

Restraint & Alarm Reduction: A Road to Quality Improvement



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Objectives

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



Change = Progress

- In 1991, 59% of residents in nursing homes in the USA, were restrained
- In 2011 the national average was 3%
- Target for 2012 is < 1%



- Minnesota Department of Health, *"Safety Without Restraints"*:
 - <http://www.health.state.mn.us/divs/fpc/safety.htm>

Nationally, restraint usage has been recognized as significantly contributing to the deterioration of a resident's physical and mental status. Potential negative outcomes of restraint usage include, but are not limited to:

- Decline in the resident's physical functioning (e.g., ambulation) and muscle condition;
- Contractures;
- Increased incidence of infections
- Development of pressure ulcers, delirium, agitation; and
- Incontinence.

Residents who are restrained face loss of autonomy, dignity and self respect, and may show symptoms of withdrawal, depression, or reduced social contact. Restraint usage can reduce independence, functional capacity and quality of life. Restraint usage may constitute an accident hazard as residents have been injured, sometimes fatally, attempting to get out of a restraint.

Virginia Department of Health: Consumer Guide to Restraint Use

<http://www.vdh.state.va.us/OLC/Laws/documents/NursingHomes/Consumer%20Restraint%20Guide.pdf>

Restraints: definition (F221)

- “Physical restraints are defined as any manual method or physical or mechanical device, material, or equipment attached to the resident’s body that the individual cannot remove easily, which restricts freedom of movement or normal access to one’s body.”
- “Physical restraints include:
 - Leg, arm, wrist, restraints
 - Hand mitts, soft ties or vests
 - Lap cushions, lap belts, lap buddy, lap vests, lap trays
 - Side rails
 - Chair or bed close to wall to prevent moving or rising”



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



Lesson learned:

if we can stop the noise,
then we can reduce the falls.



Why restraints? 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 her 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.

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Why Alarms? Historical Context: (See handout)

- 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 "detriments of alarms and their effects on residents." CMS sites MASSPRO alarm reduction project.
- Quality Partners of Road Island, Quality Support Center for the Nursing Home Quality Initiative. Positional Paper, "Rethinking the Use of Position Change Alarms" January 4, 2107.
- "Individualized Care Pilot Project, Noise Reduction" June 2008, Oak Hill Nursing Center, RI.
- CMS, Guidance to Surveyors of Long Term Care Facilities, March 2009, F252 Environment, Interpretive Guidelines, 483.15(h)(1).
- Wisconsin Coalition for Person Directed Care. Web conference: "Wisconsin Success Stories in Restraint and Alarm Reduction," June 18, 2009.

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Why Alarms? Historical Context: (See handout)

- “The Impact of Alarms on Patient Falls at a VA Community Center Living” Poster session at 2010 Annual Conference Transforming Fall Management Practices, Dept. of Vets Affairs.
- Dr. Steven Levenson, “Strategic Approaches to Improving the Care Delivery Process – Falls and Fall Risk” May 2010, Joint MN Statewide Training.
- Pioneer Network’s Annual Convention, Indianapolis, IN. Preconference Intensive “Eliminating Restraints Including Alarms” August 9, 2010.
- Action Pact’s Culture Change Now – Teleconference, August 20, 2010, “Eliminating Restraints and Alarms by Engaging the Whole Person.”
- June 2010 Article in Care Providers of Minnesota Quality in Action Newsletter, “What’s That Noise? An Account of the Journey to an Alarm Free Culture” By Morgan Hinkley, Administrator of Mala Strana Health Care Center.

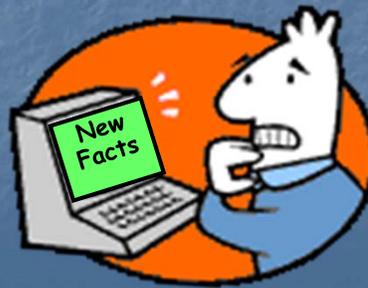


How we were sold on alarms . . .



