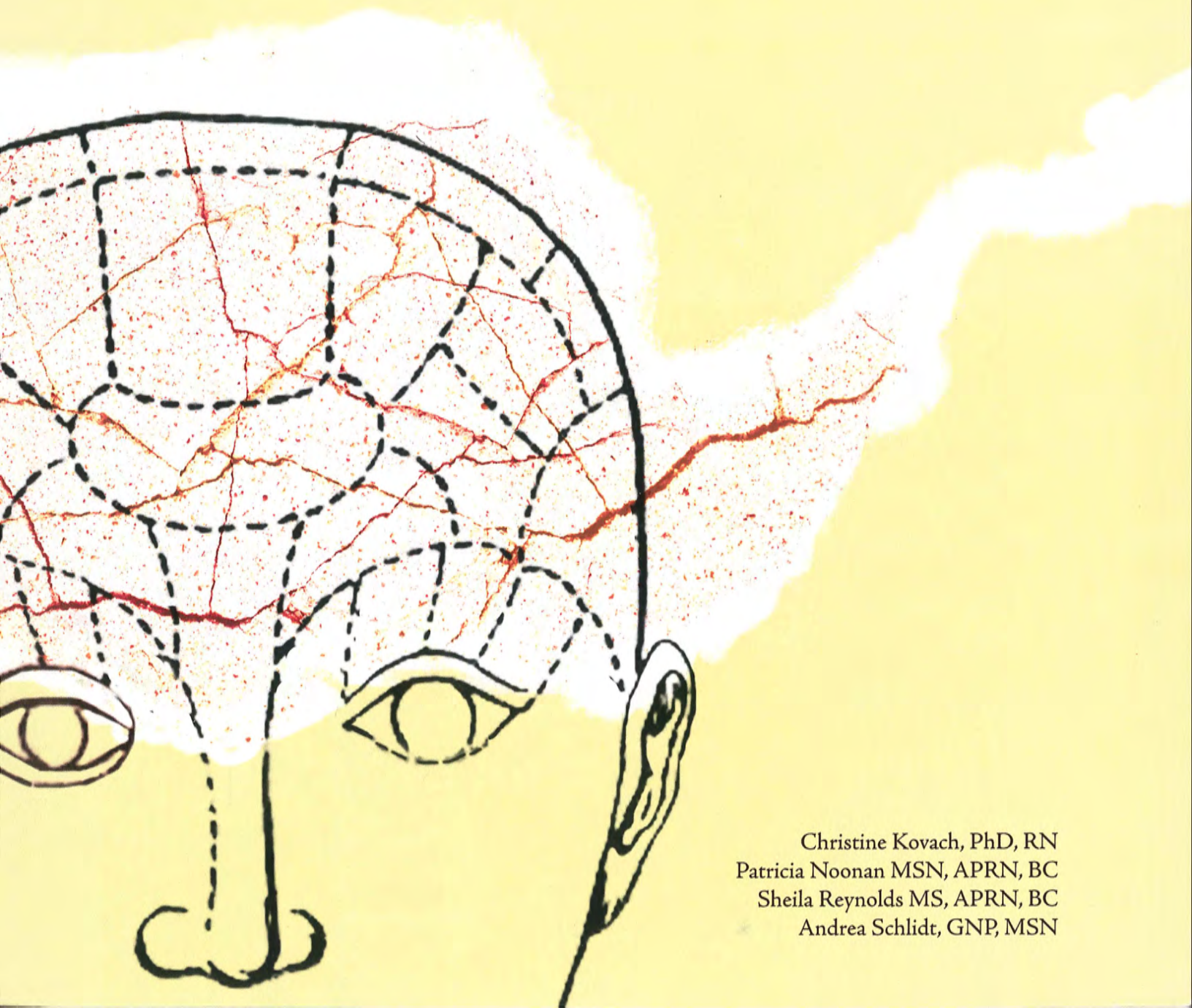


The Serial Trial Intervention (STI) Teaching Manual:

An Innovative Approach to Pain and Unmet Need Management in People with Late Stage Dementia

An In-service Education Program for Professional Caregivers of People with Dementia

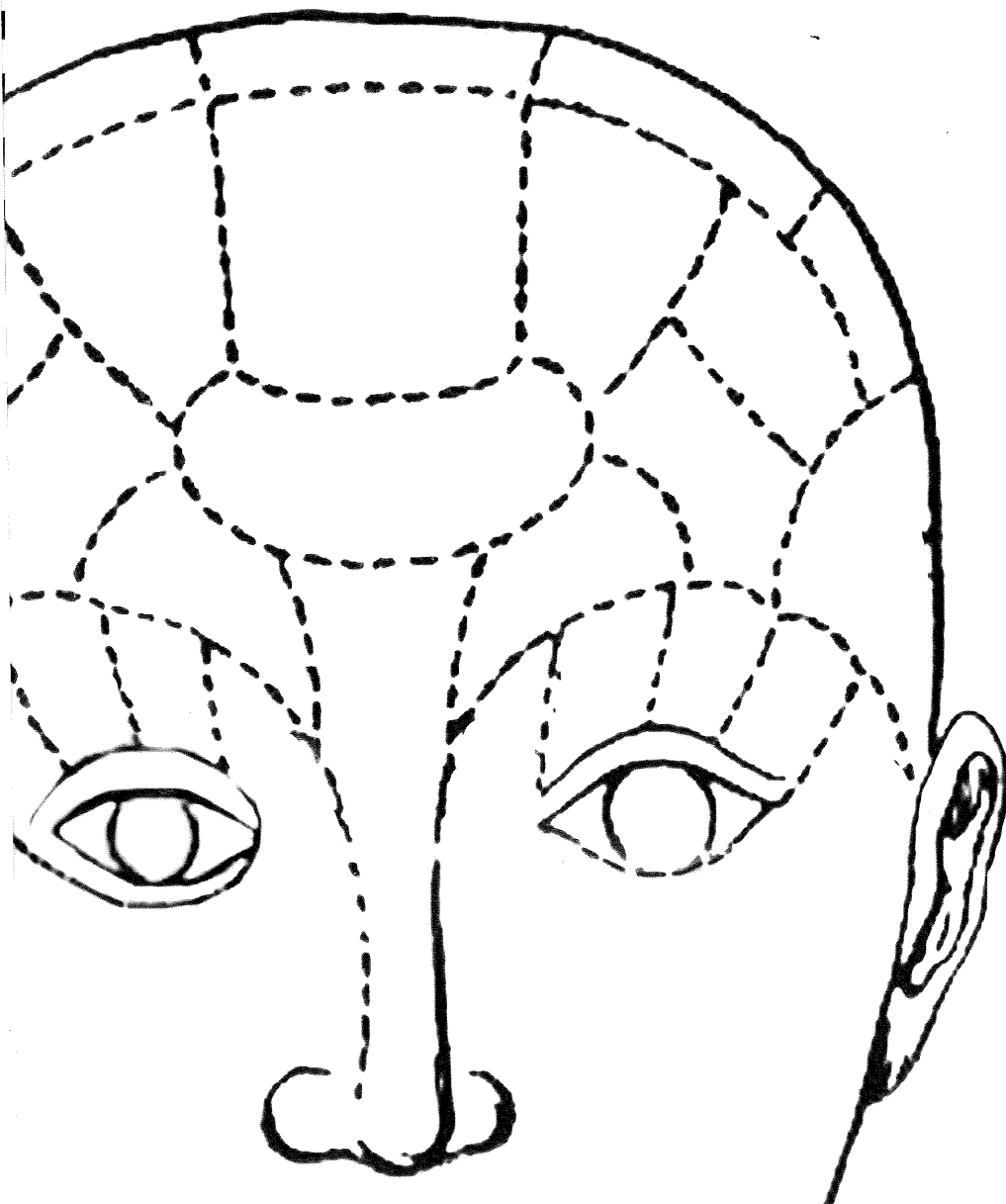


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DISCLAIMER CONCERNING MEDICAL INFORMATION IN THIS TRAINING MANUAL

While this training manual provides information about pharmacological and nonpharmacological treatments described in the literature, the information in this manual is not individualized medical advice. Only a patient's physician or medical professional can provide medical advice.

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Introduction

WHAT IS THE SERIAL TRIAL INTERVENTION?

The Serial Trial Intervention (STI) is a nursing care protocol for people with dementia. Some people with dementia may exhibit challenging behaviors. The primary goals of the STI are to:

- identify behaviors
- recognize those behaviors as symptoms of unmet need
- assess the behaviors
- treat the behaviors, alleviating the unmet need

This protocol is particularly important when dealing with people who have moderate or severe dementia. A diagnosis of dementia requires the person to have memory loss and to have impaired social or occupational functioning. Sometimes the memory loss may be able to be restored. Some causes of “reversible” dementia include a nutritional disorder, a thyroid disorder, medication interaction or side effect, pain, grief, and depression. Other types of memory loss cannot be restored. Alzheimer’s disease is a dementia in which memory loss and the ability to think clearly worsens over time. This cannot be reversed once it starts¹.

One of the most common ways to look at Alzheimer’s disease is in stages: early, middle, and late. In **early stage** dementia, the person may experience:

- memory loss
- poor judgment
- personality changes
- withdrawal and/or depression
- partial disorientation to time (unable to remember the day, date, year)
- visual/spatial difficulties (for example, cannot find the way home from a place visited many times throughout life such as the grocery store or church)²

In **middle stage** dementia, the person may experience all of the above plus:

- short term memory loss with some loss of long term memory
- slowed speech and understanding
- complete disorientation to time
- restlessness and/or pacing
- irritability
- urinary incontinence
- increased rigidity of muscles
- decreased ability to perform self care
- perseveration (repeating words or phrases over and over)
- personality changes and/or development of suspiciousness, delusions, hallucinations³

In **late stage** dementia, the person may experience all of the above plus

- urinary and bowel incontinence
- inability to walk
- decreased appetite and weight loss
- inability to recognize family members
- inability to recognize self in mirror
- loss of ability to care for self
- severe memory loss
- vocabulary limited to 1-5 words or all vocabulary lost⁴

The STI is designed to help people in the middle or late stages of dementia. For these people, who may be losing their verbal skills and cannot tell you there is a problem, changes in behavior are the only indications that something is wrong. Failure to meet their needs can have many negative consequences including discomfort for the person, agitated behavior, hospitalizations, resistiveness to care, and staff frustration.

The STI has been tested in various studies for over ten years. Research has shown that the STI is successful in increasing comfort and alleviating behaviors in people with dementia. The core components of the STI are:

- Identifying a change in behavior
- Performing serial assessments which means using a system to collect information about the unmet physical and affective needs of the person
- Performing serial treatments to treat unmet needs through targeted and trials of treatments based on what the serial assessments uncover

The five steps of the STI are:

1. Physical assessment
2. Affective assessment
3. Nonpharmacological treatments
4. Trial of analgesics
5. Consultation with physician or advanced practice nurse prescriber and/or trial of psychotropics

Each of these steps will be discussed in detail in this manual.

HOW WILL THE SERIAL TRIAL INTERVENTION (STI) HELP YOUR RESIDENTS?

Think about one of your most challenging residents with dementia.

Perhaps it is the gentleman who resists all cares and activity and would prefer you leave him alone in his room all day. Perhaps it is the lady who cannot remember her children are grown, so she paces around the unit most of the day trying to escape out the doors, sometimes frantically, because she believes she needs to get home to meet her children when they get off the school bus. Maybe it is the woman whose family visits daily, but as soon as they leave she starts asking when they will be back because she cannot remember she just saw them. This tool is designed to guide you as you help people with dementia. Here are a few ways the STI will help your residents with dementia who are experiencing challenging behaviors.

1. The STI is a systematic tool that is used to treat the underlying cause of the behaviors. Treating the cause of behavior using the STI diminishes negative effects on the person including:
 - discomfort⁵
 - agitation⁶
 - problematic vocalizations⁷
 - comorbid conditions⁸
 - acute hospital visits⁹
 - resistiveness to care¹⁰
2. People who receive the STI have less discomfort. It is estimated that at any given time, 45-80% of nursing home residents are in pain¹¹. In the most recent study of the STI, the people who received the STI experienced significantly less discomfort¹². This is particularly important for the people with dementia who are unable to report their pain. Untreated pain can lead to:
 - increased morbidity
 - increased mortality
 - sleep disturbances
 - decreased socialization
 - malnutrition
 - depression
 - impaired immune function
 - impaired ambulation
 - increased health care use and costs¹³
 - cognitive, social and functional decline¹⁴
3. When using the STI, people are more likely to have agitated behaviors return to their baseline than people who do not get the STI¹⁵.

HOW WILL THE SERIAL TRIAL INTERVENTION (STI) HELP YOU?

1. You will get the satisfaction of knowing you have worked systematically to help your residents.
2. Managing behaviors will allow you more time in your day for other work. Your day should go better.
3. Agitated behavior is contagious, but with better behavior management, nearby residents will not be over stimulated. This should result in a calmer and more soothing environment.

Executive Summary

WHY IMPLEMENT THE SERIAL TRIAL INTERVENTION (STI)?

Nursing home residents deserve high quality care and services. The facility is morally obligated to and has the primary responsibility for providing high quality care. Meeting the needs of people with Alzheimer's disease and other dementias can be a challenge because they are a diverse group with limited understanding and impaired communication skills.

Dementia is projected to increase three to four fold in the next 50 years¹⁶. Conservative estimates find 40 to 50% of all nursing home residents have dementia¹⁷. It is important for nursing staff to understand that people with dementia may exhibit verbal and behavioral cues that could indicate of pain. Pain in nursing home residents not only is common, but remains a serious problem¹⁸.

The **Serial Trial Intervention (STI)** is an innovative approach to assessing and treating unmet needs of people with middle or late stages of dementia. Over 10 years of research has gone into the development of the STI. The STI has been used successfully by both RNs and LPNs/LVNs. A recent study has confirmed that people with moderate to severe dementia who received the STI had significantly lower levels of discomfort and improvement in behavioral symptoms than those individuals who did not receive the intervention¹⁹. The STI is in accordance with the Federal and State laws for nursing homes and use of the STI may improve your pain quality measure posted for the public by the Centers for Medicare and Medicaid Services (CMS) Nursing Home Quality Initiative.

Implementing the STI will provide an individualized, systematic tool for your staff to uncover and manage the underlying cause of the behaviors. When needs are not identified and met, changes in behavior and suffering occur that pose a considerable burden for the affected person, family, and for the professional caregiver. As listed in the introduction section, unmet needs are associated with an array of uncomfortable conditions and adverse health events (ie: *increased discomfort, agitation, problematic vocalizations, comorbid conditions, acute hospitalizations, & resistiveness to cares*). At the same time, more staff hours and money are spent dealing with challenging behaviors. Caring for a person with dementia requires an average of 197 more care hours per year than caring for someone without dementia, and that number increases for those residents with severe cognitive impairment²⁰.

Besides the obvious benefits to the quality of life for the person with dementia, the STI has other indirect benefits for the nursing staff and resident's family. Nursing staff will feel empowered knowing that they made a difference in managing the needs of persons with dementia. Empowerment leads to increased job satisfaction and retention, which is associated with better care and satisfied family members²¹.

MANAGING IMPLEMENTATION

The STI can be integrated into systems already in place in the nursing home. Before beginning implementation, it is important to understand some basic concepts of change. In order for change to occur, there must be some uneasiness about the way things currently are being managed.

- Do you have a dementia program?
- Does your dementia program include current geriatric knowledge?
- Do you have a high nursing turn over rate?
- Do you feel your current dementia program is meeting the needs of your residents?
- Have you had regulatory issues related to the care of residents with dementia?
- Are you satisfied with your approach to pain management for those with dementia who are unable to verbally report pain?

If, after reading these questions, you feel some uneasiness about your dementia program, then you are ready to change your current practice.

Before implementing a facility wide change, it's always preferable to first pilot test the change on a smaller scale, such as during the day on one unit, to see how it works and make adjustments if needed.

ADMINISTRATIVE SUPPORT

Change does not occur overnight, so it is essential that all levels of management are engaged and supportive throughout the process to show commitment and dedication to the program. Being visible on the unit and available to listen to the staff is recommended. Change works best when the people involved in carrying out the change are actively involved. Nursing supervisors and managers have important roles to play because they make change happen by helping the nursing staff recognize the need to “buy into” changes. They keep up the vital daily communication, support, and monitoring necessary for success and continued enthusiasm.

STAFF REQUIREMENT

The STI is unique in that it does not require additional staffing to implement or operate. The current nursing staff on your unit will be able to bring the STI to fruition, provided there is sufficient number of staff to start. These nurses can be a registered nurse (RN), a licensed practical nurse (LPN), or a licensed vocational nurse (LVN). Choose staff members who know the residents and are regularly scheduled on that unit because consistent staff who know the residents well are better able to detect minor changes in the residents' behaviors.

STAFF EDUCATION

The STI manual is intended to be self-guided, however from our experience, implementation works best when the nursing staff is provided a full day of education followed by close monitoring and support.

The 4 main components are

- Educate all staff about dementia and behaviors.
- Teach comprehensive physical assessment skills to the nurses.
- Enhance pain assessment and management.
- Instruct staff on how to use the STI.

This manual will focus on each of these areas. The staff development person can be the person to learn the STI and teach the nurses. In addition, we recommend that the staff development person or unit manager monitor the progress at least twice a week, and guide implementation. In our experience, nurses needed special guidance with:

- identifying STI triggering behaviors
- implementing the STI steps in order

Knowledge about these educational and monitoring components is key to quality dementia care and success of the STI.

MATERIALS REQUIRED

An example of one way to document implementation of the STI is included in this manual. This form can be adapted to fit your facility's documentation system or used as is.

SUMMARY OF POTENTIAL BENEFITS

Incorporating the Serial Trial Intervention (STI) will:

- enhance your facility's knowledge and expertise regarding the management of dementia care issues
- improve quality of life and care for residents with dementia
- empower nursing staff
- improve family satisfaction

We appreciate the opportunity to present this information to you.

Before we explain how to use the STI, we would like to provide some background information regarding common painful conditions, pain assessment, analgesics, psychotropics, and interdisciplinary considerations.

Fundamental Elements of Geriatric Nursing Practice

PAIN IN THE ELDERLY

Pain is more common in elders. In a study by Crook and colleagues²², pain was found twice as often in community dwelling people over 60 years than in younger subjects. Pain is even more widespread among elders living in nursing homes, where estimates of pain prevalence range from 45-80%²³.

Why do the institutionalized elderly not report their pain?

- they believe that pain is a normal part of aging
- they are afraid of the cause
- they are stoic
- they fear losing their independence
- they have impaired recognition
- they don't want to bother family or others
- they are afraid of becoming addicted²⁴

Pain of institutionalized elders is also under-treated due to common caregiver misconceptions, such as:

- pain is part of the normal aging process
- the elderly have decreased pain perception
- the elderly who do not report pain do not have pain
- pain does not exist if there are no physical or behavioral signs²⁵

Chronic pain (persistent) is the most common type of pain in the elderly.

