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Assessment and Management of Pain in the Elderly

Self-directed learning package for nurses in long-term care.

Supporting Implementation of the RNAO BPG
Assessment and Management of Pain

RNAO
Registered Nurses' Association of Ontario
L'Association des infirmières et infirmiers autorisés de l'Ontario
NURSING BEST PRACTICE GUIDELINES PROGRAM

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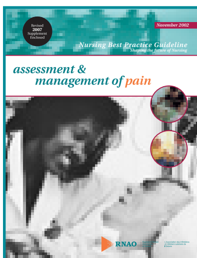

The RNAO Nursing Best Practice Guideline *Assessment and Management of Pain* is available for download from the RNAO website at http://www.rnao.org/bestpractices.

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Visit www.rnao.org/bestpractices to download materials for facilitating a workshop on Assessment and Management of Pain.

INTRODUCTION TO THE SELF-LEARNING PACKAGE

Purpose of the Self-Directed Learning Package

This self-directed learning package incorporates the recommendations from the RNAO Best Practice guideline, *Assessment and Management of Pain*. The purpose of this learning package is to help nurses to gain the knowledge and skill required to effectively manage the unique challenges inherent in the assessment and management of pain in a long-term care setting. The information in the package covers general concepts related to acute and chronic pain. You are encouraged to go to other sources to learn more about other types of pain. The package will serve as a review for more experienced nurses and will support the novice nurse in his/her learning journey.

Educators may want to use sections of the package to incorporate into a teaching plan and may also visit the RNAO website to view workshop materials related to the *Assessment and Management of Pain* guideline, available for free download.

This package should be used in conjunction with the RNAO guideline, *Assessment and Management of Pain*.

Target Audience

This educational resource has been developed for nurses and other health care professionals in long-term care who are providing care to residents experiencing pain.

Note
Although the term "chronic pain" is commonly used in practice and does appear in this package, current terminology favors the term "persistent pain". RNAO literature, like the *Assessment and Management of Pain* guideline revision supplement, reflect this change.

INSTRUCTIONS FOR USING THE SELF-DIRECTED LEARNING PACKAGE

This self-directed learning package enables you to proceed through the content at an independent pace. Each section of the package will take approximately 1-2 hours to complete, and may be put aside for breaks at any time.

1. At the outset of the Self-Directed Learning Package, you will be given the opportunity to complete a short Pre-Learning Knowledge Assessment. The purpose of this assessment is to allow you to evaluate your present knowledge of pain management for long-term care residents.

2. Upon completion of the Pre-Learning Knowledge Assessment, proceed with one section of the Self-Directed Learning Package at a time, making sure to complete the following steps:

   a) Review the learning objectives.

   b) Read all the information in the section.

   c) Complete the review questions/case study at the end of the section.

   d) Compare with the section content or answer sheet at the back of the package and review content related to any incorrect answers.

   e) Review the section objectives again to confirm that you have gained knowledge and skill in this area.

Repeat these steps as often as you feel necessary. Remember this is your learning and you are evaluating and increasing your knowledge.

3. Once you have completed the Learning Package:

   a) Take the opportunity to evaluate your new knowledge by completing a Post-Learning Knowledge Evaluation.

   b) Continue to refer the learning package to reinforce the knowledge that you have gained.

GOOD LUCK!

We all must die
But if I can save Him from days of
Torture, that is what I feel is my great and
Ever new privilege
Pain is a more terrible lord of mankind
than
Even death himself

Albert Schweitzer, 1939.

Pre-Learning Knowledge Assessment

This quiz is meant to test your existing knowledge of the best practice guideline for *Assessment and Management of Pain*. The assessment is made up of ten multiple choice questions. The answers are on page 34, at the back of the package.

Circle the best answer:

1. Which fact about pain in the elderly is true?

    a) Pain is part of the aging process

    b) The elderly have a greater tolerance to pain than younger adults

    c) Elderly persons often do not report pain because they consider it a normal part of the aging process

    d) Narcotic medications are inappropriate for the elderly

2. An example of a behavioural indicator of acute pain in the elderly is:

    a) Resistive behaviour

    b) Moaning/Groaning

    c) Rapid shallow breathing

    d) All of the above

3. If pain is not assessed or treated in the elderly, it can cause:

    a) Decreased tolerance to narcotics

    b) Unnecessary suffering

    c) Decreased recovery time

    d) A decreased chance of addiction

4. When a resident is unable to communicate his/her pain experience, the nurse should:

    a) Administer the prescribed analgesic and evaluate its effectiveness

    b) Assess pain with a numerical rating scale

    c) Assess pain using behavioural indicators/behaviour scale

    d) Assume that the resident is not necessarily experiencing pain

5. Characteristics of acute pain are:

    a) Lasts less than 2 months

    b) Occurs over a couple of days

    c) Is responsive to analgesics

    d) Does not serve as a warning to tissue damage

6. Using the facial grimace scale as a guide, a “pain rating” of 4 on a scale of 1-10 indicates what level of pain:
   a) Severe pain
   b) No pain
   c) Mild pain
   d) Moderate pain

7. Pain rating scales are used to assess:
   a) Quality of pain
   b) Intensity of pain
   c) Location of pain
   d) Pattern of pain

8. The ‘gold standard’ for assessing the existence of pain is:
   a) Grimacing on movement
   b) Resident self-report
   c) Increased heart rate and palpitation
   d) Anxiety level

