Approaches to Quality Sleep Culture in LTC

Sponsored by the Quality Improvement Organizations Comagine Health and Great Plains Quality Innovation Network
Approaches to Quality Sleep Culture in LTC

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Oregon QIO Collaborative

AHRQ Safety Program for Long-Term Care:
Session 1: Applying Safety Principles
Session 2: Senior Leader Engagement
Session 3: Staff Empowerment
Session 4: Teamwork and Communication
Session 5: Resident and Family Engagement
Session 6: Sustainability
Avamere Sleep Program

Margaret Silebi, RN, MSN, DNS
Chad Martin, Administrator

Avamere Rehabilitation of Eugene
Applying Safety Principles

AHRQ Nursing Home Patient Safety Culture Survey:

➢ Only 54% of staff agree:
   “It is easy to make changes to improve resident safety in this nursing home.”

➢ Only 61% of staff agree:
   “This nursing home is always doing things to improve resident safety.”

We needed a performance improvement project!
Sleep Deprivation: Elderly + Institutional

- Falls
- Cognitive function
- Sensory processing → behavioral stress
- Pain tolerance
- Mobility → skin impairments
- Quality of life

40% - 60% Incidence
Leadership from a QAPI Perspective

1. Engage (inspire a shared vision)
2. Educate (challenge the process)
3. Execute (enable others to act)
4. Evaluate (encourage the heart)

The Sleep program involved all 4 elements!

Our Plan for a Better Night’s Sleep – THE VISION

- “Mood” lighting
- Hands-free staff lights
- “Yakker Tracker”
- Eliminate paging
- TV Headphones
- Adjust “walking rounds”
- Adjust “stocking” schedule
- Adjust “cleaning” schedule
- Resident and family engagement

- Changed med/tx times
- Overnight incontinent products
- Decreased fluid intake after 5pm
  - 8 oz cups during waking
  - 5 oz cups during evening hours
- All Residents assessed prior to sleep program
- Lavender infusion
- “Quiet please” signage
Barriers to Success?

- Staff Training
- Culture Change
- Equipment

Staff Education/Environmental Modification
**Staff Feedback**

- Needed bariatric-sized briefs for some
- Headsets didn’t work with TVs
- Culture shock for Staff
- Staff needed an identifier
- Staff indicated they felt more relaxed
- Day shift busier – resistance to picking up night shift duties
- Trouble with the lights
- Staff pride in the program – no whining
Teamwork and Communication

Rounds

QAPI/Sleep Committee

Guidelines

Success!
Metrics

- Falls
- Skin issues
- Times woken
- Sleep aids
- Satisfaction
- Brief cost
- Depression
- Cognition
Quality Improvement Measures

Falls

# of Patient Falls on Diamond

Sep  Oct  Nov  Dec  Jan
Quality Improvement Measures

Skins

# Wounds on Diamond

- Sep
- Oct
- Nov
- Dec
- Jan
Quality Improvement Measures

Sleep Aids

Lower is better

Sleep Aids

Before

After

Holding Gains

Hypnotic

Antidepressant

Melatonin

Before

After

Holding Gains
Quality Improvement Measures

Percent of long-stay residents who received an antianxiety or hypnotic medication

Sleep Aids

FROM CASPER REPORT
Quality Improvement Measures

Depression

PHQ9 (Depression) - Lower Score is Better

Sleep Program
Quality Improvement Measures

Depression

FROM CASPER REPORT

Percent of long-stay residents who have depressive symptoms


Percent

Facility

State

Good
Quality Improvement Measures

Cognition

BIMS (Cognition) - Higher Score is Better

Sleep program

2nd Qtr 17: 12.1
3rd Qtr 17: 11.7
1st Qtr 2018: 13
2nd Qtr 2018: 12.9
Quality Improvement Measures

Sleepover

Sleepover

Number of Times Woken up

Before

After
Quality Improvement Measures

Satisfaction

FROM ABAQIS
Cost Impact
(46 residents)

- Night time briefs: $965
- Yakker Tracker: $100
- Lavender diffuser: $10
- Lavender oil: $28
- “Quiet Please” signage: $130
- 5 oz cups: $32
- Neck lights: $120 (for 12 @ $10 each)
- Walkie-talkies: $125 (2 packs of 6 @ $63/pack)
- Wireless TV headphones: $36 (each)
- Total: $1546

Brief Usage

October/November: $6,184 (Before)
January/February: $4,272 (After)
Total savings: $1,912
Metrics Summary

- Falls
- Skin issues
- Times woken
- Sleep aides
- Depression
- Brief cost
- Cognition
- Satisfaction
Sustainability

• Found program champions
• Added to orientation for new staff
• New residents assessed
• Added ongoing measures to ensure gains held
Provider Impact

AHRQ Nursing Home Survey on Resident Safety Culture

➢ “It is easy to make changes to improve resident safety in this nursing home”

➢ “This nursing home is always doing things to improve resident safety.”