The major causes of elders' chronic pain are:

- lower back pain (40%)
- arthritis (24%)
- previous fracture sites (14%)
- neuropathies (11%)²⁶

If pain remains unrelieved, serious consequences can develop. They are:

- depression
- decreased socialization
- sleep disturbance
- impaired ambulation
- increased health care costs²⁷

Keypoints: *Pain in the Elderly*

1. Pain is not a normal part of aging
2. No report of pain does not mean the person has no pain
3. Chronic pain is the most common pain in the elderly
4. Unrelieved pain can be manifested in different ways such as depression, decreased socialization, sleep disturbances and impaired ambulation

ASSESSMENT OF COMMON PAINFUL CONDITIONS

When assessing people with dementia, it is important to consider the fact that they may be unable to report symptoms they are experiencing. Usual signs and symptoms are not always present in the elderly. Instead, vague signs and symptoms such as increased respiratory rate, change in respiratory pattern, or cool, clammy skin are your only clues that something is wrong. The following are common conditions which may cause acute or chronic pain in the elderly:

- constipation
- urinary tract infections
- respiratory infections
- skin infections
- back pain
- arthritis
- peripheral neuropathy
- arterial and venous insufficiency

CONSTIPATION: – “the infrequent elimination of no more than two bowel movements per week or straining at stool 25% of the time”²⁸.

Symptoms:

- less than two bowel movements per week
- hard or dry stool ²⁹
- abdominal discomfort
- decreased appetite
- if severe, vomiting and diarrhea may be present

Contributing factors/ causes:

- inadequate fiber intake
- inadequate water/fluid intake
- lack of exercise
- decreased colon motility
- medications such as calcium channel blockers, opioids, iron supplements and antacids which contain aluminum.

Nonpharmacological treatments:

- increase fluids (at least 1500-2000 cc/day unless contraindicated)
- increase fiber (25-30 g/day)
- increase exercise if possible

Pharmacological treatments:

- Stool softeners like docusate sodium (Colace) can be used to soften the stool but will not help with motility.

Commonly recommended treatments are:

Step 1 - bulk laxatives such as psyllium (Metamucil), starting slowly and gradually increasing unless contraindicated due to inadequate fluid intake.

Step 2 - try saline laxatives such as magnesium hydroxide (Milk of Magnesia) or hyperosmolar laxatives such as sorbitol or lactulose (Chronulac).

Step 3 - stimulant laxatives such as senna (Senokot) or bisacodyl (Dulcolax) are the third line of treatment. Long term use of these should be avoided, however³⁰.

Note:

Elderly who are constipated may present with atypical signs and symptoms including dehydration, stringy stool or diarrhea, and vague complaints of not feeling well.

URINARY TRACT INFECTION – 95% are caused by bacteria entering the urethra and ascending into the wall of the bladder³¹

Symptoms:

- confusion
- change in behavior³²
- malaise
- urinary incontinence
- urgency
- frequency
- fever
- suprapubic tenderness
- pain with urination

Contributing factors/causes:

- old age (normal physiologic change of aging is a decreased ability to prevent bacteria from entering the bladder mucosa)
- indwelling catheters
- urinary or fecal incontinence
- diabetes

Nonpharmacological treatments:

- increase fluid intake
- prompt changing of soiled undergarments
- encourage consumption of cranberry juice

Pharmacological treatments:

- differing opinions exist on whether to treat with antibiotics or not, so they may or may not be used

Note:

Elderly who have a urinary tract infection may present with new onset of incontinence, increased confusion, and increased or new onset of falls.

UPPER RESPIRATORY INFECTION – also called the common cold; usually caused by a virus and leads to inflamed nasal passages³³.

| Symptoms: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|---|--|--|---|
| <ul style="list-style-type: none"> - nasal stuffiness and/or nasal discharge - sneezing - scratchy or sore throat - cough - malaise - headache - fever | <ul style="list-style-type: none"> - virus or bacteria (e.g. common cold) - exposure to person with symptoms | <ul style="list-style-type: none"> - rest - increase fluid intake - throat lozenges/hard candy for sore throat if the person is not at risk for choking | <ul style="list-style-type: none"> - acetaminophen (Tylenol) for pain or fever - guaifenesin (Robitussin) for non-productive cough - saline spray in the nares |

PNEUMONIA – bacterial or viral infection of the lower respiratory tract³⁴.

| Symptoms: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|--|--|---|--|
| <ul style="list-style-type: none"> - increased confusion often first sign in elderly - new onset or increase in falls - decrease in ability to perform self-care - increased respiratory rate - hypotension³⁵ - fever - chills - cough - thick sputum, often yellow or green but may be rusty in color - malaise - diaphoresis - crackles heard when listening to lung sounds - shortness of breath, initially only with exertion but progressing to present at rest | <ul style="list-style-type: none"> - influenza - chronic lung conditions such as COPD - smoking - institutional setting - hospitalization - decreased cough reflex - swallowing problems and/or feeding tube - depressed immune system | <ul style="list-style-type: none"> - provide oxygen by nasal canula - increase fluid intake - rest | <ul style="list-style-type: none"> - antibiotic treatment depends on the kind of organism causing the pneumonia - rest |

Note:

Elderly who have an upper respiratory infection may present with an increase in respiratory rate, a decrease in appetite, and a decrease in ability to perform activities of daily living.

SKIN INFECTIONS –Common skin infections include cellulitis, fungal infections, and conjunctivitis. Cellulitis is usually caused by group A streptococci, Staphylococcus aureus, or a gram-negative organism entering the skin through an open area. Sometimes no point of entry is obvious³⁶. Fungal infections often occur in skin or nails³⁷. Conjunctivitis is an infection of the eye³⁸.

| Symptoms of cellulitis: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|---|--|---|---|
| <ul style="list-style-type: none"> - fever and chills³⁹ - malaise - localized redness, swelling, warmth and tenderness - may have tachycardia and hypertension | <ul style="list-style-type: none"> - lower extremity edema - lacerations or other open areas on the skin - healing incisions - arterial insufficiency - diabetes - depressed immune system | <ul style="list-style-type: none"> - elevate affected area - keep area as clean as possible | <ul style="list-style-type: none"> - oral antibiotics - may need a tetanus shot if large wound present - may need analgesics |

Note:

It is easy to miss the early signs of cellulitis in elderly who have chronic dependent edema. Watch closely.

| Symptoms of FUNGAL INFECTIONS: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|---|---|--|---|
| <ul style="list-style-type: none"> - thick, discolored nails - debris under the nail plate - peeling and scaling of skin between the digits - vesicles and/or pustules may be present - satellite lesions may be present around larger infected area - red bumps under breasts, in skin folds, or in groin area | <ul style="list-style-type: none"> - diabetes - use of socks which keep moisture in - perspiration, moisture in skin folds | <ul style="list-style-type: none"> - good foot care - use of cotton socks to keep moisture away - prompt changing of soiled undergarments | <ul style="list-style-type: none"> - if severe enough, may require mechanical removal of debris by podiatrist and topical anti-fungal - may benefit from antifungal powder to feet daily for comfort - antifungal cream, ointment, or powder under breasts, in skin folds, and in groin area |

| Symptoms of CONJUNCTIVITIS: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|--|---|---|---|
| <ul style="list-style-type: none"> - reddened conjunctiva - purulent discharge may or may not be present | <ul style="list-style-type: none"> - may be caused by bacteria or virus - institutional living - poor hand hygiene | <ul style="list-style-type: none"> - frequent hand washing to prevent spread to other eye or another person - warm or cold compresses | <ul style="list-style-type: none"> - if bacterial etiology suspected, antibiotic eye drops |

BACK PAIN - can be acute or chronic.

| Symptoms: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments ⁴⁰ : |
|--|---|---|---|
| <ul style="list-style-type: none"> - pain or tenderness in the back - pain which travels down one or both legs | <ul style="list-style-type: none"> - vertebral fracture - osteoporosis - prolonged bed rest - bone metastases - arthritis - spinal stenosis | <ul style="list-style-type: none"> - heat - massage | <ul style="list-style-type: none"> - acetaminophen (Tylenol) - ibuprofen (Advil) or a different nonsteroidal anti-inflammatory drug (NSAID) unless contraindicated - may require opioids for severe chronic back pain - may need muscle relaxant such as cyclobenzaprine (Flexeril) |

OSTEOARTHRITIS - also referred to as degenerative joint disease (DJD) because it is a disease caused by erosion of the joint cartilage

| Symptoms: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments ⁴² : |
|---|---|---|--|
| <ul style="list-style-type: none"> - pain in the joints in the hands, hips, knees, and spine - morning stiffness which improves with activity - limited range of motion in the affected joints - crepitus (coarse crackling sensation felt during palpation⁴¹) in the affected joints - swollen, reddened, tender joints - numbness in the arms if the spine is affected | <ul style="list-style-type: none"> - increased age - obesity - previous joint injury | <ul style="list-style-type: none"> - exercise such as ambulation, range of motion, or as much as the person can safely tolerate balanced with rest periods - applying heat to affected joints - joint replacement is a possibility but often, people with severe dementia are not candidates for the surgery | <ul style="list-style-type: none"> - acetaminophen (Tylenol) or an NSAID if it is not contraindicated - may require a combination opioid product for severe pain - may receive steroid injections into the joint several times per year - topical analgesic creams applied to the affected joints twice daily may help |

PERIPHERAL NEUROPATHY "A condition caused by damage to the nerves in the peripheral nervous system."⁴³ It is challenging to recognize in the person with dementia and challenging to treat.

| Symptoms: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|--|--|---|--|
| <ul style="list-style-type: none"> - pain in the hands and feet | <ul style="list-style-type: none"> - metabolic disorders such as diabetes or renal failure - drug toxicities - nutritional deficiencies such as vitamin B12 - HIV - multiple sclerosis - connective tissue disorders | <ul style="list-style-type: none"> - TEDS stockings - good foot care and regular assessment of feet to prevent ulcers | <ul style="list-style-type: none"> - antidepressants - anticonvulsants - opioids - topical analgesic creams or Lidocaine patches |

PERIPHERAL VASCULAR DISEASE – Arterial and venous insufficiency often occur simultaneously.

VENOUS INSUFFICIENCY – “impairment of the venous system which inhibits normal return of blood from the legs to the heart”⁴⁴

| Symptoms of VENOUS INSUFFICIENCY: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|--|---|---|--|
| <ul style="list-style-type: none"> - achy, heavy pain in the lower extremities - warm extremities - edema in the lower extremities - palpable pedal pulses remain present unless unable to palpate due to edema - bluish color to the lower extremities - brown pigment around the ankles - stasis ulcers on the ankles | <ul style="list-style-type: none"> - long period of standing - wearing constricting garments for long periods of time - obesity - family history of peripheral vascular disease | <ul style="list-style-type: none"> - inspect feet daily and maintain good foot hygiene - ambulate several times daily - elevate legs three times a day unless contraindicated - compression stockings such as TEDS unless contraindicated - physical therapy consult for Peripheral Edema Prevention (PEP) - avoid prolonged periods of standing - weight loss if person is overweight | <ul style="list-style-type: none"> - none recommended |

ARTERIAL INSUFFICIENCY – “chronic decrease in blood flow to one or more extremities, caused by atherosclerotic narrowing of aorta and large arteries supplying the lower limb”⁴⁵

| Symptoms ARTERIAL INSUFFICIENCY: | Contributing factors/causes: | Nonpharmacological treatments: | Pharmacological treatments: |
|---|--|--|---|
| <ul style="list-style-type: none"> - pain in the calf when walking - cool extremities - no edema in lower extremities - decreased or absent pedal pulses - reddish color to the lower extremities when they have been dependent - decreased hair on the lower extremities - lower extremity ulcers or gangrene | <ul style="list-style-type: none"> - smoking - atherosclerosis - diabetes - obesity - high blood pressure - high cholesterol - age greater than 65 - family history of peripheral vascular disease | <ul style="list-style-type: none"> - encourage smoking cessation and weight loss if applicable - inspect feet daily and maintain good foot hygiene - ambulate daily at least several times - elevate head of bed | <ul style="list-style-type: none"> - none generally recommended specifically for arterial insufficiency; some prescribers may use drugs to control blood pressure and cholesterol, or to improve circulation such as anticoagulants or antiplatelet agents |

Again, after reviewing these common conditions that may cause pain in the elderly, it is important to remember that many times the typical symptoms may be absent. That makes it extremely difficult for you to determine what may be happening with a resident. Let's now consider some of the tools you can use to help you to assess for pain in the elderly.

Pain Assessment

Nurses, at their very core, are driven to help the patient or resident in pain. How do you know if someone is having pain? The gold standard answer to that question was written nearly four decades ago:

"Pain is whatever the experiencing person says it is, existing whenever he says it does".⁴⁶

That definition emphasizes the subjectivity of each individual's painful experience and focuses the nurse's response on the person's self-report of pain. Through the years, that definition has helped nurses humanely care for those in pain. However, that perspective on pain assessment is flawed when it comes to evaluating pain experienced by those with late stage dementia because they are often unable to recognize that they are feeling pain or they cannot reliably report their own pain.

As mentioned in the introduction, we do know that pain is under assessed and inadequately treated in the elderly. In fact, estimates suggest that 45-80% of nursing home residents are in pain at any one time⁴⁷. In the nursing home, sub optimal pain management may be due to the difficulty that nurses have in recognizing pain in residents who cannot express their discomfort. Nurses caring for people with dementia have recognized the challenge of assessing pain in those with dementia. In 1991, Marzinski describes the frustration that geriatric nurses were experiencing when trying to help the people with dementia. She wrote, "Not only do we lack an operational definition of pain in the nonverbal elderly, but there is also a marked lack of assessment tools useful in this population."⁴⁸ Several assessment tools now exist to help nurses identify pain in people with dementia. These tools focus on objective symptoms and observable behaviors that may indicate the presence of pain. What follows is a review of several tools that can be used for people with mild to moderate dementia.

Since the ability to self-report pain is considered the most reliable, every effort should be made to use pain rating scales whenever possible. The success of the self-report of pain can be increased by teaching mild to moderate cognitively impaired people to use a simple pain scale and giving them sufficient time to process the task and respond⁴⁹. It is important to note that some people with late stage dementia may be able to self-report pain while others in earlier stages may have already lost that ability. The following simple rating scales can be used to assess pain. Some may be useful in assessing people with dementia while others may not be helpful with that population. The rating of pain can be based on numbers, words, or images.

SELF REPORT PAIN SCALES

VERBAL DESCRIPTION SCALE

Show the person a piece of paper with a list of the following categories. Then ask the person to check the category that applies to them.

- No Pain
- Slight Pain
- Mild Pain
- Moderate Pain
- Severe Pain
- Extreme Pain
- Pain as bad as it could be

Comments:

- good for cognitively impaired people who still have intact reading and verbal skills
- uses very simple and familiar words to describe pain
- reported to be understood by 73% of cognitively impaired hospitalized elders⁵⁰

VERBAL NUMERIC RATING SCALE

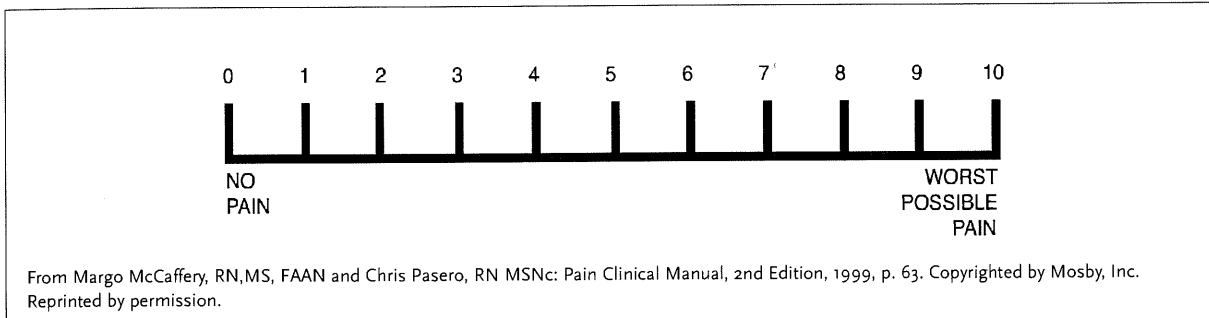
The resident is asked, "On a scale of zero to ten, zero meaning no pain and ten meaning the worst pain you have ever had, how much pain are you having right now?"

Comments:

- one-third to one-half of nursing home residents (both cognitively impaired and intact) were unable to use this scale⁵¹
- less than one-half of cognitively impaired residents were able to respond to this scale⁵²
- "this scale is problematic and is not recommended for elders with cognitive impairment"⁵³

VISUAL ANALOG SCALE

The person is asked to make a mark along the line to represent the amount of pain that they are feeling.

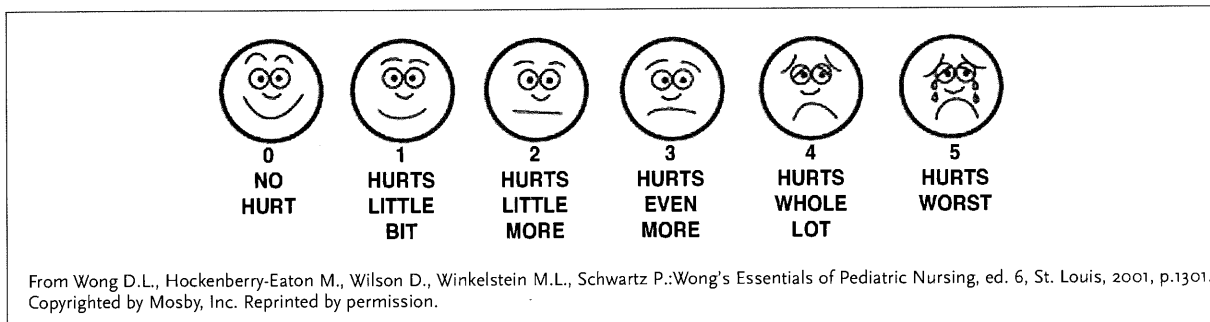


Comments:

- May be too abstract and confusing for the cognitively impaired person to grasp.
- In a study of 325 nursing home residents (not just those with dementia), “a high proportion of patients were unable to complete the visual analogue scale, either due to inability to follow commands or hold a pencil⁵⁴”.
- “Research reveals a high failure rate with the visual analog scales⁵⁵.”

WONG-BAKER FACES PAIN RATING SCALE

Show residents this scale and ask them to point to the face which most resembles the way they are currently feeling.



Comments:

- Successfully used for pain report in only about one-third of those with cognitive impairment⁵⁶.
- Because those with dementia lack the abstract thought to associate a crying face to pain, this tool might be a better indicator of depression rather than pain⁵⁷.

