Taking the Pain out of Pain Management

Types of Pain

Host and Moderator: Amanda Tevelde

Presenters: Cathy McKeown, RN, CHPCN(C)

Lynda Meeks, RN, BScN, CON(C)

Date: April 27th, 2023

Land Acknowledgement

We would like to acknowledge that the land which we are gathered on today is the traditional territory of the Anishinaabek Nation; specifically, the Chippewa Tri – Council comprised of the Chippewas of Beausoleil, Rama and Georgina Island First Nations and more recently the Mississaugas of the Credit River First Nation.

Ontario is covered by 46 treaties and other agreements and is home to many Indigenous Nations from across Turtle Island, including the Inuit and the Métis. These treaties and other agreements, including the One Dish with One Spoon Wampum Belt Covenant, are agreements to peaceably share and care for the land and its resources. Other Indigenous Nations, Europeans, and newcomers were invited into this covenant in the spirit of respect, peace, and friendship.

Most of us have come here as settlers, immigrants, or newcomers in this generation or generations past.

We are all Treaty people. Every day we are mindful of broken covenants, and we strive to make this right. We commit to collaborating based on the foundational assumption that Indigenous Peoples have the power, strength, and competency to develop culturally specific strategies for their communities. We are dedicated to honouring Indigenous self-determination, history, and culture, and are committed to moving forward in the spirit of reconciliation and respect with all First Nation, Métis and Inuit people.

The Palliative Care ECHO Project

The Palliative Care ECHO Project is a 5-year national initiative to cultivate communities of practice and establish continuous professional development among health care providers across Canada who care for patients with life-limiting illness.

Stay connected: www.echopalliative.com

Thank You

The Palliative Care ECHO Project is supported by a financial contribution from Health Canada.

Production of this presentation has been made possible through a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.

Health Canada Santé Canada

Introductions

Host and Moderator

Amanda Tevelde
Communications, Fundraising and Public Relations Specialist, Hospice Orillia

Presenters

Cathy McKeown, RN, CHPCN(C)
HPC Nurse Consultant
North Simcoe Muskoka Hospice Palliative Care Network

Lynda Meeks, RN, BScN, CON(C)
Education Facilitator
North Simcoe Muskoka Hospice Palliative Care Network

Thank you for joining us today!

Please remember to complete the satisfaction survey following todays session.

Learning Objectives

By the end of the session, participants will be able to:

- Understand the definition of pain and it's prevalence in palliative care.
- Understand the causes of pain and barriers to effective pain control.
- Understand the pathophysiology of pain.
- Describe the classifications and types of pain.

What is Pain

Project ECHO® Palliative Care - Canada BY Pallium Canada

NSMHPCN North Simcoe Muskoka Hospice Palliative Care Network

Host and Moderator: Amanda Tevelde

Presenters: Cathy McKeown, RN, CHPCN(C)

Lynda Meeks, RN, BScN, CON(C)

Date: April 27th, 2023

The Definition of Pain

- McCaffery and Pasero's 1979 definition of pain is "whatever and whenever the person says it is"

- The International Association for the Study of Pain defined pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage (IASP, 2011)

What is Pain

- Pain is an unpleasant sensory and emotional experience
- Pain is a multidimensional experience that is shaped by many factors, including tissue damage by the disease and underlying psycho-spiritual suffering (The Pallium Palliative Pocketbook 2nd edition)

Prevalence of Pain

Project ECHO® Palliative Care - Canada BY Pallium Canada

NSMHPCN North Simcoe Muskoka Hospice Palliative Care Network

Host and Moderator: Amanda Tevelde

Presenters: Cathy McKeown, RN, CHPCN(C)

Lynda Meeks, RN, BScN, CON(C)

Date: April 27th, 2023

Prevalence of Pain in Palliative Care

- Pain is a common and often devastating complication of progressive, incurable disease such as advanced cancer, AIDS, end-stage heart failure and lung diseases and motor neuron diseases
- Up to 85% of patients with advanced cancer will experience pain
- Two thirds of patients will rate their pain as moderate to severe

