PROVIDING CARE FOR THE PATIENT IN PAIN

INTRODUCTION

Pain is a universal phenomenon: everyone knows what pain is and we have all experienced it. Pain is the most common reason people seek health care, and many diseases and illnesses are discovered because a patient is in pain. Acute pain can be an overwhelming experience and chronic pain, which is very, very common, affects millions of people and can be permanently disabling.

Yet despite the importance and prevalence of pain in our lives and the need for pain, it is poorly understood. Everyone’s response to pain is different. Pain cannot be measured. Analgesics will work for one person but not another. And the causes of pain, how and why pain happens, are multiple and not completely outlined. Although pain is an everyday occurrence and it is essential for our survival, there is much about pain that is still a mystery.

Because of the subjective nature of pain and pain relief techniques, providing care for patients who are having acute or chronic pain is one of the most challenging tasks for Certified Nursing Assistants (CNAs). Helping someone who is in pain can be made much easier, however, by understanding this definition of pain.

According to the International Association for the Study of Pain, pain is “... an unpleasant sensory and emotional experience associated with actual or potential tissue damage ...” So, pain is sensory and emotional; it can be damaging or potentially damaging; and it is subjective. In the end, as health care professionals we have to remember that essentially, pain is whatever someone says it is.

This module will discuss the two basic types of pain, acute and chronic. The causes of pain will be explained. Assessment tools for evaluating the nature and severity of
pain will be outlined, and the final sections of the module will discuss the pharmacological and non-pharmacological treatments than can be used for pain relief.

**STATEMENT of PURPOSE**

This module will provide CNAs with the information they need to understand, assess, and care for patients who are having pain.

**THE TYPES OF PAIN: ACUTE AND CHRONIC**

Pain is typically divided into two types: **acute** and **chronic**. There are other ways of identifying pain but this is the most common way of classifying pain.

Acute pain is typically defined as a sudden feeling of physical discomfort and distress. Acute pain differs from chronic pain is several important ways.

**Table 1: Characteristics of Acute Pain**

- Sudden onset
- An identifiable cause, event, or injury
- Short duration
- Temporary, improves with time
- Responds to treatment
- Protective

Acute pain then is precipitated by an accident, an injury, or the onset of an illness such as appendicitis or a heart attack. It is *protective* in nature. Acute pain indicates to us that there is physical damage being done and we need to seek help and/or get away from the painful situation as quickly as possible; it is a survival mechanism. Acute pain is usually of short duration and it lessens with time but it is not exactly clear what defines short duration and the recovery from acute pain can seem quite long to a
person who is suffering. Finally, acute pain will often (but not always) respond to treatment.

The definition of chronic pain is less precise than that of acute pain. Many authorities use an arbitrary time limit of 3 months, 6 months, or even longer to define chronic pain. This module will define chronic pain as any pain that persists longer than a reasonable and expected time. Characteristics of chronic pain that distinguish it from acute pain are listed in Table 2.

Table 2: Characteristics of Chronic Pain

Long duration
There is often no identifiable cause
May be resistant to treatment
Does not improve with time
Does not serve a protective function

Chronic pain persists; it may last for many months or many years and it may never resolve. Chronic pain often does not have an identifiable cause, but even when chronic pain is preceded and caused by an acute injury or illness the pain may persist long past the point of recovery.

Chronic pain is very common: approximately 35 million Americans suffer from chronic pain. Common causes of chronic pain include arthritis, diabetes, endometriosis, migraine headaches, herniated discs, fibromyalgia, post-stroke pain, peripheral vascular disease, herpes zoster, and inflammatory bowel disease.

Treatment of chronic pain is very difficult. Patients who have chronic pain often do not respond to treatment. And unlike acute pain, chronic pain is not protective. Acute pain tells us that the body has been injured and we need help. But chronic pain, as
previously mentioned, persists long past the initial time of injury and well past the point an injury has healed or an illness has resolved. Acute pain is a survival instinct; it can be a terrible experience but we need it. Chronic pain seems to have no useful purpose and only functions to make us miserable.

THE CAUSES OF PAIN

The basic causes of pain are obvious; injury and illness. Tissue damage, exposure to strong cold or heat, infections, swelling - all of these are clear causes of pain. But the why of pain - why and how does it happen - has long been a subject of intense investigation. Much has been learned about the causes of pain but even when the source of pain is obvious, eg, a broken bone or a laceration, there is still much about the phenomenon of pain that is unclear.

