

Dementia is Not a Cure for Pain



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Objectives

This webinar will present:

- a neurophysiological review of pain;
- the main barriers to effective assessment and management of pain in the population with neurocognitive disorders; and,
- a review of the strategies and tools that health care providers can use to overcome these barriers.



Pain

“An unpleasant sensory or emotional experience associated with actual or potential tissue damage or described in terms of such damage.”

(W.H.O.,1986)



Pain



“Pain is a subjective sensation and therefore pain is what the individual says it is and not what others think it should be.”

(J.A. Dickinson, 1988)

Are age and impaired cognition risk factors for inadequate pain management?

- The LTCH population in general & in particular, those with neurocognitive disorders, suffer from multiple diseases, including high rates of arthritis (78%), cardiovascular disease (84%), genitourinary disease (64%) and other painful conditions.
- Despite this fact, between 60 & 70% of the population were rated as “suffering no pain.”

(Cohen-Mansfield, 2004)



Are age and impaired cognition risk factors for inadequate pain management?

- People with dementia are prescribed and given less pain relief medication (analgesia) than other older people. (Kimberly S. et al 2008; Horgas and Tsai 1998)
- Even when analgesia is prescribed to a person with dementia, 83% did not receive their medication. (Dawson, 1998)
- 76% of people with dementia did not receive regular analgesia post operative hip repair, despite 42% expected to be in severe pain. (Morrison and Sui, 2000)



Neurophysiology of pain

- Transduction
- Transmission
- Modulation
- Perception



Transduction

- Process by which noxious stimuli (e.g. bee sting, burn) and the subsequent tissue damage lead to electrical activity in appropriate nerve endings.
 - a. at the site of injury pain producing chemicals (prostaglandins, bradykinin, serotonin, histamin, substance P) are released from damaged tissue cells, the nociceptors themselves and from the action of local enzymes
 - b. this causes vasodilation and edema
 - c. initiation of action potentials is facilitated
 - d. occurs when Na^+ moves into the cell



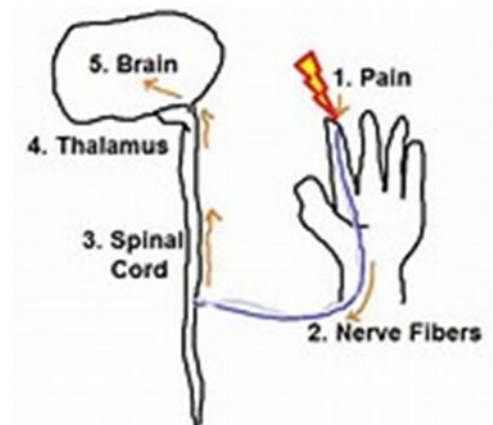
Transmission

- The process by which impulses are sent to the dorsal horn of the spinal cord and then along the sensory tract to the brain.
- It is the frequency of the impulses, not the strength of the signal that determines the intensity of pain



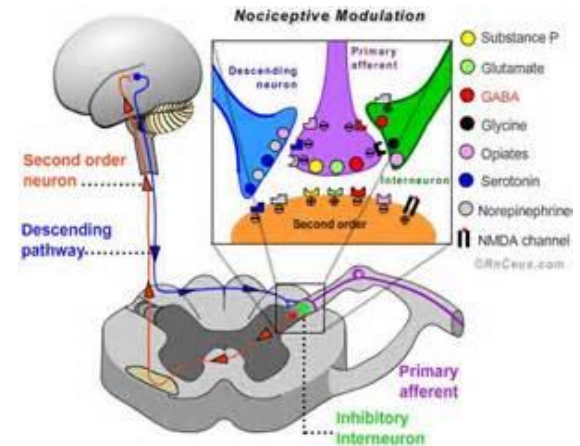
3 Phases of Transmission

1. Injury site to the spinal cord
2. Spinal cord to brain stem and thalamus
 - release of substance p (SP) and other neurotransmitters continue impulses between nociceptors and dorsal horn neurons then ascend up to thalamus
3. Thalamus to cortex where impulse is processed



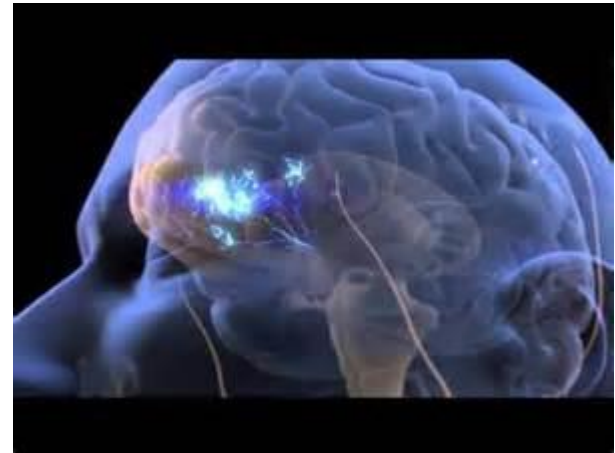
Modulation

- The process of muting of the pain related neural signals resulting in decreased pain perception, it occurs at different sites along pathway.
- Release of endogenous opioids, serotonin and norepinephrine inhibit the transmission of nociceptive impulses.



