

ACCREDITATION PAIN STANDARD: Making It Happen!

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THE CANADIAN PAIN SOCIETY  CPS SCD LA SOCIÉTÉ CANADIENNE DE LA DOULEUR

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Unrelieved pain remains one of the most common and most poorly treated complaints of patients in our society today. In some cases this simply reflects our limited understanding of the puzzle of pain. However in most cases, poor pain management is due to factors which are well understood, including: a lack of appropriate pain education in most health care professional schools; a lack of awareness or an unreasonable fear of using the treatment tools already available to us; an attitude that treating pain is not important and a lack of awareness on the part of the public that, indeed, pain can be better managed.

In spite of an ever increasing number of published reviews and guidelines over the past decade, published surveys show that pain continues to be poorly managed in most health care facilities. It is therefore very appropriate that the Canadian Council on Health Services Accreditation (CCHSA) has recently added pain assessment and management to the accreditation standards. This will raise the profile of appropriate pain management in accredited institutions and lead to better patient care.

For those health care facilities in Canada who are struggling to improve pain management practices, a set of practical guidelines from others who have already been through this process would be an invaluable asset. This document, produced by the Special Interest Group on Nursing Issues, of the Canadian Pain Society, will be an excellent place to begin.

Lets all work together to “Make It Happen”!

A handwritten signature in black ink, reading "R. Jovey". The signature is written in a cursive, flowing style with a large initial 'R'.

Roman D. Jovey, M.D.
President, Canadian Pain Society

Preface

This guide has been prepared as a resource by the Special Interest Group on Nursing Issues of the Canadian Pain Society, and has been reviewed by an inter-professional group. It has been developed to help organizations and health care professionals meet the new pain assessment and management standard from the **Canadian Council on Health Services Accreditation (CCHSA)**.

Research continues to uncover and document the prevalence of unrelieved pain despite evidence of physiological and psychological negative consequences. The revised accreditation standards include a pain-focused criterion to improve how pain is assessed and managed in all clinical settings. This guide is intended as a resource to assist in the development of pain assessment and management strategies in your organization.

The International Association for the Study of Pain defines pain as: “An unpleasant, sensory, and emotional experience associated with actual or potential tissue damage, or described in terms of such damage or both.”

Pain management involves a comprehensive approach focusing on patients and their families who experience acute and/or chronic pain. A comprehensive pain management process needs to address the barriers to effective pain management, while requiring an organization wide, inter-professional effort. This effort involves making pain assessment, and management a priority for patient care. A key benefit of appropriate pain management is increased satisfaction for patients and their families as well as health care providers.

Despite available guidelines which direct health care professionals in their work, effective pain management has been reported for decades as inadequate. To help address this problem, the **Canadian Pain Society (CPS)** published a clear position statement for health care practitioners on pain relief that is easy to remember and follow. The CPS Position Statement on Pain Relief provides three principles that give direction to everyday practice for treatment of acute and chronic pain:

Patients have the right to the best pain relief possible

1. Unrelieved acute pain complicates recovery
2. Routine assessment is essential for effective management
3. The best pain management involves patients, families, and health professionals

www.canadianpainsociety.ca

Recognize the right of individuals to appropriate assessment and management of pain.

Pain assessment and management are an individual’s right and an important part of basic clinical care for all patients as it can guide treatment. This is supported by the “Canadian Pain Coalition” in their Charter of Pain Patient’s Rights and Responsibilities.

(<http://www.painhurtscanada.ca/charter.htm>).

Introduction: The Team has Processes for Assessing and Managing the Clients Pain

The CCHSA has included pain assessment and management in its new 2005 Standards. Specific actions are suggested to meet the standard as it relates to assessment, management, monitoring, documentation and organizational responsibility. The criterion is evidence-based and includes the organization's accountability to train and update health care professionals, patients and families on pain management options and strategies.

The new reference to pain management can be found in **Acute Care Standard 7.0**, under the subsection Addressing Needs.