Some of the difficulty in understanding pain is that expression of pain and response to pain is influenced by personal characteristics (eg, age, psychological and emotional make up), the situation in which pain is experienced, the patient’s previous experience with pain, cultural and social norms regarding pain, and the physiologic response to pain.

But even if we understand the mechanism of pain caused by a clearly defined illness or injury, the experience of pain caused by what an outside observer would consider to be the same painful stimuli can differ tremendously from patient to patient, and it may not be possible to know why this occurs. The influences of personal and social factors that influence the pain experience can be accounted for. But the physiological response to pain involves first a painful stimulus; transmission of that stimulus; reception of the stimulus in the brain; the brains’ response to the painful stimuli; modulation of the
stimulus by the brain, and; response of the body’s natural analgesia system. It is a complicated and not well understood process.

The three primary causes of pain are nociceptor pain, non-nociceptive pain, and psychogenic pain.

**Nociceptor Pain**

Pain receptors in our body are called nociceptors. Nociceptors are specialized nerve cells that detect damage to organs, tissues, or other body structures and send a nerve transmission (a “message) through the nerve fibers and the spinal cord to a specialized area of the brain. The pain that the nociceptors sense can be chemical (eg, skin contact with an acid) thermal (eg, intense heat or cold), or mechanical (eg, a broken bone, a laceration, intense swelling, or a sharp blow to the body).

Nociceptors are located in the skin, the joints, and some parts of the internal organs. The distribution of nociceptors is uneven. For example, you have many nociceptors that detect pain in your fingers and hands but very few in internal organs.

Nociceptive pain is usually temporary and often responds well to analgesics.

**Non-Nociceptive Pain**

Non-nociceptive pain is also called neuropathic pain. This type of pain is caused by injury to the central or peripheral nervous system. Common causes of neuropathic pain are stroke, multiple sclerosis, diabetes, and direct injury to structures in the nervous system. Non-nociceptive pain differs from nociceptive pain in that neuropathic pain is usually chronic, it can be very difficult to diagnose, and often it does not respond well to analgesics. There may not be an obvious injury that causes neuropathic pain but even if there is, the pain will continue for long after the injury has healed.
Learning Break: Diabetes is a very common disease, and diabetic neuropathy is a very common cause of chronic pain and non-nociceptive pain. When the blood sugar level is abnormally high for a long period of time, the metabolic by-products of glucose accumulate and cause damage to the nerves, decreasing the ability to sense pain.

**Psychogenic Pain**

Psychogenic pain is pain caused by emotional and/or psychological factors. This type of pain is difficult to understand because there is no injury or illness that is a direct cause of the pain, but the pain should be considered as real and distressing and nociceptive and non-nociceptive pain.

Headache and stomach ache are two common psychogenic pain situations, and emotional or psychological stress are well known causes of headache and stomach ache. It is important to remember that psychogenic can accompany nociceptive and non-nociceptive pain.

It is helpful to divide pain into these three categories in order to better understand the issue of pain. The dividing line between them can be blurred, however, and patients who have one type of pain can develop another. And regardless of the type of pain a patient is experiencing, the most important issue to keep in mind when caring for a patient who is having pain is this:

*Pain is whatever someone says it is.*

**FACTORS THAT INFLUENCE PAIN**
There is a great number of factors that influence the experience of pain, the type of pain that a patient has, how she/he reacts to the pain, and how well pain relief measures work. The factors include:

- Genetics: An individual’s tolerance and reaction to pain may be genetically determined.

- Age: Age can affect how someone reacts to pain and how she/he reports pain. For example, infants and young children cannot easily verbalize pain. Their pain receptors may be more sensitive and if they have little to no prior experience with pain they will be frightened by the experience and react more intensely. An adult or an elderly person may be having pain but may not want to admit the presence of pain for a number of reasons, eg, fear of illness, fear of appearing weak or needy.

- Culture: The expression of pain and the expectations a patient who is having pain has of health care professionals can vary widely from culture to culture.

- Causative agent: Some injuries and illnesses are more likely to cause pain than others.