(The Pallium Palliative Pocketbook, 2nd Edition)

Prevalence of Pain in Palliative Care

- Up to 60% of patients with AIDS will experience neuropathic pain
    - Frequently, this pain results in functional impairment
- High levels of pain have also been found in patients with end-stage neurological disease (particularly neuropathic pain) and in end-stage lung and heart diseases

(The Pallium Palliative Pocketbook, 2nd Edition)

Prevalence of Pain in Palliative Care

- Failure to effectively manage pain results in needless suffering and poor quality of life
- Up to 85% of pain syndromes can be relatively well controlled with adherence to basic principles and guidelines of pain management

(The Pallium Palliative Pocketbook, 2nd Edition)

Prevalence of Pain in Palliative

- Pain can be acute or chronic or both at the same time
- Unrelieved or poorly managed pain is a burden on the person, the health-care system and society
- Chronic pain costs the Canadian health-care system between $47 billion to $60 billion a year- more than HIV, cancer and hear disease combined (RNAO)

Causes and Barriers

Project ECHO® Palliative Care - Canada BY Pallium Canada

NSMHPCN North Simcoe Muskoka Hospice Palliative Care Network

Host and Moderator: Amanda Tevelde
Presenters: Cathy McKeown, RN, CHPCN(C)
Lynda Meeks, RN, BScN, CON(C)