Perception

- The conscious awareness of the experience of pain, results from an interaction of transduction, transmission, modulation, psychological aspects and other characteristics of the individual.
 - not completely understood



(SEO Palliative Care Education, 2015)

Types of Pain

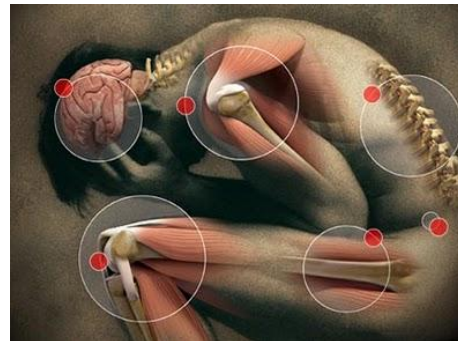
Nociceptive Pain

1. Somatic

- Originates from bone, joints, muscles, skin or connective tissues
- Well localized– characterized aching, throbbing

2. Visceral

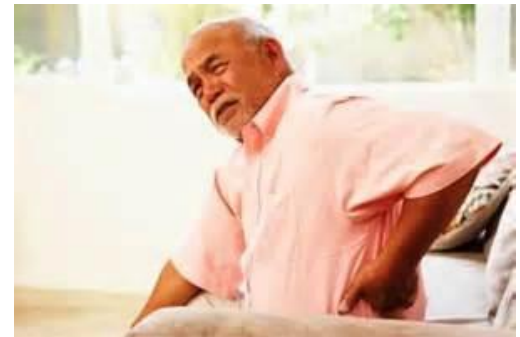
- Originates from the organs or GI tract
- Diffuse– characterized as crampy



Types of Pain

Neuropathic Pain

- Neuropathic pain occurs due to injury or malfunction of nerve transmission or poor regulation.
- Originates from the CNS or peripherally (central post stroke pain, post herpetic neuralgia).
- Described as burning, lancinating, shooting or stabbing.



Total Pain

- Physical
- Psychological
- Social
- Spiritual
- Practical
- Financial
- Enviromental



Total Pain

Visible Pain

PHYSICAL

Hidden Pain

EMOTIONAL
SPIRITUAL
SOCIAL
“SUFFERING”

Barriers To Effective Pain Assessment and Management

- Myths about the inevitability of pain
- Fears about opioids – addiction, side effects
- Decreased cognition & multiple co-morbidities
- Inadequate education in pain management
- Failure to manage adverse effects
- Lack of integrated, interdisciplinary care
- Inadequate follow-up processes
- Poor communication of care plans to other care providers



Barriers To Effective Pain Assessment and Management

- **Drug addiction**: impaired control over drug use, compulsive use and craving, and continued use despite harm
- **Physical dependence**: drug (physical) dependence is a physiologic and neuroadaptive mechanism, whereas, drug addiction is behavioral
- **Pharmacologic tolerance** : the reduced effectiveness of a given dose of medication over time
- **Pseudo- addiction**: refers to situations where a patient's behavior appears to be drug seeking but they actually are needing more medication to treat a problem that is therapeutically undertreated

Pain Assessment

- N** – number of pains
- O** – origin/onset
- P** – precipitating & alleviating factors
- Q** – quality of the pain
- R** – region and radiation
- S** – severity
- T** – treatment
- U** – what does the pain do to you/what do you understand about your pain?



To accurately self report pain, one must be able to...

1. Understand the question, the words, the pain rating request.

"The pain in behind my left knee and it is sharp like a knife."

2. Have the language/ability to express the sensations & tell the account.

"The pain in behind my left knee and it is sharp like a knife."

3. Have the memory/cognitive ability to be able to recall, process these past events.

"Yesterday the pain in my leg was better."

4. Be able to relate to their internal state.

"I have real pressure under by right rib cage."

Impact of Dementia

- **Amnesia:** memory loss
- **Aphasia:** impairment of language
- **Agnosia:** loss of recognition
- **Apathy:** state of indifference
- **Altered Perceptions:** changes in visual spatial abilities
- **Apraxia:** difficulty sequencing
- **Anosognosia:** inability to recognize one's own illness



(P.I.E.C.E.S Canada, 2014)

Case Review: Mrs. B.



Undertreated pain contributes to:

- Changes in appetite, sleep, function
- Calling out, asking for help, crying,
- Increased pacing, rocking, withdrawal
- Resisting care, increased irritability
- Increased confusion
- Changes in socialization & activities



(American Geriatrics Society, 2002)

What are the indicators of pain?