- Acute versus chronic pain: A patient who has chronic pain is more likely to develop emotional and psychological issues, and for good reason. He/she is confronted with pain that may have no diagnosed cause, pain that seems to have no end in sight, and pain that may not respond well to treatment.
• Psychological issues: A patient’s psychological make up is strong influence on how she/he reacts to pain, experiences pain, and what the patient expects from caregivers.

• Biological issues: Emotions, culture, and psychological make up certainly influence pain. However, pain is a biological phenomenon and individual variations in biological response to pain may explain the unpredictability of pain response and response to treatment. For example, the brain has a natural analgesic system that works by way of substances called endogenous opioids, and the activity of the endogenous opioid system can vary from person to person. There is also something called the gate-control theory of pain. The gate-control theory states that the nervous system has “gates” that in certain circumstances can prevent a pain signal from reaching the brain. The pain control gates can be activated by a distracting physical or psychological stimulus; this explains why rubbing an area that is painful or why talking to someone about pain can help diminish it.

EVALUATING THE PATIENT WHO IS HAVING PAIN

Evaluation of the patient who is having pain is challenging. Unlike vital signs the presence of pain cannot be directly measured so we must depend on assessment parameters that are somewhat subjective and non-specific. For example, a patient who is having pain will often have physical evidence of pain such as diaphoresis, restlessness, or facial expressions that suggest discomfort. The patient may actually tell
you that he/she is having pain. Pulse, blood pressure and respiratory rate may be increased when someone is in pain.

These assessment parameters can be accurate ways of determining the presence and severity of pain. However, they depend to some degree on the subjective impressions of the observer and on the patient’s individual response to and expression of pain. Some patients are stoic in the face of pain and some are not. Some patients who are in pain have an elevated blood pressure and heart rate and others will not. Some of these assessment parameters are non-specific; there are many causes of diaphoresis and tachycardia. There is no clear-cut definition of restlessness and one caregiver may feel that a patient appears uncomfortable while another will not.

Given these facts, obtaining an accurate, objective assessment of pain may seem to be quite difficult. It is challenging but the process can be simplified by: 1) using a systematic and consistent approach, and; 2) using good documentation. Using a systematic and consistent approach means that when performing the initial and the subsequent pain evaluations the same assessment parameters are always employed. Good documentation ensures that anyone who cares for the patient will be able to determine from the written notes the results of the assessment and how the pain assessment was performed.

**The Process of Pain Assessment: The Interview**

1. **Location:** Where is the pain? Some clients may not be able to verbalize. In those situations it is best to review their chart; this may give you some indication of where the pain may be.
2. Severity: Pain assessment scales are a popular way of rating pain severity. You can ask the patient: “If the slightest level of pain you have experienced is level 1 and the worst is 10, what is the level of the pain you are having now?” Pain assessment scales that use pictures (eg, a picture of an unhappy face to indicate pain) can be used to assess pediatric patients.

3. Time line: When did the pain begin? Is the pain constant or does it come and go?

4. Type of pain: Is the pain a sharp, stabbing pain or a dull ache?

5. Aggravating, alleviating, and precipitating factors: What makes the pain better, what makes it worse? What causes the pain?


1. Body Language: Does the patient look and act distressed and uncomfortable and if so, how have you determined this? Is she/he moving around restlessly, is the patient crying or moaning, or does he/she have a wrinkled forehead and clenched teeth? There are many body language signs that indicate the presence of pain. Be sure that you are consistent when you are observing body language and if another CNA has documented the presence of pain using body language you should document the absence or presence of the same body language signs of pain.

2. Physical examination: A physical examination for pain would be restricted to inspection. Do not palpate the area of pain, simply look at it and document any abnormal findings, eg, redness, swelling.
3. Vital signs: Elevations of blood pressure, heart rate, and respiratory rate often accompany pain. Vital sign measurement should be part of pain assessment and part of assessing the effectiveness of treatments for pain. In addition, vital sign measurements may help provide information about what is causing the pain.

4. Past medical history: Review the patient’s chart as part of the pain assessment process. You will be able to determine the source of pain (e.g., the patient has just had surgery, the patient has diabetes) and you will be able to determine the patient’s pain history.

TREATMENTS FOR PAIN: MEDICATIONS

Treatments for pain are drug based and non-drug based; patients will often benefit from and require both. There are dozens of medications that can be used to treat pain. Some of the medications used to treat pain are not the “traditional” analgesics such as acetaminophen (Tylenol®) and morphine; for example, the anti-depressant fluoxetine (Prozac®) is used to treat fibromyalgia pain.

