Tip Sheet
Promoting Mobility, Reducing Falls and Alarms

WHAT IT IS:
Promoting mobility means building and maintaining core strength, endurance and balance, and providing supports to enable residents to move around safely with as much independence as possible. Promoting mobility prevents many falls with injury because weight-bearing activity strengthens bones and continued movement maintains flexibility.

Alarms, by contrast, inhibit mobility and thus are inherently counterproductive as a fall prevention strategy. Originally designed as a diagnostic tool to be used for a short period of time to learn residents’ routines and thus anticipate their needs, their use has proliferated over the past twenty years to the point where alarms have become the default practice in response to a fall, or out of fear that a fall may occur. Using alarms as an automatic intervention overlooks the process of root cause analysis and designing interventions that actually address the root cause of the fall. For example, staff from a home that began to promote mobility and reduce alarms discovered that a resident fell because the tennis balls on the bottom of the walker had worn out. While in the past they would have used an alarm, which would have restricted his mobility, instead they aided the man’s continued mobility by putting on new tennis balls. As simple as this sounds, when alarms are the default intervention, the true root cause is missed.

With mounting evidence about the role mobility plays in reducing falls with injury, and about the damaging effects of alarms in restricting movement and socialization, CMS issued new Quality of Life Survey Guidelines in 2009 calling the use of alarms an institutional practice nursing homes should “strive to eliminate.”

WHY IT IS IMPORTANT:
Using our muscles builds our muscles. Unused muscles become de-conditioned. The adage “If you don’t use it, you lose it” is certainly true. According to Mary Tinetti, MD, in The Patient Who Falls, JAMA 2010, the most effective strategies for reducing falls are exercise, physical therapy,
cataract surgery, and medication reduction. A good way to prevent falls is to build muscle strength and bone density by engaging in weight bearing exercise, and eating foods that are rich in calcium and other bone building nutrients. Walking and transitioning from sitting to standing build our strength. These weight-bearing activities help maintain strong healthy bones, which lessens susceptibility to injury from a fall.

Joanne Rader, leader in the movement to reduce restraints, explains that restricting mobility contributes to falls and falls with injury. Alarms, like restraints, restrict mobility and have negative impacts on strength and gait, sleep, skin, appetite and digestion, social engagement and mood. They cause an “iatrogenic” decline, meaning an avoidable decline caused by the treatment rather than an “unavoidable” decline, which CMS Survey Guidelines define as a “natural progression of a resident’s disease or condition.”

There is also a learned reaction to alarms. From early childhood we have been taught that an alarm signals us to take action; they are a signal that we need to be alert to some danger. When a resident alarm goes off, there is a tendency to respond to the alarm instead of the resident, taking action to eliminate the sound of the alarm and not to identify what the resident was doing or wanting that caused the alarm to be set off. Staff often come to the person whose rising has set off the alarm and say “sit down.” So do the residents in earshot of the alarm, which discourages alarmed residents from moving, or from engaging in any activity that might set the alarm off.

Because the noise an alarm produces is startling and piercing, it can startle a resident and actually contribute to a fall for any resident within earshot. A recent study documented the secondhand affects of alarms: residents who room with someone whose alarm sounds are more likely to have a fall. This happens because the non-alarmed resident is abruptly awakened when the alarm sounds, gets up to go to the bathroom and falls.

Rarely do alarms prevent falls. For staff in homes with a high alarm use often experience “alarm fatigue;” the alarm becomes “background noise” easily overlooked. Often alarms provide a “false sense of security” that, because the person has an alarm on, they do not need to be checked on because if they get up the alarm will sound. Sue Ann Guidermann likens the use of alarms to the timers used by cooks who can then go about their other activities and forget about what’s in the oven until the alarm sounds. The opposite is needed to promote safe mobility. When staff proactively anticipate residents’ patterns, needs, and indications of help, they promote mobility and independence while preventing falls.
**HOW TO DO IT:**
The four practices of consistent assignment, huddles, CNA involvement in care planning and QI closest to the resident provide the foundation for an effective process. When staff know residents well through consistent assignment, they can communicate regularly through shift huddles and engage in interdisciplinary on-the-spot problem solving to make adjustments needed to promote safe mobility.

- **Focus on three areas to promote safe mobility and reduce alarms and falls:**
  1. **Address risks:** Know how each person functions in their environment and identify external and internal risks. Consistently assigned CNAs’ insights and observations related to fall risk are important contributions to the process.
  2. **Individualize care:** Know each person’s customary routines to anticipate and be proactive in meeting their needs. Use adaptive devices and mobility aids to maximize safe mobility. Base interventions on thoughtful, skilled assessment individualized to each person’s risks, strengths, and circumstances.
  3. **Build mobility into daily routines:** Standing for a few extra seconds and walking a few extra steps increase core strength, endurance and balance. Decrease use of wheel chairs when residents can walk. Add sitting areas that provide opportunities to rest along the way as needed.

- **Involve the right people.** Have a champion from nursing management who has decision-making authority who can link your process with the assessment and care planning process. Involve staff who know residents best and will be implementing interventions. Include representatives from therapy, social services, and activities.

- **Decide on a process for alarm reduction and meet regularly as you undertake it.**
  Options include removing a few alarms each week starting with the easiest to remove, such as residents who are disconnecting them themselves or residents who haven’t fallen in a long time. Pilot test in one resident area or on one shift.
- **Assess why each alarmed resident is at risk for a fall.** Go right to the resident’s room to assess their normal motion and examine the site of the fall for clues and options. There are many helpful resources (including [www.joataylor.com](http://www.joataylor.com) and the work of Joanne Rader) on fall prevention assessments that note many risk factors including, medication, environmental factors (e.g. lighting, noise, seating, footwear) and clinical factors (e.g. pain, multiple medications, nutritional status). A contributing factor is often the resident’s own lack of core strength and balance.