Criterion 7.4 specifically addresses the team's processes for assessing and managing the patient's pain. This criterion is relevant to all care sections of the standards where appropriate for the management of pain, from Cancer Care, Maternal/Child, Rehabilitation and Long-Term Care, to Acquired Brain Injury, Ambulatory Care and Critical Care. Processes addressed in this criterion are as follows:

- All clients receive a pain assessment on admission and routinely thereafter
- The team assesses pain using standardized clinical measures
- The team manages pain appropriately and routinely monitors the effectiveness of pain management strategies
- The team identifies and consults with pain management experts
- The team educates patients and families on pain management strategies
- The team documents and shares the results of pain management strategies
- The organization trains and updates staff on evidenced-based strategies to prevent, minimize or relieve pain

Making it Happen!

Improving pain management throughout an organization cannot be accomplished all at once. The key steps that are involved have been articulated in the Building an Institutional Commitment to Pain Management Wisconsin Resource Manual (2nd Edition)

- Develop an interprofessional workgroup
- Together analyze current pain management practices in your setting (e.g. chart audits)
- Articulate and implement a standard of practice
- Establish accountability for pain management
- Decide how to make pain a priority, visible within the organization
- Provide information about interventions (pharmacologic and non-pharmacologic) to health care practitioners, to facilitate order writing, interpretation and implementation
- Promise patients a quick response to their reports of pain
- Provide education for all health care professionals
- Continually evaluate and work to improve the quality of pain management

All Clients Receive a Pain Assessment on Admission and Routinely Thereafter

The goal of an initial pain assessment is to characterize an individual's pain by location, intensity and if possible etiology. Every patient should have an initial pain assessment at the point of entry to care. Pain should then be reassessed routinely when there is a procedure or a condition change. An initial pain assessment is essential in determining baseline pain, previous experience with pain, including past treatments used and their success. It can also identify patient concerns or problems with medication, other illnesses or additional pain issues.

Key Assumptions about Pain Assessment

There are certain assumptions or beliefs that influence health care professional's clinical decision making about the presence or absence of pain, actions taken, and evaluation of patient outcomes. The essential building blocks for effective pain assessment are based on the following assumptions and beliefs:

- All individuals have the right to pain assessment using a multidimensional approach, with special attention being paid to changes in these indicators over time
- Assessment is not a static process; it encompasses responses at one point in time as well as over time
- Lack of physiological and behavioural indicators or self-report does not necessarily mean lack of pain
- Opinions about pain are best obtained directly from patients who are capable of self-report. When self-report is not appropriate or obtainable, proxy-reports should be obtained from those whom are most familiar with the patient
- An ongoing, open partnership between members of the health care team and the patient and their family is encouraged in the hope that increasingly accurate pain assessments and insights will occur
- All children, including term and preterm neonates, infants and those with physical, neurological and cognitive impairments have the capacity for pain; Adults with neurological and cognitive impairments have the capacity for pain

Key Principles

- Patient's pain assessment and treatment rights should be made visible and can be included in the mission statement of the organization
- Assessment of pain is the cornerstone of effective pain management
- Make pain assessment a priority in everyday practice by viewing pain assessment as an outcome of patient care
- Identify patients with pain in an initial screening assessment (e.g., emergency department, pre-admission program)
- Perform a more comprehensive pain assessment when pain is identified
- Patients should be actively involved in pain assessment and management
- Assess pain routinely or around the clock, so that a pattern of pain is evident. Pain assessment should not be on a "prn" basis!
- Monitoring of the effectiveness of therapy includes pain rating, functional status, quality of life indicators, and side effects of medications

When to Assess for Pain

Establishing standards for the frequency of assessing pain is essential to the treatment of pain. The intent of setting standards for pain assessment is to promote routine screening for pain in order to overcome the barriers to effective pain management and to provide quality patient care.

