risk for falls. “Some organizations are using beds that lower closer to the floor. The standard hospital bed only lowers to three feet from the floor, and a lot of elderly people can’t put their feet on the floor from a sitting position. People also need to be up and weight bearing as much as possible and be given physical therapy from day one. Other things to consider are making sure the path to the bathroom is well lit and bedside commodes are provided, if needed.”

Margaret Knight, Ph.D., A.P.R.N., B.C., assistant professor, University of Massachusetts-Lowell, provides insight into the use of restraints for behavioral issues. “We need to recognize that patients don’t always understand what’s going on when they are acutely psychotic and not all staff is professionally educated at the level where they can pick up on factors that may lead to escalating behavior well in advance. It’s important to assess patients and implement interventions in advance of behavioral problems. Nonprofessional staff may not have a full appreciation of a patient’s cognitive problems and may not realize that some of these patients aren’t processing the same way as a person who does not have a psychiatric disorder.” Knight offers the following strategies for reducing the use of restraints for behavioral reasons:

- Provide brief and clear communication
- Explain unit routines to patients
- Engage patients in activities
- Offer emotional support
- Provide sensory interventions, such as rocking chairs or weighted blankets

### Sidebar 2. Educating Staff

- One of the keys to ensuring staff compliance is education. This may include the following:
  - A working definition of what constitutes a restraint
  - An understanding of the reasons restraints are unacceptable
  - A debunking of myths, such as the misconception that restraints improve patient safety
  - An understanding of the negative impact of restraints
  - Examples of appropriate restraint-free approaches to caring for patients
According to Evans, surveillance is a major factor in reducing the use of restraints. “In the old days, hospitals had ‘Nightingale wards,’ which were rooms that held 18 to 20 patients. When the nurse walked by, she could see the patients, and the patients could see her. In today’s world of private rooms with solid doors, it’s difficult to provide the necessary level of surveillance to keep patients safe. We need to come up with sound ways of enhancing surveillance.”

**Organizational Strategies for Restraint Reduction**

Organizations can do several things to assist staff in reducing the use of restraints. “Organizations need to commit to a restraint-free environment as their standard of care,” Strumpf says. “In the absence of that, it’s difficult for a lone nurse to implement that philosophy of care.” In addition, Evans says, “It’s not up to the individual to try to implement organizational changes, although it helps to have a champion to rally for the cause. Each facility should have an interdisciplinary team that is heavily sanctioned by top leaders to take on this issue as a continuous quality improvement project. Staff should be educated, and data should be collected to ensure that the changes are improving patient safety.” (See Sidebar 2, page 28, for tips on educating staff on restraint reduction.) Evans offers the following potential resources for consideration by hospital leaders:

- Development of a falls reduction resource group
- Use of psychiatric consultation liaison nurses
- Use of geriatric resource nurses
- Development of a team that rounds regularly on patients who are at risk

“Feedback should be provided to staff on how well they are doing compared to a baseline,” Evans says. “Unfortunately, we don’t really have the data to provide a good benchmark.”

**References**

Appendix F: Systems Analysis: Assess Early and Often to Avoid Unnecessary Use of Restraint and Seclusion

Restraining and secluding patients is typically considered a last resort for direct care professionals treating patients in hospital, surgical, behavioral health care, or long term care settings. If not used properly, restraint and seclusion can often lead to patient injury or death. An ounce of prevention, however, can often help to avoid the use of restraint or seclusion altogether.

One of the most effective ways to avoid the use of restraint and seclusion is to make sure direct care professionals conduct timely and accurate assessments and reassessments of patients. Such evaluations may lead to interventions that will improve an individual’s overall status, eliminating the need for restraint or seclusion. In addition, accurate assessment allows caregivers to identify possible alternatives to restraint and seclusion.

To conduct successful assessments, direct care professionals need to do the following:

- Understand the JCAHO standards for restraint and seclusion that relate to assessment
- Conduct timely and routine assessments of individuals, in an attempt to continually update the need for restraint or seclusion
- Know how to assess individuals for some of the key characteristics often linked to use of restraint or seclusion, such as cognitive and behavioral status and physical status, including pain, toileting needs, physical strength, nutritional needs, and environmental factors

Standards Addressing the Role of Assessment in Reducing Restraint and Seclusion

To avoid the use of restraint and seclusion, health care professionals need to understand how the various restraint and seclusion standards are deployed in health care. For instance, when restraint or seclusion is used in behavioral health facilities, the following standard applies: "The initial assessment of each client at admission or intake assists in obtaining information about the client that could help minimize the use of restraint or seclusion."