BEHAVIORAL PAIN TOOLS

Since people with late stage dementia have difficulty reporting their own pain, nurses often have to make judgments about pain based on behaviors. When assessing these behavioral cues, nurses look for subtle changes. Consistent caregivers are vital in this regard. They are more apt to notice subtle changes because the elderly frequently present with atypical signs and symptoms. To determine just what those subtle behavioral indicators are, thirty nurses who work with people with dementia in long-term care were interviewed⁵⁸. These are the signs and symptoms that they associate with pain in their residents:

- facial grimacing
- change in behavior
- tense muscles
- combative/angry
- changes in mobility
- crying
- increased confusion
- family reports
- nonspecific verbal perseveration
- withdrawing or becoming quiet
- change in respirations
- restless body movement
- moaning
- agitation
- pull away when touched
- rubbing or holding body part
- decreased sleep
- decreased appetite
- increased sleep
- exiting behavior
- a specific verbal confirmation of pain

Here are more signs and symptoms that nurses commonly report as indications of pain:

- resisting care
- increased physical dependence
- an increase or decrease in activity
- slow movement
- rubbing or holding a body part⁵⁹
- aggression
- a change in social interaction
- shifting weight when seated
- protecting a part of the body when moving

Based on the notion that behaviors are the key to identifying pain in those with dementia, researchers have developed several tools to assess pain. The following are two examples of tools that assess pain based on observation.

DISCOMFORT SCALE FOR PATIENTS WITH DEMENTIA OF THE ALZHEIMER TYPE (DS-DAT)⁶⁰

This tool measures discomfort in people with advanced dementia. The person is observed for five minutes, and then the observer rates the patient on nine items (scaled more, minimum, moderate, extreme). The tool is called the Discomfort Scale for patients with dementia of the Alzheimer type (DS-DAT).

DISCOMFORT SCALE FOR PATIENTS WITH DEMENTIA OF THE ALZHEIMER TYPE(DS-DAT)

NOISY BREATHING

Negative sounding noise on inspiration or expiration; breathing looks strenuous, labored, or wearing; respirations sound loud, harsh, or gasping; difficulty breathing or trying hard at attempting to achieve a good gas exchange; episodic bursts of rapid breaths or hyperventilation.

NEGATIVE VOCALIZATION

Noise or speech with a negative or disapproving quality; hushed low sounds such as constant muttering with a guttural tone; monotone, subdued, or varying pitched noise with a definite unpleasant sound; faster rate than a conversation or drawn out as in a moan or groan, repeating the same words with a mournful tone; expressing hurt or pain.

CONTENT FACIAL EXPRESSION

Pleasant calm looking face; tranquil, at ease, or serene; relaxed facial expression with a slack unclenched jaw; overall look is one of peace.

SAD FACIAL EXPRESSION

Troubled looking face; looking hurt, worried lost, or lonesome; distressed appearance; sunken, "hang dog" look with lackluster eyes; tears; crying.

FRIGHTENED FACIAL EXPRESSION

Scared, concerned looking face; looking bothered, fearful, or troubled; alarmed appearance with open eyes and pleading face.

FROWN

Face looks strained; stern or scowling looks; displeased expression with a wrinkled brow and creases in the forehead; corners of mouth turned down.

RELAXED BODY LANGUAGE

Easy openhanded position; look of being in a restful position and may be cuddled up or stretched out; muscles look of normal firmness and joints are without stress, look of idle, lazy or "laid back," appearance of "just killing the day"; casual.

TENSE BODY LANGUAGE

Extremities show tension; wringing hands, clenched fist, or knees pulled up tightly; look of being in a strained and inflexible position.

FIDGETING

Restless impatient motion; acts squirming or jittery; appearance of trying to get away from hurt area; forceful touching, tugging, or rubbing of body parts.

From Hurley, A.C., Volicer, B.J., Hanrahan, P.A., Houde, S. & Volicer, L. © (1992) by John Wiley & Sons, Inc., reprinted with permission.

Comments:

- The tool is well established as a reliable tool for researchers to use.
- The extensive training needed to achieve accuracy between people assessing the pain limits its usefulness in its current format in clinical settings.⁶¹

CHECKLIST OF NON-VERBAL PAIN INDICATORS (CNPI)⁶²

This tool is also designed to objectively assess pain behaviors. After watching the person, the observer writes a 0 if the behavior was not observed and a 1 if the behavior occurred, even briefly, during activity or rest.

| | WITH MOVEMENT | AT REST |
|--|---------------|---------|
| 1. VOCAL COMPLAINTS (NON-VERBAL): expression of pain not in words-moans, groans, grunts, cries, gasps, sighs. | _____ | _____ |
| 2. FACIAL GRIMACES/WINCES: furrowed brow, narrowed eyes, tightened lips, dropped jaw, clenched teeth, distorted expressions. | _____ | _____ |
| 3. BRACING: clutching or holding onto furniture equipment or affected area during movement. | _____ | _____ |
| 4. RUBBING: massaging affected area | _____ | _____ |
| 5. RESTLESSNESS: constant or intermittent shifting of position, rocking, intermittent or continuous hand motions, inability to keep still. | _____ | _____ |
| 6. VOCAL COMPLAINTS (VERBAL): words expressing discomfort or pain – “ouch,” “that hurts,” cursing during movement or exclamations of protest, “stop,” “that’s enough.” | _____ | _____ |
| SUBTOTAL SCORE | _____ | _____ |
| TOTAL SCORE | _____ | _____ |

Reprinted from Pain Management Nursing, 1(1), Feldt, K., The Checklist of Nonverbal Pain Indicators (CNPI), © (2000), with permission from American Association for Pain Management Nursing.

Comments:

- The CNPI is a brief, clinically useful approach to assess pain in older people that are cognitively impaired.
- The CNPI has been tested primarily with hospitalized elders. It needs further evaluation with nonverbal elders, and those in long term care settings⁶³.

Keypoints: *Pain Assessment*

1. Pain is under assessed and inadequately treated in the elderly.
2. 45-80% of nursing home residents are in pain at any one time.
3. When asking a cognitively impaired person to rate their pain, use a simple pain scale, and give them sufficient time to process the task and respond.
4. If residents are unable to participate in an evaluation of their discomfort because of cognitive impairment, use a tool which assesses behavioral cues.

Analgesics

If your assessment reveals that the resident is experiencing pain, the next step would be to provide treatments which bring comfort. Following is a discussion about types of pain and analgesics used to treat the pain.

Although analgesics are the “mainstay” of pain relief, non-pharmacological approaches may bring sufficient relief in some mild to moderate types of pain⁶⁴.

Examples of commonly used non-pharmacological treatments include but are not limited to therapeutic communication, repositioning, offering a snack, cuing or redirecting, ambulating, massage, moving to a quiet environment, offering fluids, using a calm approach, music, distraction, heat, ice, or spiritual interventions.

If pharmacological treatment of the pain is needed, the practitioner will select an analgesic based on the multiple factors including the type and intensity of the pain. Following is a discussion about types of pain and methods to treat the pain.

When interacting with people with dementia, it is important to remember that their brain is very vulnerable to physical, environmental stressors. Furthermore, their reactions to those stressors are often influenced by their inability to recognize and/or verbally express their feelings or responses. Therefore, when you identify potential painful conditions, it is important to select an appropriate treatment to address the condition.

TYPES OF PAIN⁶⁵

SOMATIC

Arises from bone, joint, muscle, skin, or connective tissue. It is usually aching or throbbing in quality and is well localized.

VISCERAL

Arises from visceral organs, such as the GI tract and pancreas.

NEUROPATHIC

Abnormal processing of sensory input by the peripheral or central nervous system. It is often described as burning, shooting, aching, jabbing, or tingling. Treatment usually includes adjuvant analgesics (drugs that have a primary purpose other than pain relief).

COMMON ADJUVANT ANALGESICS⁶⁶

| PAIN SOURCE | DRUG CLASS | EXAMPLES |
|---|-----------------|---|
| Bone or Soft Tissue | NSAIDS | Ibuprofen (Advil, Motrin) |
| | | Naproxen (Naprosyn) |
| | | Indomethacin (Indocin) |
| | Corticosteroids | Dexamethasone (Decadron) |
| Nerve Damage or Dysesthesia Continuous "burning" | Antidepressants | Amitriptyline (Elavil) |
| | | Imipramine (Tofranil) <i>(particularly effective in treating pruritus)</i> |
| Lancinating or "shooting" pain | Anticonvulsants | Gabapentin (Neurontin) |
| | | Valproic acid (Depakote) |

GUIDELINES FOR ANALGESIC USE

- Individualize pain management for each person.
- Start medications low and go slow to reduce unintended consequences.
- Monitor for pain, pain relief, and medication side effects. If pain control is ineffective or the side effects are unmanageable, the prescriber is contacted to change the dose or drug.

Analgesics are divided into three groups that relieve pain in different ways. They are nonopioids, opioids, and adjuvants⁶⁷.

NONOPIOIDS include acetaminophen (Tylenol) nonsteroidal anti-inflammatory drugs (NSAIDS) and aspirin. They work in the central nervous system and at the site of injury.

OPIOIDS refer to codeine, morphine and other natural, semisynthetic and synthetic drugs that relieve pain by binding to opioid receptors in the nervous system. Sometimes opioids are combined with nonopioids. Propoxyphene (Darvon) and Meperidine (Demerol) are poor choices for the elderly because they often increase confusion or agitation.

ADJUVANTS are drugs that have a primary purpose other than pain relief (e.g., antidepressant or anticonvulsant), but can be effective in treating certain types of pain such as neuropathic pain.

COMMON ANALGESICS ARRANGED BY CLASS

NONOPIOIDS

- **Acetaminophen**
(Tylenol)
- **Aspirin**
poor choice for elderly
- **Diclofenac**
(Voltaren)
- **Diffunisal**
(Dolobid)
- **Etodolac**
(Lodine)
- **Fenoprofen calcium**
(Nalfon)
- **Flurbiprofen sodium**
(Ansaid)
- **Ibuprofen**
(Motrin, Advil)
- **Indomethacin**
(Indocin)
- **Ketoprofen**
(Orudis)
- **Ketorolac**
(Toradol)
- **Magnesium salicylate**
(Doan's Pills)
- **Meloxicam**
(Mobic)
- **Nabumetone**
(Relafen)
- **Naproxen sodium**
(Aleve)
- **Piroxicam**
(Feldene)
- **Salsalate**
(Disalcid)
- **Sulindac**
(Clinoril)

COMBINATION OPIOIDS

- **Percocet**
(acetaminophen and oxycodone)
- **Roxicet**
(acetaminophen and oxycodone)
- **Vicodin**
(acetaminophen and hydrocodone)
- **Lortab**
(acetaminophen and hydrocodone)
- **Tylenol #1, 2, 3, 4**
(acetaminophen and codeine)
- **Darvocet**
(acetaminophen and propoxyphene)
poor choice for elderly
- **Wygesic**
(acetaminophen and propoxyphene)
poor choice for elderly

OPIOIDS

SHORT ACTING:

- **Hydrocodone**
- **Oxycodone**
- **Codeine**
- **Morphine**
(MSIR, MS Soluble Roxanol)
- **Hydromorphone**
(Dilaudid)
- **Levorphanol**
(Levo-Dromoran)
- **Meperidine**
(Demerol)
poor choice for elderly

LONG ACTING:

- **OxyContin**
- **Morphine**
(MS Contin, Oramorph SR, Kadian)
- **Palladone**
(hydromorphan)
- **Fentanyl**
(Duragesic)

ADJUVANTS

ANTICONVULSANTS:

- **Gabapentin**
(Neurontin)
- **Carbamazepine**
(Tegretol)
- **Phenytoin**
(Dilantin)
- **Clonazepam**
(Klonopin)
- **Valproic acid**
(Depakene)

ANTIDEPRESSANTS:

- **Amitriptyline**
(Elavil)
- **Desipramine**
(Norpramin)
- **Nortriptyline**
(Pamelor)

LOCAL ANESTHETICS:

- **Lidocaine**
(Lidoderm patch)

CORTICOSTEROIDS:

- **Prednisone**
(Deltasone)
- **Dexamethasone**
(Decadron)

NONOPIOIDS AND NONSTEROIDAL ANTI-INFLAMMATORY DRUGS⁶⁸

ACETAMINOPHEN (TYLENOL)

- considered safe (unless liver disease or chronic alcohol use are present) because it does not affect the stomach, kidneys, or platelets
- has no ability to decrease inflammation
- is hepatotoxic (injurious to the liver) in overdose (maximum dose is 3,000mg/24 hours) and is contraindicated for people with impaired liver function.

NONSTEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS)

- Examples: ibuprofen (Motrin), naproxen (Naprosyn, aleve), indomethacin (Indocin)
- Well absorbed with oral dosing
- Some have duration of effect for short term (4 hours); others for up to 12 hours
- Adverse effects from NSAIDS
 - Gastropathy (disease of the stomach)
 - Renal insufficiency (especially the elderly)
 - Decreased platelet aggregation can result in bleeding
 - Hypersensitivity reactions
 - Central Nervous System (CNS) effects such as dizziness, headache, ringing in the ears

SECOND GENERATION NSAIDS

- Drug class is Cox-2 inhibitor
- Problems/Side effects
 - Quite expensive
 - Gastropathy, Abdominal pain
 - May be associated with increased cardiac risks, so the federal drug administration (FDA) has urged prescribers to consider alternatives to Cox-2 inhibitors when indicated

ULTRAM

- Analgesic effect equivalent to Tylenol #3
- Side effects: nausea, confusion, dizziness, constipation

OPIOIDS

Both long and short acting opioids are available for pain relief. Examples of short acting opioids include Morphine (MSIR), Hydromorphone (Dilaudid), Oxycodone (Percocet), Hydrocodone (Vicodin, Lortab, Lorcet), and Meperidine (Demerol). However, Meperidine (Demerol) is a poor choice in the elderly because it can increase confusion. Examples of long acting opioids are Morphine (MS Contin, Oramorph SR), Oxycodone (OxyContin), and Fentanyl (Duragesic) patches. The risks vs. benefits of opioid use are commonly reviewed in the literature^{69, 70, 71}, and are summarized below.

BENEFITS OF OPIOIDS

- very effective analgesics
- relieve anxiety
- improve mood
- no evidence of major organ toxicity with long term use
- no clinical evidence of long lasting changes in CNS

SIDE EFFECTS OF OPIOIDS

(over time, tolerance can develop to all the following side effects, except constipation)

- sedation, confusion
- dizziness, dysphoria (unpleasant mood)
- nausea
- constipation
 - * Constipation must be prevented and treated in residents taking opioids.
See recommendations for preventing and treating constipation on page 10.
- itching and urticaria (hives)
- respiratory depression
 - * Opioid-induced respiratory depression is rare if opioid doses are titrated slowly and decreased when increased sedation is detected⁷².



"I think narcotics are underutilized and a lot of these people are having more pain than we address. So I like to see them used when the situation is appropriate to keep them comfortable. Why should anybody be in misery? In their brains we don't know what's going on in there, and if we add pain to the equation it just makes it that much worse for them."

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

INDIVIDUALIZING THE PAIN REGIMEN

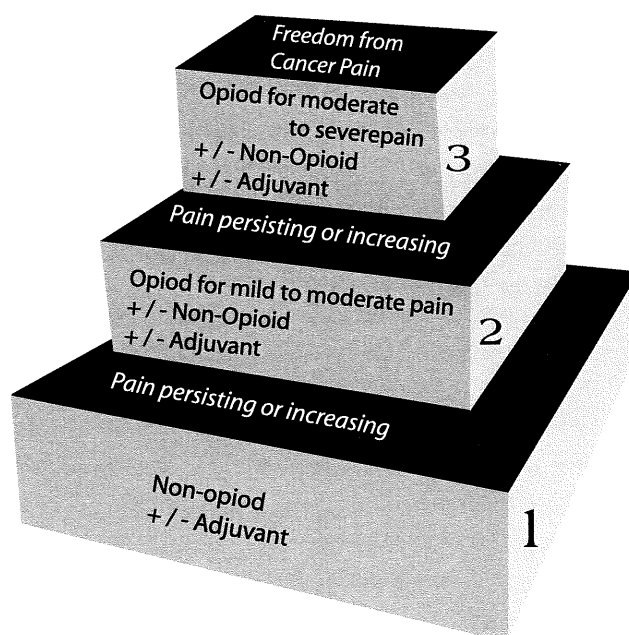
Pain management is a complex task, and several guidelines have been developed for use in practice. One guideline developed by the World Health Organization (WHO), combines analgesics from each of the three groups above (opioids, nonopioids, and adjuvant analgesics) to manage cancer pain based upon the intensity. The WHO Stepladder has been endorsed by the United States Agency for Health Care Policy and Research⁷³ and American Pain Society (APS).⁷⁴

In the WHO ladder step 1, mild to moderate pain, a nonopioid and possibly an adjuvant analgesic are suggested (unless contraindicated). Accordingly, analgesics such as aspirin, acetaminophen, and NSAIDs are the starting analgesics of choice for mild to moderate pain.

If pain persists or increases, step 2 recommends adding a weak opioid. The opioid is used with or without a nonopioid, and many also include an adjuvant agent. Common examples of nonopioid/opioid combinations used at this level are Vicodin, Percocet, and Tylenol #3.

When pain continues or becomes moderate to severe, the opioid dose or potency is increased⁷⁵). Moderate to severe chronic pain can be more effectively managed with either an around-the-clock dosing or a controlled release formulation allowing for longer dosing intervals. Examples of controlled release medications include OxyContin, Fentanyl patches, and MS Contin. When using a long acting medication, a short acting medication is also needed for breakthrough pain (a sudden flare of pain that “breaks through” the long-acting medication prescribed to treat moderate to severe persistent pain⁷⁵).

WHO'S PAIN RELIEF LADDER



Of the World Health Organization. Reprinted with permission⁷⁶

DOSE ESCALATIONS

When an increase in opioid medications is needed, it can be calculated by percentages. Common guidelines are⁷⁷:

- Mild pain (or rated 0-3/10), dose escalation is 25%* of current dose.
 - Moderate pain (or rated 4-6/10), dose escalation is 25-50%* of current dose.
 - Severe pain (or rated 7-10/10), dose escalation is 50-100%* of current dose.
- * Remember to always start low and go slow when administering medications to the elderly. Slower escalations may be more beneficial for elders with cognitive impairment.