9. RNAO’s Best Practice Guideline for *Assessment and Management of Pain* suggests that the following components are required in the regular reassessment of pain:
   a) Current pain intensity, quality and location
   b) Intensity of pain at it’s most severe during the last 24 hours
   c) Effect of pain on activities of daily living
   d) All of the above

10. The nurse assesses that a Step 2 medication (as defined by the analgesic ladder) is necessary for a resident whose pain has not been relieved by a Step 1 medication. Step 2 for the resident would be:
   a) Non-opioid and NSAIDs
   b) Strong opioid and Adjuvant therapy
   c) Weak opioid +/- adjuvants
   d) Non-opioid

SECTION I: FACTS ABOUT PAIN

LEARNING OBJECTIVES

Upon completion of this session, learners will be able to:

1. Define the concept of pain.
2. Differentiate between the different types of pain.
3. Identify some of the myths and facts surrounding the management of pain in the elderly.

> "Defining pain, distinguishing between the different types of pain, and understanding the way in which noxious stimuli are transmitted from the periphery to the part of the brain where pain is perceived, are essential to assessing pain and providing adequate pain relief."
>
> McCaffery & Pasero, 1999

DEFINITION OF PAIN

The most widely acceptable definition of pain is "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage" (adopted by the American Pain Society).

This definition explains pain as a complex phenomenon that impacts an individual's psychosocial and physical functioning. Because pain is a highly personal and subjective experience, Margo McCaffery's (1968) definition is appropriate for clinical practice:

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

TYPES OF PAIN

General discussions of pain often refer simply to three types:

1) Acute (brief that subsides as healing takes place)

2) Cancer

3) Chronic non-malignant pain – *"persistent pain"*

Classification of pain by inferred pathology:

1) Nociceptive Pain

2) Neuropathic Pain

Nociceptive Pain

A. Somatic Pain

B. Visceral Pain

Nociceptive Pain: Normal processing of stimuli that damages normal tissues or has the potential to do so if prolonged; usually responsive to non-opioids and/or opioids.

A. Somatic Pain – arises from bone, joint, muscle, skin or connective tissue. It is usually aching or throbbing in quality and is well localized.

B. Visceral Pain – arises from visceral organs such as the heart, GI tract, and pancreas. This may be sub-divided:

- Tumor involvement of the organ capsule that causes aching and fairly well localized pain.
- Obstruction of hollow viscous, which causes intermittent cramping and poorly localized pain.

Neuropathic Pain

A. Centrally Generated Pain

B. Peripherally Generated Pain

Neuropathic Pain: Abnormal processing of sensory input by the peripheral or central nervous system; treatment usually includes adjuvant analgesics.

A. Centrally Generated Pain

1. Injury to either the peripheral or central nervous system e.g. phantom pain may reflect injury to the peripheral nervous system.

2. Sympathetically maintained pain associated with dysregulation of the automatic nervous system e.g. reflex sympathetic dystrophy often associated with stroke.

B. Peripherally Generated Pain

1. Pain that is felt along the distribution of many peripheral nerves e.g. diabetic neuropathy.

2. Pain that is usually associated with a known peripheral nerve injury. Pain is felt at least partly along the distribution of the damaged nerve.

(McCaffery & Pasero, 1999)

"Pain, whatever its source, is one of the most common complaints of the elderly" (Sarvis, 1995).

The prevalence of pain in the elderly who live in long-term care is considered to be extremely high. Ebersole & Hess (1999), suggest that it might be as high as 85 percent due to the presence of conditions that cause chronic pain such as arthritis, peripheral vascular disease, etc.

The aged are at high risk for pain. They have lived longer and have a greater chance of developing degenerative and pathological conditions. Several conditions may be present simultaneously which makes assessment and treatment more challenging.

Fact and Fiction about Pain in the Elderly

Myth: Pain is expected with aging.

Fact: Pain is not normal with aging. The presence of pain in the elderly necessitates aggressive assessment, diagnosis and management similar to younger individuals.

Myth: Pain sensitivity and perception decrease with aging.

Fact: Research is conflicting regarding age-associated changes in pain perception, sensitivity, and tolerance. Consequences of belief in this myth may mean needless suffering and under treatment of pain and underlying cause.

Myth: If an elderly person does not complain of much pain, they must not be in pain.

Fact: Older individuals may not report pain for a variety of reasons. They may fear the meaning of pain, diagnostic workups, or pain treatments. They may think pain is normal.

Myth: A person who appears to have no functional impairment and is occupied in activities of daily living must not have significant pain.

Fact: People have a variety of reactions to pain. Many individuals are stoic and refuse to "give in" to their pain. Over extended periods of time, the elderly may mask any outward signs of pain.

Myth: Narcotic medications are inappropriate for the elderly with chronic non-malignant pain.

Fact: Opioid analgesics are often indicated in non-malignant pain.

Myth: Potential side effects of narcotic medication make them too dangerous to use in the elderly.

Fact: Narcotics may be used safely in the elderly. Although the elderly may be more sensitive to narcotics, this does not justify withholding narcotics and failing to relieve pain.