With this standard as a guide, health care professionals should consider the following during the assessment process:

- Techniques, methods, or tools that will help the individual control his or her behavior
- Preexisting medical conditions or any physical disabilities and limitations that would place the individual at greater risk during restraint or seclusion
- Any history of sexual or physical abuse that would place the individual at greater psychological risk during restraint or seclusion

In addition, during the assessment, health care professionals should do the following:

- Inform the individual and/or family of the organization’s philosophy on the use of restraint and seclusion to the extent that such information is not clinically contraindicated.
- Discuss with the individual the role of the family, including the family’s notification of a restraint or seclusion episode. If appropriate from a confidentiality standpoint, also discuss the role of the family with family members, themselves.
- Determine whether the individual has an advance directive on behavioral health care and ensure that direct care staff members are made aware of the particulars of that directive.

This standard clearly states that the decision to use restraint or seclusion is not made on the basis of information such as an individual’s diagnosis or prior history. Rather, the decision is based on the individual’s current needs in the immediate care environment.
In the hospital setting, the following standard applies: "The initial assessment of each patient at admission or intake assists in obtaining information about the patient that could help minimize the use of restraint or seclusion."

Yet another standard is used for long-term care organizations. The restraint standard for these organizations is as follows: "The organization designs a system to achieve a restraint-free environment." An element of performance for this standard further clarifies the role of assessment by stating the following: "The decision to use restraints is based on an assessment of the resident’s needs and is never based solely on a request from a resident’s representative."

Assess Now-And Later

In addition to understanding the restraint standards for particular situations, health care professionals need to conduct assessments in a timely manner to reduce restraint-related injuries or death. The failure to do so, however, is a nagging problem for many health care organizations.

When conducting assessments to determine the need for restraint or seclusion, health care professionals should collect data in two areas:

- **Health history**: This information can be obtained from interviews of the individual, his or her family, past care providers, and a review of the individual’s clinical record. Particular attention should be paid to items such as medical or behavioral diagnosis, relevant medications, and history of falls, aggression, and other behaviors and factors that continue to put the individual at risk. Health care professionals should carefully obtain this information. Persons aware of the individual’s current behavior and status can provide reliable information and, thereby, serve as a great resource. On the other hand, relatives or friends from out of town or who have infrequent contact cannot provide such information.

- **Physical examination**: These data are obtained through an examination of the individual, focusing on such factors as cognitive status, blood pressure, pain, sleep, continence, gait, and strength. Assessment of cognitive status, however, may require a more in-depth assessment, such as a Mini-Mental Test.

In addition, physical examinations should adequately assess the following for the individual:

- **Risk for falls**: Many physical conditions can increase an individual’s fall risk, which is one of the most frequent reasons restraints are used.

- **Nutritional status**: Nutrition can affect an individual’s level of cognition, which in turn can directly affect the need for restraint. Quickly identifying nutritional issues such as dehydration and malnutrition can improve the cognitive status of individuals. Nutritional assessments typically require accurately recording a person’s food and fluid intake.

- **Physical strength**: An evaluation of the individual’s physical strength is crucial. Through timely assessment and care planning, nurses can help to ensure that physically weak individuals participate in muscle strengthening programs to improve sitting balance and eliminate the need for restraint.

- **Pain management needs**: Frequent attempts to get out of bed or out of restraints are motivated by the individual’s need for maximum comfort and relief of pain. Individuals with cognitive impairments might become agitated or aggressive when experiencing pain but might not be able to verbally express how they feel. Therefore, health care professionals should assess pain on admission and reassess on an ongoing basis. Typically, an individual’s self-report of pain is measured by using pain scales, such as numeric or descriptive pain intensity scales.

- **Toileting needs**: Health care professionals should assess the individual’s bowel and bladder functions and develop a care plan that meets toileting needs. For example, a care plan might require caregivers to help the individual to the bathroom every few hours.
• **Medication usage:** Initial and ongoing assessments should obtain information about the medications that the individual is taking. Certain drugs, of course, can affect whether an individual is at increased risk for use of restraint or seclusion, and several types of medications have been linked with increased fall risk, which itself is highly correlated with restraint use.

### How Much Assessment?

The depth of assessment should vary according to the needs of each individual. For instance, those who can communicate, listen, and solve problems are likely to be at lower risk for restraint or seclusion than individuals who experience communication difficulties or who have a history of aggression.

Assessment depth is also dependent on the type of services being provided. A behavioral health facility providing inpatient and outpatient services to children and adolescents, for example, should fully assess each individual’s potential for violence.

Certain types of patients are also at greater risk for restraint, and therefore require more in-depth assessment. For example, pediatric patients in acute care settings are likely to display behaviors that put them at risk for restraint. Health care professionals should be particularly vigilant in their assessment of pediatric patients. Asking questions that reveal whether the child understands what is expected of him or her and whether the child has the ability to participate in his or her own care can help caregivers determine whether patients are vulnerable.