- Facial expressions (i.e. grimacing, frowning)
- Guarding
- Restlessness
- Physically responsive behaviours (i.e. hitting)
- Verbally responsive behaviours (i.e. yelling, moaning)

“Pain is positively associated with verbally and physically responsive behaviours in dementia.”

(Cohen– Mansfield et al., 1990)

4 B's of Discomfort in Older Adults with Dementia

- **Bowels**: when was the patient's last bowel movement
- **Bladder**: when did they last urinate? Any urinary symptoms?
- **Beverage**: are they hungry or thirsty? Have they been offered preferred beverages or food?
- **Bottom** (to Top): Visual survey for obvious precipitants of distress and agitation



(Harris, 2011)

Pain Assessment in Those With a Cognitive Impairment

- Medical history
- History of pain – recent changes
- Natural course of the disease process
- Can this person self-report?
- Who is on the team



(SEO Palliative Care Education, 2015)

Pain Assessment Tools for Individuals Living with Dementia

- **Abbey** – The Abbey Pain Scale
- **ADD**: The Assessment of Discomfort in Dementia Protocol
- **CNPI**: Checklist of Nonverbal Pain Indicators
- **Doloplus 2**
- **DS-DAT**: The Discomfort Scale–Dementia of the Alzheimer’s Type
- **PACSLAC**: The Pain Assessment Scale for Seniors with Severe Dementia



Pain Assessment Tools for Individuals Living with Dementia

- **PADE** – Pain Assessment for Dementing Elderly
- **PAINAD** – The Pain Assessment in Advanced Dementia Scale
- **NOPAIN** – Nursing Assistant–Administered Instrument to Assess Pain in Demented Individuals
- **POT** – Pain Observational Tool (non validated)



Pain Assessment Tools:

Pain Assessment Checklist for Seniors with Limited Ability to Communicate (PACSLAC)

Indicate with a checkmark, which of the items on the PACSLAC occurred during the period of interest. Scoring the sub-scales is derived by counting the checkmarks in each column. To generate a total pain sum all sub-scale totals.

| Facial Expression | Present |
|-------------------|---------|
| Grimacing | |
| Sad look | |

| Social/Personality/Mood | Present |
|---|---------|
| Physical Aggression (e.g. pushing people and/or objects, scratching others, hitting others, striking, kicking). | |
| Verbal Aggression | |
| Not Wanting to be Touched | |
| Not Allowing People Near | |

Pain Assessment in Advanced Dementia (PAINAD) Scale

| Items* | 0 | 1 | 2 | Score |
|--|-------------------------|---|---|-------|
| Breathing independent of vocalization | Normal | Occasional labored breathing. Short period of hyperventilation. | Noisy labored breathing. Long period of hyperventilation. Cheyne-Stokes respirations. | |
| Negative vocalization | None | Occasional moan or groan. Low-level speech with a negative or disapproving quality. | Repeated troubled calling out. Loud moaning or groaning. Crying. | |
| Facial expression | Smiling or inexpressive | Sad. Frightened. Frown. | Facial grimacing. | |
| Body language | Relaxed | Tense. Distressed pacing. Fidgeting. | Rigid. Fists clenched. Knees pulled up. Pulling or pushing away. Striking out. | |
| Consolability | No need to console | Distracted or reassured by voice or touch. | Unable to console, distract or reassure. | |
| Total** | | | | |

Stiff/Rigid

Total Checklist Score

Active Pain Management

- Think Pain – predict pain with procedures and A.D.L.'s
- Regular analgesia not PRN
- Use of appropriate pain tools day and night
- Staff trained in working with people who have dementia
- Staff trained in pain management
- Always consider total pain



Resources

Alzheimer Society – Pain Matters Guide

<http://www.alzheimer.ca/on/~media/Files/on/Pain%20Matters/PainMattersBooklet.pdf>

Cancer Care Ontario – Symptom Assessment and Management Tools

<https://www.cancercare.on.ca/toolbox/symptools/>

McMaster National Pain Centre – Canadian Guideline for Safe and Effective Use of Opioids for Chronic Non-Cancer Pain

http://nationalpaincentre.mcmaster.ca/documents/opioid_guideline_part_b_v5_6.pdf

Pallium Canada (Palliative Pocketbook, 2nd edition)

<http://pallium.ca/>

RNAO Best Practice Guideline – Assessment and Management of Pain (3rd Edition)

<http://rnao.ca/bpg/guidelines/assessment-and-management-pain>

RNAO Best Practice Guideline – Delirium, Dementia, and Depression in Older Adults: Assessment and Care

<http://rnao.ca/bpg/guidelines/assessment-and-care-older-adults-delirium-dementia-and-depression>

Questions?



Thank you for participating!