When converting to a Fentanyl patch, it is generally recommended that the person already be receiving regular amounts of an opioid. Dose conversion is done to prevent withdrawal symptoms when changing from one opioid to another. However, it is tricky to provide adequate analgesia and not cause withdrawal symptoms. Nurses also need to be aware that Fentanyl patches have a delayed onset of action (12-16 hours), so shorter acting analgesics are needed for break through pain, especially during initiation of the Fentanyl patch. The manufacturer cautions that people converted to Fentanyl patches may need an increased dose after initial application.⁷⁸

Generally speaking, 25mcg of a Fentanyl patch can be started if the person is taking and tolerating:

- 2 Percocets every four hours (60mg of oxycodone/day)
- 2 Vicodin (5/500) every four hours (60 mg of hydrocodone/day)
- 30 mg of MS Contin or Oramorph SR every 12 hours (60mg of morphine/day)⁷⁹

Fentanyl patches are available in strengths of 12, 25, 50, 75, and 100mcg/h. If the break through pain increases, the scheduled fentanyl patch dose may need to be increased. Generally, a dose escalation is needed when the break through medication is:⁸⁰

- greater than 90 mg of Morphine in 24 hrs
- greater than 45 mg of Oxycodone in 24 hrs
- greater than 300 mg of Codeine in 24 hrs
- greater than 12 mg of Hydromorphone in 24 hrs



"We've had little Betty, who has a recent fracture and probably doesn't weigh more than 65 pounds. Well, a couple months ago we thought she was terminal and we had her on morphine suppositories around the clock. Well, it wasn't the Lord's plan, and we thought maybe the morphine was too much for her. And so Betty was taken off the heavy-duty stuff and now she's getting a long acting oxycodone, and we're expecting that she is still happy to be here. It's not God's plan to call her right away, and so we'll keep her as comfortable as we can. But we're not going to overdo it because she's not ready for that.

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

TOLERANCE AND DEPENDENCE

A discussion of opioid drugs would be incomplete without mentioning the topics of tolerance and dependence. Confusion regarding the meaning of these words is common and can adversely influence pain management. The following are the definitions recommended by the American Pain Society:⁸¹

ADDICTION is psychological dependence. It is characterized by a pattern of compulsive drug use, continued craving for an opioid and the need to use the opioid for effects other than pain relief or non-medical reasons. So, taking opioids to relieve pain is not, by definition, addictive.

PHYSICAL DEPENDENCE is manifested by withdrawal symptoms as a result of abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist. Although variable, opioid withdrawal symptoms may include pain, insomnia, anxiety, runny nose, abdominal cramping, and diarrhea⁸². Physical dependence is expected with chronic therapy and symptoms can be reduced with gradual withdrawal of opioids.

TOLERANCE is a state of adaptation in which exposure to a drug results in a decrease of one or more of the drug's effects over time. For example, there may be decreased pain relief, sedation, and respiratory depression.

When taking opioids, people may have any of the above conditions alone or in combination with either or both of the other conditions. It is very important to remember that physical dependence and tolerance are due to continued exposure to the opioid and are expected in those taking regular doses of opioids for more than a month⁸³. Addiction, fortunately, is a rare consequence of taking opioid medications for pain relief, occurring in less than 1% of patients.⁸⁴

KEYPOINTS *Analgesics*

1. Start low and go slow when giving pain medications to the elderly.
2. Drugs used for pain management are based upon severity of pain, and the WHO three-step ladder guideline.
3. Administer medications for chronic pain on an around-the-clock basis, with additional doses "as needed" for consistent pain management.
4. Consider adjuvant analgesics for non-opioid responsive neuropathic pain.
5. Anticipate and vigorously treat side effects, especially constipation in the elderly.
6. Assess pain, pain relief, and side effects frequently and adjust the dose accordingly. Change to another drug if side effects are unmanageable.
7. Propoxyphene (Darvocet) is avoided due to weak analgesic effect and potential toxicity.
8. Addiction occurs very rarely in patients who receive opioids for pain control.

Psychotropics

Psychotropic medications are used only when other physical, environmental and social causes for behavioral symptoms have been ruled out and nonpharmacological treatments are ineffective.

The word psychotropics is a broad term which includes **antidepressants**, **antianxiety** (sedative / hypnotic drugs), and **antipsychotics**. These medications must be prescribed in accordance with state and federal guidelines. Generally, they are prescribed when there is an appropriate diagnosis and the resident, the resident's guardian, or other authorized representative has been informed and consent to the drug. Generally, only one medication is started or stopped at a time and new drugs are not added unless nonpharmacologic approaches have failed. Documentation of the effectiveness of the medication, careful monitoring for side effects and periodic trials of withdrawal are required.

Special care must be considered when prescribing medications to the elderly. The elderly process and eliminate drugs differently than the young and middle age adults because of progressive physiologic changes in renal, hepatic, gastrointestinal function, and changes in body composition. Generally, the elderly are more sensitive than younger adults to psychotropic drugs and therefore require a lower dose to start⁸⁵.

The following are a few things to consider when initiating psychotropic medications:

1. What is the targeted behavior or symptom you are trying to change?
2. Have nonpharmacologic approaches failed?
3. Is there a diagnosis to support using a psychotropic medication?
4. Are there other medical problems?
5. What other medicines is this person already taking?
6. What are the side effects of the medication?
7. Is the goal short-term or long-term?

BRIEF OVERVIEW OF PSYCHOTROPICS

ANTIDEPRESSANTS

Depression is common among the elderly. It is estimated to affect up to 5% of people age 65 and older⁸⁶. Elderly with depression may experience decreased appetite, weight changes, sadness, confusion, delusions, hallucinations, anxiety and irritability, trouble sleeping, waking up early or sleeping too much, exhibit increased agitation, have difficulty concentrating and remembering.

There are several different classes of antidepressants. Each class of antidepressant works differently on the neurotransmitters in the brain, so when one class does not work another may. It may take several weeks to see an effect from some antidepressants. Antidepressants have side effects that may include

- Anticholinergic
 - dry mouth
 - blurred vision
 - constipation
 - urinary retention
- Sedation
- Arrhythmias
- Orthostatic hypotension
- Weight gain
- Gastrointestinal disturbances (nausea, constipation)
- Sexual dysfunction

Not all classes have the same side effect profile, thus making some classes of antidepressants more attractive than others. The side effect profile must always be considered before an antidepressant is initiated.

Some side effects may actually be helpful. For example, use of an antidepressant for depression with sedating qualities might be useful for someone who is also experiencing insomnia and anxiety. Be aware that antidepressants often take several weeks before an improvement is seen. Dosages need to be adjusted carefully. The more gradual the adjustment is made, the less likely it is that the resident will experience side effects.

PREFERRED USE FOR THE ELDERLY

The antidepressant most often recommended for the elderly are from the class known as selective serotonin reuptake inhibitors (SSRIs). They have milder side effects and are less toxic in overdose. Common side effects of SSRIs include transient nausea, diarrhea, insomnia, somnolence, dizziness, akathisia (uncontrollable limb and body movements⁸⁷), and orgasmic dysfunction.

There are no clear end points for discontinuation of antidepressants. The only requirement is to document the rationale for continued use. Antidepressants need to be tapered when discontinuing their use to prevent withdrawal symptoms. Withdrawal symptoms can range from dizziness, nausea, lethargy, headache to flu-like feelings, panic attacks, numbness, agitation, or insomnia⁸⁸.

Preferred Antidepressants for Elderly 89, 90

| GENERIC/ BRAND | INDICATIONS FOR USE | Comments |
|---|--|--|
| SELECTIVE SEROTONIN REUPTAKE INHIBITORS (SSRI'S) | | |
| Citalopram (Celexa) | Depression, Obsessive-compulsive disorder, Panic disorder | <i>Nausea common early, unlikely to interact with other drugs</i> |
| Fluvoxamine (Luvox) | Obsessive-compulsive disorder, Depression | <i>Most common side effects are nausea, vomiting, & headache</i> |
| Paroxetine (Paxil) | Depression, Obsessive-compulsive disorder, Panic disorder, Social anxiety disorder, Generalized anxiety disorder, Post-traumatic stress disorder | <i>Sedating & constipating</i> |
| Sertraline (Zoloft) | Depression, Obsessive-compulsive disorder, Panic disorder, Post-traumatic stress, Social anxiety disorder | <i>Anxiety, anorexia, insomnia, dry mouth, sexual dysfunction & diarrhea are common</i> |
| Escitalopram (Lexapro) | Depression, Generalized anxiety disorder | <i>Common side effects were nausea, insomnia, ejaculation disorder, somnolence, increased sweating, fatigue, decreased libido, and anorgasmia.</i> |
| TETRACYCLIC ANTIDEPRESSANT | | |
| Mirtazapine (Remeron) | Depression (particularly those with anxiety, sleep disturbance & agitation) | <i>Frequent reports of fatigue, dizziness, transient sedation, & weight gain. Has some anti-anxiety effects.</i> |
| DOPAMINE REUPTAKE BLOCKING AGENTS | | |
| Bupropion (Wellbutrin) | Depression, Nicotine dependence, Smoking cessation, Bipolar Disorder | <i>To be avoided in patients with eating and seizure disorders</i> |
| SEROTONIN NOREPINEPHRINE REUPTAKE INHIBITORS | | |
| Venlafaxine (Effexor) | Depression, Generalized anxiety disorder, Social anxiety disorder | <i>Common side effects include nausea, dizziness, insomnia, somnolence, and dry mouth</i> |
| SEROTONIN-2 RECEPTOR ANTAGONISTS | | |
| Nefazodone (Serzone) | Depression, Panic disorder | <i>Sedating, Can cause liver failure</i> |
| Trazodone (Desyrel) | Depression | <i>Fairly sedating & can cause orthostatic hypotension</i> |
| TRICYCLIC ANTIDEPRESSANTS | | |
| Desipramine (Norpramin) | Depression, Anxiety, Bulimia nervosa, Panic disorder | <i>Sedation early in treatment. Common side effects blurred vision, urinary retention, dry mouth, constipation, weight gain or loss, and orthostatic hypotension</i> |
| Nortriptyline (Pamelor) Lowers seizure threshold | Depression, Smoking cessation | <i>Can produce sinus tachycardia and prolongs conduction time.</i> |
| SEROTONIN AND NOREPINEPHRINE REUPTAKE INHIBITOR (SNRI) | | |
| Cymbalta (duloxetine) | Depression, diabetic peripheral neuropathy pain | <i>Can cause nausea, dry mouth, constipation, decreased appetite, fatigue, somnolence, and increased sweating.</i> |

ANTI-ANXIETY (SEDATIVE / HYPNOTIC DRUGS)

Anxiety disorders and sleep disturbances are common among the elderly in nursing homes and may be associated with depression.

Common anxiety symptoms may include:⁹¹

- Being very worried
- Overly fearful
- Nervous
- Fidgety
- Shaky, or frightened
- Flight or fight response (ie: elevated blood pressure and heart rate, dilated pupils, diaphoresis)
- Hyperactivity
- Shortness of breath
- Difficulty sleeping
- Irritable
- Restlessness
- Chest pain or discomfort
- Dry mouth or feeling of choking
- Feeling the urge to escape from certain situations

Benzodiazepines are used for short-term management or on an as needed basis for anxiety and insomnia. They work like a tranquilizer, slowing the central nervous system. Older people are more sensitive than younger people to the effects of benzodiazepines and in general the recommendation is to start at a lower dose and gradually titrate up if necessary⁹².

The most common side effects are related to the central nervous system (CNS), such as, clumsiness, unsteadiness, uncoordinated movements, dizziness, lightheadedness, drowsiness, slurred speech, mental confusion, forgetfulness, and memory impairment. Older people are at an increased risk of falling and injuring themselves when they take benzodiazepines, so education and monitoring is essential⁹³.

All benzodiazepines increase the risk of fractures from falls in the elderly. When a benzodiazepine is necessary, a short-acting benzodiazepine is preferred over the longer acting benzodiazepines (ie. Librium, Valium, Klonopin, etc). The longer acting benzodiazepines tend to cause more adverse effects such as confusion, cognitive impairment, and falls. The following are examples of short acting benzodiazepines:

LORAZEPAM (ATIVAN)

- Maximum dosage 2 mg per day

ALPRAZOLAM (XANAX)

- Maximum dosage 0.75 mg per day

Buspirone (Buspar) is an alternative to the benzodiazepines. Buspar is a mild central nervous system depressant. It differs from the benzodiazepines in that it does not cause the sedation or psychomotor slowing and is not associated with withdrawal reactions or dependence/abuse potential. The down side to Buspar is that the onset of action may be delayed up to two to four weeks⁹⁴.

A pharmacological agent should not be used, if at all possible, to promote sleep. If insomnia is the predominant symptom and nonpharmacological measures, such as avoiding daytime naps, avoiding caffeine or limiting liquids before bedtime, managing pain, or utilizing relaxation techniques have not worked, then use of a pharmacological agent may be necessary. Some nonbenzodiazepines that can be used for sleep are:

ZOLPIDEM (AMBIEN)

Hypnotic agent unrelated to benzodiazepines

TRAZODONE (DESYREL)

Sedating antidepressant

MELATONIN

Synthetic supplement

ANTIPSYCHOTICS

Antipsychotic medications maybe effective in treating psychosis⁹⁵. The elderly can develop psychosis from a variety of conditions, such as from dementia, delirium, schizophrenia, mood disorders with psychotic features, intra cranial tumor, stroke, or bleed, and substance abuse or intoxication⁹⁶. Symptoms of psychosis include delusions (*false beliefs*), hallucinations (*seeing, hearing, feeling, or otherwise perceiving things that are not there*), illusions (*mistaken perceptions*), agitation (*aggression, combativeness, hyperactivity including wandering, screaming, sexual disinhibition, or culturally inappropriate behaviors*), depression, and sundowning⁹⁷.

Omnibus Budget Reconciliation Act of 1987 (OBRA '87)⁹⁸ regulations permit the use of antipsychotic medication for a nursing home resident with dementia only when there is supporting documentation of psychotic or agitated behaviors and the resident:

- is a danger to themselves or others
- interferes with the staff's ability provide care
- presents a deterioration in their functional ability

Antipsychotic medications can cause significant side effects, especially in the elderly, so careful consideration is necessary prior to starting antipsychotics⁹⁹.

Common side effects¹⁰⁰:

- Sedation
- Anticholinergic effects
(*confusion, blurred vision, constipation, dry mouth, light-headedness, difficulty starting and continuing to urinate, and loss of bladder control*)
- Orthostatic hypotension
(*systolic blood pressure decrease of at least 20 mm Hg within three minutes of standing*).
- Extrapyrimal symptoms (EPS)
(*involuntary movements, tremors and rigidity, body restlessness, muscle contractions and changes in breathing and heart rate*).
 - Elderly are vulnerable to extrapyramidal symptoms
- Tardive dyskinesia
(*repetitive abnormal involuntary movements*)
 - Potentially irreversible involuntary muscle movements
- Weight gain

Before starting an antipsychotic, a thorough assessment must be done to rule out the possibility of medical conditions (*urinary tract infection, pneumonia etc*), pain, or drug reactions/interactions causing the behavioral symptoms, so inappropriate treatment with antipsychotics can be avoided. Starting doses for the elderly should be one quarter that of the usual adult dose and increased gradually¹⁰¹.

There are different classes of antipsychotics. The 'old' or commonly known as typical antipsychotics (ie: Haldol, Melleril,) were found to cause more adverse effects, especially EPS.

A newer class called **atypical antipsychotics**, has fewer side effects (ie; tardive dyskinesia) and has been successful in treating patients with dementia. Risperidone (Risperdal), olanzapine (Zyprexa), quetiapine (Seroquel), and clozapine (Clozaril), are effective in decreasing psychosis and disruptive behaviors in people with Alzheimers disease¹⁰². Unfortunately, The Food and Drug Administration (FDA), has determined that there is an increased mortality in elderly patients with dementia related psychoses in comparison to those treated with a placebo. Based on a meta-analysis of 17 placebo-controlled trials of atypical antipsychotics, the FDA has added a Boxed Warning on all atypical antipsychotics including Abilify (aripiprazole), Zyperxa (olanzapine), Seroquel (quetiapine), Risperdal (risperdone), Clozaril (clozapine), and Geodon (ziprasidone), and Symbyax (olanzapine and fluxetine. None of the antipsychotics is approved for the treatment of behavioral disorders in elderly patients with dementia¹⁰³.

COMMON ATYPICAL ANTIPSYCHOTICS USED IN THE ELDERLY

| DRUG NAME | USES ¹⁰⁴ | COMMON SIDE EFFECTS ¹⁰⁵ |
|-------------------------|---|---|
| Risperidone (Risperdal) | Psychotic disorders in the elderly, agitated psychotic behaviors | Orthostatic hypotension, prolong the QT interval, early in treatment dizziness, sinus tachycardia or syncope |
| Olanzapine (Zyrex) | Acute psychotic symptoms, acutely agitated dementia patients | Weight gain, somnolence, dizziness, agitation, constipation, akathisia, orthostatic hypotension |
| Quetiapine (Seroquel) | Psychotic and behavioral disorders (controls agitation) | Most sedating, weight gain, constipation, xerostomia (dry mouth) and dyspepsia (indigestion) |
| Clozapine (Clozaril) | Psychosis in elderly patients with Parkinson's disease, refractory schizophrenia, and demented patients | Tachycardia, orthostatic hypotension, elevations in serum triglycerides, weight gain, drooling, chance of seizures, excessive sedation or somnolence (Need for regular blood tests for agranulocytosis) |
| Ziprasidone (Geodon) | Acute psychosis, treatment of schizophrenia | Prolongation of the QT interval, somnolence, respiratory disorders |
| Aripiprazole (Abilify) | Psychosis, Treatment of schizophrenia | Headache, nausea vomiting constipation, anxiety, insomnia, dizziness, and akathisia (restless body movements) |

KEYPOINTS *Psychotropics*

1. The term psychotropic means antidepressants, antianxiety (sedative / hypnotic drugs), and antipsychotics.
2. Psychotropic medications require careful consideration.
3. The elderly are more sensitive to psychotropic drugs and generally require lower starting doses.
4. Selective serotonin reuptake inhibitors (SSRIs) antidepressants are preferred for the elderly.
5. Short-acting benzodiazepines are preferred for the elderly.
6. Atypical antipsychotic drugs are effective for elderly patients with psychosis

Interdisciplinary Consideration/ Consultation

Care is given by many members of a multidisciplinary team for residents in long term care. It is essential for the members of the team to discuss the needs of the residents and to share ideas about ways to provide the best care possible. More information about communicating with team members and tools to assist with communication will be provided for you in the next section of this manual.



Nurses commonly feel that subtle changes in behavior may signal discomfort. "What is causing the discomfort? Is it a need to be toileted or changed because the person can't tell us? Is there an emotional distress? Has a family visit caused upset? But then we try to determine whether it's emotional versus the physical. And we don't always know. We play a lot of guessing games to determine it."

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

Putting the Serial Trial Intervention (STI) into Practice

Now is the time to put the pieces together and see the (STI) in action. Refer to the first section of this manual, (What is the Serial Trial Intervention?) for an overview of the STI, a description of the STI, and discussion of its benefits.

In this section, each step of the STI will be described and case studies will clearly demonstrate how to move through the steps. You can visually follow how progress is made through the steps using the figure below.