➢ “Staff get the training they need in this nursing home.”

➢ “Staff have enough training on how to handle difficult residents.”

One year later...

5+

13+

27+

28+
Contact Information

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Undisturbed Sleep QAPI Program

Debra Sutton, RN, BS, NHA,
Jefferson Community Health & Life- Gardenside
“Our Residents Do Not Live In Our Workplace, We Work In Their Home”

- author unknown
What started the idea of Undisturbed Sleep?

- QAPI team’s initial focus was to develop a plan to eliminate alarms without increasing falls and create a more homelike environment.

- #1 External cause for falls is Noise

- #1 Internal cause for falls is Fragmented Sleep.

- Gardenside staff attended training on Person-Centered Care and Culture Change presented by Anna Ortigara, MSN; part of that training focused on the concept of natural waking.

- This concept was presented to our QAPI team as a step to reduce falls.

- Email sent out on GPQCC list serve asking for input from facilities that were currently engaged in natural waking.
Stages of Sleep

- **Stage 1**
  - Muscles begin to relax and lose tonicity; sometimes sudden twitches and jerking may occur.
  - Eyes move more slowly, the heart begins to slow down, breathing becomes deeper and slower.
  - The person is still easily awakened.

- **Stage 2**
  - Muscular activity decrease more, eye activity stops or rarely moves, heart rate significantly slows and conscious awareness of the external environment disappears.
  - Brain waves slow down.
  - The person is not easily aroused from this level.
  - This stage has brief image dreams that the brain works to: save, file, trash.

Information from Restorative Sleep Vitality Program Webinar by Sue Ann Guildermann, RN, BA, MA
http://greatplainsqin.org/gpqcc/undisturbed-sleep-at-night-a-key-to-good-health/
Stages Of Sleep continued..

■ Stage 3
  ■ The brain is completely at rest. All eye movement and muscle activity ceases. The first cycle is the deepest level of Stage 3 sleep.
  ■ Greatest amount of skin, deep tissue and overall healing and regeneration of the human body occurs.
  ■ Greatest amount of healing occurs at this stage due to the greatest formation of white blood cells, T4 cells, red blood cell re-oxygenation and cellular repair and regeneration.
  ■ It is very difficult to wake someone from this deep sleep stage.

Information from Restorative Sleep Vitality Program Webinar by Sue Ann Guildermann, RN, BA, MA
http://greatplainsqin.org/gpqcc/undisturbed-sleep-at-night-a-key-to-good-health/
Stages of Sleep continued..

- REM Sleep (Rapid Eye Movement Sleep)
  - Respiration becomes very rapid, irregular and shallow.
    The heart rate increases and the blood pressure rises.
  - REM sleep includes rapid eye movements as well as a very rapid
    brain wave activity similar to being awake.
  - This stage is associated with healing the emotional and
    psychological health of the body.
  - Relieves stress, process emotions, detox our feelings of fear,
    anger, happy and sad.
  - Muscular paralysis occurs to protect organisms from self-damage
    through physically acting out the often vivid dreams that can
    occur during this stage.
  - PTSD is associated with failure to enter REM sleep.

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Why is 7-8 Hours of Uninterrupted Sleep Important?

- Adults need 7-8 hours of sleep/day—no more, no less.
- Fragmented Sleep results in Increased irritability, hallucinations, suppressed immune response to illness, increased risk of Type II DM, of Heart Disease and Obesity.
- Sleeping >9 hours can lead to postural hypotension, dehydration, increased UTI’s, constipation, Osteoporosis, Confusion, Depression and increased anxiety.
- Stage 3 usually begins 60-90 min. after going to sleep and adults need 4-5 complete sleep cycles during the night for optimal health.
- Melatonin is the “sleep hormone”—Melatonin production peaks at age 25 and reduces by 50% @ age 50 and by 75% at age 75.

