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INFO-CONNECT

Sleep Disturbances

The Facts . . .

- ⇒ *Sleep pattern changes are part of normal aging, affecting both quantity and quality of sleep.*
- ⇒ *Persons with mental disorders, particularly dementia and depression, are more “at risk” for being awake at night.*
- ⇒ *Sleep disturbance in dementia is best understood by assessing it using the NDB model.*
- ⇒ *Sleep hygiene, which emphasizes personal habits and daily routines, is the “backbone” of managing both “normal” disturbances and those caused by mental disorder.*

Background Information:

The 3 W’s of Sleep Disturbances

Sleep disturbance is a common and upsetting problem for adults of all ages. Although medication may be used as a short-term intervention, “sleep hygiene” — which calls for changes in daily routines and habits — is the foundation of longer-term solutions.

To understand and manage sleep disturbance, consider the “3 W’s” as outlined below.

WHAT are sleep disturbances?

Sleep disturbances are various forms of insomnia. This refers to an inability to:

- Get to sleep
- Stay asleep
- Return to sleep after awakening
- Remain asleep early in the morning

WHY focus on sleep disturbances?

Insomnia is an important quality-of-life issue.

- It is a common problem in people of ALL ages!
- 1/3 of all adults report sleep problems.
- 1/2 of these individuals consider the problem serious.

WHO is “at risk”?

There are a number of groups who are especially at risk.

1. Advancing age alone increases the risk of sleep disturbance. Older adults report:
 - More hours in bed
 - Fewer hours asleep
 - Reduced quality of sleep
 - Associated with “normal” aging
2. Geriatric factors further increase risk:
 - Normal aging changes affecting sleep
 - Medical problems or other health conditions:
 - ⇒ Sleep apnea
 - ⇒ Restless legs

- Medication side effects
 - Psychiatric conditions, like depression
 - Poor sleep hygiene
 - Environmental factors
3. Losses resulting from dementia further complicate risks. Sleep-wake disturbances:
 - Are a common problem due to circadian rhythm changes.
 - Are associated with more severe cognitive impairment.
 - Co-exist frequently with disruptive vocalizations (e.g., aggressive, disruptive, and agitated vocal behaviors).
 - Result in nighttime wandering, the second most common reason for placement.

Circadian Rhythm Disturbance

The circadian rhythm refers to the internal biological clock. It is important to consider this because it affects many levels of function.

Rhythm disruption in Alzheimer’s disease is suggested by:

- Disrupted body temperature rhythms
- Disturbed circadian pattern of locomotor function
- End-of-day patterns in disruptive vocalization
- End-of-day patterns of overall agitation (e.g., sundowning)
- Seasonal variations in sundowning

Remember, brain changes disturb the person’s natural daily rhythms and often contribute to sleep problems.

Thus, staff may need to adjust their expectations and better accommodate nighttime wakefulness.

Understanding the effect of circadian rhythm disturbance on residents is essential!

Assessment — The Basis for All Interventions

Sleep disturbance in older adults is rarely caused by a single factor. Investigate and reverse all possible causes.

- **Consider behavior as a Need-Driven Dementia-Compromised Behavior (NDB).**
 - ⇒ Review assessment parameters.
 - ⇒ Consider life-long patterns and habits.
 - ⇒ Place in context: Who is sleep disturbance a problem for?
- **Rule out physical and medical causes. STOP and Ask . . .**
 - ⇒ Medical problem?
 - ⇒ Pain, need to void?
 - ⇒ Medication side effect?
 - ⇒ Psychiatric illness?
 - ⇒ Sleep apnea?
 - ⇒ Restless legs?
 - ⇒ Don't assume behavior is dementia-specific.
- **Review NDB assessment parameters.**
 - ⇒ **Overstimulation**
 - ⇒ **Pain and discomfort**
 - ⇒ **Depression**
 - ⇒ **Psychosis**

4 PRINCIPLES OF SLEEP MANAGEMENT

1. Don't assume problem is "dementia-specific."
2. Identify and treat underlying or contributing causes of sleep disturbance.
3. Apply sleep hygiene principles.
4. Use medication on "as needed," intermittent basis only.