BEHAVIOR CHANGE IDENTIFICATION

For the entire process to begin, there needs to be something that triggers it. Since people with middle to late stage dementia often cannot verbalize their needs, that trigger is usually a change in behavior.

Step 1

Physical:

Begin with a physical assessment to look for physical causes of discomfort. If a problem is identified, appropriate treatment(s) are initiated that target the identified problem. If the behavior continues, or if there was a negative physical assessment, proceed to Step 2.

Step 2

Affective:

Conduct an affective assessment. If you identify a problem, initiate appropriate treatment(s) that target the identified problem. If the behavior continues, or if there was a negative affective assessment, proceed to Step 3.

Step 3

Trial of Non-Pharmacological Comfort Treatments:

Trial a series of non-pharmacological comfort treatments. If they are ineffective, proceed to Step 4.

Step 4

Trial of Analgesics:

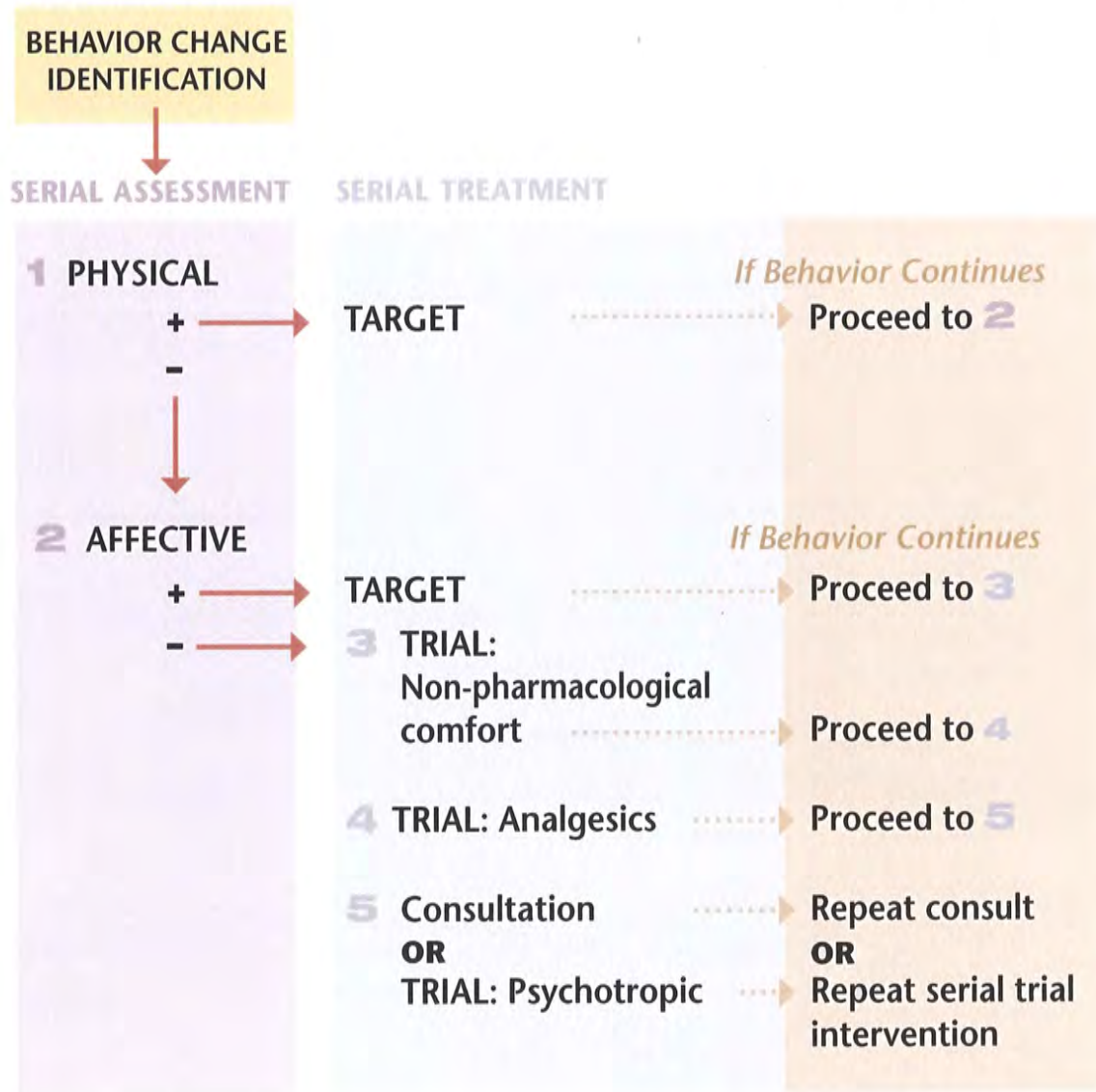
Trial a prescribed PRN analgesic. If it is ineffective, proceed to Step 5.

Step 5

Consultation or Trial of Psychotropic:

If consultation is ineffective, repeat the consult or trial a prescribed PRN psychotropic. If the behavior still continues, repeat the STI.

SERIAL TRIAL INTERVENTION



Many people with dementia cannot adequately verbalize their needs, so they express unmet needs through their behaviors. Most often their needs can be met by basic care such as toileting, positioning, adjusting a hearing aide, or applying a lap robe. When behaviors are not resolved with basic care, ongoing assessments and are necessary to determine what is causing their behavior. The steps needed when basic care does not resolve behaviors are discussed in detail in the following section(s).

The STI serves as a systematic guideline, but is flexible enough to allow for nursing discretion. However, in most cases it is highly recommended to move through the following steps in the order presented. Documentation of the STI process can be monitored using the following form.

Documenting Use of the Serial Trial Intervention

Name _____

BEHAVIOR OBSERVED:

1. PHYSICAL ASSESSMENT Consider assessing one or more of the following areas:

| | ASSESSMENT FINDINGS: | TARGETED TREATMENT(S) PLANNED & UTILIZED: |
|---|----------------------|--|
| <ul style="list-style-type: none"> • verbal cues • ability to perform activities of daily living (ADL) • a change in activity • social cues • appetite or weight changes • vital signs • body part cues • acute increased confusion • body systems • urine dipstick • review of history, medications, and treatments | | |

2. AFFECTIVE ASSESSMENT Assess each of the following:

| | ASSESSMENT FINDINGS: | TARGETED TREATMENT(S) PLANNED & UTILIZED: |
|--|---|--|
| Is there environmental stress that can be reduced? | <input type="checkbox"/> No <input type="checkbox"/> Yes If Yes, describe: | |
| Does the person have a balance between sensory stimulating and sensory calming activity? | <input type="checkbox"/> No <input type="checkbox"/> Yes If No, describe: | |
| Does the person get at least 2 ten minute periods of meaningful human interaction daily? | <input type="checkbox"/> No <input type="checkbox"/> Yes If No, describe: | |

3. TRIALS OF NONPHARMACOLOGICAL TREATMENTS *Try at least 3 nonpharmacological treatments to try to alleviate the behavior*

| TRIAL TREATMENTS (at least 3 recommended) | EFFECTIVENESS |
|---|---------------|
| 1. | |
| 2. | |
| 3. | |
| 4. | |

4. TRIAL OF ANALGESICS *Give a prescribed analgesic to try to alleviate the behavior.*

| | |
|---|--|
| Drug and dose administered: | |
| Effective? <input type="checkbox"/> No <input type="checkbox"/> Yes | |
| If ineffective | Dose escalation or drug change needed? <input type="checkbox"/> No <input type="checkbox"/> Yes |
| | Move to Step 5? <input type="checkbox"/> No <input type="checkbox"/> Yes |

5. TRIAL OF PSYCHOTROPICS/CONSULTATION

You may need to consult the primary care physician, advanced practice nurse prescriber, or the geropsychiatrist if all of the previous steps fail.

| |
|---|
| Consulted with: |
| 1. |
| 2. |
| Prescribed Psychotropic administered: |
| Effective? <input type="checkbox"/> No <input type="checkbox"/> Yes |

*If consultation is ineffective, repeat the consult or trial a prescribed PRN psychotropic.
If the behavior continues, repeat the STI.*

Behavior Change Identification

Caring for people with middle to late stage dementia can be very difficult and frustrating. You may wonder,

- How can I keep my patience?
- How can I cope with the sadness?
- Is there any more I can do?
- How can I cope with the hurtful comments?
- What is the proper response to these behaviors?
- Can these behaviors be prevented?

Behaviors associated with dementia are often labeled as problem behaviors. Actually, most behaviors labeled as problems are the resident's response to physical, psychosocial, or environmental imbalances¹⁰⁶. Kovach (1997) suggests that "Behaviors should only be considered a problem when the action interferes or potentially interferes with the health, rights, or safety of the person exhibiting the behavior or other persons such as staff or residents."¹⁰⁷

Unfortunately, labeling the behavior as a problem blames the resident for the behavior rather than looking at the behavior as a symptom of an unmet need. This is like a teacher giving a test and, when most of the class fails the test, the teacher blames it on the students for not studying hard enough. In the case of the teacher, he/she should have looked at what might have caused the poor performance by the class. Was the material on the test covered clearly? Were the test questions too "tricky"?

The same is true for caregivers of people with dementia. "Problem behaviors" are a clue to us that further investigation is required. We need to be looking for those clues all the time, and when we see them, we need to respond to them to meet the needs of the residents.

Another common misconception concerning behaviors is seeing them as unchanging and inevitable. For example, people might say "He's always been that way, and we are not going to change him", or "It's just the dementia, that's the way he is". We have found in our work that if the nurse is not really tenacious in pursuing the resolution of a resident's unmet need, then the 'problem behavior' continues. It is the nurse who gets action. Period. So you need to be persistent, always trying to find out the true meaning behind the person's behavior.

Remember that behaviors that seem difficult or unusual are related to the disease process or situation, and are not the actions of a person who is purposefully trying to be uncooperative.

KEYPOINTS *Behavior Change*

1. Behaviors associated with dementia are not problems; they are symptoms of unmet needs.
2. Caregivers need to find out what the unmet need is, and then work to resolve the problem.

Case Example

Mr. Eagleton is a 76 year old man with moderate dementia living in a nursing home. His Mini-Mental State Examination (MMSE) is 12. He is ambulatory and is able to do some of his ADLs, including feeding himself if his food is cut for him, and dressing if his clothes are laid out for him. When he was first admitted, Mr. Eagleton was fairly sociable and got along well with others. He has become short tempered and verbally aggressive. After breakfast today, instead of going to the community room for the morning activity, Mr. Eagleton returned to his room. When urged by the staff to go to the activity, Mr. Eagleton shouted, "No! Just leave me alone!" Staff is reluctant to take care of him because of his difficult behaviors. They say that he takes their time away from those who really are sick. They're asking why the nurses can't give him something to settle him down. One staff member felt that someone should talk to him and to his family and "ship him out" if he can't better manage his temper.

Mr. Eagleton's Triggering Behavior/s

- Short tempered
- Verbally aggressive
- Withdrawn

Case Discussion

Caring for people with dementia is physically and emotionally draining work. So it is understandable when it starts to bother you or any of your co-workers. Let's look at the case of Mr. Eagleton so we can see some common misconceptions that exist concerning the behaviors of some people with dementia.

First, in the example, some staff looked at Mr. Eagleton as having a "problem behavior" rather than looking at the behavior as a symptom of an unmet need. Instead of trying to figure out what was causing the problem, the staff made Mr. Eagleton the problem. His disruptive and uncooperative behavior may actually be a symptom of an unmet need that he was unable to verbalize to them. Something caused him to act this way, and caregivers need to determine what that "something" was.

Second, the staff felt that Mr. Eagleton's behavior was unacceptable, wanting to "ship him out" if he couldn't manage his temper. Unfortunately, people with middle to late stage dementia often cannot tell you what is bothering them. To make it even more challenging, their behaviors can be caused by environmental, physical, and psychosocial conditions. It is up to the caregivers to be on the alert for these behaviors and try to determine their cause.

Third, the staff felt that Mr. Eagleton's problem was less important than the needs of others who were "sick". However, Mr. Eagleton's behaviors could indicate that he has an acute illness. Sometimes those behaviors are the only clue that the person has an acute illness such as urinary tract infections, constipation or pneumonia. Again, we have to be on the lookout for the behaviors, try to figure them out, and deal with them for the benefit of the resident, the family, and the staff.

Behavior change identification is a pivotal step in the STI, in which behaviors are recognized as symptoms of unmet need. Once recognized as an unmet need, the detective work of trying to figure out what the cause of the behavior begins. That process begins with Step 1, physical assessment and review of history.

Step 1 – Physical Assessment and Review of History

Step 1 of the STI protocol focuses on physical assessment and review of history. Elderly people often have vague or atypical signs and symptoms indicating a problem. For example, a person in the early stages of pneumonia may not be coughing up sputum or have a fever, but may present with only a behavior change and abnormal lung sounds. You are looking for abnormal physical findings which may indicate illness or injury is present. Hopefully, early detection and treatment will not only alleviate the behavior which triggered the initiation of the STI, but will also prevent other adverse effects of the illness or injury.

PHYSICAL ASSESSMENT

You will assess one or more of the following:

- verbal cues
- ability to perform activities of daily living (ADL)
- a change in activity
- social cues
- appetite or weight changes
- vital signs
- body part cues
- acute increased confusion
- body systems
- urine dipstick
- review of history, medications, and treatments

Let's look at each of these more closely.

VERBAL CUES:

- Is the person saying that something hurts?

ABILITY TO PERFORM ACTIVITIES OF DAILY LIVING:

- Has the person's ability to perform ADLs changed recently? Has the person been falling?

A CHANGE IN ACTIVITY:

- Has the person become more agitated or anxious? More lethargic or unwilling to participate?

SOCIAL CUES:

- How is the person getting along with others?

APPETITE OR WEIGHT CHANGES:

- Has there been an increase or decrease in appetite or weight?

VITAL SIGNS:

- Is there a change in the person's temperature, blood pressure, pulse, or respirations?

BODY PART CUES:

- Is the person holding, rubbing, or bracing a body part?

ACUTE INCREASED CONFUSION:

- Has there been a recent and sudden change in the person's mentation?

BODY SYSTEMS:

Head and Neck

- Is the person able to bend the head forward and side to side without difficulty or pain?
- Are the conjunctivae of the eyes clear and are the sclerae white?
- Is the ear canal free of impacted cerumen (wax)?
- Is there any nasal drainage present?
- Is the mouth free of sores and thrush (thick, white, cheese like exudates)?
- Are there any dental abscesses present?
- Is the scalp free of dandruff or other conditions which could cause itchiness?

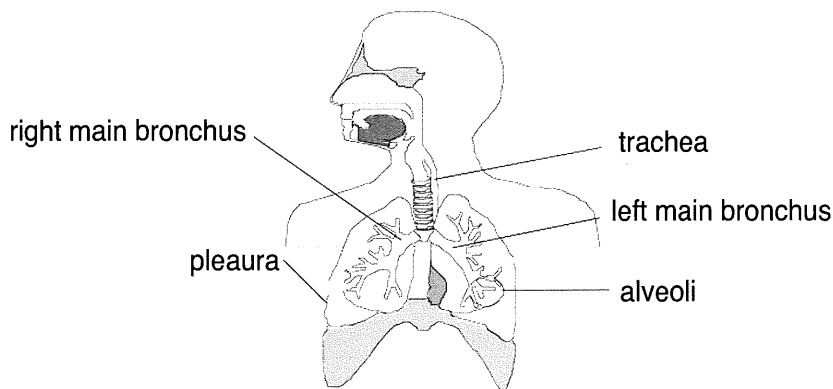
SKIN

- Does the person have any open areas on the body?
- Any lesions?
- Rashes?
- Lacerations?
- Excoriations?
- Skin tears?
- Blisters?
- Nonblanchable reddened areas or pressure sores?
- Dry patches?

LUNGS

Below is a diagram of the lungs. Recall that the job of the trachea and bronchi are to transport gases between the air and the lungs. The exchange of oxygen and carbon dioxide between the air and the blood stream takes place in the alveoli. The pleurae are the sacs which surround the lungs in the chest wall. They act like a vacuum, keeping the lungs inflated against the chest wall. If too much fluid accumulates in the pleural space, the client is unable to take a deep breath or fully expand the lungs¹⁰⁸.

- Does the person have a cough or shortness of breath?
- Is the person able to take a good, deep breath in and then exhale?



- Are there any abnormal breath sounds? When listening to the lung sounds with a stethoscope, you will hear different sounds over different parts of the lung. Over the trachea you will hear bronchial sounds. They are high pitched, loud and hollow. They can be heard more on expiration than inspiration. Over the bronchi in the center of the chest you will hear bronchovesicular sounds. They are moderately pitched, moderate in volume, and heard for an equal amount of time with inspiration or expiration. Vesicular sounds are heard over the bronchioles and peripheral lung fields. They are low pitched, soft sounds which sound like the wind blowing through the trees. If the louder higher pitched bronchovesicular or vesicular lung sounds are heard in peripheral lung fields (e.g. lower lobes) it *may* indicate that an abnormality such as pneumonia exists. They are heard more on inspiration than expiration¹⁰⁹.

Abnormal sounds include crackles, wheezes, rubs, and stridor. Crackles occur when the person has things such as pneumonia or congestive heart failure. They are high pitched popping sounds. In people with asthma or emphysema, wheezes may be heard, sometimes even without a stethoscope. They are low pitched moaning sounds. Rubs occur when the pleural fluid is depleted and the pleurae surfaces rub together. They sound like two pieces of leather being rubbed together. Stridor occurs when the airway is obstructed. It is a high pitched crowing sound heard loudest in the neck and signals a life threatening emergency¹¹⁰. If you have access to the internet, normal and abnormal lung sounds can be heard at www.med.ucla.edu/wilkes/inex.htm.

HEART

- Is there any visible jugular vein distention? To check for this, position the person with the head of the bed at a 30 to 45 degree angle without a pillow under the person's head. Turn the person's head to the side away from you and shine a light onto the side of the neck you are examining. If the veins are distended, it may signify heart failure¹¹¹. *Note that distention of the jugular veins when the person is lying flat can occur normally.*
- Are there any abnormal heart sounds?
- Does the heart beat in a regular rhythm?
- Is there any edema in the lower extremities?
- Has there been a significant weight gain?

ABDOMEN

- Are bowel sounds present?
- When was the last time the person had a bowel movement?
- Is the abdomen free of masses, non-tender, non-distended and soft?

EXTREMITIES

- Is there any gross deformity, asymmetry, edema, or tenderness?
- Is the range of motion at baseline for the person?
- Is there any crepitus (coarse crackling sensation felt during palpation¹¹²) in the joints?
- Are the lower extremities bluish or brown around the ankles, indicating venous insufficiency?
- Are the lower extremities red or purplish if the legs are in the dependent position indicating arterial insufficiency?
- Are you able to feel radial and pedal pulses?