SECTION I: Recap

1. Pain radiating from the left side of the chest into the left jaw, could be defined as :

____________________ , ____________________ , ____________________ .

2. A definition of pain in clinical practice is an unpleasant __________ and __________ experience associated with __________ or __________ tissue damage or described in terms of such damage.

3. Somatic pain arises from ____________________ , ____________________ , ____________________ , ____________________ or ____________________ .

4. Phantom pain may reflect injury to the __________ or __________ nervous system.

5. An example of a common peripherally generated pain is ____________________ .

6. The elderly are at high risk for pain because they have ____________________ and have a greater chance of developing ____________________ and ____________________ conditions.

7. Older individuals may not report pain because they think that pain is a normal part of the aging process.

True ☐ False ☐

Answers can be found on page 34.

SECTION II: ASSESSMENT

LEARNING OBJECTIVES

Upon completion of this section, the learner should be able to:

1. Understand the twelve principles for pain assessment and management.
2. Discuss screening markers for the verbal/cognitively intact and non-verbal/non-cognizant resident.
3. Identify factors that affect the older person's pain experience.
4. Identify barriers that interfere with pain assessment and treatment in the elderly.
5. Describe data to include in a pain assessment.

Let's begin by reviewing the 12 principles for pain assessment and management as presented in the Registered Nurses' Association of Ontario's best practice guideline, *Assessment and Management of Pain.*

1. Patients have the right to the best pain relief possible.
2. Unrelieved acute pain has consequences and nurses should prevent pain where possible.
3. Unrelieved pain requires a critical analysis of pain-related factors and interventions.
4. Pain is a subjective, multidimensional and highly variable experience for everyone regardless of age.
5. Nurses are legally and ethically obligated to advocate for change in the treatment plan where pain relief is inadequate.
6. Collaboration with patients and families is required in making pain management decisions.
7. Effective pain assessment and management is multidimensional in scope and requires coordinated interdisciplinary intervention.
8. Clinical competency in pain assessment and management demands ongoing education.
9. Effective use of opioid analgesics should facilitate routine activities such as ambulation, physiotherapy, and activities of daily living.
10. Nurses are obligated to participate in formal evaluation of the processes and outcomes of pain management at the organizational level.
11. Nurses have the responsibility to negotiate along with other health care professionals for organizational change to facilitate improved pain management practices.
12. Nurses advocate for policy change and resource allocation that will support effective pain management.

Note
RNAO's best practice guideline for the *Assessment and Management of Pain*, recommends that all residents at risk for pain be screened for the presence of pain at least once a day. The Joint Commission on Accreditation now advocates assessment of pain as the 5th Vital Sign.

SCREENING FOR PAIN

Self-report is the 'gold standard' and primary source of assessment for the verbal, cognitively intact resident. This may include caregiver and family reports for the non-verbal or non-cognizant resident.

Because self-report is the most reliable indicator of pain, every effort should be made to speak with residents/ families/caregivers about their pain, ache, or discomfort. Recent research has shown that even individuals with significant cognitive impairment may be able to use a pain rating scale (Ferrelle, Ferrelle, River, 1995). Findings from this study suggest that self-report and using a pain rating scale can be best accomplished by allowing sufficient time for the resident to process the information and then respond.

Additional Screening Markers (non-verbal, non-cognizant)

- Any change in condition
- Diagnosis of a chronic, painful disease
- History of chronic, unexpressed pain
- Taking medication for > 72 hours
- Distress related behaviours or facial grimaces
- Family/others indicate pain is present

Factors to consider in the assessment and management of pain in the elderly

Factors Influencing a Resident's Response to Pain:

- Past pain experience
- Cultural
- Gender
- Significance of pain
- Depression
- Fatigue
- Altered pain stimulus transmission
- Decrease in inflammatory response

(Ebersole, Hess, 1998).

Nurses' Misconceptions about the Resident's Pain Experience:

- Residents are not experts about their pain – health professionals are
- Older residents should expect to have pain
- Pathology and test results determine the existence and intensity of pain
- Residents in pain should have observable signs
- Chronic pain in the elderly is not as serious a problem as acute pain
- If residents do report that they are in pain, they will use the term 'pain'

(Ebersole, Hess, 1998).

Barriers in assessing and treating pain in the elderly

- The elderly often under report pain because it is often considered a normal part of aging.
- The elderly sometimes choose to suffer in silence. This may be a culturally orientated response to pain or may be related to the high cost of medications and/or inability to access medical care.
- Caregivers' and other's misconceptions of the pain experience can influence the elderly person's pain.
- Elderly persons with cognitive impairments or communication challenges may not be able to make their pain needs heard. Nurses must be observant of subtle clues such as guarding, wincing, moaning etc.
- The ability of elderly persons to swallow pills easily may be impaired due to dry mouth, swallowing difficulties or ill-fitting dentures.

Barriers that interfere with pain assessment and treatment in the elderly:

- Under reporting of pain
- Choosing to suffer in silence
- Perception of pain by others
- Cognitive functioning
- Fear of losing self-control
- Fear of addiction
- Inability to swallow pills

ASSESSMENT TOOLS

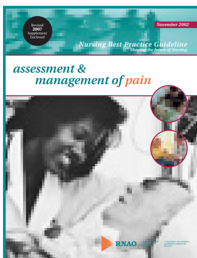
There are a number of systematic, validated pain assessment tools available to assist you with your pain assessment (see Appendix E in the *Assessment and Management of Pain* guideline).