The environment can also affect the need for assessment. Surroundings can have a significant impact on behavior and, thus, the need for restraint or seclusion. For example, for some individuals, exposure to an activity room full of unfamiliar people can increase agitation. Unsafe conditions such as uneven floors, poor lighting, or out-of-reach call bells can also affect the need for assessment.

In conclusion, health care professionals need to quickly conduct initial assessments of individuals in order to determine the need for restraint or seclusion. Ongoing assessments are also important to stay on top of an individual’s status and possible need for restraint or seclusion. All in all, adopting a proactive assessment strategy is one of the best ways to help reduce the need for measures such as restraint and seclusion.

### Source

Appendix G: Faculty Biographies

Burt Thelander, P.M.H.C.N.S-B.C, N.E-B.C.
Field Representative
The Joint Commission
Associate Director
Lincoln Hospital
New York, New York

Mr. Thelander surveys hospital organizations with The Joint Commission and is employed part time as Associate Director in the Quality Management Department of a New York City Health and Hospitals Corporation (NYCHHC) organization.

Prior to his work with The Joint Commission and NYCHHC, Mr. Thelander had behavioral experience as a Clinical Nurse Specialist working with adults in New York State (NYS) public mental health inpatient and ambulatory care service systems. He has extensive experience as a Nurse Leader, functioning for several years as the Director of Nursing and Director of Advanced Clinical Practice within moderate and large NYS public mental health service systems.

Mr. Thelander received his A.A.S. in Nursing from Orange County Community College, Middletown, New York; his B.A. in Psychology from Binghamton University, New York; and his M.S. in Psychiatric Nursing from Pace University, Pleasantville, New York. He is licensed as a Registered Nurse in NYS. He is certified by the American Nurse Credentialing Center as a Psychiatric Mental Health Clinical Nurse Specialist and Nurse Executive. He actively participates in legislative and clinical practice advocacy within the American Nurse Association and the NYS Nurse Association, and is a member of Sigma Theta Tau.  

*Mr. Thelander is an employee of The Joint Commission.*

Jacquelyn W. Duplantis, R.N., MSN
Surveyor
The Joint Commission

Ms. Duplantis has surveyed with The Joint Commission since 1993. She is currently trained and certified to survey hospitals, long-term care, critical access hospitals, and home care.

Prior to her work as a surveyor, she was the Vice President of Patient Services for a moderate-sized community hospital. Ms. Duplantis also served as the Director of Nursing, as well as Director of Women’s and Children’s Services. Her clinical background includes Staff Nursing (general surgery, newborn nursery, medical nursing units, and OB/GYN physician's office), Inservice Education Instructor Manager (general surgery unit, gynecology/OB overflow/IVF unit, and a bone marrow transplant unit), and an Adjunct Instructor for a Master's Program at the University of Texas Health Science Center of San Antonio, San Antonio, Texas.

Ms. Duplantis received her BSN degree from the University of Texas, Austin, Texas, and her MSN degree from the University of Texas Health Science Center of San Antonio, San Antonio, Texas. She has been licensed as a registered nurse in Texas since 1970. Currently, Ms. Duplantis is a member of Sigma Theta Tau, the Oncology Nursing Society, The American Organization of Nurse Executives, and the American Nursing Association.

*Ms. Duplantis is an employee of The Joint Commission.*
Appendix H: Post-Test

To be eligible for CE credit, you MUST view the video presentation and read the Resource Guide first. Then complete the post-test at http://jcrqsn.mcnhealthcare.com by the due date listed online.

1. What is the first step in preventing patient falls in the hospital setting?
   a. Assess the patient's risk of falling.
   b. Communicate the hospital's falls policy with the family.
   c. Properly prepare the patient's room.
   d. None of the above.

2. During an onsite Joint Commission survey, the survey team may evaluate an organization's approach to falls prevention via an Individual Tracer.
   a. True
   b. False

3. Generally speaking, as a falls prevention strategy, restraints should be used _____.
   a. only in the ED
   b. to help hold a patient in a wheelchair
   c. when staffing is at a low level, such as at night
   d. only as a last resort

4. The simulated patient traced at Harlem Hospital Center had experienced _____.
   a. an amputation
   b. vertigo
   c. a stroke
   d. a heart attack

5. The simulated patient traced at Audie Murphy Memorial VA Hospital has a history of _____.
   a. Parkinson's disease
   b. schizoaffective disorder and dementia
   c. lung cancer
   d. Alzheimer's disease

6. Which of the following activities can have a positive impact in preventing patients from falling?
   a. Staff education.
   b. Interventions such as non-skid socks.
   c. Maintenance of a safe environment.
   d. All of the above.

