Developing a Restful Environment Action Manual:

DREAM Toolkit

Sleep Handbook

This is a guide on the importance of sleep, which includes the six key areas for sleep improvement, and bedside interventions to help promote high-quality sleep for residents living with dementia.

Who can use the DREAM Toolkit?

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<th>LEADERSHIP AND SLEEP CHAMPION</th>
<th>ALL STAFF</th>
<th>INTERDISCIPLINARY TEAM</th>
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<td>Implementation Guide</td>
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<td>Sleep Environment Improvement Tool</td>
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Introduction to the Handbook

Almost 70% of adults living with dementia have medical sleep issues. Trouble sleeping causes their mental abilities to decline faster and is linked to other symptoms like anxiety and aggression. It is harder to provide care for residents who do not sleep well, and lack of sleep can lower their quality of life. You can support the physical, mental, emotional, and psychosocial well-being of residents living with dementia by improving their sleep.

The Developing a Restful Environment Action Manual (DREAM) Toolkit Sleep Handbook provides information about sleep and practical approaches to improve sleep quality. Work with your colleagues in all departments to use the DREAM Toolkit to improve sleep for residents. Use what you know about each resident’s history, preferences, and needs to decide which approaches to try.

How to Use this Handbook

Good sleep starts during the day. Ensure that the toolkit’s information is shared with staff from all shifts. Consider sharing copies of this handbook with anyone who works in close proximity to residents. In addition to clinical staff, members of the maintenance, housekeeping, and administration teams should also be aware of your facility’s efforts to improve sleep.

As you read the handbook, think about the residents living with dementia in your home. Which activities do you already do, and what new things might help improve their sleep quality?

This handbook can be used as a complete package or shared as a series of educational one-pagers at huddles and meetings. Who might benefit from receiving this information or a copy of the handbook?

Use the handbook as a way to start discussing ideas with your team for improving sleep quality for residents. How can you incorporate some of the information here into your next team meeting?

You can improve quality of life and quality of care for residents living with dementia.

Even when time and resources are limited, small changes can make a big difference in helping residents living with dementia sleep well. Improving sleep can improve emotional, mental, and physical well-being. Better sleep leads to more meaningful interactions and smoother activities of daily living (ADL) care.
How does sleep impact residents living with dementia?

While disease, age, and genetics impact overall health, so does sleep quality and quantity. Sleep also impacts physical function, healing and immunity, mood, mental health, and communication.

There are four stages in a healthy sleep cycle:

- **Stage 1**
  - Brain activity slows down and muscles relax.

- **Stage 2**
  - Light sleep and brief dreaming begins.

- **Stage 3**
  - Deep sleep begins. Physical healing occurs.

- **Stage 4**
  - Rapid eye movement (REM) sleep promotes emotional and psychological healing.

Meet Ms. Jones. She has trouble staying asleep nearly every night.

Meet Mr. Hernandez. He sleeps well nearly every night.

Both Ms. Jones and Mr. Hernandez live with dementia and experience mild cognitive decline.

- Since moving into the nursing home, Ms. Jones has not had a **consistent sleep routine or consistent amount of sleep**.
- She has a hard time falling asleep due to **hallway light and noise**. When she does fall asleep, she is easily awakened.
- Ms. Jones' lack of **deep sleep** affects her day. She is often exhausted, struggles with her balance, and feels irritable.

- Mr. Hernandez has a **sleep routine** that staff follow regularly. He reads a book in his room at bedtime for 30 minutes, toilets just before bed, and keeps all the lights off in the room except for his night light.
- His sleep is **uninterrupted**, so Mr. Hernandez is able to enter deep sleep cycles. This high-quality sleep helps him **avoid illness and injuries**. He enjoys his interactions with staff and other residents.

Improving sleep will not resolve every issue, but **better sleep supports the health and quality of life of residents**. It is important that residents are able to enter all four stages of the sleep cycle every night.

**THINK ABOUT IT:**

How do you feel when you do not get enough sleep?
How does dementia affect sleep?

We all need sleep to feel good, both physically and mentally. Sleep and dementia are connected. **Lack of sleep can speed up cognitive decline**, and a resident living with dementia typically has more trouble sleeping. It is important to regularly determine how to help residents get good sleep as their dementia progresses.

**Hormones and Sleep**

Hormones and neurochemicals in the body are impacted by light and activity, which impact sleep quality. Levels of sleep-wake cycle hormones, like **melatonin** and **cortisol**, as well as chemicals like **adenosine** and **serotonin**, signal the body to wake or sleep.

### Hormones and Sleep Cycle

<table>
<thead>
<tr>
<th>Hormone</th>
<th>Action</th>
</tr>
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<tbody>
<tr>
<td>Melatonin</td>
<td>Sleep signal</td>
</tr>
<tr>
<td>Adenosine</td>
<td>Sleep signal</td>
</tr>
<tr>
<td>Serotonin</td>
<td>Wake signal</td>
</tr>
<tr>
<td>Cortisol</td>
<td>Wake signal</td>
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**Indicators for Sleep Quality**

Use the chart below to help you determine which residents may need help sleeping better. Work with the resident, their loved ones, and your team to find ways to support each resident to sleep well.