The tool that you select should reflect the following basic parameters of pain:

- Location of pain
- Effect of pain on function and activities of daily living
- Level of pain at rest and during activity
- Medication usage and adverse effects
- Provoking and precipitating factors
- Quality of pain (in the resident's words – achy, hurting)
- Radiation of pain – does it extend beyond the site?
- Severity of the pain (intensity, 0-10 scale)
- Pain related symptoms
- Timing (constant, occasional)

Tools to Assess the Intensity of Pain (established validity)

- Visual Analogue Scale (VAS)
- Numeric Rating Scale (NRS)
- Verbal Scale
- Faces Scale
- Behavioural Scale



The supplement to the *Assessment and Management of Pain* guideline includes a new tool for assessing pain in non-communicative adults. Visit www.rnao.org/bestpractice to view the Checklist of Non-Verbal Pain Indicators.

Mnemonics (can be helpful to structure a baseline assessment of pain)

Sample #1	Sample #2	Sample #3
PQRST	**PAINED**	**OLD CART**
P – provoking or precipitating factors	**P** – place – location(s) of the pain	**O** – onset – when did the pain start?
Q – quality of pain (resident's description – sharp, achy etc.)	**A** – amount –refers to pain intensity	**L** – location – where is your pain?
R – radiation of pain (does the pain extend from the site?)	**I** – intensifiers- what makes the pain worse	**D** – duration – persistent, periodic?
S – severity of the pain (intensity 1-10)	**N** – nullifiers - what makes the pain better	**C** – characteristics – what does it feel like?
T – timing (occasional v.s. constant)	**E** – effects – effects of pain on quality of life	**A** – aggravating factors - what makes the pain worse?
	D – descriptors – of the quality of pain (aching, burning, throbbing etc.)	**R** – relieving factors – what makes the pain better?
		T – treatment - what medications work for you ? - do you have adverse effects from your medications?

This is an opportunity to use your *Reflective Thinking Skills*

CASE STUDY:

Mrs. V is a 85 year old woman who has just been re-admitted to your unit following a brief stay in an acute care hospital. Mrs. V has a diagnosis of dementia. Prior to admission to the hospital she was mobile but because of the dementia was unable to participate in her care and other activities of daily living. She was sent to hospital because of a fall which resulted in a # L hip.

When you receive the resident, she is moaning loudly and her eyes are tightly closed. She is very rigid and grimaces when you attempt to move her in bed. Placing the resident on her R side and supporting the L leg appears to relax her and the moaning is less intensive.

Several of her children are at her bedside and look to you to help their mother.

1. How would you classify the type of pain that Mrs. V is experiencing? (generally and by inferred pathology)

_______________ , _______________ , _______________ .

2. What screening tools/markers would you use to assess/monitor Mrs. V's pain?

3. Would the family play a role in the assessment process? If yes, what would be the role?

4. Name three other factors that you may want to consider as part of the assessment process.

5. Using the *mnemonic* **'PAINED'** and the information from the case study, complete the following chart:

Mnemonic	Stands for...	How would you assess/observe?
P		
A		
I		
N		
E		
D		

QUESTIONS TO CONSIDER:

1. Does your 'home' have the necessary documentation systems in place to support or reinforce a standardized pain assessment approach? You may want to discuss this with your Director of Care.
2. Are pain assessment tools accessible to all members of the interdisciplinary team?

You may want to capture your thoughts in the space below.

LAST WORD:

"Nurses are legally and ethically obliged to advocate for residents..... to ensure that the most effective pain relieving strategies are utilized in promoting resident comfort and the relief of pain" (RNAO, 2007, p36).

SECTION III: MANAGEMENT AND MONITORING OF PAIN

LEARNING OBJECTIVES

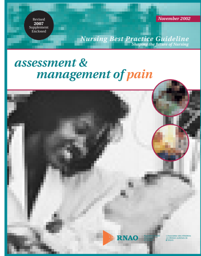
Upon completion of this section, you will be able to:

1. Describe the principles of pharmacological pain management in elderly persons.
2. Describe the 'steps' in managing pain using pharmacological therapies.
3. Discuss common adverse effects of opioids in the elderly.
4. Identify other non-pharmacological modalities for pain management.
5. Describe the components of an on-going monitoring plan for assessing the intensity of pain and the effectiveness of treatment interventions.
6. Apply the principles of pain management in a case study.

Consequences of Unrelieved Pain:

- Alteration in quality of life
- Depression and hopelessness
- Muscle tension
- Delayed gastric and bowel function
- Decreased mobility
- Shallow breathing and cough suppression
- Pneumonia
- Skin breakdown

PHARMACOLOGICAL PAIN MANAGEMENT



"Effective pain management is dependent upon accurate assessment of pain and the development of a holistic approach to pain that includes non-pharmacological and pharmacological methods for treatment" (RNAO, 2007, pg. 50).

Principles of Pharmacological Pain Management in Elderly Persons

1. Use a combination of pharmacological and non-pharmacological pain management strategies.
2. Give adequate amounts of medication at the appropriate frequency to control pain based on *regular assessment*.
3. Use round the clock dosing: avoid PRN dosing.
4. Use a combination of drugs that potentiate each other.
5. With narcotic analgesic drugs, start low and increase dose slowly.
6. Anticipate and prevent side effects common in the elderly person.
7. Consult an Equianalgesic Potency Table when changing medications.