Certified Nursing Assistants do not administer pain medications. However, CNAs should have knowledge and familiarity with commonly used pain medications and their side effects. For ease of discussion pain medications will be divide into narcotic and non-narcotic

Narcotic Pain Medications

Narcotic pain medications (also called opioids) are more powerful than non-narcotic medications. Although it is difficult to classify the pain experience, the narcotic pain medications are used for moderate to severe pain or for pain that is constant and life-
disrupting; these medications are often used for patients who have pain caused by cancer.

These drugs have abuse potential and improper use can led to physical and psychological dependence, ie, addiction. Because they have much stronger effects then non-narcotic drugs and because of the potential for abuse and addiction, the prescription and use of narcotic pain medications is tightly controlled by a system of scheduling.

**Learning Break:** The Drug Enforcement Agency categorizes narcotics by using a schedule, Schedule I-V. Schedule I drugs have no recognized medical use and are highly addictive, eg, heroin. Many of the narcotic pain medications such as oxycodone and morphine are classified as Schedule II - they have a recognized medical use but they are very addictive, quite powerful, and patients using theses medications may develop physical and psychological dependence on the drug.

Table 3 lists some of the commonly available and commonly used narcotic pain medications.

**Table 3: Narcotic Pain Medications**

- Codeine
- Fentanyl
- Hydrocodone
- Hydromorphone
- Meperidine
- Methadone
- Morphine
- Oxycodone
- Propoxyphene
- Tramadol
The narcotic pain medications can be given as injections, as nasal preparations, as oral medications, as rectal suppositories, or as controlled-release patches applied to the skin. Codeine, hydrocodone, oxycodone, and tramadol are often combined with acetaminophen, eg, Percocet®, a combination of oxycodone and acetaminophen.

Side effects of the narcotic pain medications include:

**Drowsiness:** Drowsiness is perhaps the most common side effect of narcotic pain medications, but this response is highly variable. For some patients a small dose of oxycodone will relieve pain but will not cause drowsiness but for other patients the identical dose will cause a level of drowsiness that is profound and intolerable.

**Respiratory depression:** When used properly the narcotic pain medications will not cause respiratory depression. However, the potential for respiratory depression should always be considered, especially if a patient has respiratory problems.

**Hypotension:** When used properly the narcotic pain medications will not cause hypotension. However, the potential for hypotension should always be considered, especially if a patient has a normal but borderline low blood pressure.

**Dizziness:** Dizziness is a common side effect of these drugs.

**Nausea and vomiting:** Nausea and vomiting are common side effects of the narcotic pain medications.

**Constipation:** The narcotic pain medications can slow down peristalsis and constipation is a common side effect of these drugs.

If a patient has been given a narcotic pain medication they should be periodically assessed for drowsiness. Blood pressure and respiratory rate should be measured.
before giving a dose of a narcotic pain medication, and if the drug is “new” to the patient, he/she should be monitored very closely when therapy begins.

**Drug tolerance** is an important issue with the narcotic analgesics. After taking a narcotic analgesic for a certain period of time a patient may find that the prescribed dose no longer brings pain relief, or that the duration of pain relief is much shorter. This phenomenon is called drug tolerance and it presents a considerable problem when using narcotic medications, especially when these drugs are used to treat patients who have chronic pain.

**Learning Break:** The narcotic pain medications can cause dizziness and hypotension, especially orthostatic hypotension. Keep this in mind when ambulating a patient who has recently been given a dose of morphine, oxycodone, etc, especially an elderly patient. A change in position from lying to sitting or sitting to standing could cause the patient to faint or fall.

**Non-Narcotic Pain Medications**

Non-narcotic pain medications are less powerful than narcotics and they are used when pain is considered to be mild to moderate and is expected to be of short duration. Their side effects are not as intense or serious as those of the narcotics. And many of them are available as over-the-counter medications. Non-narcotic pain medications are available as oral capsules and tablets, rectal suppositories, oral solutions, and topically applied creams. Table 4 lists some of the commonly used non-narcotic pain medications.