Organizations may want to establish policies and procedures that mandate the frequency of pain assessment. These standards should be used in a flexible and adaptive manner to meet the needs of different clinical care settings and/or patient populations. For example:

- At least once per shift for inpatients
- At least once every visit for outpatients and homecare
- Monitor pain before, during and after procedures

The Team Assesses Pain Using Standardized Clinical Measures

Pain can be a complex, multidimensional phenomenon that is an inherently private, subjective experience that may or may not be directly visible to others. Pain cannot be measured in the same way that heart rate or blood pressure can. However, by using a variety of measurement approaches, it is possible to obtain an accurate picture of pain. These approaches include: **self-report** (what the individual says), **behavioural** (how the individual behaves) and **physiological** indicators (how the individual's body reacts). Given the definition of pain adopted by the International Association of Pain as an unpleasant sensory and emotional experience, it is most desirable to obtain and rely on self-report measures of pain when possible. The exceptions to this measurement approach are with infants, preverbal children and cognitively impaired children and adults for whom behavioural observation should be the primary source for pain measurement.

Pain assessment is a critical component of high quality patient care and is the first step in effective pain management. The main goals of pain assessments are to: (1) describe the phenomenon of pain and factors that influence it; (2) assist in the diagnosis and prediction of the need for pain management interventions; (3) evaluate the effectiveness of those interventions; and (4) provide an important indicator of the quality of patient care. However, there are multiple barriers to pain assessment in everyday practice including: inadequate assessment of data; failure to recognize the multidimensional nature of pain; inappropriate timing of assessment; difficulties interpreting the data; underutilization of pain assessment measures; inadequate documentation; difficulties following the plan of care; misbeliefs about pain in children and adults (See table 1 for common misbeliefs and facts about pain).

One way to overcome these barriers in assessment is to build an “institutional commitment” to pain. “Institutionalizing” pain management practices can be achieved by incorporating basic principles of pain assessment and treatment into patterns of practice including documentation systems (e.g., pain as the fifth vital sign), policies and procedures, standards of practice, and orientation, continuing education and quality improvement programs. These approaches weave pain assessment into the very “fabric” of the organization.

Key Principles in the Assessment of Pain

- It is important to understand the distinction between pain measurement and assessment. Pain measurement generally describes the quantification of a selected aspect of the pain experience. Assessment may include the intensity, location, duration, sensory qualities, and cognitive and affective aspects of the pain experience, as well as the contextual and situational factors that may influence the measurement of pain in individuals capable of self-report
- The organization should select a pain assessment tool and pain intensity measure which will be used throughout the organization. It is recognized that there may be exceptions for the use of the standard tool and alternative valid tools should be available for use
- Provide care that reflects patients' right to have appropriate assessment and management of their pain
- Design pain assessment to conform to the unique developmental, communication capabilities, and cultural needs of the patient
- Use a multidimensional approach to pain assessment incorporating self-report, behavioural, physiological and contextual factors, where appropriate
- Use validated and reliable pain assessment measures
- Document pain assessment in a way that facilitates regular reassessment and follow-up (e.g., pain assessment tools used, pain score on pain flow sheet) that make pain more visible

Assessment of Pain

History of Prior Pain Experiences

Having an understanding of past pain experiences will help the health care team to obtain a clearer picture of the individual's present pain experience. It is important to ask about past pain experiences, as well as the management strategies (pharmacological and non-pharmacological) that were used and their effectiveness.

History of Current Pain Complaint

The following dimensions should be assessed when obtaining the history of the current pain complaint:

