Objectives

- Discuss the inappropriateness of using personal alarms, their pros and cons and their impact on the safety and well-being of residents
- Explore evidence that indicates the elimination of alarms can lead to a decrease in falls and can create a more tranquil, homelike environment
- Identify the operational procedures for removing current personal alarms and for preventing the use of future personal alarms

Personal Alarms: definition

Personal alarms are alerting devices designed to emit a loud warning signal when a person moves. Architectural or building alarms are not an issue.

Most common types of personal alarms are:
- Pressure sensitive pads placed under the resident when they are sitting on chairs, in wheelchairs or when sleeping in bed
- A cord attached directly on the person's clothing with a pull-pin or magnet adhered to the alerting device
- Pressure sensitive mats on the floor
- Devices that emit light beams across a bed, chair, doorway
Our Journey to Eliminate Alarms

- Empira, a consortium of 16 SNFs, applies for and receives a MN PIPP 3-year grant to prevent resident falls in October 2008
- All facilities begin to collect post-fall data to address the root causes of the falls; time, day, date, place, etc.
- Early in the program, all facilities identify that most falls occur during the noisiest times of the day; shift change, meals service, alarms sounding
- Noise is identified as the major environmental factor contributing to falls
- Staff conversation, alarms and TV's are identified as some of the noisiest elements in our SNFs
- Alarm elimination is begun in May 2010

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Lesson learned: if we can stop the noise, then we can reduce the falls.
Why alarms? Historical Context:

- Prior to alarms, nursing homes used both physical and chemical restraints (and some continue to do so).
- 1980s: Joanne Rader, RN, PMNNP, began he campaign to eliminate restraints in SNFs. She is co-founder of Pioneer Network, and authored “Bathing Without a Battle.”
- 1992: Mary Tinetti MD, Annals of Intern Med, “Restraints in nursing homes were associated with continued, and increased, occurrence of serious fall-related injuries.”
- 1994: Laurence Rubenstein MD, JAMA, “Strategies that reduce mobility through use of restraints have been shown to be more harmful than beneficial and should be avoided at all costs.”
- 1990’s: CMS heads up a national movement in nursing homes to reduce and eliminate restraints, if not used “for medical purposes.”
- 2000’s: Restraints are replaced by personal alarms attached to or against the resident.

Why Alarms? Historical Context:

- 2006: MASSPRO the Quality Improvement Organization for Mass., publishes study called “Nursing Home Alarm Elimination Program: It’s Possible to Reduce Falls by Eliminating Resident Alarms.”
- 2007: CMS satellite broadcast training, “From Institutionalized to Individualized Care” mentions the “detriment of alarms and their effects on residents.” CMS sites MASSPRO alarm reduction project.
- “Individualized Care Pilot Project, Noise Reduction” June 2008, Oak Hill Nursing Center, RI.

Why Alarms? Historical Context:

- Dr. Steven Levenson, “Strategic Approaches to Improving the Care Delivery Process – Falls and Fall Risk” May 2010, Joint MN Statewide Training.
Challenges to Alarm Reduction: Myth versus Evidence

- More comfortable in holding onto the known
- Suspicious of the unknown

Quality of Life and Environment Tag Changes

CMS Division of Nursing Homes:
Survey and Certification Group
2007 24  &  2009 27

State & National CMS Surveyors:
2011

Case Study:
Nursing Home Alarm Elimination Program - It’s Possible to Reduce Falls by Eliminating Resident Alarms

www.masspro.org/NH/casestudies.php
F252 Environment (Cont.)

- Institutional practices that homes should strive to eliminate:
  - Overhead paging (this language has been there since 1990)
  - Meals served on trays in dining room
  - Institutional signage labeling rooms
  - Medication carts
  - Widespread use of audible seat and bed alarms
  - Mass purchased furniture
  - Nursing stations
- Most homes can't eliminate these quickly, this is a goal rather than a regulatory mandate

Alarm sound should be: “Hello, I have a need that you missed.”

Do a Root Cause Analysis:
Why did the alarm go off?
RCA: Why did the alarm go off? “Because the person was moving.” – No!

- RCA: What does the resident need, that set the alarm off?
- RCA: What was the resident doing just before the alarm went off?

Why might their alarms go off?

Alarm goes off: Staff reaction is counterintuitive

- Staff reaction is counterintuitive to everything we have ever learned or have been taught since childhood regarding alarms: “drop, roll, get out!”
- When an alarm goes off, usual staff reaction is to tell the resident, “Sit down.”
- This is opposite to what the resident has learned and confuses them!
- “A counterintuitive proposition is one that does not seem likely to be true when assessed using intuition or gut feelings.” – Merriam-Webster Dictionary
“Alarms Cause Reactionary Rather than Anticipatory Nursing”

“Sit down.” versus “What do you need.”

~ Theresa Laufmann, BSN
DON Oakview Terrace Nursing Home, Freeman, SD

Alarms Annul Our Attention

After you put something in the oven or microwave or clothes dryer, why do you set an alarm on (or the machine has an alarm) that goes off?