Apply Suitable Treatment Approaches

Effective sleep management relies on individualized care practices that address the unique characteristics of the RESIDENT, the STAFF who provide care, AND the FACILITY ENVIRONMENT in which care is delivered.

Interactions between these three must be considered when addressing sleep disturbances.

- **Identify and treat all concurrent problems first.**
- **Then use behavioral interventions.**
 - ⇒ Keep a sleep diary, log.
 - ⇒ Apply principles of sleep hygiene.
- **Medications are the last choice.**
 - ⇒ Consider risks and benefits.
 - ⇒ Use only "as needed."
- **Individualize care and routines.**
 - ⇒ View the person a whole.
 - ⇒ Know person's history and personal preferences.
 - ⇒ Accommodate nighttime wakefulness.
 - ⇒ ASK: Who has the problem? (e.g., STAFF? FAMILY? PATIENT?)
 - ⇒ Do caregivers need to adjust their expectations? (e.g., All residents should sleep at night.)
- **Create systems in which person can be up safely.**
 - ⇒ Nursing facilities
 - ❖ Allow to be up until tired again.
 - ❖ Encourage sitting in facility public area.
 - ❖ Suggest sitting in recliner to induce sleep.
 - ⇒ At home
 - ❖ Modify home to increase nighttime safety.
 - ❖ Use respite or trade care with family members.

Interventions —

Principles of Sleep Hygiene

Sleep hygiene involves changes to certain daily routines and habits of residents. The regular utilization of good sleep hygiene strategies is necessary to manage residents' sleep disturbances.

- **Apply patterns of living that contribute to sound sleep:**
 - ⇒ Eating, sleeping, resting, exercising
 - ⇒ Person-centered, individualized
 - ⇒ Affected by retirement, illness, institutional “routines”
 - ⇒ Goals:
 - ❖ Reestablish “habits.”
 - ❖ Develop and maintain a routine.
- **Rise and retire at the same time each day:**
 - ⇒ Keep up routine on weekends or days off.
 - ⇒ Consistency in habits is important.
- **Exercise regularly – but not late in the day.**
- **Get out in the sun, especially in late afternoon.**
- **Eat meals on a regular schedule:**
 - ⇒ Avoid heavy meals close to bedtime.
 - ⇒ Light snacks are okay if hunger is an issue.
- **Avoid daytime sleeping:**
 - ⇒ Naps should be no longer than 30 minutes.
 - ⇒ Rest in a recliner or on the couch.
 - ⇒ Use your bedroom for nighttime sleep.
 - ⇒ Don't lounge in bed (e.g., avoid reading, watching TV).
- **Avoid caffeine, nicotine and alcohol.**
- **Reduce night-time voiding urges:**
 - ⇒ Limit fluid intake after supper.
 - ⇒ Toilet before going to bed.
 - ⇒ Take diuretics early in the day if possible.

- **Treat pain appropriately.**
- **Regulate environmental factors:**
 - ⇒ Temperature too hot or cold?
 - ⇒ Noise?
 - ❖ Reduce or eliminate adverse stimuli (e.g., call systems, excessive noise at night, roommate snoring).
 - ❖ Consider nature sounds or soft music to calm and soothe.
 - ❖ Try white noise to mask sounds.
 - ⇒ Lighting?
 - ❖ Evaluate distractions (e.g., moonlight through window or hall light in eyes).
 - ❖ Balance safety with darkness.
 - ⇒ Personal comfort?
 - ❖ Bed clothing or blankets soft and comfortable?
 - ❖ Too hard? Too soft? “Just right”?

Medication Management

Medications should be used only as the final method of managing sleep disturbances, after careful consideration of the risks.

Nevertheless, the following medications can be effectively used on an “as-needed” basis.