Challenges to Restraint & Alarm Reduction: Myth versus Evidence

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



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Quality of Life and Environment Tag Changes

CMS Division of Nursing Homes:
Survey and Certification Group

2007 s24 & 2009 s27

State & National CMS Surveyors:
2011

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Four Part CMS Satellite Broadcast
From Institutional to Individualized Care

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

www.masspro.org/NH/casestudies.php

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Quality of Life and Environment Tag Changes
CMS Division of Nursing Homes; Survey and Certification Group
3/2009

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

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F Tags to Prevent Restraint & Alarm Usage

- **Quality of Life F 240:** The quality of life requirements specify the facility's responsibilities toward creating and sustaining an environment that humanizes and individualizes each resident.
- **Dignity F 241:** The facility must promote care for residents in a manner and in an environment that maintains or enhances each resident's dignity and respect in full recognition of his or her individuality.
- **Restraints F 222:** The resident has the right to be free from any physical or chemical restraints imposed for the purposes of discipline or convenience and not required to treat the resident's medical symptoms.
- **"Convenience"** is defined as any action taken by the facility to control a resident's behavior or manage a resident's behavior with a lesser amount of effort by the facility and not in the resident's best interest.
- **Noise F 258:** Comfortable sound levels do not interfere with resident's hearing and enhance privacy when privacy is desired and encourage interaction when social participation is desired. Of particular concern to comfortable sound levels is the resident's control over unwanted noise.

Determine 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?



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



Anticipate their needs:

Why might their alarms go off?

A photograph of an elderly woman wearing a maroon jacket and a pink top, using a silver metal walker. She is standing in what appears to be a room or hallway.
A photograph of a person lying in a hospital bed, covered with a blue blanket. The person's head is resting on a pillow, and they appear to be resting or sleeping.

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

The logo for Empira, featuring the word "Empira" in a serif font with a small red flame-like icon above the letter 'i'.

Alarms Annul Our Attention



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

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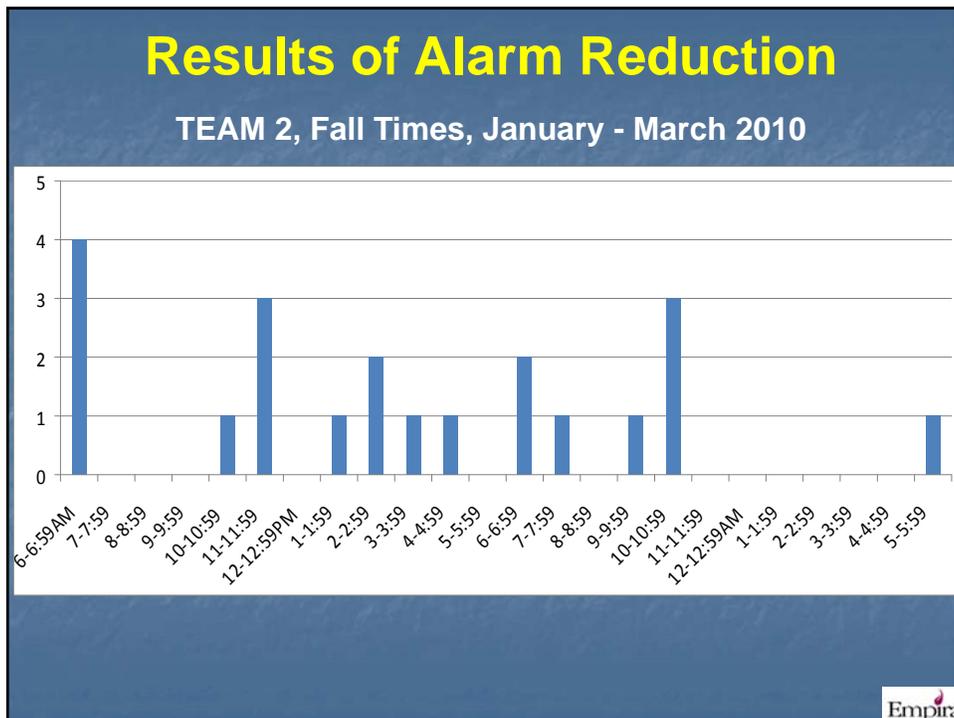
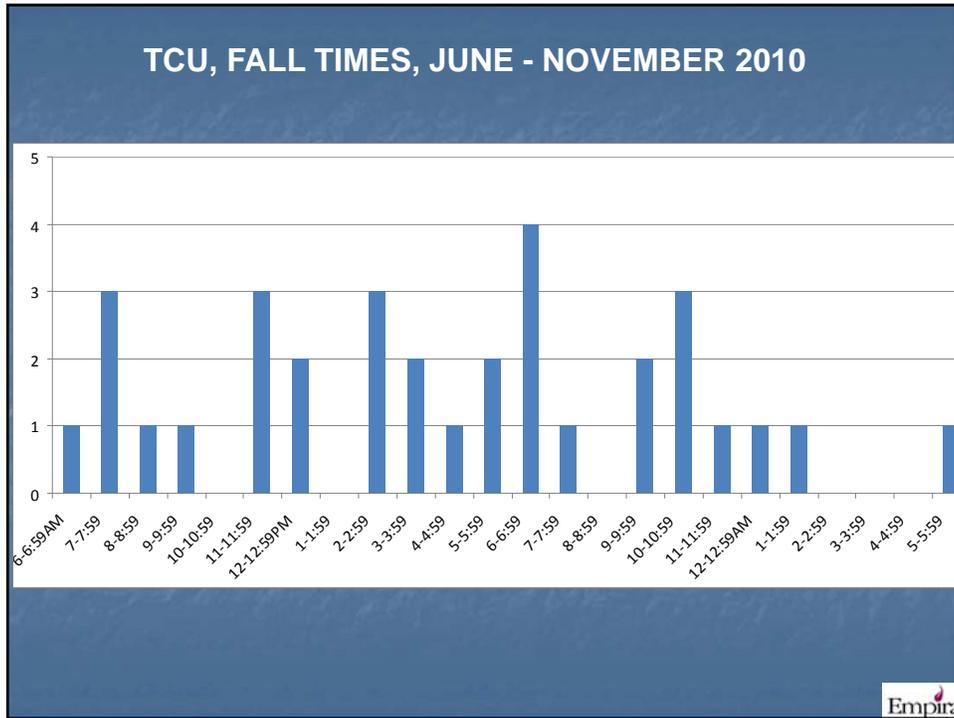
Alarm As a Diagnostic Tool