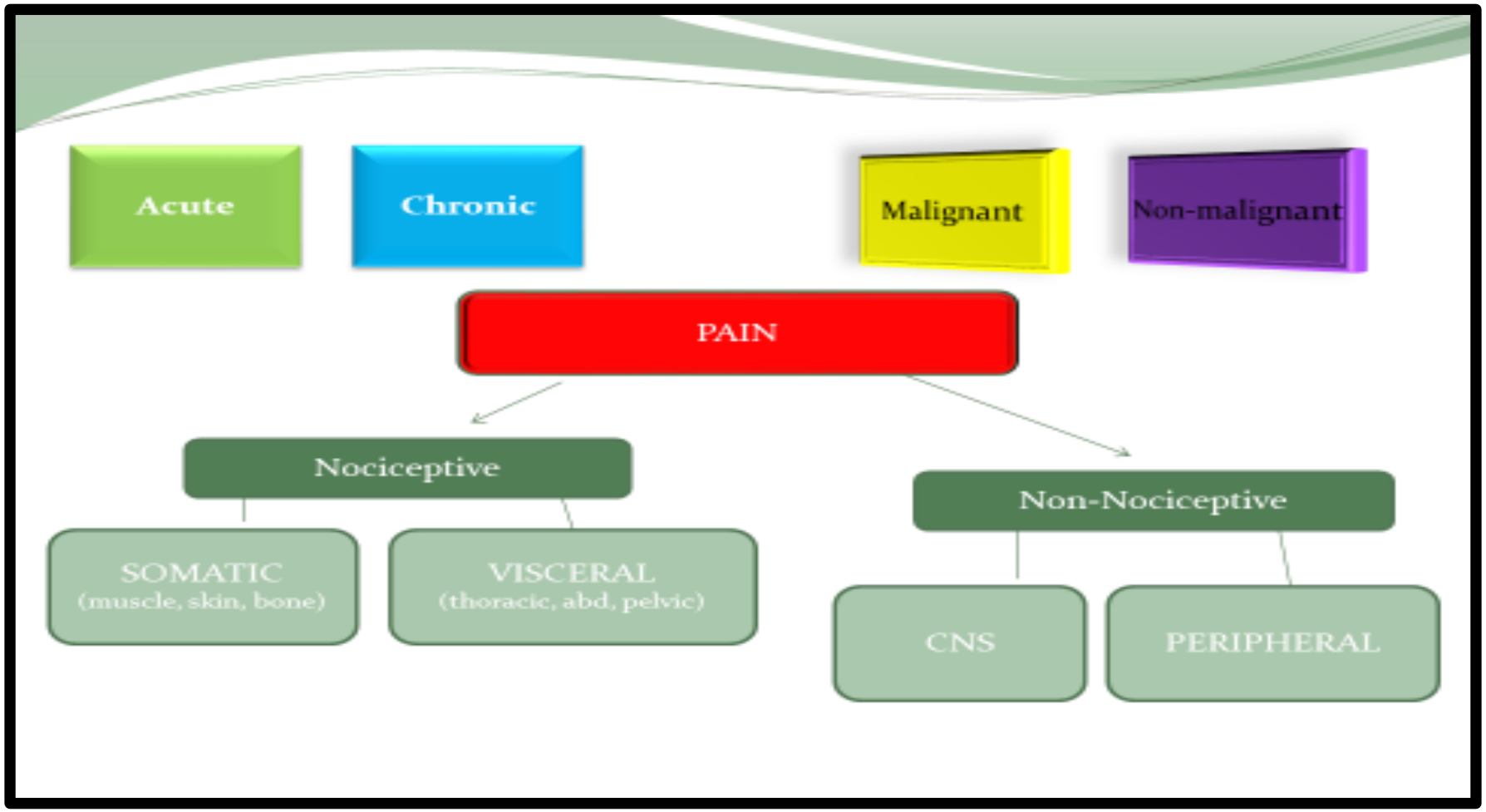
Date: April 27th, 2023

Causes of Pain

- Related directly or indirectly to the disease process
- The treatments of disease
- Factors unrelated to the disease
- Often multiple causes at the same time

Barriers to Effective Pain Control

- Health professionals
- Patients and families
- Health system


Acute
Chronic
Malignant
Non-malignant
PAIN
Nociceptive
Non-Nociceptive
SOMATIC
(muscle, skin, bone)
VISCERAL
(thoracic, abd, pelvic)
CNS
PERIPHERAL

Classifications of Pain

Project ECHO® Palliative Care - Canada BY Pallium Canada

NSMHPCN North Simcoe Muskoka Hospice Palliative Care Network

Host and Moderator: Amanda Tevelde
Presenters: Cathy McKeown, RN, CHPCN(C)
Lynda Meeks, RN, BScN, CON(C)

Date: April 27th, 2023

Classification of Pain

According to the severity on a scale of 0 to 10, where 0 = no pain at all and 10 = the worst pain you can imagine

- Mild pain (1 – 3 out of 10)
- Moderate pain (4 – 6 out of 10)
- Severe pain (7 – 10 out of 10)

Classification of Pain – Acute

- Sudden, sharp pain that is in response to an injury, surgery, illness, trauma or medical procedure.
- Lasts less then six months.
- Acts as a warning to your body about a disease or a threat.
- Typically starts in response to an injury and resolves after the injury or illness is healed.
- Can develop into chronic pain.
- Examples: post-operative pain, labour pain, trauma such as lacerations, fractures, sprains, infections and angina

Classification of Pain – Chronic

- Ongoing and lasts longer than six months.
- Can occur even after the illness or injury has healed or without a known cause.
- Examples: arthritis, neck pain, back pain, headaches, fibromyalgia

Classification of Pain – Malignant and Non-Malignant

- Malignant: Pain arising from a cancerous causes
- Non-Malignant: Pain arising from noncancerous causes

Classification of Pain – Nociceptive

Definition: processing of noxious stimuli by an intact nervous system; usually responsive to analgesics (NSAIDS) or physical modalities

- Damage to underlying soft and bone tissues by disease or trauma

Classification of Pain – Nociceptive

Somatic:

- arises from bone, joint muscle, skin or connective tissue
- usually aching and throbbing in quality and well localized.