Information from Restorative Sleep Vitality Program Webinar by Sue Ann Guildermann, RN, BA, MA
http://greatplainsqin.org/gpqcc/undisturbed-sleep-at-night-a-key-to-good-health/
Top Disturbances to Sleep

- Noise
- Light – blue light/sunlight vs. amber light
- Sleep Environment - bedding, sleep surface, room temp, aroma
- Napping
- Medications
- Continence Needs
- Pain
- Positioning
- Inactivity/Activity
- Diet

Information from Restorative Sleep Vitality Program Webinar by Sue Ann Guildermann, RN, BA, MA
http://greatplainsqin.org/gpqcc/undisturbed-sleep-at-night-a-key-to-good-health
## Beginning Steps

<table>
<thead>
<tr>
<th>Education</th>
<th>Address areas of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Explained Undisturbed Sleep to staff.</td>
<td>■ Talked about challenges, fears and excitements.</td>
</tr>
<tr>
<td>■ Assigned Restorative Sleep Vitality Program, Webinar by Sue Ann Guildermann, RN, BA, MA, to all staff</td>
<td>■ Discussion started regarding our breakfast dining times – other facilities contacted</td>
</tr>
<tr>
<td>■ <a href="http://greatplainsqin.org/gpq/cc/undisturbed-sleep-at-night-a-key-to-good-health/">http://greatplainsqin.org/gpq/cc/undisturbed-sleep-at-night-a-key-to-good-health/</a></td>
<td>■ Reduction of noise in the hallway between 2000-0800</td>
</tr>
<tr>
<td>■ Set up a Dedicated Team.</td>
<td>■ Staff start using alternate entrance to decrease noise by resident rooms.</td>
</tr>
<tr>
<td>■ Sticky Note Challenge.</td>
<td>■ Turn lights off at 2000 and back on at 0800.</td>
</tr>
<tr>
<td>■ Talk with affected departments: Dietary, Housekeeping, Laundry, and Maintenance</td>
<td>■ Decrease cart noise in the hallway</td>
</tr>
<tr>
<td></td>
<td>■ Decrease traffic in the hallway</td>
</tr>
</tbody>
</table>
**Beginning Steps continued..**

<table>
<thead>
<tr>
<th>Individualizing Sleep Routines</th>
<th>Other factors to promote sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluated briefs and invited our TENA rep to assist</td>
<td>Reviewed HS and night time sleep disturbances – meds and treatments</td>
</tr>
<tr>
<td>Stopped waking residents at night</td>
<td>New pillows</td>
</tr>
<tr>
<td>Initiated sleep logs due to wet beds</td>
<td>Staff schedule changes discussed</td>
</tr>
<tr>
<td>A few residents requested to be awakened for rounds during the night.</td>
<td>Housekeeping and Laundry not coming in resident halls</td>
</tr>
<tr>
<td>Asked residents their sleep preferences and reviewed logs.</td>
<td>“If it’s yellow, be mellow”</td>
</tr>
<tr>
<td>Established Individualized Sleep routines.</td>
<td>Staff initiated Sensory Cart</td>
</tr>
</tbody>
</table>
Staff stopped waking residents in the a.m.’s, unless requested.

Problems started setting in…

- Urgent need for new breakfast times
- Reevaluated serving at assisted tables

March 28 – Started Open Breakfast times

- Hot Breakfast 0730 - 0900
- Residents served as they arrive
- Continental Breakfast 0600 - 0730 and 0900 - 1030

Looked into changing med times to allow residents to sleep in.

Housekeeping to begin cleaning dayroom between 0600 – 0800. Resident hallways remain quiet zone until 0800

Installed under-cabinet lighting at nurses station

Changed restorative hours to begin at 0800

Door remains locked between 2000 to 0800
Rocky Waters... another month later

What is Working

- Open breakfast is going well...
- Housekeeping, Laundry & Maintenance have successfully made changes in their routine.
- Nursing staff developing morning routines to accommodate residents
- East hallway was carpeted to help with dietary cart noise.

New Challenges

- MED PASS!
  - Team of nurses set up to work on medication administration times to decrease frequency of med passes and accommodate residents sleeping in.
  - Pharmacy contacted and asked to review current MARS to reduce frequency of med passes and review recommended time changes
Still rocky waters...another month later

- Nursing updated new time codes in the eMAR
- New time codes created for medications.
- Pharmacy will take one resident at a time to change cassettes and labels.
- Nursing students alerted us that cassettes and eMAR did not match.
- MED ERRORS occurred.
- Communication break down with pharmacy staff.
Now It’s June…

Continuing with details

- During resident council residents requested open lunch and supper, as they are loving the breakfast routine.