(Ebersole & Hess, 1995).

Physiological Changes in Aging (absorption, metabolism, elimination of drugs)

The normal aging process changes the way the body metabolizes and eliminates drugs. As a result, the elderly are more sensitive to both the therapeutic and toxic effects of analgesics.

In the absence of disease, absorption is basically unimpaired.

The microsomal enzyme system of the liver is the primary site of drug metabolism. Studies on the effects of aging and/or disease show that there is a decrease in blood flow to the liver resulting in decreased hepatic clearance; thus the time the medication stays in the system is increased.

Distribution of a drug depends on the adequacy of the circulatory system. Altered cardiac output and sluggish circulation delay the arrival of medication to the target area as well as retard the release of a drug, or its by- products, from the body.

Steps in the management of pain using pharmacological methods (Analgesic Ladder)

Studies show that using a step-wise approach to the selection of analgesic for pain relief has proved to be most effective. This approach can be understood by following the analgesics guidelines from the Analgesic Ladder (Appendix A). It is important to note that use of analgesia should begin at the step appropriate for the severity of the pain, not necessarily at step 1.

Dosing for the elderly person requires careful titration including frequent assessment and dosing adjustment to optimize pain relief while monitoring and managing side effects.

STEP I

Start with simple analgesics and medications that are effective in the treatment of mild pain (1-3/10) on the Numeric Rating Scale. These include the non-opioids:

- Acetaminophen (Tylenol)
- Non- steroidal anti-inflammatory (NSAIDS) – e.g. ibuprofen
- COX-2 inhibitors – (Celecobix)

STEP II

Weak opioids (as defined by the ***Analgesic Ladder***) are the mainstay of treatment for moderate to severe pain (4-6/10) on the Numeric Rating Scale.

Common medications are:

- Codeine
- Oxyodone

STEP III

Strong opioids (as defined by the ***Analgesic Ladder***) are the drugs used for severe pain (7-10/10) on the Numeric Rating Scale.

Common medications are:

- Morphine
- Hydromorphone
- Methadone
- Fentanyl

Adjuvant analgesics - may be added to a treatment plan that includes non-opioid and opioid analgesics or as a primary therapy in certain painful disorders.

For a list of adjuvant medications see Appendix B.

Other factors to consider in selecting opioids

- Pain pattern
- Presence of renal, gastrointestinal or cognitive dysfunction
- Lifestyle
- Existing medications
- Specific type of pain

The use of meperidine (Demerol) is not recommended for the elderly, particularly in the treatment of chronic pain because of the build-up of the toxic metabolic normeperidene, which can cause seizures and dysphoria, and is not reversible by naloxene.

Principles for Optimizing Pain Relief for Opioids:

- Timing of the analgesic is appropriate (duration) of action, peak effect, and half-life
- Individualized to the resident
- Administered on a regular schedule
- Principles of dose titration are used to reach the dosage that relieves pain with minimum side effects
- Pain that occurs between regular dosing of analgesic (breakthrough pain) is treated promptly
- An equianalgesic table is used to ensure equivalency between analgesics when switching analgesics (see Appendix C)
- Ensure alternate routes of administration are considered when analgesics are prescribed

(RNAO, 2007).

Common adverse effects of opioids

Nurses play an important role in the prevention of the common side effects related to the administration of opioids.

Side effects of analgesics can be more distressing to individuals than pain and this may become a barrier to adherence with the pain medication regime.

Nausea and constipation are the most common side effects. All residents who are prescribed opioids should also be prescribed an antiemetic and a laxative on an "as needed basis."

COMMON ADVERSE EFFECTS	LESS FREQUENT ADVERSE EFFECTS	RARE ADVERSE EFFECTS
Constipation	Urinary Retention	Allergy
Nausea	Pruritis	
Sedation	Severe Myoclonus	
Dry Mouth	Confusion	
	Agitation	
	Respiratory Depression	

Myth:
Nurses often have the misconception that the respiratory effects of narcotics make it too dangerous to use in the elderly

Fact:

RESPIRATORY DEPRESSION

Respiratory depression is rare with titrated oral dosing.

It is very important to monitor for respiratory depression in all cases, and particular when:

- Initial dose is too high
- Titration is done too quickly
- Titration occurs in increments too large

Residents are at higher risk for respiratory depression if they have:

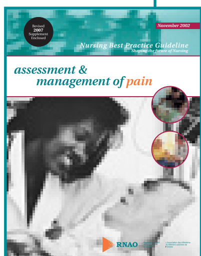
- COPD (Chronic Obstructive Pulmonary Disease)
- Renal Failure
- Hypothyroidism

Note
Titration – is considered at the beginning of drug therapy and repeatedly during the course of treatment

- Advocate for the least invasive pain management modality, individualized to the person
- Use the 'step-wise' approach for selection of analgesic
- Dosing should be initiated at lower dosages and increased slowly "start low and go slow"

Breakthrough Pain

Promptly treat pain that occurs between regular doses of analgesics



"Individuals with chronic pain should have an immediate release opioid for pain break through that occurs between administration times of the 'round the clock' medication schedule" (RNAO, 2007, pg. 59).