Visceral:

- arises from organs, such as the gastrointestinal tract or bladder
  - tumor involvement of the organ capsule that causes aching and fairly well-localized pain
  - obstruction of hollow organ that causes intermittent cramping and poorly localized pain

Classification of Pain – Neuropathic

Definition: Abnormal processing of sensory input as a result of injury of the peripheral or central nervous system

- Damage or improper function or misfiring of neurons.
- Described as shooting in nature and usually constant or a burning sensation

Examples:

- Peripheral: carpel tunnel syndrome, post herpetic neuralgia, trigeminal neuralgia, diabetic neuropathies, HIV, MS
- Central: stroke, phantom limb pain

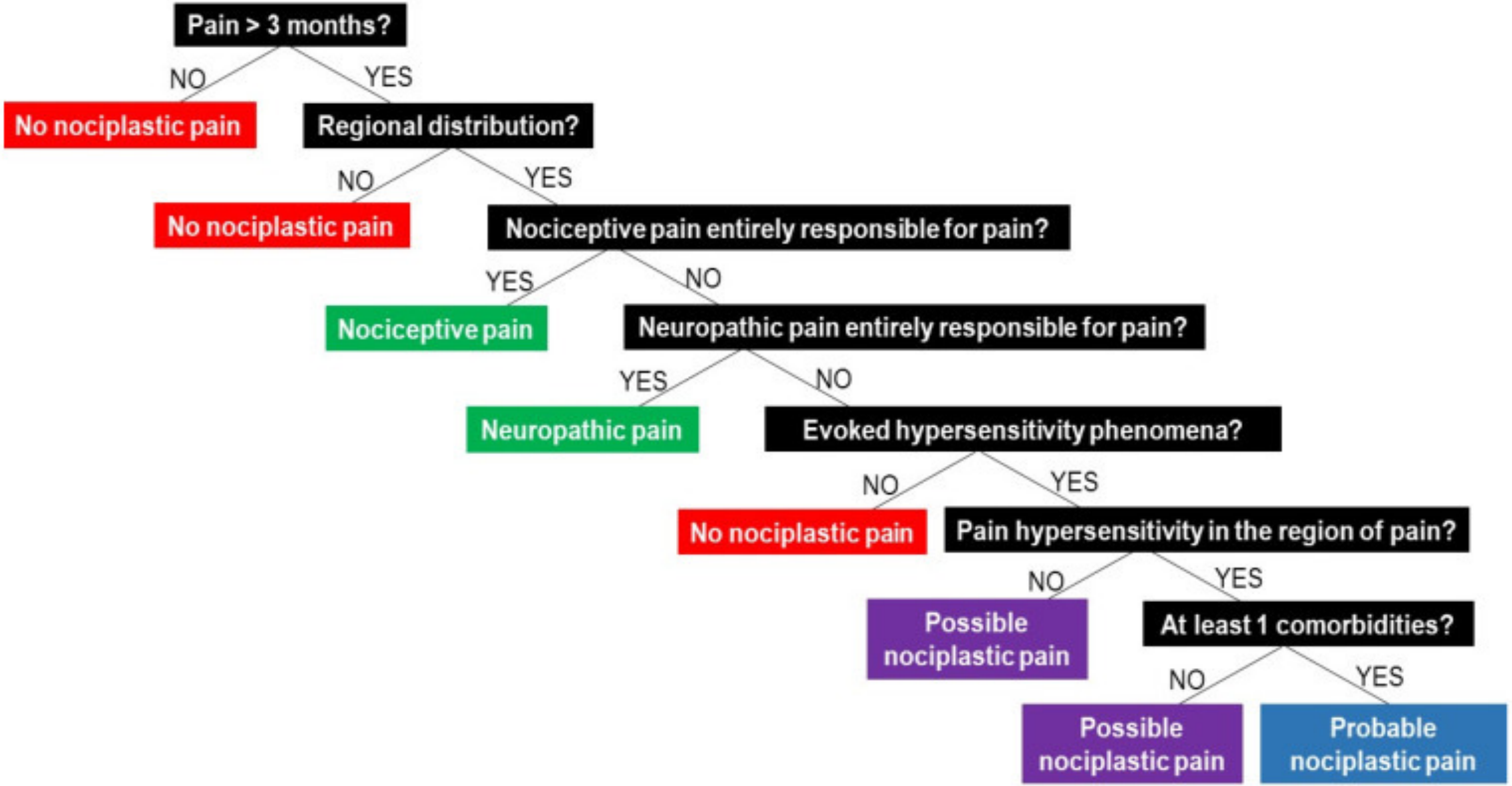
Classification of Pain – Nociplastic Pain