7. Effective communication between staff has little effect on preventing patient falls.
   a. True
   b. False

8. In the simulation at Harlem Hospital Center, the hospital's falls prevention strategy was evaluated via an individual tracer and also during the _____.
   a. Leadership Session
   b. Medication Management System Tracer
   c. Data Management System Tracer
   d. Environment of Care Session
9. Effective interventions against falls include _____.
   a. exercise and ambulation programs
   b. promoting normal sleep patterns
   c. evaluation of medications
   d. All of the above.

10. Hospitals should strive to reduce falls and injuries related to falls, while at the same time reducing the use of restraints to the lowest possible level.
   a. True
   b. False
Appendix I: Related Information and Resources

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**Centers for Medicare & Medicaid Services Conditions of Participation**

The following CoPs (Rev.47.06-05-09) relate to assessment, care plans, fall prevention, and restraint use. This list is not all-inclusive.

- A-0154; 482.13(e) Standard: restraint or seclusion
- A-0159; 482.13(e) (1) definition of restraint
- A-0160; 482.13 (e)(1)(i)(B) restraint as drug or medication
- A-0161; 482.13(e)(1)(i)(C) restraint does not include specific devices/interventions
- A-0169; 482.13(e)(6) orders for restraint/seclusion can not be standing/PRN orders, with exceptions for geri chairs, side rails, etc.
- A-0173; 482.13(e)(8)(iii) restraint orders for physical safety for non-violent or non destructive patients
- A-0196; 482.13(f)(1) staff training intervals
- A-0199; 482.13(f)(2) training content
- A-0263 through A-0317; 482.21 CoP QA and PI Program

**Electronic Resources**

[The Joint Commission](http://www.jointcommission.org)

[Joint Commission Resources](http://www.jcrinc.com/)

**NOTE:** The Internet is an ever-evolving environment and links are subject to change without notice.
Appendix J: Continuing Education Credit Information

Accreditation Council for Continuing Medical Education

Joint Commission Resources is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Joint Commission Resources designates this educational activity for a maximum of 1.0 AMA PRA Category 1 Credit™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

American Nurses Credentialing Center's Commission on Accreditation

Joint Commission Resources is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation. Joint Commission Resources designates this continuing nursing education activity for 1 contact hour. Accreditation by the American Nurses Credentialing Center's Commission on Accreditation refers to recognition of educational activities and does not imply approval or endorsement of any product.

American College of Healthcare Executives

Joint Commission Resources is authorized to award 1 hour of pre-approved Category II (non-ACHE) continuing education credit for this program toward advancement, or recertification in the American College of Healthcare Executives. Participants in this program wishing to have the continuing education hours applied toward Category II credit should list their attendance when applying for advancement or recertification in ACHE.

Full attendance at every session is a prerequisite for receiving full continuing education credits. If a participant needs to leave early, their continuing education credits will need to be reduced.

National Association for Healthcare Quality

This activity has been approved by the National Association for Healthcare Quality (NAHQ) for 1.0 Certified Professional Healthcare Quality (CPHQ) CE credit.

Successful completion of this CE activity includes the following:
• View the presentation and read the accompanying Resource Guide.
• Complete the online Evaluation Form and Post Test.
• A CE certificate/statement of credit can be printed online following successful completion of the Post Test and the Evaluation Form.

NOTE: This information applies to The Joint Commission Resources Quality & Safety Network program titled, Restraint Use and Preventing Patient Falls, originally presented on Thursday, June 23, 2011 from 2:00 - 3:00 p.m. ET.

There is no individual participant fee for this educational activity.
Appendix K: Discipline Codes: Instructions

Some of our programs are accredited for more than one discipline. To ensure that we issue each participant a certificate by the appropriate accrediting body, we ask that you supply us with the following information:

1. The two-digit discipline code
2. Followed by the position code

Example: For a medical doctor, use: 10 MD

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Appendix L: JCR Quality & Safety Network Contact Information

General information, customer service issues, or program reception problems?
If you have questions or need technical assistance, please contact the JCRQSN Customer Service Team via e-mail at support@jcrqsn.com or call toll-free 1-888-219-4678

To provide feedback or comment on JCRQSN educational programming
Please contact:
George Riccio
Associate Director of Video and Satellite Service
Joint Commission Resources 630-792-5428

Continuing education questions?
Please contact:
JCRQSN Continuing Education Support Team 1-888-219-4678
support@jcrqsn.com

Questions about standards?
Standards Interpretation Group 630-792-5900

Questions about JCR education or other resources?
JCR Customer Service Center 877-223-6866

VA Knowledge Network Questions?
Contact Rose Monfore 714-283-4746