- **Use a huddle QI process after each fall to debrief the fall with any staff that were close.** Find out what the resident needed. Find out the “antecedent” – what happened just prior to the fall. Sue Ann Guildermann suggests asking, *What was the resident doing just before they fell and what did the resident need that set them into motion?* She focuses on 4 P’s: Position, Personal Needs, Pain, and Placement of Possessions. These provide information on what a resident needed that set the resident into motion. The key is to know residents’ customary routines and signals. For example, do they need to get away from loud noises? Are they in pain? Do they need help to the bathroom?

- **Effective interventions address both the root cause and the resident’s needs.** *The root cause of the fall combines what makes a resident at risk for a fall with the details of what a resident needed at the time of the fall.* For example, a resident may fall because she has slippery footwear or poor balance. Her reason for getting up might have been to go to the bathroom or adjust to a more comfortable position. In this case, an effective intervention provides better footwear or strengthens balance, and also uses individualized knowledge of the resident’s customary routines to know the time of day she usually needs a trip to the bathroom so staff can be proactive in assisting her at that time. Note that noisy routines such as taking the garbage out at night or buffing the floor early in the morning, lack of staff availability at shift change, gaps in recharging the sit-to-stand machine battery, and other factors may contribute to a resident’s fall. Knowing residents’ rhythms of life will aid in preventing falls.

- **Use “Out of the Box” therapy.** The physical therapist, nurse and CNA function as a team to assess the residents’ room and other areas where they are at risk of falling. To help residents maintain and increase their mobility, use adaptive equipment, such as assist bars positioned to support the resident’s natural movements, skid strips, and seat cushions that...
help them stand more easily. Make changes to the residents’ environment such as turning the bed around to the resident’s strong side or lowering the closet bar and shelves so that items are easier to reach. Use visual cues (for example a colored toilet seat or a blue line that glows at night and leads to the bathroom). Teach CNAs techniques that build core strength and balance in everyday transfers and walking. Explore payment issues for coding evaluations, assistive devices, and therapy to determine if the cost for these interventions can be covered by insurance.

- **Partner with families.** Families have been taught that alarms prevent falls. Help families learn as you are learning about the unintended negative consequences of alarms in restricting mobility and socialization, and about the better practices that promote instead of restrict mobility. Enlist their knowledge, help, and advice and invite their participation in problem-solving. Keep them fully informed as you discover causes of falls and determine effective interventions.

- **Communication is key.** Use huddles for communication within and across shifts and with other departments so that staff can share what they are learning about residents’ customary routines and needs as well as effective methods for building strength and supporting safe mobility. Tools such as INTERACT™ Stop and Watch can help staff know what changes to note that might be contributing to increased risk of falls. Note new interventions in communication books, care plans, and CNA assignment sheets.

- **Incorporate better practices into assessment and care planning.** Shift goals from preventing movement to promoting mobility. Be agile: change plans on the spot as you learn what will work best for individual residents. Document your rationale for your strategies. Know and follow residents’ customary routines to anticipate when they will be getting up or needing to rest. Take a holistic approach not just a clinical approach: look at mood, behaviors, functional ability, and customary routines together to understand what a resident needs.

- **Involve medical staff.** Share your approach with your medical director and attending physicians so they are an educated and active part of this process, Medical Directors can take the lead in communicating the goals of mobility promotion and alarm elimination with other physicians, and with families.
RESOURCES:


∞ Pioneer Network’s website provides links to many affiliate organizations with resources to support homes in promoting mobility, reducing falls and alarms.

∞ Pioneer Network National Learning Collaborative Webinars 3 and 4 discuss promoting mobility, reducing alarms and falls. They are available for a fee for five on-demand viewings of each webinar. All 12 webinars are also available for purchase as a set of discs, at a discounted rate. To purchase viewings of one or more of the webinars, or the entire package of 12 webinars, go to www.PioneerNetwork.net.


∞ This tip sheet is from the Pioneer Network Starter Toolkit: Engaging Staff in Individualizing Care. The entire toolkit, with additional tip sheets, starter exercise and resources, is available at www.pioneernetwork.net/Providers/StarterToolkit.

Advancing Excellence in America’s Nursing Homes www.nhqualitycampaign.org

Data collection can help determine whether the changes being made are working, and continue to work. The Advancing Excellence in America’s Nursing Homes campaign has the tools and excel sheets for collecting data on consistent assignment (are we REALLY doing this?) and on Person Centered Care (are the wishes and preferences of the residents actually being delivered, and are the direct care workers attending and participating in the care plan meetings?), as well as other organizational and clinical goals. www.nhqualitycampaign.org
Free resources include video clips and two hand-outs to use for family education:

- 2006: MASSPRO case study “Nursing Home Alarm Elimination Program: It’s Possible to Reduce Falls by Eliminating Resident Alarms”
- Rethinking Use of Position Alarms by Rader, Frank, and Brady for Healthcentric Advisors and Pioneer Network

**Stop and Watch**, a nursing home communication tool, at [www.interact2.net](http://www.interact2.net)

Use the MDS Care Area Assessment (CAA) tools to guide you through the assessment or root cause analysis

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In addition, the full series is available as packaged DVD set in the [Pioneer Network store](http://eo2.commpartners.com/users/pioneerfive/all_series.php).