NON-PHARMACOLOGICAL PAIN MANAGEMENT

Although analgesics are the mainstay of pain management, a more systematic use of non-pharmacological pain methods has been found to be beneficial to the elderly. Heat and massage/vibration were rated by the elderly as being the most effective methods (McCaffery & Pasero, 1999).

Non-pharmacological methods should not be used as a substitute for adequate pharmacological management, but should be combined with pharmacological methods to acheive effective pain management. (RNAO, Recommendation 59).

Other modalities to consider

- Heat/Cold
- Massage
- TENS (transcutaneous electrical nerve stimulation)
- Touch
- Acupuncture
- Biofeedback
- Distraction
- Relaxation, meditation, and imagery
- Hypnosis

Forms of distraction

Visual

- Reading
- Watching TV
- Watching a sport
- Guided imagery

Auditory

- Humor
- Listening to music

Tactile

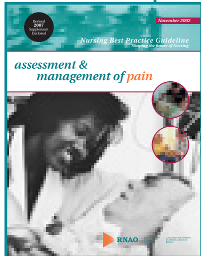
- Massage
- Stroking a pet
- Slow rhythmic breathing

Intellectual

- Crossword puzzles
- Card games
- Hobbies

MONITORING OF PAIN AND PAIN INTERVENTIONS

A pain monitoring tool is vital to monitor the intensity of pain and the effectiveness of pain management strategies.



"Evaluate the effectiveness of pain relief with analgesics at regular intervals and following a change in dose, route or timing of administration" (RNAO, 2007, pg. 62). This is also required when introducing non- pharmacological interventions.

Monitoring tools are available for those residents who are able to verbally report the intensity of their pain. These tools are based on Visual, Numeric or Verbal Rating scales.

Monitoring tools are also available for the cognitively impaired/non-verbal resident. These tools are based on Facial Grimace and Behavioural indicators.

Please refer to RNAO's Best Practice Guideline, *Assessment and Management of Pain* for examples of monitoring tools.

The graphing of pain intensity provides an objective measure of the efficacy of the pain management interventions and provides a tool to communicate to other health care professionals involved in the resident's care.

Empowering the resident and his/her family to assist in the monitoring of the effects of pharmacological and non-pharmocological pain manament provides the opportunity for the resident and family to be active participants in the care plan.

Pain is re-assessed:

- At each new report of pain
- After starting the treatment plan – at pre-determined intervals after each pharmacological and non-pharmacological intervention
- If pain is suddenly not relieved by previously effective strategies
- If there is unexpected, intense pain associated with altered vital signs; hypotension, tachycardia, or fever

This is an opportunity to use your Reflective Thinking Skills

CASE STUDY:

Mrs. S. has a long history of suffering from osteoporosis for which she has been taking Ibuprofen without adequate pain relief. You have completed a pain assessment that found Mrs. S. describes her pain as 'constant aching' all over body. The pain is worse on ambulation, moderate in severity (5-6/10). Because it hurts more with walking, she is spending more time lying down and watching TV and listening to music on her radio, which seems to help a little. Mrs. S. states that she is comforted when the Rehab Aid brings her a hot pack for her back.

1. Utilizing the Analgesic Pain Ladder (Appendix A), what is the next step in treating Mrs. S's pain from a pharmacological perspective?

____

____

____

2. What are the 3 most common side effects of opioids that need to be considered when developing Mrs. S's treatment plan?

1) ____________ 2) ____________ 3) ____________

3. What other non-pharmacological interventions might you consider?

1) ____________ 2) ____________ 3) ____________

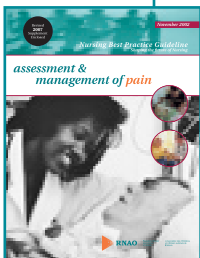
4. All of the following are times when the nurse should evaluate the effectiveness of pain relief except:
   a) following a change in dosage
   b) at each new report of pain
   c) when the physician visits the resident
   d) change of dosing time

QUESTIONS TO CONSIDER

1. The elderly often find that non-pharmacologic interventions are beneficial to help with pain management. What implication does this have as you plan for the resident's care?
2. Does your 'home' have the necessary monitoring tools, to evaluate the effectiveness of your treatment plan for pain? You may want to discuss this with your Director of Care.

You may want to capture your thoughts from this activity below.

LAST WORD



"Nurses [should] advocate for use of the simplest analgesic dosage schedule and the least invasive pain management modalities" (RNAO, 2007, Recommendation 22).

"Most pain can be effectively controlled if the appropriate analgesic is selected, at the right dosage, at the right route and individualized to the patient" (RNAO, 2007, pg. 55).

Post–Learning Knowledge Evaluation

This knowledge evaluation is meant to assess the knowledge that you have gained at the completion of the Self-Directed Learning Package. The questions are a repeat of the Pre-Learning Knowledge Assessment to enable you to compare your scores before and after completing the learning package. See answers on page 34.