URINE DIPSTICK:

- Could there be a hidden urinary tract infection (UTI) causing the person's behavior change? To obtain a good specimen, be sure you have a freshly voided or catheterized sample. Samples from wet briefs or undergarments will yield inaccurate results. The presence of nitrites in the urine indicates bacteria are present. Protein in the urine may indicate decreased kidney function and is often seen in residents with diabetes. Leukocytes may signal a UTI. Blood in the urine is commonly caused by bladder inflammation¹¹³. Treatment of these findings in older adults is controversial. If the dipstick is positive for any of them, you should contact the resident's physician or advance practice nurse prescriber.

REVIEW OF HISTORY, MEDICATIONS, AND TREATMENTS:

- Has there been a medication or treatment change? Do they have any painful diagnoses?

TARGETED ASSESSMENT

In order to effectively use the limited time and resources you have, you will likely be doing a targeted assessment. In other words, each time a resident has a behavior, you will not do a complete head-to-toe assessment of all the categories listed above. Instead, you will start by assessing the things that you feel are most likely to reveal a cause for the new behavior. Recognizing this, you should always check the person's history to see if they have any potentially painful diagnoses or recent changes in the medication or treatment regimen. It is also important to know some of the common physical problems of the elderly which may or may not be listed in the history. These are discussed in the section of this manual titled "Fundamental Elements of Geriatric Nursing Practice" and include

- constipation
- urinary tract infection
- respiratory Infections
- skin infections
- back pain
- arthritis
- peripheral neuropathy
- arterial and venous insufficiency
- back pain

Case Example

The staff is concerned about Mr. Eagleton because he is refusing to participate in activity and shouting at staff to "leave me alone!". As the nurse caring for Mr. Eagleton today, you decide to initiate the STI when you recognize this behavior. Step 1 of the STI is the targeted assessment and review of the medical history. Mr. Eagleton's medical history includes high cholesterol, high blood pressure, gout, and history of appendix removal in his 30's. You check his vital signs, and you find they are all normal except his blood pressure is slightly elevated at 150/86. He is not experiencing any shortness of breath, and his lungs are clear. His cardiac assessment is unremarkable. His extremities are free from swelling and he does not have any jugular vein distension. His abdomen is soft, round, and nontender with bowel sounds present in all four quadrants. His last BM was yesterday morning. You remove Mr. Eagleton's socks and slippers to check his feet for pulses and ulcers and you discover that the big toe on his right foot is very warm, red, and tender.

Case Discussion

Mr. Eagleton's withdrawn behavior and his verbal outburst are not normal behaviors for him. Following the STI protocol, your first step is review of history and physical assessment. Based on Mr. Eagleton's medical history and using the targeted assessment approach with the STI, you might assess the following of the above mentioned categories:

ABILITY TO PERFORM ACTIVITIES OF DAILY LIVING:

- Was Mr. Eagleton able to dress himself this morning?

A CHANGE IN ACTIVITY:

- Mr. Eagleton was normally fairly sociable when he was first admitted but now he is withdrawn. This is a subtle change but important for you to note since it is cluing you in to the fact that something else may be going on with Mr. Eagleton.

SOCIAL CUES:

- Mr. Eagleton was usually able to get along with others but now he is screaming at the staff. This is another subtle change that is cluing you in to the fact that something is not right with Mr. Eagleton that he cannot verbally express to you.

VITAL SIGNS:

- Mr. Eagleton's blood pressure is slightly elevated today at 150/85. His other vital signs are within normal limits.

BODY SYSTEMS:**HEART AND LUNGS**

- Heart and lung exam are normal for Mr. Eagleton. He does not have any swelling or jugular vein distension.

ABDOMEN

- Mr. Eagleton has bowel sounds in all four quadrants and his abdomen is soft, round, and nontender. According to the BM record, Mr. Eagleton's last BM was yesterday after breakfast.

EXTREMITIES

- Mr. Eagleton has a warm, red, tender big toe on his right foot. You have found a good explanation for Mr. Eagleton's change in behavior today. Mr. Eagleton is likely having a flair-up of his gout, but he is unable to verbalize that to you. Instead, his pain was manifested in his withdrawn behavior and his verbal outburst.

TARGETED TREATMENT

Given Mr. Eagleton's symptoms, you are likely to contact the doctor or advanced practice nurse prescriber to obtain an order to treat the gout with a drug such as colchicine. Because you found the problem in Step 1 of the STI, you do not need to proceed to any of the other steps of the protocol. Congratulations! You found the problem, are getting Mr. Eagleton the treatment he needs, and he is likely to return to his baseline as soon as he is feeling better. This is called a targeted treatment because the treatment (obtaining the order for colchicine) targeted the specific finding of an inflamed and tender big toe.

If nothing abnormal is uncovered with the physical assessment, you should proceed to Step 2 of the STI, the affective assessment.



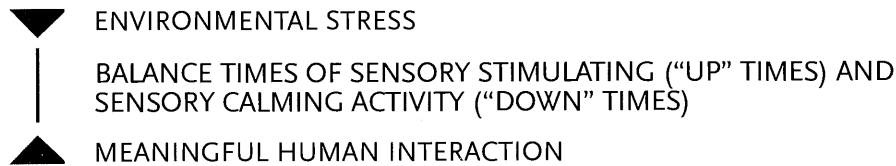
Facial grimacing and restless body movements are common signs described by nurses. "One of my residents is not as verbal as the others and she was more fidgety and moaning a little bit. I asked her if she was in pain and she said "no", but when I came back she was still moaning and fidgeting. So I gave her liquid acetaminophen and when I came back later she was not moaning or fidgeting."

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

Step 2 – Affective Assessment

Step 2 of the STI protocol is the affective assessment. This includes psychosocial and environmental aspects. This step consists of the following three techniques:



These three techniques make up the Balancing and Connecting Program (BAC). This program was developed and tested prior to testing of the STI. In an experimental study, this BAC program was successful at decreasing agitation in 83% of subjects tested¹¹⁴. Each of the areas of the BAC program is discussed below. If you would like more information on the BAC program or would like to purchase the complete BAC teaching program go to www.aging.uwm.edu. While the entire STI is designed to be used by nurses, multiple members of the care-giving team, including family members, can implement the BAC program.

ENVIRONMENTAL STRESS

Both the physical and social environments affect people with dementia. People without dementia have the skills to tolerate more stress from the environment than those with dementia. Individuals with dementia frequently respond to too much stress with agitated behavior or a decrease in ability to perform every day functions such as eating¹¹⁵. Sometimes the agitation of one person causes others to be agitated as well.

Environmental stress may come from:

Sounds Sights Touch Taste Smell

Here is a list of some common environmental stressors.

Sounds:

- television
- echo in bathrooms or other heavily tiled areas
- background conversations
- pounding pill crusher
- phones, pagers, and public address systems

Sights:

- glare from lighting
- clutter
- too many people in a small space
- dining/activity rooms with greater than 16 people
- new or changing environments

Touch:

- room temperature uncomfortable
- vinyl furniture
- hard unpadded chairs
- wrinkled bed linens or clothing
- poorly fitted shoes or clothing
- garments made of uncomfortable materials
- itchy skin conditions
- rough or quick touch from staff
- varying floor surfaces

Taste:

- food that is of unusual consistency or texture
- food that is of poor quality or lacking in flavor

Smell:

- institutional cleaning products
- poorly cleaned rooms
- soiled incontinence products

STRATEGIES FOR REDUCING ENVIRONMENTAL STRESS

What can you do about the environmental stressors you identify? Ideally, you would eliminate the source of stress. Is the hallway filled with linen carts, medication carts, extra wheelchairs and other clutter? Find a way to clear the hallway of as much clutter as possible. Does the hallway smell of institutional cleaning products? Try to replace current products with others that smell fresher or are odorless. Does the resident have shoes that do not fit properly because of foot swelling? Remove the shoes until the swelling goes down, and elevate the person's feet several times a day to promote comfort. These seem simple, but we know that many stressors will require solutions that take more energy and resources to alleviate the stress. Following are some other suggestions:

SOUNDS: "ACOUSTIC STIMULATION"

- Play music preferred by the person for a limited period of time.
- Offer simulated presence therapy - the use of tape recorded messages such as, "You are special," "Loving you is easy," and "Take care of yourself" from family members who are unable to be present¹¹⁶.
- Provide pleasant but not overly stimulating auditory features such as sounds of nature.
- Say prayers or sing hymns which are familiar to the person.

SIGHTS: "VISUAL STIMULATION"

- Use bright colors for objects you want the person to see or use, such as cups, plates, eating utensils, hairbrushes and toothbrushes. Conversely, make background items such as the walls and the furniture a neutral color.
- Ensure that personal belongings such as knick knacks and photographs can be seen by the person in his or her room or entryway.
- Provide access to the outdoors or to a view of the outdoors from a large window.
- Remove clutter from public areas.
- Use lighting which eliminates glare and shadows as much as possible.
- Provide a bird aviary or aquarium for residents to view.

TOUCH: "TACTILE STIMULATION"

- Provide light massage.
- Use a warm, reassuring, and gentle touch.
- Provide silk pillowcases, warm flannel sheets.
- Give the person various textured objects such as a fur muff, large sponges, velvet, stuffed animals, and hand-held balls to feel.
- Provide baby clothes or other laundry to be folded.
- Provide something warm for the person to hold such as a pat mat or warm blanket or wash cloth.

TASTE: "GUSTATORY STIMULATION"

- Offer a special afternoon coffee klatch to provide social stimulation and sharing of the taste and smell of coffee and snacks.
- Bake bread, cook applesauce, or make any favorite recipe and then eat it together.
- Have a "happy hour" before dinner serving non-alcoholic wine to residents while they socialize.

SMELL: "OLFACTORY STIMULATION"

- Use the smell of coffee brewing or food baking as stimulation for mealtimes.
- Diffuse calming essential oils such as geranium, lavender, and marjoram.

APPROACHES WHICH COMBINE SEVERAL SENSES:

Architectural Landmarks and Environmental Features

- Provide landmarks with cultural, geographic, or religious meaning.
- Provide way-finding signs and symbols.
- Leave bathroom doors open so that toilets can be seen.

Positive Stimulation and Retreat

- Provide quiet areas such as a chapel or bird aviary for relaxation.

Social Areas

- Arrange furniture in a way that will promote small group interactions.
- Limit seating in dining and community rooms to 12 - 16 people or less.

Case Example

Mr. Eagleton recovered completely from his flare up of gout and returned to his baseline. It is now a few weeks later, and he has started to refuse to eat most things except sweet, soft foods such as pudding and ice cream. He will only eat in his room. If taken to the dining room, Mr. Eagleton begins to cry and scream and will throw anything that is within reach on the floor or at the staff and other residents. As the nurse caring for Mr. Eagleton, you perform a targeted physical assessment of his mouth for sores or thrush or other problems which may be causing his decreased appetite. You do not find any problems. His abdominal assessment is also normal. A check of Mr. Eagleton's history does not provide any clues to the cause of these new behaviors, and he has not started on any new medications. Step 2 of the STI protocol is affective assessment, so you decide to take a look at the environmental stressors.

You find two potential environmental stressors which could be causing the change in Mr. Eagleton's behavior. The first change is that your nursing home just got a new cook who may prepare food differently than the old cook did. The second environmental stressor is that the dining room is large and crowded with about 80 residents in addition to the staff members present.

Case Discussion

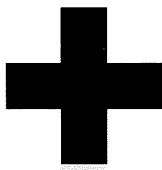
The new cook had not been trained in the normal physiologic changes of aging. He was unaware that as we age, we require more spices to taste than a younger person requires. The cook was not compensating for this, so most of what was prepared probably tasted quite bland to Mr. Eagleton. In addition the noise was loud in the dining room with so many people present, and all the activity may have been too much for Mr. Eagleton. He was unable to say that, so he reacted by refusing to eat in the dining room.

The solution to the first issue is fairly easy: train the cook to prepare the food with more spice and taste. The second issue is a little trickier. It may be difficult to change the size of the dining room since space is limited, yet it would be socially isolating to allow Mr. Eagleton to eat all of his meals in his room. One solution could be to stagger dining periods so that the dining room is not full all the time. Another potential solution would be to divide the dining room with screens so that what Mr. Eagleton sees appears to be a smaller room. Hopefully the screen could block some of the noise from the other conversations as well.

KEYPOINTS *Environmental Stress*

1. Individuals with dementia are limited in their ability to process stress from their environments.
2. Too much stress can lead to a decrease in ability to function or an increase in agitated behavior.
3. Stress can result from sounds, sights, touch, taste or smell.
4. The physical environment impacts the stressors, and many things in your physical space might be very difficult to change, such as the size of the dining room. You may need to come up with creative solutions to these stressors, such as using a screen to divide a large room into a smaller section.

Now that we have learned about environmental stress and how to decrease it, let's turn the focus to the second technique in affective assessment - balancing daily activities.



Decreased appetite and combative behavior are other common symptoms. "Pretty much when she is in pain, she won't eat at all. She'll just yell. So I will give her the acetaminophen and wait around 30 minutes and approach her again and say, 'Well, are you ready to eat now?' And she's much more pleasant then. And she'll say, 'Yes, I'm ready.' And She'll eat. But beforehand it's like she's swinging her arms at you and saying 'get away from me.' I don't want that. But when she doesn't have any more pain, she'll eat for us".

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

PACING OF ACTIVITY – BALANCING “UP” AND “DOWN” TIMES

Because of cognitive and functional deficits, people with dementia have little control over the environment. They depend on caregivers like you to balance sensory stimulating (“up” time) and sensory calming (“down” time) activities. Research has shown that an imbalance of “up” and “down” time is likely to result in agitation and functional decline¹¹⁷. For example, a person with dementia who spends the morning being bathed, going to breakfast, and participating in an activity has too much “up” time and is likely to become agitated. Conversely, a person with dementia who spends the morning alone in bed without any visitors or meaningful human interactions has too much disengagement or “down” time. This creates sensory deprivation and will likely result in functional decline.

How should you handle this imbalance? The person who has too much “up” time is prescribed a quiet activity, rest, or nap time. The person who has too much “down” time is prescribed a higher level of sensory stimulating activity.

But how much is too much time in sensory stimulating or calming activity? The guideline to follow is 90 minutes or less doing either an “up” activity or a “down” activity. Some individuals may tolerate more or less than 90 minutes of “up” or “down” time, but our research showed that most people did well within the 90-minute guideline¹¹⁸.

The easiest and most beneficial way to change “up” and “down” times is to simply reorganize the day. For example, if a person has a lot of activities in the morning, schedule a nap or a quiet time looking at the bird aviary midmorning. If the person has a lot of down time in the afternoon, add an exercise group or spiritual intervention.

Remember that too many changes should not be made to the schedule at one time. For the person with dementia who is highly agitated and highly active all day long, it is not realistic to make all of the changes at once. This would add stress instead of relieving it. Instead, try to introduce one quieter activity period each week. The person should tolerate one new but somewhat calmer activity. Examples include scrubbing vegetables and providing a rummage box for the person to look through.

Conversely, many people with dementia spend most of the day disengaged and isolated. For these people, one new brief activity per week will probably be tolerated. Examples are watching a film or reminiscing with staff. Many more examples will be provided in the section which explains Step 3 of the STI.

We recognize that often the daily schedule needs to be altered because of decreased staff or other resources, periodic appointments with physicians, physical illness, or many other things that come up unexpectedly. The person with dementia may be more agitated on excessively busy days. Try to plan for that increased agitation, remembering that the agitation should decrease when you are able to get the day’s schedule back into balance.

Case Example

Following is an example of a typical day for Mr. Eagleton. As you are reading it, make note of any periods in the day when Mr. Eagleton has greater than ninety minutes of sustained “up” or “down” time.

The case of Mr. Eagleton

| TIME | CURRENT DAILY ACTIVITY | PRESCRIBED SCHEDULE CHANGES |
|-------------|--|-----------------------------|
| 7:30-7:59 | AM cares | |
| 8:00-8:29 | Eating breakfast | |
| 8:30-8:59 | In wheelchair at nurses' station calling out to anyone who passes by | |
| 9:00-9:29 | In wheelchair at nurses' station calling out to anyone who passes by | |
| 9:30-9:59 | Exercise group in large activity room | |
| 10:00-10:29 | Current events in large activity room | |
| 10:30-10:59 | Folding clothes in large activity room | |
| 11:00-11:29 | Toileted by C.N.A. | |
| 11:30-11:59 | Sitting quietly at his place in the dining room | |
| 12:00-12:29 | Eating lunch | |
| 12:30-12:59 | Sitting at the table moaning "Help me" over and over | |
| 1:00-1:29 | Moved to his bed, napping at intervals, calling out frequently | |
| 1:30-1:59 | | |
| 2:00-2:29 | | |
| 2:30-2:59 | | |
| 3:00-3:29 | | |
| 3:30-3:59 | | |
| 4:00-4:29 | Toileted at 4:15 | |
| 4:30-4:59 | Sitting quietly in the dining room | |
| 5:00-5:29 | Eating, family visiting | |
| 5:30-5:59 | Continued family visit in his room | |
| 6:00-6:29 | Playing bingo in the large activity room | |
| 6:30-6:59 | Playing bingo | |
| 7:00-7:29 | Watching Lawrence Welk in the large activity room | |
| 7:30-7:59 | Watching Lawrence Welk in the large activity room | |

Case Discussion

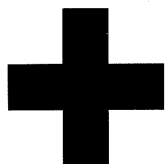
Now that you have read over the case and noted times when Mr. Eagleton has greater than ninety minutes of sustained “up” or “down” time, how can we rearrange or change Mr. Eagleton’s day to make it more balanced? The following page contains one way to reschedule Mr. Eagleton’s day to ensure he never has greater than ninety minutes of sustained “up” time or sustained “down” time.

Note that Mr. Eagleton participates in many activities in the morning. When he is not in a formal activity, he is in the hallway by the nurses’ station where there is a lot of activity happening around him. Rather than changing much of his schedule, one potential change to his prescribed activity for the morning is to have Mr. Eagleton spending some time in a quieter spot instead of right in front of the nurses’ station. Perhaps your facility has a bird aviary where Mr. Eagleton could sit and watch the birds. Maybe he’d enjoy sitting in the chapel or a library area for awhile. Perhaps he could fold laundry in his room instead of in the large activity room. These are all ideas on how to break up the very lengthy period of sustained arousal in his morning.

In the afternoon, Mr. Eagleton is put to bed for over three hours. This is too long to be disengaged. He demonstrates this by frequently calling out during this time period. Although some individuals may need longer rest periods, most do not. For many, long naps like this will cause the person to have difficulty sleeping at night. Instead, this plan offers a balance of a nap, some “up” time with a walk and a group activity, and a quiet activity or another nap prior to dinner.

In the early evening, again Mr. Eagleton has a long period of “up” time. This can be altered by cutting his large group activity by thirty minutes and replacing it with a quieter, minimally arousing activity to help him wind down for bed.