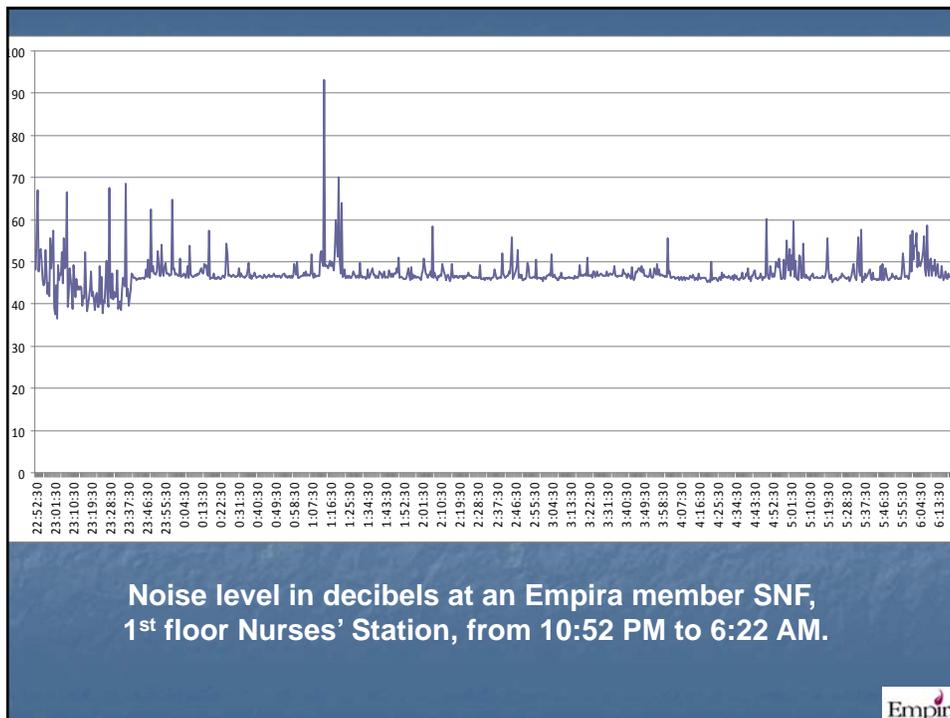
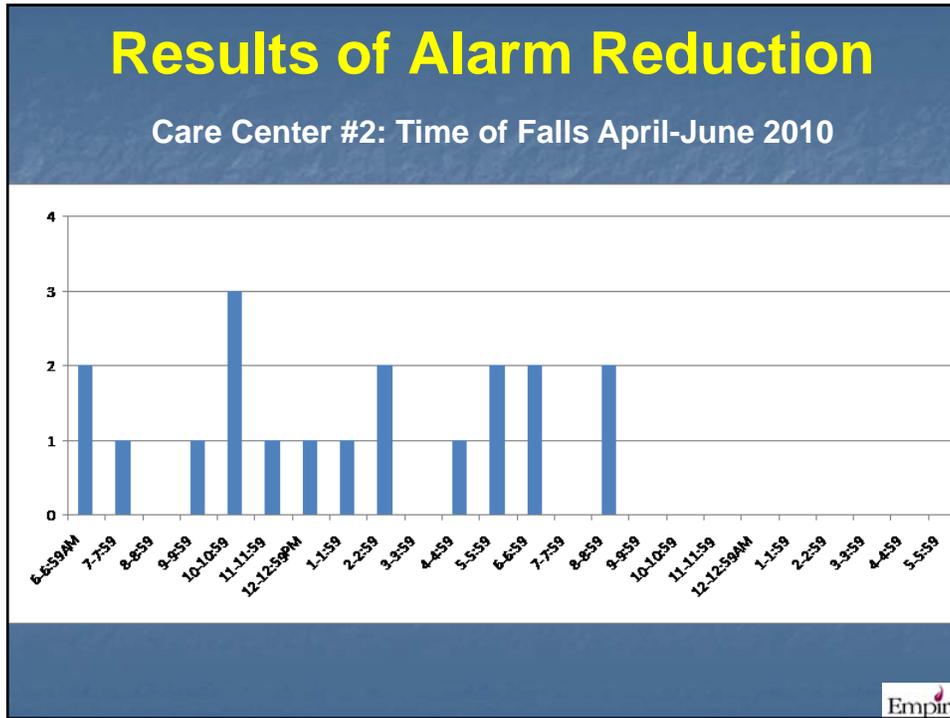
- “The only effective use for a personal alarm on a nursing home resident would be as a temporary diagnostic tool.”