- **Barbiturates**
 - ⇒ Rarely used today, especially with elderly
 - ⇒ High abuse and dependence potential
- **Chloral Hydrate**
 - ⇒ Old and effective hypnotic
 - ⇒ Gastric irritant
 - ⇒ Potential negative effects on CNS
 - ⇒ Potential for hangover
 - ⇒ Effective for select patients
- **Benzodiazepines**
 - ⇒ Have antianxiety, muscle relaxant, anticonvulsant, and hypnotic properties
 - ⇒ Some have more hypnotic properties, others more anxiolytic

- ❖ Higher hypnotic properties – *only* use for sleep
- ❖ Higher anxiolytic properties – use for anxiety and sleep
- ⇒ May be long-or short-acting
 - ❖ Long-acting, e.g., Flurazepam (Dalmane)
 - ✓ Increased risk of “hangover,” daytime sedation
 - ✓ Associated increased risk of falling
 - ❖ Short-acting, e.g., Lorazepam (Ativan)
 - ✓ Less hangover
 - ✓ Greater risk of “rebound insomnia” when discontinued
 - ❖ Short-acting agents always preferred
- ⇒ Associated Risks
 - ❖ Rebound insomnia possible when discontinued (e.g., patient has more difficulty sleeping)
 - ❖ Potential increased confusion in dementia
 - ❖ Tolerance, dependence potential with prolonged use (e.g., continuous use in excess of 4 weeks)

- **Selective Benzodiazepines**
 - ⇒ Newest hypnotics (e.g., zolpidem (Ambien), zaleplon (Sonata))
 - ⇒ May have advantages over others
 - ⇒ Fewer cognitive and psychomotor side effects
 - ⇒ Fewer withdrawal effects
- **Antidepressants**
 - ⇒ Commonly used with dementia
 - ⇒ Assume underlying depression that contributes to sleep disturbance
 - ⇒ Questionable effectiveness in non-depressed patients
 - ⇒ Antidepressants with sedating qualities are selected, given at bedtime
 - ⇒ Trazodone (Desyrel) good choice for many; sertraline (Zoloft); mirtazapine (Remeron) also used

- **Antipsychotics**

- ⇒ May be used in dementia
- ⇒ Goal: Reduce anxious, fearful, agitated, psychotic behaviors that interfere with sleep
- ⇒ Low dose often effective
- ⇒ Common agents: risperidone (Risperdal); haloperidol (Haldol)
- ⇒ Give at bedtime to exploit sedating side effects

- **Antihistamines**

- ⇒ Diphenhydramine (Benadryl) commonly used as sleep aid
- ⇒ Included in many OTC sleep medicines (e.g., Nytol, Sominex; Anacin PM, Exedrin PM, Tylenol PM)
- ⇒ Many risks for older adults
- ⇒ Increased confusion, impaired cognition, morning sedation

- **Melatonin**

- ⇒ Natural element that increases sleep
- ⇒ Value disputed in the literature
- ⇒ No adverse effects
- ⇒ What do we have to lose?

Geriatric Hypnotic Doses

MEDICATION	HALF LIFE	DOSE (mg)
Lorazepam	10-20	0.5 – 2
Oxazepam	3-21	10-15
Temazepam	10-20	15
Zolpidem	1.5-4	5
Zaleplon	1-2	5

- Diazepam, flurazepam and chlordiazepoxide are not recommended for older adults.

Table based on:
 "Choice of Hypnotics in the Elderly," Virtual Hospital.

Sleep Disturbances: Part 3 of a 4-Part Series

The **Need-Driven Dementia-Compromised Behaviors**, or **NDB**, model of care can be easily applied to a variety of difficult-to-manage behaviors in dementia.

This edition of Info-Connect is the third in a four-part series focusing on various NDBs:

Part 1: Need-Driven Dementia-Compromised Behaviors (NDB)

Part 2: Disruptive Vocalizations

Look for the final Info-Connect in this series: **Wandering & Elopement**.

Alternative Interventions

The following alternative interventions can also be used to promote sleep:

- Bright light therapy
 - ⇒ Apply light
 - ❖ Evening if early bedtime, early awakening
 - ❖ Morning if late bedtime, late awakening
 - ⇒ Value disputed in literature
 - ⇒ Sleep hours increase with light therapy
 - ⇒ Issue: Clinical vs. "statistical" significance?
- Relaxation principles
 - ⇒ Structured relaxation programs not practical in dementia
 - ⇒ Principles may be applied:
 - ❖ Low stimulus, relaxing activities
 - ❖ Back rub, facial or shoulder massage, warm bath, other "comfort" measures
 - ❖ Music therapy
 - ❖ Aromatherapy

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