- Type of pain: e.g., acute, chronic non-cancer, cancer, and disease-related pain; nociceptive, neuropathic or mixed
- Onset of Pain and Duration: When did the pain begin? What was the person doing before the pain began? Was there any initiating injury, trauma or stressors? How long has the pain been present? Expressed in units of time such as minutes, hours, days or months
- Location including radiation: Person can verbally state location of pain or point to the part of body that hurts. Body outlines can be used to help patients indicate where they hurt. Important to also ascertain if the pain radiates. Does the pain go anywhere else (e.g., radiate up or down from the site that hurts)?
- Intensity (at rest and with activity): Ask the patient to rate how severe their pain is. Pain intensity is quantified using a variety of pain scales in patients capable of self-report. For those not capable of self-report behavioral observational measures and composite measures that combine behavioral and physiologic indicators can be used
- Quality of Pain: Important to ascertain descriptions of the quality of pain by using word descriptors such as sharp, dull, achy, stabbing, burning, shooting or throbbing. This information can provide information on whether the pain is nociceptive or neuropathic in nature or a combination of both
- Frequency: How often is pain present? Is the pain always there or is it intermittent, in that it comes and goes?
- Associated Symptoms: Are there any other symptoms that go along with or occur just before or immediately after the pain, such as nausea, vomiting, light-headedness, diarrhea, or difficulty ambulating? Are there any changes in the color or temperature of the affected extremity or painful area?
- Temporal or seasonal variations: Does the pain differ with the time of day, changes in seasons or weather? These changes occur most often with patients who have chronic pain. Does the pain occur at certain times of the day, for example after eating or going to the washroom?
- Impact on daily living: Does the pain result in changes in daily activities and/or behaviors (e.g. sleep disturbances, decreased appetite, decreased physical activity, changes in mood, or a decrease in social interactions)?
- Factors that precipitate and or aggravate the pain: What makes the pain worse? (e.g., movement, deep breathing and coughing, stress etc.)
- Factors that relieve the pain: What makes the pain better? This should include both non-pharmacological and pharmacological interventions. Side effects of interventions should be documented also. In addition, the degree of pain relief or intensity of pain after a pain relieving treatment/intervention should be determined
- Culture, ethnic, or religious background: Elicit from the patient and or family culturally determined beliefs about pain that may influence care. This can be explored by asking the

patient and family if the pain has any specific meaning to them, if there is a specific word they call the pain, why they believe they have pain, and what they feel will help them manage their pain.

Approaches to Pain Assessment

No laboratory test or objective measures of pain currently exist. Unlike body temperature that can be measured directly and objectively by using a thermometer, pain is measured indirectly. The sensation of pain is completely subjective. The existence of pain cannot be proved or disproved. Therefore, the gold standard for assessing pain is the individual's self-report. Pain is assessed using tools, which have been developed to evaluate the amount of pain experienced by focusing on certain aspects of pain. Presently, no easily administered, widely accepted, uniform technique exists for assessing pain in all populations (e.g., infants, children, adults, cognitively impaired) or across types of pain.

Assessment techniques can be classified as self-report measures, or behavioural observation measures. Furthermore, pain assessment measures can incorporate both unidimensional and/or multidimensional approaches.

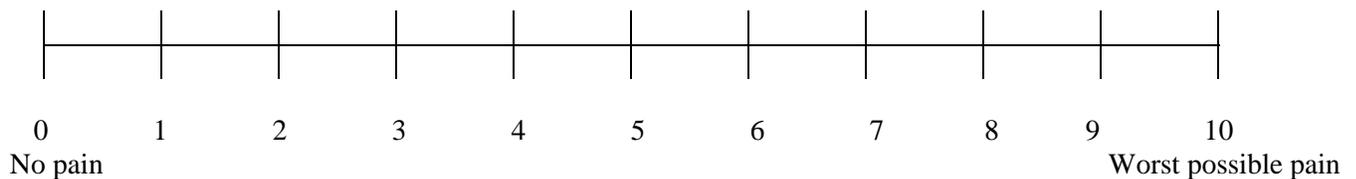
Self-Report Measures

Self-report approach to pain assessment is generally regarded as the gold standard of pain measurement. Self-report measures use the individual's own report of their feelings, images or statements about the pain that they perceive. There are multiple self-report rating scales available, the most commonly used self-report measures of pain intensity are described below.

Numerical Rating Scales

A numerical rating scale of pain intensity consists of a range of numbers (e.g., 0 – 10 or 0 – 100). Respondents are told that the lowest number represents 'no pain' and the highest number represents an extreme level of pain (e.g., 'worst pain imaginable'). Individuals circle, record or state the number that best represents their level of pain intensity. While the 11-point NRS has been recommended as the core outcome measure of pain intensity for clinical pain trials in adults, NRS have not been adequately tested in research with children. Nevertheless verbal NRS scales tend to be the most frequently used pain intensity measure with children over 8 years of age and adults in everyday clinical practice. They have the advantage of requiring no equipment and are easy to score.