- Nociplastic pain is defined as “pain that arises from altered nociception despite no clear evidence of actual or threatened tissue damage causing the activation of peripheral nociceptors or evidence for disease or lesion of the somatosensory system causing the pain”

(Nijs et al., 2021)

NOCIPLASTIC PAIN – CHRONIC PAIN

- Chronic Primary Pain
- Chronic Secondary Pain



(Nijs et al., 2021)

Pain Pathways

Project ECHO® Palliative Care - Canada BY Pallium Canada

NSMHPCN North Simcoe Muskoka Hospice Palliative Care Network

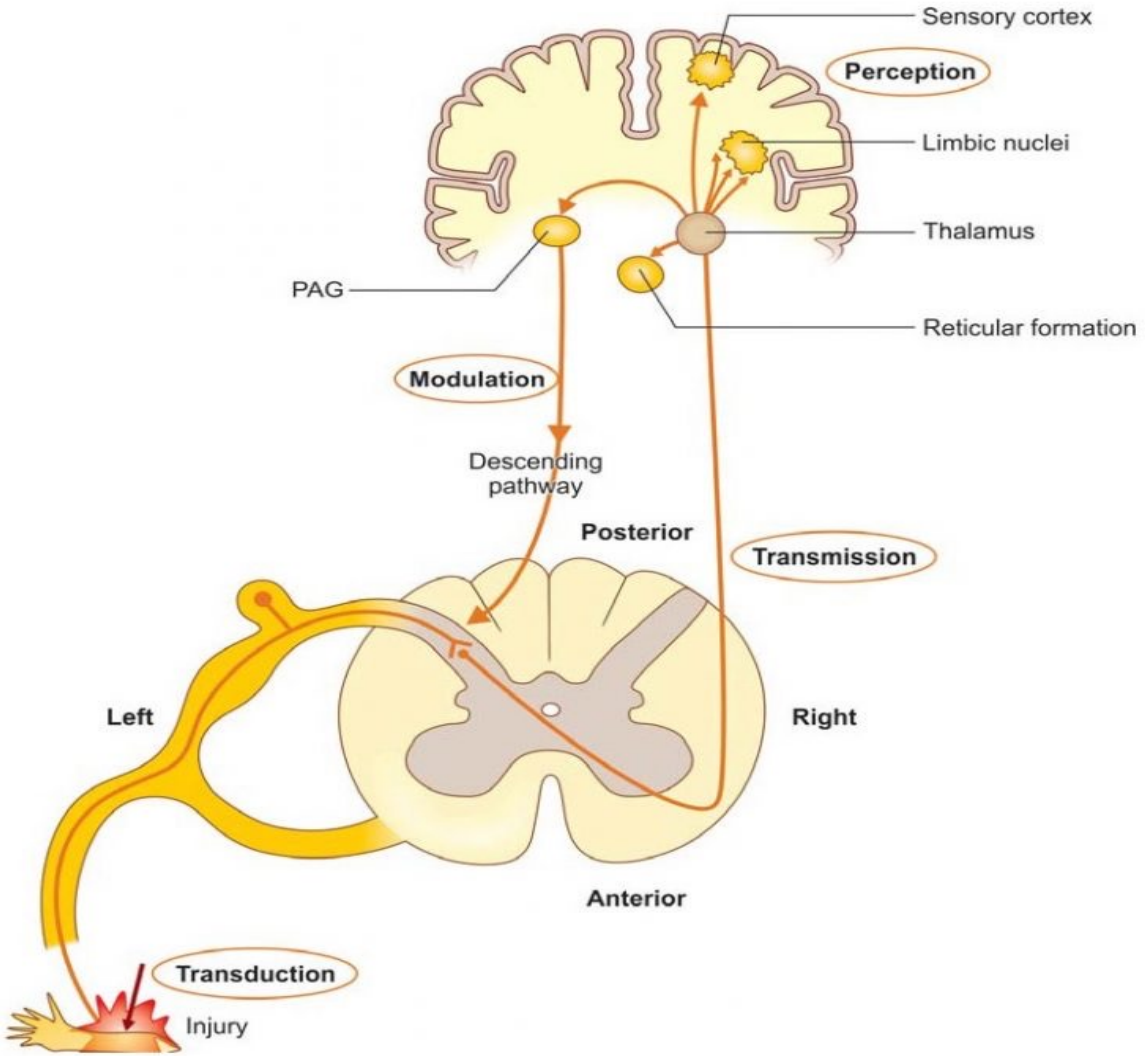
Host and Moderator: Amanda Tevelde

Presenters: Cathy McKeown, RN, CHPCN(C)

Lynda Meeks, RN, BScN, CON(C)

Date: April 27th, 2023

The Pain Pathway



(www.learnpain.org)

Physiological Dimension of Pain – The Pain Pathway

1) Transduction
2) Transmission
3) Perception
4) Modulation

Physiological Dimension of Pain – Transduction

Noxious stimulus causes cell damage with the release of sensitizing chemicals:

- prostaglandins
- bradykinin
- serotonin
- substance P
- histamine

These substances activate nociceptors to generate an action potential

Physiological Dimension of Pain – Transmission

Action potential continues:

From the site of injury to spinal cord → spinal cord to brainstem and thalamus → thalamus to cortex for processing

Physiological Dimension of Pain – Perception

Conscious experience of pain

Physiological Dimension of Pain – Modulation

Neurons originating in the brainstem descend to the spinal cord and release substances (i.e. endogenous opioids) that inhibit nociceptive impulses

Case Studies

Project ECHO® Palliative Care - Canada BY Pallium Canada

NSMHPCN North Simcoe Muskoka Hospice Palliative Care Network