Circle the best answer:

1. Which fact about pain in the elderly is true?
   - a) Pain is part of the aging process
   - b) The elderly have a greater tolerance to pain than younger adults
   - c) Elderly persons often do not report pain because they consider it a normal part of the aging process
   - d) Narcotic medications are inappropriate for the elderly

2. An example of a behaviour indicator of acute pain in the elderly is:
   - a) Resistive behaviour
   - b) Moaning/Groaning
   - c) Rapid shallow breathing
   - d) All of the above

3. If pain is not assessed or treated in the elderly, it can cause:
   - a) Decreased tolerance to narcotics
   - b) Unnecessary suffering
   - c) Decreased recovery time
   - d) A decreased chance of addiction

4. When a resident is unable to communicate his/her pain experience, the nurse should:
   - a) Administer the prescribed analgesic and evaluate its effectiveness
   - b) Assess pain using a numerical rating scale
   - c) Assess pain using behavioural indicators/behavioural scale
   - d) Assume that the resident is not necessarily experiencing pain

5. Characteristics of acute pain are:
   - a) Lasts less than 2 months
   - b) Occurs over a couple of days
   - c) Is responsive to analgesics
   - d) Does not serve as a warning to tissue damage

6. A “pain rating” of 4 on a scale of 1-10 indicates what level of pain?

a) Severe pain

b) No pain

c) Mild pain

d) Moderate pain

7. Pain rating scales are used to assess:

a) Quality of pain

b) Intensity of pain

c) Location of pain

d) Pattern of pain

8. The ‘gold standard’ for assessing the existence of pain is:

a) Grimacing on movement

b) Resident self-report

c) Increased heart rate and palpitation

d) Anxiety level

9. RNAO’s Best Practice Guideline for *Assessment and Management of Pain* suggests that the following components are required in the regular reassessment of pain:

a) Current pain intensity, quality and location

b) Intensity of pain at it’s most severe during the last 24 hours

c) Effect of pain on activities of daily living

d) All of the above

10. The nurse assesses that a Step 2 medication (as defined by the Analgesic Ladder) is necessary for a resident whose pain has not been relieved by a Step 1 medication. Step 2 for the resident would be:

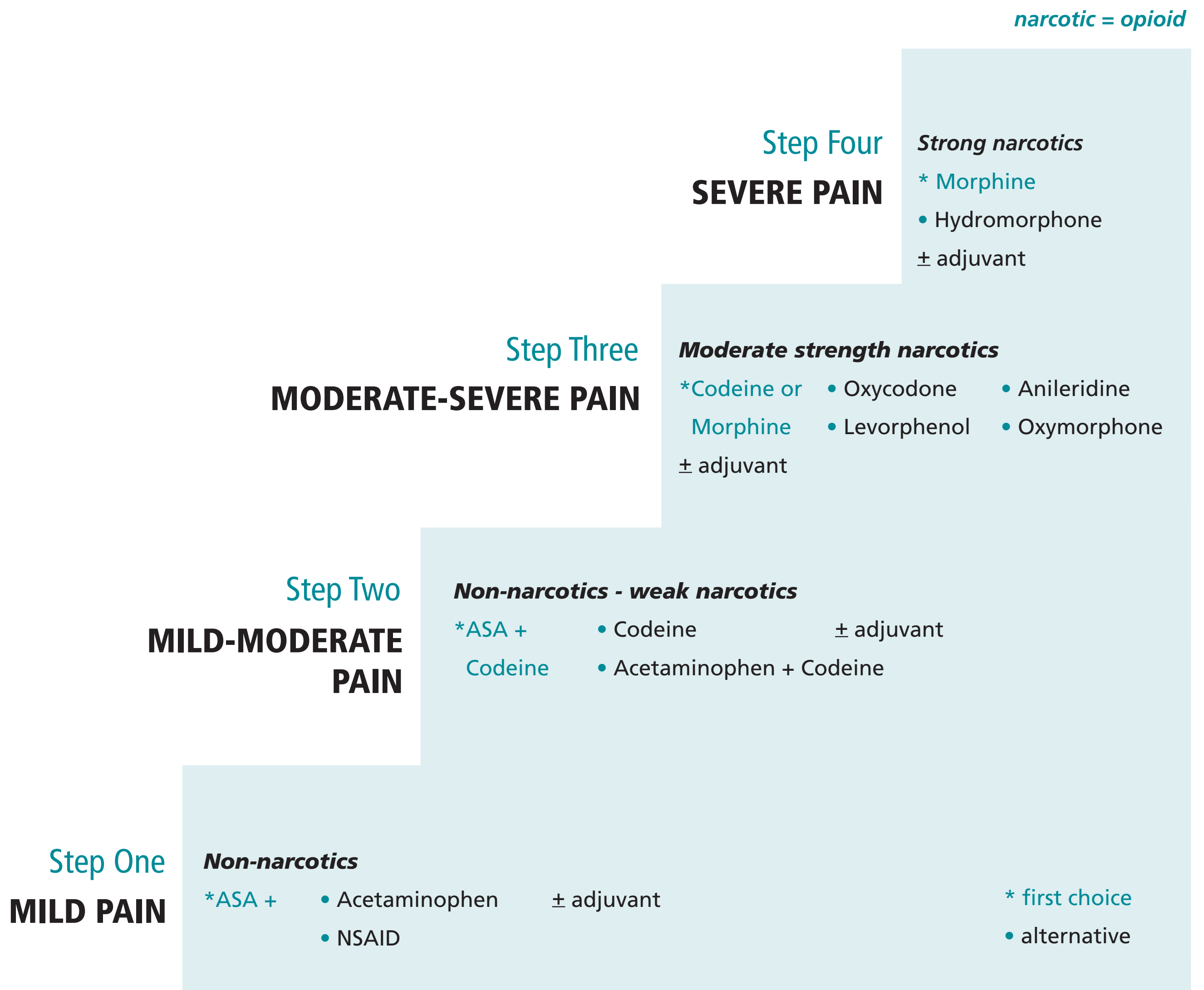
a) Non-opioid and NSAIDs

b) Strong opioid and Adjuvant therapy

c) Weak opioid +/- adjuvants

d) Non-opioid

APPENDIX A: WORLD HEALTH ORGANIZATION ANALGESTIC LADDER



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APPENDIX B: ADJUVANT MEDICATION TABLE