~ Mary Tinetti, MD,
Dept of Veterans Affairs;
Transforming Fall Management Practices,
2009 Conference

- See: Alarm Tracking Tool

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How to Reduce Restraints & Alarms

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

By resident status/triage:

1. Begin rounding on residents who have fallen
2. No restraints or alarms on any new admission
3. Do not put a restraint or an alarm on any resident who does not currently have one on
4. If resident has not fallen in _____ (30) days
5. If resident has a history of removing restraint or alarm
6. If alarm or restraint appears to scare, agitate, or confuse residents
7. If resident has fallen with an alarm on, do not put it back on

By unit, shift, specific times:

1. Begin rounding on residents who have fallen
2. Start on day shift on 1 nursing /household unit
3. Then go to 2 nursing /household units on day shift
4. Then go to 2 shifts on 1 nursing/household unit
5. Then go to 2 shifts on 2 nursing/ household units, etc.

By "Cold Turkey":

1. "All restraints and/or alarms will be removed by _____ (date.)"

How to Reduce Alarms

- MASSPRO the Quality Improvement Organization for Massachusetts, Nursing Home Initiative: "Nursing Home Alarm Elimination Program: It's Possible to Reduce Falls by Eliminating Resident Alarms." Website publication: <http://www.masspro.org/NH/docs/casestudies/Alarm%20Elim%20CS%20Sept%202006.pdf>
- 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/2009/7/2_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 Hinkley, Administrator of Mala Strana Health Care Center, an AHCA Bronze Quality Award winning facility, September 2011.*

Legal Issues of Alarms

- Michigan IDR Appeals Board, Civil Remedies Division:
<http://www.hhs.gov/dab/decisions/civildecisions/cr2011.pdf>
- Fall From Bed Results in Death:
<http://www.nursinghomesabuseblog.com/nursing-home-falls/fall-from-bed-results-in-death-of-newly-admitted-nursing-home-patient/>

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Alternatives to: Restraints & Alarms

- Determine the resident's needs: why are they moving from their current place? Investigate 4Ps
- Restless, bored, agitated ← address why
 - Distraction, engagement, entertainment, activities
 - Warm blankets, weighted blankets, weighted baby doll, purring stuffed kitten, interest activities, reading materials, jewelry case, tackle box, head set with soothing music
- Vision Impaired
 - Contrast environment; shrink wrap tubing, thresholds, toilets, bedspreads, personal items, shoes

Resources for restlessness

- Weighted 19" Baby Doll:
<http://www.toysrus.com/product/index.jsp?productId=12076777&CAWELAID=1097046507>
- Fluffy purring cat doll:
<http://www.amazon.com/FurReal-Friends-Lulu-Cuddlin-Kitty/dp/B001TMA03U>
- Heated blanket warmers: medical supplier



Contrast Tubing

- “Heat Shrink Tubing” is made by 3M
- Du-bro 441, “Heat Shrink Tube Assorted”
- Both can be purchased on amazon.com



Personal items: Which is easier to see?



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:



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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 night stand. 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.

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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’.”

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