Numeric Rating Scale (NRS)



Verbal Rating Scales

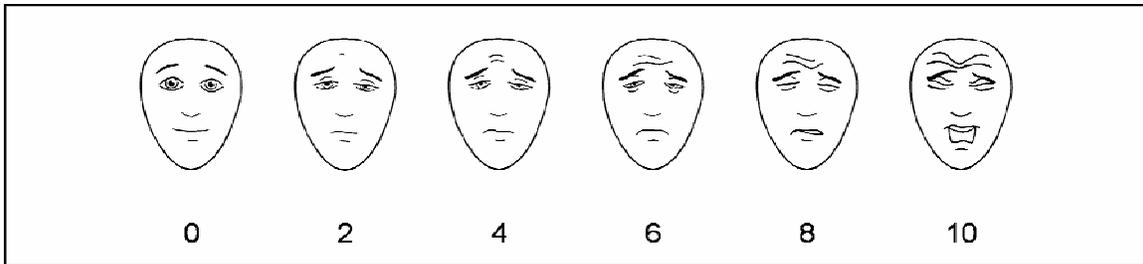
Verbal rating scales (VRS) of pain intensity consist of a list of simple word descriptors or phrases (e.g., 'not at all', 'a little bit', 'quite a lot' and 'most possible hurt') to denote varying degrees or intensities of pain. Each word or phrase has an associated number (e.g. 0 = 'no pain at all' to 3 = 'severe pain'). The person is asked to select a single word or phrase that best represents his or her level of pain intensity and the score is the number associated with the chosen word. Simple word descriptors are often used with children and with older adults.

Faces Scales

Faces pain scales present the person with drawings of facial expressions representing increasing levels of pain intensity. The individual is asked to select the picture of a face that best represents their pain intensity (or level) and their score is the number (rank order) of the expression chosen. Faces scales have generally been well validated for use in children between the ages of 5 and 12 years of age and have also been used with adults. An example is the Faces Pain Scale-Revised (FPS-R). The FPS-R has well-established reliability and validity and has been recommended for use in paediatric pain clinical trials. The FPS-R is available in full size for reproduction for non-commercial clinical, research and teaching use from www.painsourcebook.ca and the instructions have been translated into 22 languages.

The Faces Pain Scale – Revised (FPS-R)

Instructions: "These faces show how much something can hurt. This face [point to left-most face] shows no pain [or hurt]. The faces show more and more pain [point to each from left to right] up to this one [point to right-most face] - it shows very much pain. Point to the face that shows how much you hurt [right now]." Numbers are not shown to patients; they are shown here only for reference.



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Visual Analogue Scales

Visual analogue scales require selecting a point on a vertical or horizontal line (usually 10 cm) where the ends of the line are defined as the extreme limits of pain intensity (e.g. 'no pain' and 'most extreme pain possible'). The individual is asked to make a mark along the line to indicate the intensity of their pain. The VAS is scored by measuring the distance in centimetres from the 'no pain' anchor to the patient's mark. Visual analogue scales tend to be more difficult than other pain rating scales for patients to understand and complete. There are higher failure rates in young children (< 8 years of age) and in older adults. In addition, other scales such as NRS and faces scales tend to be preferred over VAS.

10 cm Visual Analog Scale (VAS)



Multidimensional Self-Report Pain Assessment Measures

There are times when a more comprehensive pain assessment is necessary beyond determining the intensity of pain. Valid and reliable tools that also include the quality and affective components of pain as well as how pain interferes with aspects of every day life can potentially contribute to the improved evaluation and treatment of recurrent and chronic pain. The McGill Pain Questionnaire, Brief Pain Inventory, and the Pain Disability Index are three examples of comprehensive pain assessment tools that are used with adults. In children, the Pediatric Pain Questionnaire, Adolescent Pediatric Pain Tool, and the Pediatric Pain Assessment Tool have been shown to be reliable and valid multidimensional pain measures. In addition, there are other disease specific pain measures as well as health status and quality of life measures that include aspects of pain.