CATEGORY	SPECIFIC MEDICATIONS	BRAND NAMES
Tricyclic Antidepressants	Amitriptyline	Elavil®
	Nortriptyline	Aventyl®
	Desipramine	Norpramin®
Anticonvulsants	Carbamazepine	Tegretol®
	Valproic Acid	Depakene®
	Gabapentin	Neurontin®
	Lamotrigine	Lamictal®
	Topiramate	Topamax®
	Pregabalin	Lyrica®
Alpha-2-agonists	Clonidine	Catapres®
Benzodiazepines	Tizanidine	Zanaflex®
	Clonazepam	Rivotril®
Muscle Relaxants	Baclofen	Lioresal®
	Cyclobenzaprine	Flexeril®
Topical Agents	Topical lidocaine	Lidoderm®
	Topical capsaicin	Zostrix®
	Topical diclofenac	Pennsaid®

APPENDIX C: EQUIANALGESIC CONVERSION TABLE

MEDICATION	EQUIVALENT DOES (MG) COMPARED TO MORPHINE 10 MG IM	
	PARENTERAL	ORAL
STRONG OPIOID AGONISTS		
MORPHINE		
(SINGLE DOSE)	10	60
(CHRONIC DOSE)	10	20-30*
HYROMORPHONE	2	4-6
WEAK OPIOID AGONISTS		
CODEINE	120	200
OXYCODONE	N/A	30

Methadone and Fentanyl require more calculations and have recently been reviewed and altered.

*For acute pain the oral dose of morphine is six times the injectable dose. However for chronic dosing, this ratio becomes 2:1 to 3:1, possibly due to the accumulation of active metabolites.

Most of this data was derived from single-dose, acute pain studies and should be considered an approximation for selection of doses when treating chronic pain.

*Please note that this equianalgesic table is to be considered an example, as there are many such tables available, to be selected based on the needs of the LTC facility.

APPENDIX D: ANSWERS

Pre and Post-Learning Assessment

1. c)	2. d)	3. b)	4. c)	5. c)
6. d)	7. b)	8. d)	9. d)	10. c)

SECTION I RECAP

1. acute, radiating , nocieptive (visceral)
2. sensory; emotional; actual; potential
3. bone, muscle, joint, skin or connective tissue
4. peripheral or central nervous system
5. diabetic neuropathy
6. lived longer, degenerative, pathological
7. True

SECTION II CASE STUDY

1. acute, nociceptive, somatic
2. self-report, pain rating scale, grimaces, moaning, family report (any three)
3. Yes – substitute for self-report – indicate pain is present
4. Any 3 factors in boxes on pg.13
5. P – place (location) - family (self report)
   A – amount (pain intensity) – behavior rating scale
   I – intensifiers (what makes it worst) – observation (movement)
   N – nullifiers (what makes it better) – observation/self report – positioning
   E – effects (quality of life) – observation – report from family
   D – descriptors (quality e.g. throbbing) - based on medical history

SECTION III CASE STUDY

1. Step II – Analgesic ladder – advocate for an opioid and possibly adjuvant therapy
2. nausea, constipation, sedation, dry mouth
3. TV, radio, music therapy, hot packs
4. c)

APPENDIX E: GLOSSARY

ACUTE PAIN – is temporary pain, time limited situation with attainable relief.

ADJUVANT MEDICATION – describes any drug that has a primary indication other than pain but has been found to have analgesic qualities.

BEHAVIOURAL INDICATORS - behaviour changes that can be used to assess pain and distress, and thereby evaluate the efficacy of interventions.

BREAK-THROUGH PAIN – a transient, moderate to severe pain that increases above the pain addressed by the ongoing analgesics.

EQUIANALGESIC - having equal pain killing effect: morphine sulphate 10 mg parentally is generally used as the standard for opioid analgesics comparison.

FACIAL GRIMACE SCALE - scores the level of pain 0-10 as assessed by the caregiver observing the facial expressions of the resident.

NEUROPATHIC PAIN – pain initiated or caused by a primary lesion or dysfunction in the peripheral or central nervous system.

NUMERICAL RATING SCALE – a tool to rate the intensity of pain on a scale from 0-10.

PERSISTENT PAIN (NON-MALIGNANT) – is pain that lasts a month or more beyond the usual expected recovery period or illness, or goes on for years.

TITRATION – the gradual increase/decrease of medication to reduce or eliminate pain while allowing the body to accommodate the side effects or toxicity (RNAO, 2007).

VERBAL RATING SCALE - pain is rated on a Likert Scale verbally: no pain, mild pain, moderate pain, severe pain, very severe pain, worst possible pain.

VISUAL ANALOG SCALE - the intensity of pain is rated on a 10 cm line marked from no pain at one end to as bad as it could possibly be at the other end.

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