**Table 4: Non-Narcotic Pain Medications**

- Acetaminophen
- Aspirin
Capsaicin (Topical cream)
Celecoxib (Celebrex®)
Ibuprofen
Indomethacin
Naproxen

Some of these drugs, as mentioned, are available over-the-counter in lower doses than the prescription form. The most common of those is ibuprofen; it is available over-the-counter as 200 mg tablets, the prescription tablets are 400, 600, and 800 mg. And some of them, such as Celecoxib for arthritis, are used for pain caused by a specific condition. The non-narcotic pain medications are relatively safe and their side effects are typically mild; many of them can cause and GI distress.

Medications that do not have a labeled use as analgesics but are prescribed to treat pain include (but are not limited to) sedatives such as diazepam (Valium®), anti-depressants such as amitriptyline and fluoxetine, oral and injectable corticosteroids such as prednisone and methyprednisolone, and anti-epileptic drugs such as topirimate (Topamax®) and Gabapentin (Neurontin®) Nerve blocks with a local anesthetic such as bupivacaine are used for pain caused by specific conditions.

Administering medications to treat pain is more art than science. A patient who is having severe pain may get relief from a relatively low dose of ibuprofen but someone having a mild to moderate level of pain will not respond to a strong narcotic. It is also possible that pain will intensify or improve over time so the pain medication needs will change, as well. Pain medications should be delivered promptly and before a patient’s pain becomes severe.
TREATMENTS FOR PAIN: NON-PHARMACOLOGIC

There are many non-pharmacologic treatments for pain. Some of them are proven to be effective and are well established. Some are simply a matter of common sense, such as repositioning a patient who is having pain to make him/her more comfortable. Other non-pharmacologic pain treatments such as acupuncture are widely used but the effectiveness is unpredictable and unproven.

Non-pharmacologic treatments for pain are listed in Table 5. This list is not all inclusive. Certified nursing assistants will use comfort measures and therapeutic heat and cold and these will be discussed in detail.

Table 5: Non-Pharmacologic Pain Treatments

- Acupuncture
- Alternative therapies
- Comfort measures
- Electrical stimulation
- Massage
- Therapeutic heat and cold

Comfort Measures

Comfort measures are interventions that are (relatively) simple and non-technical in nature and easy to apply. Comfort measures for pain relief are any activity that someone would do to make himself/herself comfortable but cannot because of illness or injury. Using the terms simple and non-technical, however, should not diminish the importance of comfort measures. A patient’s ability to tolerate pain is greatly influenced by the environment, and pain medications will be more effective if the patient is comfortable and feels that her/his needs are being looked after.
Comfort measures include positioning, changing bed linen, adjusting the lighting, making sure that the patient has enough food and fluids, adjusting the room temperature so that it is comfortable: comfort measures can include almost anything within reason.

**Therapeutic Heat and Cold**

Therapeutic heat and cold can be effective treatments for pain. Heat acts to dilate blood vessels so heat would be used therapeutically when we want to increase the flow of blood to an injured area. The opposite is true of cold. Cold constricts blood vessels so therapeutic cold is used when we want to decrease the blood flow to an injured area because cold constricts the blood vessels.

Choosing to use therapeutic heat or cold depends on the situation. For example, heat would be applied to tissues that are painful because of an infection: the dilated blood vessels will increase blood supply to the area and in turn, deliver more oxygen, nutrients, and white blood cells that fight infection and increase the rate of healing. Another example is warm soaks as an additive therapy to treat a small, localized tissue infection in the hands or feet. Cold can provide pain relief because it decreases blood flow to an injured area and decreases swelling: cold is applied to a sprained ankle. Therapeutic heat and cold can also be used sequentially.

Therapeutic heat and cold are simple and effective but these therapies can also cause harm. In order to use heat and cold therapies safely, follow these guidelines:

- Only apply heat or cold if you are directed to do so by your supervisor or if these therapies have been ordered by the physician or another clinician who has the authority to do so.
• Only apply heat and cold to the specific areas that have been outlined by your supervisor’s instructions or the physician’s orders.

• Make sure that you receive instructions or there are orders that clearly indicate what method of heat and cold should be used and how to use it, eg, moist or dry heat, apply four times a day for 20 minutes per application, do not apply directly to the skin, etc.

• Closely monitor the patient to make sure the therapy is effective.

• Most importantly, closely monitor the patient to make sure he/she is not injured by the heat or cold. It is not unreasonable to check the treated area every five minutes.