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<tr>
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<th>Expected</th>
<th>May Need Help</th>
</tr>
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<tbody>
<tr>
<td>How long does it take the resident to fall asleep?</td>
<td>Less than 30 minutes</td>
<td>More than 60 minutes</td>
</tr>
<tr>
<td>How many times does the resident wake up during the night?</td>
<td>Two or fewer</td>
<td>More than twice</td>
</tr>
<tr>
<td>How long is the resident awake during the night?</td>
<td>Less than 30 minutes</td>
<td>More than 30 minutes</td>
</tr>
</tbody>
</table>

**Lack of Sleep and Dementia Progression**

Dementia and poor quality sleep each make the other worse. As a resident’s dementia progresses, they will need additional or new types of support to sleep well. **Sleep support may look different at the different stages of dementia.** What helps now might be less useful in a few months. Adjust routines, preferences, and environmental factors accordingly.

**THINK ABOUT IT:**

How are your mood and memory impacted when you don’t sleep well?
What complicates sleep for residents living with dementia?

**Overlapping Health Issues**

**LEWY BODY DISEASE**  
Lewy bodies are protein deposits in nerve cells. Lewy body disease includes Lewy body dementia and Parkinson’s disease. Hallucinations are a normal symptom of Lewy body disease. They may make it harder for the resident to sleep at night. Insomnia and nightmares are also common.

Where to start: Offer a nightlight, create a calm atmosphere, and reduce resident room distractions.

**DELIURUM**  
is a sudden change in cognition. It is often a sign of another problem.  
Where to start: Look for the underlying cause: strong negative emotions, pain, lack of sleep, or an infection like a urinary tract infection (UTI). Consult with the clinical team.

**DEPRESSION**  
is a mood disturbance caused by a chemical imbalance in the brain. Symptoms include a depressed mood or loss of interest or pleasure and can also include agitation, weight loss, and difficulty concentrating.  
Where to start: Ask residents how they feel. Review their medical records to see if they have a diagnosis of depression.

**Psychotropic Medications**

Residents living with dementia may be inappropriately prescribed psychotropic medications to treat sleep disturbances and/or mental health disorders. However, **psychotropic medications can actually cause sleep issues like insomnia and drowsiness.** With long-term use, these medications can also lead to hyperglycemia, disorientation, memory loss, falls, increased risk of worsening heart disease, and other adverse events.

Non-pharmacological approaches for sleep present fewer risks than psychotropic medications.

**Position Change Alarms**

Position change alarms can disrupt sleep if they make noise in the resident’s room. These alarms may inhibit the resident’s freedom of movement and make it harder for them to find a comfortable sleeping position. Work with your leadership team to **minimize bed, chair, and other position change alarms to attain and maintain the highest achievable well-being for the resident.**

**THINK ABOUT IT:**  
What underlying issues make it harder for the resident to sleep well?
Why is the resident napping?

Residents living with dementia may nap for long periods of time during the day. These naps do not replace a full night of rest and can make it harder for a resident to sleep during the night. Help residents find alternatives to napping while always respecting their napping preferences.

This is Mr. Hernandez. He takes one short nap in the afternoon and sleeps soundly for seven hours per night.

This is Ms. Jones. She takes three long naps throughout the day and has fragmented sleep throughout the night.

Mr. Hernandez is alert during the day and friendly with staff and residents.

Ms. Jones is tired throughout the day and is easily frustrated or upset on most days.

Naps can adversely affect a resident’s sleep cycles, mood, and energy level. Physical activity and social interaction during the day make it easier for the resident to stay awake.

When a resident naps often or for a long time, work with staff and the resident to understand why.

Why is the resident napping?
• **They aren’t sleeping well at night.** How can your team work to make the resident more comfortable?
• **They’re tired,** even after a full night’s rest. How many days in a row have you noticed this?
• **They’re bored.** Work with the care team and activities department to identify ways to engage the resident during the day.
• **They always take a quick nap after lunch.** Naps are not always bad. Combined with a full night of rest, a short nap in the early afternoon can help boost alertness.

Use the DREAM Pocket Guide to help support a resident to avoid too much napping.

**Note:** Some residents may prefer to be awake at night and sleep during the day. Work with the resident, their loved ones, and the care team to support the resident to get good sleep while respecting their preferences.

**THINK ABOUT IT:**

Do you know any residents who have trouble sleeping at night but nap frequently during the day?
What helps a resident living with dementia sleep better?

Start by learning the sleep concerns and preferences of the resident. Pay attention to the **six key areas for sleep improvement** for ways you can help improve sleep.

**Light**
*Bright light during the day and dark at night*
- Bright light therapy and exposure to sunlight
- Open or closed blinds
- Amber lights at night

**Environment**
*Physical comfort*
- Room temperature
- Pillows and blankets
- Open or closed door

**Noise**
*Quiet or white noise without interruptions, such as:*
- Loud voices
- Cleaning equipment
- Televisions
- Alarms

**Workflow**
*Avoiding disturbance from scheduled tasks like maintenance or restocking, and perform care tasks together at one time when it matches residents’ needs and preferences*
- Continence care
- Repositioning
- Wound care

**Personal**
*Fulfilling personal needs and minimize disturbances*
- Toileting and gastrointestinal issues
- Pain management
- Night time hygiene routine
- Food and drink

**Activity**
*Staying mentally and physically active during the day helps the resident feel tired at night*
- Looking at a photo album
- Going outside
- Socializing
- Exercising

Sleep improvement is a team effort, and you can start today!