- Discussion held with dietary to revamp HS snack cart to offer more snooze foods.

- Staffing in activity department increased from part-time to full-time evening.

- Continue to monitor incontinence issues.

- Encourage residents to take a snack before bed. Discourage fluids at bedside during the night.
No More Fireworks…

Continue to work through road bumps

- Open dining initiated for all meals.

- Few concerns, residents were getting food before drinks and resident thought they needed to be there when the doors open. Suggestion was made for dietary staff to use a cart to serve drinks to reduce time going back to get coffee and juice.

- Dietary staff had concerns with not enough staff getting to the dining room to help serve.

- Not enough time for nursing staff to take breaks in the morning.

- Pharmacy continues to update cassettes.

- Dietary revamped HS cart. More hot tea options, fruits, and sandwiches, incorporating snooze foods.

- Residents wanted water pitchers back during the night.
### Alarms | Fall Risk Prevention

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
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<tbody>
<tr>
<td>- Sounding floor alarms.</td>
<td>- Silent alarms that alert call light pagers and marquee for wheelchairs bed and recliners.</td>
</tr>
<tr>
<td>- Chair alarms.</td>
<td>- We still have some sounding floor alarms and seat belt alarms on a few wheelchairs. We have ordered silent floor alarms.</td>
</tr>
<tr>
<td>- Bed alarms.</td>
<td>- QAPI team continually reevaluates need for all alarms.</td>
</tr>
<tr>
<td>- Residents admitted with confusion had multiple audible alarms initiated.</td>
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<tr>
<td>- Alarms were not consistently reevaluated.</td>
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</tbody>
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Sleep | Undisturbed Sleep

**Old**
- Waking residents at 0550.
- Residents took naps after breakfast and after lunch.
- Staff started assisting residents to bed around 1900.

**New**
- Only wake residents who have requested to be awakened at a certain time.
- Assist residents with morning cares as they call and have requested.
- If a resident requests a nap encourage earlier in the day and shorter naps. (less than 1 hour)
- Encourage participation in evening activity.
- Customize pillows to promote sleep. Encourage residents to bring in their favorite pillow.
# Lights | Relaxed Nightly Environment

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
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<tbody>
<tr>
<td>Hallway lights off between 2130-2200 and back on at 0550.</td>
<td>Hallway lights off from 2000 until 0730 (only emergency lights remain on)</td>
</tr>
<tr>
<td>No set time for turning off dayroom lights.</td>
<td>Decrease use of blue light at night. Night lights replaced with amber lighting.</td>
</tr>
<tr>
<td>Main lights remain on at nurses’ station.</td>
<td>Lighting decreased at nurses’ station.</td>
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<tr>
<td>Staff turned on main lighting in resident rooms with cares.</td>
<td>Dayroom lights off when evening activities are completed.</td>
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<tr>
<td>Old</td>
<td>New</td>
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<tr>
<td>Checked and changed incontinent residents three to four times a night.</td>
<td>Some residents on day time incontinent products and overnight incontinent products.</td>
</tr>
<tr>
<td>Residents were not in most absorbent style of briefs.</td>
<td>Allow six hours of undisturbed sleep before checking/changing any resident.</td>
</tr>
<tr>
<td></td>
<td>Evaluate each resident to determine use of proper incontinence product and toileting needs.</td>
</tr>
<tr>
<td>Date →</td>
<td>Resident Name ↓</td>
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</table>
Snack - Hydration Cart
Daily Routine for Nutrition and Fluids

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
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<tbody>
<tr>
<td>Snack cart offered at 1000, 1500 and 2000.</td>
<td>Hydration cart is provided at 1000 which offers sugar-free juice, regular juice, coffee, milk, hot tea, hot chocolate.</td>
</tr>
<tr>
<td>1000 and 1500 cart offered crackers, pudding, yogurt, Jello, cookies, juice, coffee, soda, hot chocolate and chips.</td>
<td>1500 Hydration Cart offers the same drink options with light snacks.</td>
</tr>
<tr>
<td>2000 cart offered granola bars, crackers, pudding, Jello, cookies, juice, coffee, soda, chips, sandwiches for diabetics and hot chocolate.</td>
<td>Evening cart at 2000 that offers snooze foods such as bananas, Jello, applesauce, hot tea, decaffeinated coffee, sugar-free juice, milk, sandwiches, nuts, fruit and whole grain snacks.</td>
</tr>
</tbody>
</table>