Behavioural Observations

Behavioral observations involve assessment of specific, discrete non-verbal behaviors. Estimating levels of pain from these observations of behaviors is the most common approach to pain assessment in infants, preverbal children and those with cognitive impairments. A wide range of specific, expressive, behaviors has been identified as indicative of pain. This approach to pain measurement is unobtrusive, and puts no additional burden on the patient. Although some behaviors are more consistent than others across age groups (e.g. facial expression), the range of possible responses is large and no particular set has been shown to be consistent with particular pain experiences. Another issue with behavioral observations is that many behavioral responses (e.g. crying) are not unique to pain. Therefore, distinguishing between pain and distress or other phenomena such as fear, anxiety or loneliness can be very difficult. Furthermore, behavioral measures have been validated for use in acute pain and not chronic pain as pain behaviors habituate over time. Therefore, observation of pain-related behaviors is used most effectively when self-report is not possible (e.g., preverbal, cognitively impaired, intubated, or comatose individuals)

An example of a well-established behavioral observation scale for acute procedure-related and post-operative pain in children (1 to 7 years of age) is the FLACC (Face, Legs, Activity, Cry, Consolability). Each of the five categories (F) Face; (L) Legs; (A) Activity; (C) Cry; (C) Consolability is scored from 0-2, which results in a total score between zero and ten.

Choosing the Right Pain Assessment Measure

There are now several reliable, valid and clinically useful pain measures available for assessing pain in neonates, children and adults. The following guidelines can be useful in selecting pain rating scales for use in everyday practice. The measure needs to :

- Be standardized with published evidence of reliability and validity
- Be feasible to use e.g., simple to use and not long, short training time, easy to score, inexpensive and well received by patients
- Have clinical utility and give information that makes a difference for the patients
- Be practical for assessing different types of pain and versatile for use in diverse clinical settings
- Be sensitive to people's diverse conditions, ages, ethnic backgrounds, cognitive level and context in which pain is experienced
- Is available in various languages spoken in clinical setting or may be easily translated

Special Pain Assessment Situations

Assessment of Pain in the Non-verbal Adult

Assessing pain in non-verbal adults can be a challenge as the most reliable indicator of pain, the patient's own statement, cannot be used. The diversity of patients who are non-verbal and the difficulty of tailoring assessment measures to these individuals, contribute to the challenge. Since these patients are most vulnerable, the interprofessional team may use a variety of standardized measures including observation of behaviour, depending on the context. For example, Feldt's Checklist of Non Verbal Pain Indicators is helpful with people with severe cognitive impairment. In addition, a history from the family or primary caregiver can also provide valuable information regarding the patient's pain.

Pain management is complex because dementia, delirium, and other reasons for patient's altered communication ability is a significant barrier to pain assessment. In the cognitively intact older individual or one with mild cognitive impairment this would include, direct questioning of the patient using a variety of synonyms for the word pain, such as, "burning, discomfort, aching, soreness, heaviness, tightness" ; quantitative assessment of pain using any of the standard pain scales that take into account, language, sensory or cognitive impairments, and multidimensional pain instruments that determine pain in relation to other deficits, such as Pain Disability Index or the Brief Pain Inventory.

Assessment of Pain in Cognitively Impaired Children

Children with cognitive impairments include those with cerebral palsy, neurodevelopmental disorders, severe mental retardation or developmental delay, and children with pervasive developmental disorders. Many of these children are at higher risk than other children for under-treatment of pain for the following reasons: (1) multiple medical problems may cause or be a source of pain; (2) they must undergo multiple procedures that are often painful; (3) their idiosyncratic behaviors, such as moaning, may mask expression of pain; (4) many pain behaviors, such as changes in facial expression and patterns of sleep or play, are already inconsistent and difficult to interpret because of physical problems; and (5) the comfort of these children may be valued less by society than the comfort of other children. Therefore, assessment of pain in this high-risk group of children can be particularly challenging.