This prescribed solution demonstrates ways of adding activities for Mr. Eagleton, removing activities for Mr. Eagleton, and rearranging things he is already doing to ensure that he does not exceed the ninety minute time limit for sustained arousal or disengagement.



“One of our patients, he sometimes goes around striking out at others, which sometimes symbolizes that he is in pain. And a lot of times when we give him the pain medication, it’s effective and he doesn’t strike out anymore.”

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses’ Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

Exercise 3 - The case of Mr. Eagleton

Potential solutions key

| TIME | CURRENT DAILY ACTIVITY | PRESCRIBED SCHEDULE CHANGES |
|-------------|--|--|
| 7:30-7:59 | AM cares | AM cares |
| 8:00-8:29 | Eating breakfast | Breakfast |
| 8:30-8:59 | In wheelchair at nurses' station calling out to anyone who passes by | Rest time in his room or other quieter area |
| 9:00-9:29 | In wheelchair at nurses' station calling out to anyone who passes by | Rest time in his room or other quieter area |
| 9:30-9:59 | Exercise group in large activity room | Exercise group in large activity room |
| 10:00-10:29 | Current events in large activity room | Current events in large activity room |
| 10:30-10:59 | Folding clothes in large activity room | Folding clothes in his room or other quiet area |
| 11:00-11:29 | Toileted by C.N.A. | Personal cares |
| 11:30-11:59 | Sitting quietly at his place in the dining room | Dining room |
| 12:00-12:29 | Eating lunch | Lunch |
| 12:30-12:59 | Sitting at the table moaning "Help me" over and over | Nap |
| 1:00-1:29 | Moved to his bed, napping at intervals, calling out frequently | |
| 1:30-1:59 | | |
| 2:00-2:29 | | Personal cares |
| 2:30-2:59 | | Ambulate |
| 3:00-3:29 | | Baking group in large activity room |
| 3:30-3:59 | | Provide a nap or quiet activity for his in his room or other quiet space such as a snack, rummage box, etc |
| 4:00-4:29 | Toileted at 4:15 | |
| 4:30-4:59 | Sitting quietly in the dining room | |
| 5:00-5:29 | Dinner | Dinner |
| 5:30-5:59 | Dinner | Dinner |
| 6:00-6:29 | Playing bingo in the large activity room | Bingo |
| 6:30-6:59 | Playing bingo | Begin quiet activity such as tv watching and continue for no more than ninety minutes |
| 7:00-7:29 | Watching Lawrence Welk in the large activity room | |
| 7:30-7:59 | Watching Lawrence Welk in the large activity room | |

KEYPOINTS *Pacing of Activity*

1. People with dementia need a balance between sensory stimulating (“up” time) and sensory calming (“down” time) activity.
2. The guideline is ninety minutes or less in “up” or “down” time, but needs and tolerance vary between people.. While excessive “up” time can lead to agitation, excessive “down” time can lead to sensory deprivation.
3. The person who has too much “up” time would be prescribed a quiet activity, rest time, or nap time.
4. The person has too much “down” time would be prescribed a higher level of sensory stimulating activity.

In addition to balancing “up” and “down” times in the day and doing an assessment of environmental stressors, the third aspect of the affective assessment includes looking for periods of meaningful human interaction in the person’s day. The next section will describe what this is.

MEANINGFUL HUMAN INTERACTION

All human beings need meaningful human interaction. Meaningful human interaction is connecting with a person through one-on-one visiting where the sole purpose of the visit is to make that connection. Our research has shown that when people with dementia are given adequate amounts of meaningful human interaction, they experience:

- ▲ self feeding
- ▲ cognition
- ▲ speaking
- ▲ smiling
- ▲ participation in activities and care¹¹⁷

Meaningful human interaction is done through both verbal and nonverbal communication. Nonverbal communication, or “body language” as it is sometimes called, can be the look on your face, your posture, your gestures, or the tone of your voice¹²⁰. Nonverbal communication is often unconscious and unintentional and sometimes it is the opposite of spoken words. For example, a person may say, “I feel good today”. If throughout the day, the person is walking around slowly, taking frequent breaks, and looking pale and tired, the nonverbal communication is the opposite of the spoken word. If that same person is moving all about and looking fresh and ready for the next task, the nonverbal communication is matching the spoken word. Because people with dementia cannot always understand the spoken word, you should make a point of being conscious of what message your nonverbal communication is conveying. The person with dementia probably can understand and will respond to your nonverbal communication.

Nonverbal communication becomes more important as dementia progresses. While the person may say a complete and appropriate sentence occasionally, frequently they are communicating only through sounds or about 10 to 20 simple words or phrases that are repeated again and again.

The following are some other strategies to keep in mind when providing meaningful human interaction¹²¹:

Elderly people may experience changes in vision. Their peripheral vision may decrease, so try to stand or sit in front of the person. We also recommend that you provide as much light as possible. If the person wears glasses, make sure that the glasses are on and that the glasses are clean.

Elderly people may experience changes in hearing. If the person is hard of hearing and you are trying to speak louder, try to lower your pitch as well. Lower pitched sounds are easier to understand. Speak slowly, and be sure the person can see your lips when you are talking. If the person needs a hearing aid, be sure that it is in properly, turned on, and that the batteries are working.

People with dementia may have a slower reaction time. They may need more time to respond to your questions or comments. Be sure to give an adequate amount of time for the person to answer you.

All people want to know others are concerned about them. Communicate this concern by what you say, by how you say it, and by your willingness to listen to the person and respond without criticism.

Just how much interaction is needed for people with dementia? Our research has shown that people with dementia need a minimum of 2 ten-minute periods of meaningful human interaction daily. In order to qualify for one of the two meaningful human interaction requirements each day, the sole purpose of the interaction needs to be to make a connection with the person. Visiting with the resident while feeding him or her or while bathing him or her is important and may facilitate the relationship between the caregiver and the person, but that does not qualify for one of the two periods of meaningful human interaction. The main purpose of those two activities is feeding and bathing.

Unsure of how to find the time to provide meaningful human interaction? Look for help from family, pastoral care, volunteers, social workers, activity therapists, nursing assistants, and nurses. If the interactions are divided up between all these people, each individual feels less burdened. This can actually lead to increased job satisfaction for staff as well and increased positive feelings toward the person¹²².

KEYPOINTS *Meaningful Human Interaction*

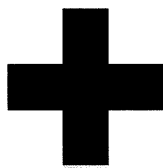
1. All human beings need meaningful human interaction where the sole purpose of the interaction is to connect with another person.
2. The person with dementia requires 10 - 20 minutes twice a day of meaningful human interaction. If that is not currently happening, a formal human interaction treatment should be started. It should be worked into the person's day just as any medical treatment or medication would be.
3. When people with dementia receive adequate meaningful human interaction they experience increased self feeding, cognition, speaking, smiling, and participation in activities and care.

PUTTING IT ALL TOGETHER

The following page contains a worksheet to put all three techniques of the affective assessment onto one page. You may find it useful to have this when you are doing Step 2 of the STI protocol. Choose a day when the resident will be following a typical schedule. In the first column, you (or one of your team members) record your observation of what the person is doing every half hour for one day. In the second column, place an "x" next to any time period where the person received at least 10 minutes of meaningful human interaction.

In the third column, fill in any environmental stressors you observe. If the environmental stressor occurs at a specific time, such as one agitated resident getting the person you are assessing upset at 10 a.m., put it in at the time it is happening. If the environmental stressors are constant throughout the day, such as a noisy air conditioning unit, use this column to write notes in a narrative form, disregarding the times listed in the table.

Once you have completed the first three columns, look for areas where there was environmental stress, less than two periods of meaningful human interaction, or greater than ninety minutes of "up" or "down" time. Write prescribed change recommendations to the daily schedule in the third column. Be sure that you have included at least 2 ten-minute periods of meaningful human interaction in the plan, and that you have included ideas on how to minimize any environmental stress. When you are finished with your plan to change or rearrange the activities of the day, it is time to put the plan into action. Decide how the changes are going to be accomplished and who will be responsible for making sure the changes happen.



"I haven't seen a whole lot done with this group as far as pain goes. Everyone is real quick to give them a psychotropic. That's what we always did. Even mid-stage or early stage, a lot of them have a hard time already communicating accurately what's going on inside them. I think that we're missing the boat there, too. There's a lot of disease processes that are going on that are causing pain that aren't visible right away. I think these patients go every single day with pain and we don't take care of it nearly enough".

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

Step 2 Balancing and Connecting Worksheet

Person's Name _____ Date _____

| TIME | CURRENT ACTIVITY | MEANINGFUL HUMAN INTERACTION | ENVIRONMENTAL STRESSORS | PRESCRIBED CHANGES |
|-------------|------------------|------------------------------|-------------------------|--------------------|
| 7:30-7:59 | | | | |
| 8:00-8:29 | | | | |
| 8:30-8:59 | | | | |
| 9:00-9:29 | | | | |
| 9:30-9:59 | | | | |
| 10:00-10:29 | | | | |
| 10:30-10:59 | | | | |
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| 6:30-6:59 | | | | |
| 7:00-7:29 | | | | |
| 7:30-7:59 | | | | |

If you have limited the amount of environmental stress, paced the person's activities, provided meaningful human interaction and the behavior persists, the next step is a trial of nonpharmacological treatments.

Step 3 – Nonpharmacological Treatments

So far you have identified that a person with dementia has had a change in behavior. Step 1 of the protocol, the physical assessment, has not revealed any obvious cause for the change in behavior. Step 2 of the protocol, the affective assessment, also has not revealed any obvious cause. Step 3 of the protocol requires you to try some nonpharmacological treatments to try to alleviate the behavior.

This section contains a long list of nonpharmacological treatments and therapeutic activities. These are things that caregivers in our studies identified as interventions that they used¹¹¹. People with dementia often tolerate brief activity better than longer sessions. Also, treatments that work well for some people do not work at all for other people and an intervention that works well for someone one day may not work at all for that same person the next day. For this reason, it is good to have a lot of different treatments to try.

It is significant to note that many of these take less than 10 minutes to complete. Caregivers tend to overestimate how long it takes to do a therapeutic activity. Like meaningful human interaction in Step 2 of the STI, these nonpharmacological treatments can be done by any member of the care team or by family members.

- Providing a rummage box
- Assisting person up to wheelchair
- Cooking group
- Scrubbing vegetables
- Reminiscence activity
- Providing magazines to browse
- Aromatherapy
- Music therapy
- Holding a “Coffee Club”
- Art Activity
- Watching television
- Viewing a film
- Cueing/Redirecting
- Massaging hands or feet
- Providing a sweater or blanket
- Providing a snack
- Providing time for a nap
- Applying a heating pad
- Exercise group
- Ambulating with staff
- Providing a basket of laundry for the person to fold
- 1:1 visiting/therapeutic communication
- Reading poetry
- Doing a spiritual intervention
- Pet therapy
- Baking bread
- Gardening
- Changing environment/move to a different room
- Watching a bird aviary or fish tank
- Providing a quiet environment/quiet time
- Hugging
- Providing a warm foot soak
- Providing fluids
- Assisting person to the bathroom
- Providing personal hygiene assistance

We recommend trying at least three of these before moving on to Step 4 of the STI.

Case Example

Mr. Eagleton received two periods of meaningful human interaction daily, his daily activities were well-paced, and his environmental stressors were decreased as much as possible. Recently, he started crying out “Help me! Help me!” regularly. No physical source of discomfort has been found. You decide to try giving Mr. Eagleton some laundry to fold the next time he starts calling out. This quiets him for a few minutes, but he again starts crying out “Help me! Help me!” This time the nursing assistant gives Mr. Eagleton a sweater and some gentle reassurance. He quiets down while the nursing assistant is there, but Mr. Eagleton starts calling out as soon as the nursing assistant walks away. A member of the spiritual care team is doing rounds of the nursing home and stops to pray with Mr. Eagleton. After a short visit, the team member helps Mr. Eagleton to hold his rosary and start saying the prayers. Mr. Eagleton sits quietly praying with his rosary and does not call out for help again.

Case Discussion

Mr. Eagleton benefited from the one-on-one interaction he received from all three staff members who provided nonpharmacological treatments. It took several tries to find a treatment that would sustain the alleviation of the behavior, but eventually one was found. Notice that each of the was done by a different member of the team, sharing the workload. Although the same person could have done all three, we recognize that one person may not have the time to do all of them without neglecting others on the unit. Dividing up the can make them more manageable. Also notice that each treatment took less than 10 minutes to complete.

KEYPOINTS *Nonpharmacological*

1. Nonpharmacological treatments are step three of the STI.
Typically, are brief and can be done by any member of the team.
2. Try at least three of these treatments before moving on to Step 4 of the STI.

Step 4 – Trial of Analgesics

If a trial of non-pharmacological comfort treatment(s) is ineffective in modifying a behavior, the nurse needs to move on to the next step of the STI by beginning an analgesic trial. The main reasons analgesics are tried at this point are based on the notions of underassessment and under treatment of pain in older adults with cognitive impairment (see The Challenge of Pain Assessment and Analgesics sections).

If the person is not receiving scheduled analgesia, the nurse may administer a prescribed PRN analgesic and monitor for effect. If the behavior improves after the person receives a trial of analgesics, the prescriber is contacted to schedule the analgesic. However, if the person is already receiving scheduled analgesics, the nurse may need to consult with the prescriber for an escalation of dose or analgesic (see Analgesics section for a discussion of escalation).

Case Study

The calming effect of the rosary on Mr. Eagleton did not last as long as you had hoped for. He returns to his cry of “Help me! Help me!” as he tries to tear the rosary apart. You know his history and physical exam are negative for any painful conditions, his environment has balanced sensory calming and sensory stimulating activities, he has had several opportunities for meaningful human interactions today, and the environment has been free of undue stress. Since the trial of non-pharmacological comfort treatments has not been effective, you realize that the next step is an analgesic trial. Mr. Eagleton is already on scheduled Tylenol, 650mg. BID. In addition, there are orders for 650mg of Tylenol every 4 hours PRN, or for hydrocodone with acetaminophen (Vicodin) 2.5/500mg every 6 hours PRN. You decide to give the hydrocodone with acetaminophen (Vicodin). One hour later, Mr. Eagleton is participating in a baking activity. You suggest to the P.M. nurse that the hydrocodone with acetaminophen (Vicodin) be repeated in 6 hours, just before bedtime. When you arrive the next day, the night nurse tells you that Mr. Eagleton had a great night, and was not calling out for help. You consult with his doctor and the analgesic order is changed to Tylenol 650mg at noon, with hydrocodone with acetaminophen (Vicodin) 2.5/500 daily at 6AM and HS (hour of sleep). The PRN Tylenol and hydrocodone with acetaminophen (Vicodin) are continued in case there is breakthrough pain.

Case Discussion

Mr. Eagleton responded well to the PRN hydrocodone with acetaminophen (Vicodin) so the nurse asked for the hydrocodone with acetaminophen (Vicodin) to be scheduled. Notice that the nurse recognized Mr. Eagleton’s agitated behavior as a sign of pain, even though a physical assessment did not uncover any typical pain indicators. The fact that he was able to resume his normal activity without agitation and calling out indicates that there was pain, but Mr. Eagleton was unable to verbalize that pain. Without the nurse’s tenacity, Mr. Eagleton would have continued pain, distress, and agitation.

If the response is not as dramatic as the one above, the nurse needs to make a judgement. Either the prescriber can be contacted regarding another dose or analgesic escalation, or it may be time to move on to the next and final step, consultation/trial of psychotropics.

KEYPOINTS *Trial of Analgesics*

1. Analgesics are administered as step four of the STI if previous steps have not resolved the targeted behavior.
2. PRN analgesics can be trialed and monitored for effect. If effective, the prescriber is consulted and asked to schedule the analgesic.
3. If there is a weak response to the analgesic, the nurse decides whether to discuss another escalation of dose or analgesic with the prescriber or move on to step five.
4. If behaviors persist despite the administration of analgesics, the nurse moves to the next step of the STI process, step five.



"I have one resident who was in end-stage dementia to the extent that he was unresponsive to verbal stimuli and touch. But every time the caregivers would give his cares, when turning him on his side he would start screaming and moaning. We did an x-ray; there was no fracture, no swelling. We started giving a nonnarcotic analgesic every 8 hours, and the second dose really made the difference. We can turn him – no moaning, no facial grimacing. Then he was up in the evening with the second dose, out of bed to the wheelchair. The miracle of analgesics! Helped him a lot."

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

Step 5 –Consultation/Psychotropics

If Steps 1 – 4 of the protocol have been tried and were unsuccessful in correcting the difficult behavior, then consideration of a psychotropic drug is the next step. The following guidelines should assist you in consulting effectively with other health care providers such as the resident's physician, nurse prescriber, your assessment of the resident, and the things you have already used to try to alleviate the behavior. When communicating with the person you are consulting with, keep the following in mind¹²⁴:

BE AS SIMPLE AS POSSIBLE.

- Convey your message in the fewest number of words possible without losing any meaning. Stick to pertinent facts only. You do not want the person you are talking with to be wondering when you are going to get to the point. Avoid using slang words since they may be misunderstood.

BE AS CLEAR AS POSSIBLE.

- Organize your assessment findings, questions and treatment recommendation prior to the consultation. When consulting, speak slowly and enunciate your words. Stick to the facts. Avoid generalizations and overuse of personal opinions.

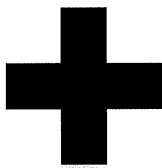
BE AWARE THAT TIMING IS IMPORTANT.

- If at all possible, do not wait until late Friday afternoon or the weekend to call someone about a consult. You might get an on-call physician who is much less familiar with the person than his or her regular physician. Also try to fit the call into your day when you are not as busy. If you are trying to talk with a consultant and you are already late with your medication pass, you are less likely to be able to give the consult your complete attention.

BE SURE YOU ARE CREDIBLE.

- How can you do this? Empower yourself with as much knowledge about the situation as you can, make a thorough and accurate assessment of the person which you can convey to the prescriber, and present your case in a positive manner, focusing on what has been tried already and where you would like to go next.

Keep in mind that use of a psychotropic drug must be the last resort and not to be used to control behavior for staff convenience. Most importantly, when you are planning your consult, remember that you share a common goal with physicians, advanced practice nurse prescribers, and geropsychiatrists: providing the best quality of life possible for the person with dementia.



"I think morphine does a good job on arthritis, but we have difficulty getting the doctors to order it for us. One of our residents was quite crippled with rheumatoid arthritis, and it did wonders for her. She went back to doing activities and started to live a normal life again after the morphine was started."