Host and Moderator: Amanda Tevelde

Presenters: Cathy McKeown, RN, CHPCN(C)

Lynda Meeks, RN, BScN, CON(C)

Date: April 27th, 2023

Mary

Mary is a 50yr old woman with a previous history of Breast Cancer. She has been declared cancer free for the past 6 years.

Mary develops right upper quadrant abdominal pain that wraps around her ribs into her back and is described as constant, deep, dull ache associated with nausea.

Gina

Gina is a 48 year old woman who suffers with mental illness and is very overweight, comes into the Emergency department frequently by ambulance usually in the middle of the night complaining of pain and always wearing sunglasses.

Gina has no Family Physician and has pain that is not well described only that “I am sore all over” and is mainly in her joints not just one joint but all of her joints. Gina lives alone and has no one to advocate for her. Her previous visits to the ER she has been aggressive verbally and physically with the staff.

Gina has been labeled a “frequent flyer who is drug seeking.” Unfortunately Gina’s medical treatment in the ER is not optimum and is usually discharged with little investigation or treatment.

Gina

Gina told the nurse during her assessment that “no one understands the pain I am in” and “I have had it for over a year.”

Gina cursed at the nurse when she attempted to place the BP cuff which caused an exaggerated pain response and will not allow the nurse to cover her with a sheet screaming in pain with the attempt. She says “I don’t know why I come here you people never listen! You never do anything. All you people ever do is tell me to use heat or ice. Don’t you know that causes me pain?”