References from Sue Ann Guildermann, RN, BA, MA, Restorative Sleep Vitality Program.
### Dining Room

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
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<tbody>
<tr>
<td>Dining room doors opened at 0730, 1130 and 1730.</td>
<td>Open dining - assisted residents are served first while unassisted tables are served as they arrive.</td>
</tr>
<tr>
<td>Meals would be served at 0800, 1200 and 1800 with room trays to follow after dining room was served.</td>
<td>Breakfast 0730-900- encourage more fluids.</td>
</tr>
<tr>
<td>Rotating serving schedule.</td>
<td>Lunch - door opens at 1130, open dining from 1145-1230.</td>
</tr>
<tr>
<td>&gt;14 hours from beginning of dinner meal to end of breakfast-substantial HS snack offered on HS cart</td>
<td>Supper–open dining1730-1830.Decrease fluids offered</td>
</tr>
<tr>
<td>Established task time line.</td>
<td>Rework duties to be more organized and be more flexible-reinvent task time line.</td>
</tr>
</tbody>
</table>
# Med Passes | Individualizing Routine

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
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<tbody>
<tr>
<td>0500</td>
<td>Arise/Before Breakfast 0730 (0630-0930)</td>
</tr>
<tr>
<td>0700</td>
<td>After breakfast 0800 (0730-1030)</td>
</tr>
<tr>
<td>0900</td>
<td>After Lunch 1300 (1230-1400)</td>
</tr>
<tr>
<td>0110</td>
<td>After Supper 1900 (1930-2200)</td>
</tr>
<tr>
<td>1300</td>
<td>Hour of Sleep 2000 (1930-2200)</td>
</tr>
<tr>
<td>1500</td>
<td>BID AC 0730 &amp; 1730 (0630-0930 &amp; 1630-1800)</td>
</tr>
<tr>
<td>1700</td>
<td>TID AC 0730 &amp; 1130 &amp; 1730 (0630-0930 &amp; 1030-1200 &amp; 1630-1800)</td>
</tr>
<tr>
<td>1900</td>
<td>Decreased the number of med passes to decrease interruption of sleep and to give more time for nurses to spend with residents.</td>
</tr>
</tbody>
</table>

- Residents with multiple med passes.

- One hour before, one hour after.
### Old
- Limited one-on-one activities.
- Large group activities.
- Afternoon activities ended at 1500

### New
- Men’s group.
- Sunset group in the afternoon.
- Activities provided throughout the afternoon to dinner hour.
- Extended evening activities hours.
- Nursing staff more participative in evening/weekend activities.
## Rehabilitation | Rest & Routine

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Rehab started at 0600.</td>
<td>- Rehab times start at 0730 and the door locks at 2000.</td>
</tr>
<tr>
<td>- Door remained unlocked so residents could access equipment for independent programs. Some residents would wake early so they could begin independent exercise at 0500.</td>
<td>- Reduces noise and lights on near residents rooms.</td>
</tr>
<tr>
<td>- Residents still able to work independently in rehab room until 2000.</td>
<td>- Residents still able to work independently in rehab room until 2000.</td>
</tr>
<tr>
<td>- Created tubs with work out supplies and routines to be used in the day room when rehab room is closed in the mornings.</td>
<td>- Created tubs with work out supplies and routines to be used in the day room when rehab room is closed in the mornings.</td>
</tr>
</tbody>
</table>
## Housekeeping | Maintenance
### All Department Involvement

<table>
<thead>
<tr>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance entered facility to take trash at 0630.</td>
<td>No carts allowed in facility until after 0800.</td>
</tr>
<tr>
<td>Housekeeping entered facility at 0630 to start cleaning dayroom and</td>
<td>Maintenance now picks up trash at 0800.</td>
</tr>
<tr>
<td>residents rooms.</td>
<td></td>
</tr>
<tr>
<td>Laundry entered facility at 0545 to restock wash clothes and towels.</td>
<td>Housekeeping begins cleaning dayroom at 0730.</td>
</tr>
<tr>
<td></td>
<td>Laundry is carried over in the morning and stocking is done after 0800.</td>
</tr>
</tbody>
</table>
Contact Information |
Gardenside LTC
2200 H Street Fairbury Nebraska

Feel Free to contact us!

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  - 402-729-6843 (direct line)
Questions?
Thank you!

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