- LTC Nurse

From Kovach, C.R., Griffie, J., Muchka S., Noonan, P.E., & Weissman, D.E. (2000). Nurses' Perceptions of Pain Assessment and Treatment in the Cognitively Impaired. *Clinical Nurse Specialist*. 14 (5), 215-220. © by Lippincott Williams & Wilkins. Reprinted with permission

Case Example

After a few months of doing well, Mr. Eagleton who has the diagnosis of moderate dementia, begins to slowly withdraw. He refuses to get out of bed, does not participate in activities, refuses to eat, does not maintain eye contact when he is addressed, and is losing weight. When approached, he refuses to be groomed or dressed and becomes violent, shouting “leave me alone!” when touched, assessed or “fussed over”.

The RN Unit Manager completes an assessment. The history and physical exam are negative, pain management is in place, the environment has balanced sensory calming and sensory stimulating activities, he has had several opportunities for meaningful human interactions, and the environment has been free of undue stress. In addition, the Unit Manager reviews the chart/current medications and talks to the staff and finds out that the withdrawal and apathy has been going on for a couple weeks and is progressively getting worse. Mr. Eagleton’s family was contacted and they too were noticing the same behaviors. In fact, the family visited less frequently because they did not know how to handle the encounters.

The staff contacts the prescriber and discusses their assessment. Mr. Eagleton is started on sertraline (Zoloft) for presumed depression, and the nurse manager arranges that Mr. Eagleton is cared for by sensitive and consistent caregivers. Over a period of about 12 weeks, Mr. Eagleton begins to eat normal amounts of food. He enjoys taking short walks and starts to socialize and smile again.

Case Discussion

Mr. Eagleton’s withdrawn behavior was determined to be the result of depression only after a thorough assessment was completed to rule out other possible reasons for his behavior. Psychotropic therapy is the next step when all other measures have failed.

Depression is common in the elderly, and often symptoms are missed because they are thought to be associated with some other underlying disease such as dementia. This leads to the underdiagnosis and under-treatment of depression in elders¹²⁵. Depression should be treated because it can worsen the outcome of other illnesses¹²⁶.

In the elderly, the concept of “start low and go slow” applies here. The initial recommended sertraline (Zoloft) dose is 50 mg/d, with a starting dose of 25 mg/d for the geriatric population¹²⁷. Continued monitoring of the behavior and side effects is made to evaluate for continued need. If indicated, the prescriber may attempt a dose reduction in an effort to taper psychotropic drug usage.

On the next two pages, we have provided a fax form and a worksheet for phone call consultations to help you with these communications strategies. These tools are offered as optional strategies to organize all of the information that you will need for your consultation.

KEYPOINTS *Psychotropics*

1. Consideration of a psychotropic medication is the last step when all other measures tried have failed.
2. Once the behavior is controlled, medication tapering or discontinuation should be considered.

FAX

DATE:

Number of pages including cover sheet _____

TO:

FROM:

Phone

Phone

Fax Phone

Fax Phone

REMARKS: Urgent For your review Reply ASAP Please Comment

Pain Assessment for:(Name) _____ (DOB) ___/___/___ (MR#) _____

Diagnoses: _____

Location/s 1. _____ 2. _____

Description (Quality) 1. _____ 2. _____

Intensity (0-10, 0-5, etc) 1. _____ 2. _____

Pattern 1. Continuous Intermittent 2. Continuous Intermittent

Onset 1. _____ 2. _____

Duration 1. _____ 2. _____

Exacerbating Factors: 1. _____ 2. _____

Impact on ADL's 1. _____ 2. _____

Patient's perception of what is causing the pain: _____

Patient's goal for pain control: _____ (numerical) _____ (functional)

Drug, dosage, and # of doses received of all analgesic medications in the past 24 hours:

Analgesics that have been tried in the past: _____

Non-pharmacological interventions tried: _____

Team suggestions for changes in management: New meds/ dosages/intervals _____

Discontinue: _____

Non-pharmacologic interventions: _____

RN Signature: _____ Pharmacist Signature: _____

MD RESPONSE: _____

MD Signature: _____ Print Name: _____

Date: _____ DEA #: _____

NURSE WORKSHEET FOR PHONE CALL INTERVENTIONS

Pain Assessment for:(Name) _____ (DOB) ___/___/___ (MR#) _____

Diagnoses: _____

Location/s 1. _____ 2. _____

Description (Quality) 1. _____ 2. _____

Intensity (0-10, 0-5, etc) 1. _____ 2. _____

Pattern 1. Continuous Intermittent 2. Continuous Intermittent

Onset 1. _____ 2. _____

Duration 1. _____ 2. _____

Exacerbating Factors: 1. _____ 2. _____

Impact on ADL's 1. _____ 2. _____

Patient's perception of what is causing the pain: _____

Patient's goal for pain control: _____ (numerical) _____ (functional)

Drug, dosage, and # of doses received of all analgesic medications in the past 24 hours:

Analgesics that have been tried in the past: _____

Non-pharmalogical interventions tried: _____

Team suggestions for changes in management: New meds/ dosages/intervals _____

_____ Discontinue: _____

Non-pharmacologic interventions: _____

Orders:

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From Griffie, J, Matson, S., Muchka, S., and Weissman, D: Improving Pain Management in Long Term Care Settings: A resource guide for institutional change; 1998. Copyrighted by MCW Research Foundation, Inc. Reprinted with permission

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Chose your own Adventure

1. MRS. WHITE WITHDRAWS
2. MRS. ANZONI'S ANTS
3. MRS. EXETER'S EXITING
4. MR. BORGSON'S BURN

Mrs. White Withdraws

Mrs. White, an 84-year old woman with multi-infarct dementia usually watches television in the afternoon and enjoys her afternoon snack of cookies. Her appetite is decreased and she responds with resistance when you try to get her out of bed.

1. You do the following

(Chose one and follow the directions for the evaluation of your answer):

a. Allow her to continue sleeping in bed for the day.

b. Suspect she could have had a small stroke or another physical problem and do a physical assessment.

c. Get an order for an antidepressant.



Hmmm....Too soon. It is better to do more assessment to find out the source of her discomforting behavior. Go Back.

Good....Her behavior is a symptom of some unmet need. We don't know what the problem is, but the first step is to do a physical assessment. The physical assessment is negative. Continue on next page!

Hmmm....Since this is a change in behavior, it may indicate that there is an unmet need. Step 1 of the Serial Trial Intervention is to do a physical assessment. Go Back.

2. What is the next thing you should do?

a. Perform an assessment for psychosocial or environmental problems.

b. Check the person's history and medical record.

c. Administer a prescribed prn analgesic.



Hmmm....Too soon. While this is a good idea, let's first check her medical record to see if there is any relevant information that may help to reveal the source of the unmet need. Go Back.

Hmmm....Too soon. While we may do this later, let's first rule out other potential physical, psychosocial and environmental sources of the problem. Go Back.

Good. Checking the person's history and medical record may provide information about possible reasons for the resident's change in behavior. Mrs. White's history is negative. She has never suffered from depression and does not have any history of painful medical conditions. Her withdrawn behavior and poor appetite are persisting. Continue on next page!

3. What will you do?

a. Assess the environment for stress, her activity schedule for a balance between sensory stimulating and sensory calming activity and how much meaningful human interaction she is receiving.

b. Administer a prescribed prn analgesic.

c. Administer a prescribed prn psychotropic.



Hmmm....Too soon. It is better to do more assessment to find out if the source of her discomforting behavior is non-physiological. Go Back.

Good. You don't know if the person's unmet need is caused by something physiological or non-physiological, but Step 2 of the STI asks you to assess for non-physiological sources of discomfort. You assess for environmental stressors, for a balance between sensory stimulating and sensory calming activity and for meaningful human interaction. You note that her daughter has not been visiting this week because she is vacationing in Florida. The pastoral care counselor has also been out sick this week, so these visits were also cancelled. You make a point to spend time visiting with her quietly in her room. She allows you to give her a hand massage and smiles. You ask the next shift to provide at least 15 minutes of one-to-one interaction. You order friendly visiting bid on the treatment card. The next day her appetite has improved, her affect is more animated, and she joins others in the day room. You have dramatically improved Mrs. White's comfort and quality of life!



Mrs Anzoni's Ants



Mrs Anzoni is an 89 year old admitted to the unit from acute care two days ago. She has moderate dementia and is recovering from a fractured hip repair. After supper the Aide reports that Mrs Anzoni is restless and starting to get agitated.

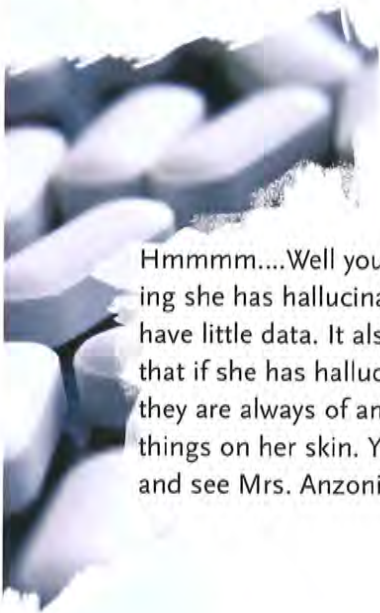
1. You do the following

(Chose one and follow the directions for the evaluation of your answer):

a. Go to see Mrs Anzoni and find her in bed with the covers off.

b. Decide that Mrs Anzoni is probably sun downing. You know she has a prn Haldol order. So you prepare the medication and give it to her.

c. Decide that Mrs Anzoni probably has pain due to her recent hip repair. You know she has a prn analgesia order. So you prepare the medication and give it to her.



Hmmmm....Well you are assuming she has hallucinations but you have little data. It also seems odd that if she has hallucinations that they are always of ants or crawling things on her skin. You should go and see Mrs. Anzoni.

Hmmmm....You have no observational or assessment data about what the REAL problem might be. You are assuming pain based on knowledge of her recent surgery and that she was up for supper. You should go to see Mrs. Anzoni.

Good. It is very important to see Mrs Anzoni and do a physical assessment. When you are in Mrs Anzoni's room you notice that she is sitting up and is making brushing movements along her sheets. Periodically she rubs her arms or legs. She looks at you when you speak to her and becomes more agitated: "Ants!", she says, "Ants!". You look in her bed and do not see anything. Mrs Anzoni's restlessness increases; she grabs at you and shouts; "Ants!" You recognize the symptom presentation (itch or crawling things on the skin) and the need to examine Mrs Anzoni.

You extend your skin evaluation to other parts of her body, especially her hands and feet (looking for evidence of the itch mite), her back and front (looking for any signs of insect bites), and head (looking for signs of lice). You do note that Mrs Anzoni's skin is very dry, especially on her arms and legs. You find no evidence of insect bites, the itch mite or lice. You apply an oil based lotion to Mrs Anzoni's arms and legs. Mrs Anzoni responds positively by reducing her restlessness. She pats your hand, says "Girlie, girlie", and settles down. In the office you make note to alter Mrs Anzoni's bathing/skin care to treat dry skin problems





Before the end of shift the CNA reports back that Mrs Anzoni has not settled for the night but again is restless, agitated, and scratching her arms and legs. You go to evaluate Mrs Anzoni and find her much the same as your previous visit. She is sitting up in bed with the covers off, pillows on the floor. She is shaking the sheets out and brushing the bed, while periodically scratching her arms and legs. e bed, while periodically scratching her arms and legs.

2. You do the following

(Chose one and follow the directions :

a. Decide that Mrs Anzoni needs her prn sleeping pill and might benefit from some comforting distraction. You return and give her sleeping medication. You provide her with her stuffed teddy bear and turn her radio to soft music.

b. You decide that Mrs Anzoni is having hallucinations. You know she has a prn Haldol order. You prepare the medication and give it to her.

c. You decide that you need to review Mrs Anzoni's record. .

Hmmm....Mrs Anzoni's persistent behavior suggests the cause of the problem has not yet been found. Sleeping medication may work in the short term because it may put her to sleep. The stuffed toy and music may provide comfort and facilitate sleep. Your data base is limited at this point. You should review Mrs. Anzoni's record.

Hmmm...Mrs Anzoni may be having hallucinations but these are usually visual in dementia, that is, they don't usually involve a physical sensation, and Mrs Anzoni seems to have skin sensations. Your data base is limited at this point. You should review Mrs. Anzoni's record.



Good..You recognize the persistence of Mrs Anzoni's behavior despite attention to her dry skin as a sign that you need further information. You review her record carefully with special attention to her medication history. Mrs Anzoni's record shows that in addition to prn medications for sleep, pain, and agitation, she is on a multivitamin, Digoxin for mild Congestive Heart Failure, and Imipramine/Tofranil for Depression.

You consult with the nurse practitioner, who discontinues the imipramine/tofranil. This drug is known to cause paresthesia, a tingling sensation, especially of the extremities. The drug is stopped and within a week (the time needed for the drug to clear) Mrs. Anzoni is no longer rubbing her extremities, brushing the sheets or saying "Ants!" You have dramatically improved Mrs. Anzoni's comfort and quality of life!



Mrs. Exeter's "Exiting"

Mrs. Exeter is an 84 year-old resident with late-stage dementia. Usually calm and pleasant, she is agitated, belligerent, and trying to get off of the unit.

1. You do the following

(Chose one and follow the directions for the evaluation of your answer):

a. Wait and she if she calms down.

Hmmm....Her behavior change is a symptom of unmet need. You need to go see her. Go back

b. Move her to a calmer environment.

c. Go see her and perform a physical assessment.

Hmmm....Her behavior may indicate there is too much environmental stimulation, but the priority would be to do a physical assessment first to rule out physical causes for the behavior change. Go back.



Good. A physical assessment will help to rule out physical causes for the behavior change. Mrs. Exeter's physical assessment is negative. Continue on next page!

2. You do the following

a. Give her an antianxiety drug.

b. Give her a pain medication.

c. Check her history for relevant background information.

Good. Checking the history can reveal sources of discomfort or help you to figure out what is troubling Mrs. Exeter. Her history does not yield any new information. Continue on next page!

Hmmm...Too soon. It is better to do more assessment to find out the source of her discomforting behavior. Go back.



3. You do the following

a. Assess the environment for stress, her activity schedule for a balance

between sensory stimulating and sensory calming activity and how much meaningful human interaction she is receiving.

b. Administer a prescribed prn analgesic.

c. Administer a prescribed prn psychotropic.



Hmmm....Too soon. It is better to do more assessment to find out if the source of her discomforting behavior is non-physiological. Go back.

Good. You don't know if the person's unmet need is caused by something physiological or non-physiological, but Step 2 of the STI asks you to assess for non-physiological sources of discomfort. You ask her why she is trying to leave the unit and she replies, "I need to get away from here!" You don't find a non-physiological source for the change in behavior but you spend some time visiting with her and give her a rummage box to keep her busy. She continues to be agitated and keeps setting off the alarm as she tries to leave the unit. Continue on next page!

do the following

a. Apply a belt restraint and place her in the dayroom where she can watch television

b. Administer a prescribed prn analgesic

c. Dipstick her urine.



Hmm...You should have dipsticked the urine in Step 1 of the Protocol. Go back.



Hmmm....We still need to pursue resolution of the problem and we still don't know the cause. Go back.

Good. We now want to try giving an analgesic as a part of the assessment process. Since Mrs. Exeter responds well to the prn analgesic, you get an order for scheduled analgesics and a prn analgesic for breakthrough pain. Her behavior improves dramatically. You conclude that her exiting behavior was her attempt to "get away from her pain." In the future, when you see this behavior, you will know she is having breakthrough pain and give her the prescribed prn pain med in addition to the scheduled analgesic. You have dramatically improved Mrs. Exeter's comfort and quality of life!

Mr. Borgson's "Burn"

Mr. Borgson is an 82 year old with late-stage dementia. He is just recovering from flu last week and has normal temperature. However, things do not seem quite right with him. The CNA reports that he is not eating well and he is restless at night; these are new behaviors.

1. You do the following

(Chose one and follow the directions for the evaluation of your answer):

a. You decide Mr. Borgson is just taking longer to get over the flu and make a note of this.

b. You go to see Mr. Borgson.

c. You change Mr. Borgson's diet order to smaller servings and between meal snacks, and advise the night staff to give his prn sleeping medication.



Hmmm....You are assuming that Mr. Borgson's behavior is related to post flu recovery. You have no assessment data. You need to go see Mr. Borgson. Go back.

Good...You recognize that you need to do a physical assessment of Mr. Borgson. Continue on next page.

Hmmm....You are assuming Mr. Borgson's problem is with his meal plan and sleeping medication. You have no data. You need to go see Mr. Borgson. Go Back.

Mr. Borgson is muttering and seems to be moaning a little. You notice that he is rubbing his chest. You think you hear him say "Burn" or "Borg". You carefully examine Mr. Borgson's chest area. You can not see any skin change; his blood pressure and respirations are slightly elevated for him but his temperature is normal.

2. You do the following

(Chose one and follow the directions :

a. You decide Mr. Borgson has heartburn, get an order for antacid medication, and give it to him.

b. You decide to review Mr. Borgson's record.

c. You decide Mr. Borgson is saying "Borg", probably his nickname, he may be sad or lonely, and that distraction may help. You instruct the CNA to get Mr Borgson to one or more of the day's planned activities.

Hmmm.....Well, he could have heartburn but he could also have any number of physical causes for his behavior including heart and lung conditions. While this is not a harmful guess as to what is wrong, you don't have any data. Go Back.

Good....You recognize that the need for more data and you check the resident's history. Continue on next page.

Hmmm....Well, while distraction can be a useful technique, you don't know what is causing Mr. Borgson's behavior. You need more data. You need to review Mr. Borgson's record. Go Back.

The only prior relevant history is notation that two months ago Mr. Borgson recovered from Shingles (Herpes Zoster) in the thoracic area and has been experiencing postherpetic neuralgia. Mr. Borgson's wife visits every other day and has brought a picture for the bedside of Borg Dog, an old setter, who is very special to Mr. Borgson.

3. You do the following

(Chose one and follow the directions):

a. You decide Mr. Borgson has new agitation and administer a prescribed prn anti-anxiety agent.

b. You suspect Mr. Borgson may be experiencing some depression post the flu and greatly misses his dog. He may really be saying "Borg Dog". You make arrangements to have Mrs. Borgson bring Borg Dog in to visit.

c. You decide Mr. Borgson may be experiencing post Shingles (Herpes Zoster) pain. You give him an analgesic medication.

Hmmm...Too soon. There is a need for more assessment and intervention before using a psychotropic drug to alter behavior. You need to administer Mr. Borgson's analgesic. Go Back.

Good....You know that Shingles (Herpes Zoster) can either leave residual neuropathic pain or such can be stimulated by immunologic challenge (such as with flu). You recognize Mr. Borgson's behavior as possibly discomfort. You monitor him and note improvement in his behavior. You have dramatically improved Mr. Borgson's comfort and quality of life!

Hmmm....This is a nice idea and likely to please Mr. Borgson. But it ignores Mr. Borgson's history of recent thoracic Shingles (Herpes Zoster). This viral skin disease can be stimulated by immunological challenges such as the flu. You need to administer Mr. Borgson's analgesic. Go Back.