Gina admits to feeling tired all the time and that she awakes frequently in the night. When nurse inquires about the sunglasses and if she is having a headache, she tells the nurse that the bright lights bother her eyes.

Bill

Bill is a 78 year old gentleman with a diagnosis of Prostate Cancer. Bill has done well for the past 10 years but has developed pain in his right upper arm and left upper leg. The pain is described as a “constant ache and sometimes it just throbs, it gets much worse when I stand or attempt to walk. I am woken from sleep if I turn the wrong way.”

Wanda

Wanda is a 54 year old woman with a diagnosis of Uterine Cancer and has been receiving chemotherapy treatments.

Recently Wanda has developed some side effects from the Chemotherapy.

Wanda describes that she is having “cramps in my feet” and “they feel like they are on fire”. She states “I cannot sleep and it is really hard to walk. My pain medication is not helping at all.”

Nociceptive Pain is:

- Somatic pain that arises from bone, joint muscle, skin or connective tissue; usually aching and throbbing in quality and well localized.
- Visceral Pain that arises from organs or tissue in the chest, abdomen usually described as deep, aching, squeezing in quality and is not well localized.

True or False?

Neuropathic pain can arise from the peripheral nerves, spinal cord, and the brain and is often described as burning, shooting, pins and needles, or electrical.

TRUE or FALSE?

Nociplastic pain was introduced by the International Association for the Study of Pain (IASP) in 2017 as a third mechanistic pain descriptor in addition to nociceptive and neuropathic pain. Nociplastic pain is defined as “pain that arises from altered nociception despite no clear evidence of actual or threatened tissue damage causing the activation of peripheral nociceptors or evidence for disease or lesion of the somatosensory system causing the pain.”

TRUE or FALSE?

Questions?

We hope you enjoyed todays session. Please remember to complete the satisfaction survey.

References

- American Medical Association Pain Care Task Force. (2020). Addressing obstacles to evidence-informed pain care. AMA Journal of Ethics Policy Forum Aug 2020.
- Bailey, M., & Doody, O. (2017). Understanding pain physiology and its application to person with intellectual disability. Journal of Intellectual Disabilities 23 (1), 5-18.
- Barry, M., Goldsworthy, S., Goodridge, D. (2014) Medical –Surgical Nursing in Canada (3rd ed.). Toronto, Canada: Elsevier
- den Boer, C., Dries, L., Terluin, B., van der Wouden, J., Blankenstein, A., van Wilgen, C., Lucassen, P., van der Horst, H. (2019). Central sensitization in chronic pain and medically unexplained symptom research: A systematic review of definitions, operationalizations and measurement instruments. Journal of Psychosomatic Research 117, 32-40.
- International Association for the Study of Pain Working Group. IASP Working Group classification system developed for inclusion in latest revision of World Health Organization's International Classification of Diseases, offering promise to improve pain management, research and policy. A New Classification of Chronic Pain for Better Patient Care and Research
- Kosek, E., Clauw, D., Nijs, J., Baron, R., Gilron, I., Harris, R., Mico, J., Rice, Andrew, S., & Sterling, M. (2021). Chronic nociplastic pain affecting the musculoskeletal system: clinical criteria and grading system. Pain 162 (11).
- Nijs, J., Lahousse, A., Kapreli, E., Bilika, P.,Saraçoğlu, I., Malfliet, A., Coppieters, I., De Baets, L., Leysen, L., Roose, E., Clark, J., Lennard, V., & Huysmans E. (2021). Nociplastic pain criteria or recognition of central sensitization? Pain phenotyping in the past, present and future. Journal of Clinical Medicine 10 (15).
- Pallium Canada. (2018). The pallium palliative pocketbook (2nd ed.). Ottawa, Canada: Pallium Canada