• Be especially careful when applying heat or cold to elderly patients. Their skin is more delicate than the skin of a younger person. In addition, elderly patients often do not have a large amount of insulating fat and their pain receptors may be blunted by age or a medical condition.

• Be especially careful when applying heat or cold to infants and children. Their skin is very sensitive and can easily be damaged and they cannot effectively verbalize their pain.

• Be careful when applying heat or cold to patients who have dementia or are disoriented. These patients may not know when they are being injured or they might be unable to communicate their feelings of pain.

• Be very careful when applying heat or cold to patients who have diabetes. Diabetes decreases peripheral circulation and it damages the nerve receptors that sense pain, making the diabetic patient susceptible to injury and unable to
sense the injury. If heat or cold is improperly applied to a patient who has diabetes, he/she may suffer an injury but not realize the presence of the pain until damage has been done.

- Don't apply heat or cold to irritated or damaged skin. Don't apply heat or cold to an area with stitches or a surgical wound unless there is an order to do so and never apply moist heat or cold to damaged skin or an area with stitches or an open wound: the moisture can cause infection and prevent healing.

When you are using cold or heat, it is almost always safer to avoid direct contact with the heat and cold source and the skin. Use some sort of barrier such as a towel, a piece of cloth, or a specialized paper cover between the cold and the heat source, especially if you are using moist applications. The barrier prevents skin injury. Be sure you check the patient shortly after you begin the treatment, several times during the treatment, and immediately after stopping the treatment. You should closely examine the area. If you are using heat, look for burns or excessive redness. If you are using cold, look for unusually cold or pale skin or cyanosis.

**ARE THE PAIN RELIEF THERAPIES EFFECTIVE?**

An assessment of the effectiveness of pain relief therapies is crucial. Pain relief therapies can be conscientiously and correctly administered, but the goal is to provide pain relief. If a patient’s pain is not diminished then the existing therapies need to be modified or new therapies should be used.

Assessment of the effectiveness of pain relief therapies should be done in the same organized, systematic way that pain assessment is done. If pain assessment has been done using a 1-10 pain scale, use the 1-10 scale. If pain assessment has been done by
observing body language and measuring vital signs, these parameters should be part of the assessment of effectiveness of the pain relief therapies. And most importantly, talk to the patient. Pain is subjective and we can never know how someone is experiencing pain. Regardless of what assessment parameters are used, the most meaningful one is how the patient feels. Pain is whatever someone says it is.

**SUMMARY**

Pain is a universal phenomenon. Everyone has experienced pain and we all know what pain feels like. Pain is essential for survival as it alerts us to when the body is damaged or in danger. But despite the need for pain, pain is one of the most powerful noxious experiences we can have. Acute pain can be overwhelming and chronic pain, which is very, very common, affects millions of people and can be completely disabling.

Pain is by its nature is subjective. We can indirectly measure someone’s response to pain but we cannot measure pain itself. According to the International Association for the Study of Pain, pain is “. . . an unpleasant sensory and emotional experience associated with actual or potential tissue damage . . . “ So, pain is sensory and emotional; it can be damaging or potentially damaging; and it is subjective. In the end, as health care professionals we have to remember that essentially, pain is whatever someone says it is. Factors that influence the experience of pain include age, prior pain experience, genetics, the nature of the injury or illness, culture, acute versus chronic pain, and biological and psychological issues.

The experience of pain is typically divided into acute and chronic. Acute pain is usually caused by an identifiable injury or illness; it has a short duration; acute pain is protective in nature; it improves with time, and; acute pain usually it responds to
treatment. Chronic pain may not be caused by an identifiable illness; it has a long duration and for some patients it never goes away, and; chronic pain often will not respond well to treatment.

Treatment for pain begins with a pain assessment. The pain assessment should include an interview, measurement of vital signs and a physical examination. The pain assessment must be organized, systematic, and above all consistent. Use the same assessment parameters each time.

Pain treatments are medication based or non-pharmacologic, but certainly both can be used together. Narcotic pain medications are used for moderate to severe pain. These drugs such as morphine and oxycodone can be very effective but they can have serious side effects and the potential for abuse and dependence. Non-narcotic pain medications such as acetaminophen or ibuprofen are used for mild to moderate pain. Non-pharmacologic pain relief therapies can be effective treatments for pain. Comfort measures and therapeutic application of heat and cold are non-pharmacologic pain relief therapies that CNAs will frequently use in their practice.