Case Study:

78 y.o. man is admitted in early stages of Alzheimers. He has been in the SNF for 3 weeks. He appears nervous and easily startled. One evening he gets a new roommate who has IVs infusing on a noisy pump. After being placed in bed at 8:00 PM the NAR hears his bed alarm go off at 11:00 PM and finds him sitting on the edge of his bed awake. He has been restless and sleeping for only short periods of time each night of his stay in the SNF. He appears very anxious and refuses to go back to bed. The NAR gets him up into his w/c and brings him down to the dayroom to watch tv. After about 10 minutes his w/c alarm goes off. The NAR tells him to sit back down and explains that she will be back shortly to stay and talk with him. A few minutes after leaving him, his alarm goes off again and she finds him lying on the floor.
Alarm Reduction
Quality Improvement Initiative from RCA

Idaho, February 6, 2012
Sue Ann Guildermann RN, BA, MA

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Alarm As a Diagnostic Tool

- “The only effective use for a personal alarm on a nursing home resident would be as a temporary diagnostic tool.”
  
  ~ Mary Tinetti, MD, Dept of Veterans Affairs; Transforming Fall Management Practices, 2009 Conference

- See: Alarm Tracking Tool

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Results of Alarm Reduction

Care Center #1: APR - JUNE 2010 FALL TIMES

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Results of Alarm Reduction

Care Center #2: Time of Falls April-June 2010

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How to Reduce Alarms

Multiple procedures & protocols to remove alarms. Begin by asking staff their preference:

- By resident status:
  - Begin hourly rounding on those residents who have fallen
  - No alarms on any new admission
  - Do not put an alarm on any resident who does not currently have one on
  - If resident has not fallen in ___ (30) days
  - If resident has a history of removing alarm
  - If alarm appears to scare, agitate, or confuse the resident
  - If resident has fallen with an alarm on, do not put it back on

- By unit, shift, specific times:
  - Begin hourly rounding on residents who have fallen
  - Start on day shift on 1 nursing household unit
  - Then go to 2 nursing household units on day shift
  - Then go to 2 shifts on 1 nursing/household unit
  - Then go to 2 shifts on 2 nursing/household units, etc.

  - Cold Turkey:
    - “All alarms will be removed by _______ (date.)

How to Reduce Alarms


- CMS 2007 satellite broadcast training. For more information about the detriments of alarms in terms of their effects on residents see the 2007 CMS satellite broadcast training, “From Institutionalized to Individualized Care.” For an excerpt on alarm reduction, see website: http://www.bandfconsultinginc.com/Site/Free_Resources/Entries/2009/7/Eliminating_Alarms_-_Reducing_Falls.html

- June 2010 Quality In Action Newsletter article, “What’s That Noise? An Account of the Journey to an Alarm Free Culture” By Morgan Hinley, Administrator of Mala Strana Health Care Center, an AHCA Bronz Quality Award winning facility, September 2011.

Legal Issues of Alarms


Hurdles & Challenges to Alarm Reduction

“The family’s want us to use them.”
“It prevents a resident from falling.”
“It warns us that they’re moving and about to fall.”
“It gets me to them faster if they’re on the floor.”
“The resident has ataxia and dementia and...”
“We don’t know what else to do.”

“Strategies that reduce mobility through the use of restraints AND ALARMS have been shown to be more harmful than beneficial and should be avoided at all costs.”

Action Steps

- Don’t be an advocate for alarms
- Encourage the reduction and discontinuance of alarms
- Did the facility determine RCA for why the alarm went off?
  What was the resident trying to do just before the alarm went off?
  What was the need the resident had that set the alarm off?
- If a resident falls with an alarm on, did the SNF put it back on?
  If it didn’t prevent the fall the first time, why continue to use it?
- Did the facility consider that the alarm might have contributed to the immobility, restrictiveness, discomfort, restlessness, agitation, sleep disturbance, incontinence of the resident?
- If a resident falls with an alarm on, did it sound? Was the alarm applied correctly? What was response time of staff to the alarm?
- Was the alarm used as a substitute for something else?
  Lack of staff? Busy staff? Poor supervision? Poor monitoring? Lack of or incorrect assessment of resident’s needs?

Family & Visitor Brochure

- See brochure:
True Story:
An 86 y.o. woman in advanced stages of Alzheimer’s was found on the floor of her room in front of her nightstand. When asked what she was trying to do just before she fell, she explained that the “rug” in front of her bed makes a loud noise when you step on it and that makes her roommate “get mad” at her. So she crawled to the edge of her bed, climbed up onto her nightstand, and fell off the nightstand. She was trying to avoid stepping on the pressure sensitive alarm floor mat when getting out of bed.

True Story:
At a recent educational workshop with nearly 80 nursing assistants attending, I asked for a volunteer from the audience to share what it was like to be working in a SNF that had become “alarm free” (because some of the NARs were from facilities that had not as yet started to reduce alarms.)
One young man stood up and told the others, “When we used to use alarms on residents I told people, ‘it was like working in a prison’ and now that we don’t use alarms any more, I tell people, ‘it’s like working in a country club’.”

Results from Last Collection Date
- Prevalence of Falls (number of residents who have fallen) – decreased by 31% (CMS QI 10/10)
- Incidence of Depression – decreased 20% (CMS QI 10/10)
- Worsening ADLs – decreased 17% (CMS QI 10/10)
- Worsening Room Movement – decreased 12% (CMS QI 10/10)
- Falls per 1000 resident days (number of falls that occurred) – decreased by 14%
- Recurrent Falls – double digits to single digit

* Compared to a baseline from July 1, 2006 to June 30, 2007
Alarm Use? Why?

- Why would you place an alarm on a resident? Reason for an alarm?

- In each of the situations you just listed: if you couldn’t use an alarm, what would you do instead?