Researchers have examined some of the behavioral cues that caregivers use to identify pain in neurologically impaired children. The behavioral cues identified include facial expression, vocal cues, changes in posture and movements, physiological changes such as sweating, pallor or reddening, alterations in sleeping and eating, as well as changes in mood and sociability. Changes in these behaviors are cues to caregivers that their child might be experiencing pain. Breau and colleagues have developed non-communicating children's pain checklists developed specifically for children with severe disabilities who are unable to communicate verbally. There is also beginning evidence that some children with borderline and mild cognitive impairments can use simple concrete pain ratings scales.

Assessment of Pain in Neonates, Infants and Children

Self-report measures should be utilized with children who are old enough to understand and use self-report scale (3 years of age and older), children who are not overtly distressed, who do not have impaired cognitive or communicative abilities, and whose self-reports ratings are not considered exaggerated or minimized due to cognitive, emotional or situational factors. Children have pain words by 18 – 24 months of age, and by the age of 3-4 years are able to report the degree of pain. Children greater than 4 years of age can provide detailed descriptions of pain intensity (e.g., faces scales, simple word descriptors) quality and location. For preverbal and young pre-school children there are a variety of composite measures that include behavioural observational and self-report (e.g., moaning) approaches that can be used such as the FLACC (ages 2 months to 7 years) and CHEOPS (ages 1-5 years).

Pain in neonates and infants can be assessed and managed effectively using reliable, valid and clinically sensitive assessment tools. Composite pain measures that include more than one assessment approach within a given instrument are used for measuring pain in neonates and infants. Most composite measures include both behavioral and physiological indicators. Some measures also include contextual factors, such as the gestational age or behavioral sleep/wake state of the infant. There are several published composite measures that combine behavioral and physiologic indicators for assessing pain in infants with varying degrees of established reliability and validity (e.g., Neonatal Pain, Agitation & Sedation Scale (NPASS) and Premature Infant Pain Profile (PIPP). The PIPP has been the most rigorously validated of these measures.

The Team Manages Pain Appropriately and Routinely Monitors the Effectiveness of the Pain Management Strategies

Pain management strategies involve appropriate analgesics, physical, behavioural, and psychological interventions. There are well-established practice guidelines on pain management approaches. Please refer to the listing of website/resources for pain management and the list of practice guidelines at the back of the manual for further pain management information. The purpose of this section is to provide a basic understanding of the principles of pain management.

Key Principles

- Effective pain management includes ongoing communication and monitoring
- It may not be possible to eliminate all pain, but there are strategies (pharmacological, physical and psychological) that can reduce pain to acceptable levels. The patient should be involved in the goal setting for their pain management
- Patients' concerns and questions about taking pain medications need to be addressed in negotiating analgesic strategies with them
- The right dose of pain medication for a patient is the dose that reduces the pain to an acceptable level of relief. Therefore, titration based on drug effectiveness is essential
- Unnecessary delays in treating pain should be avoided as neural plasticity (e.g. central sensitization and changes in the pain pathways) may result in unrelieved acute pain becoming a persistent problem, such as chronic pain
- A multi-modal treatment approach is recommended. This approach can combine more than one type of treatment modality. This may result in lower doses of medication and decreased incidence of side effects. This can include pharmacologic and non-pharmacologic approaches
- People may require several classes of medication for pain concurrently to manage their pain (e.g. non-steroidal anti-inflammatory drugs, opioids, and adjuvants including tricyclic antidepressants and anti-convulsants)
- Immediate release (short acting) and Controlled release (longer acting) analgesic preparations are available for use with both acute and persistent pain
- Prevention is better than treatment; therefore it is important to give pain medication on a scheduled basis, around the clock rather than as needed in order to prevent pain from becoming unmanageable
- It is important to use the least invasive route (preferably oral) to administer medications and to avoid the use of intramuscular injections when possible. See table 2 for routes of administration
- Equianalgesic conversion tables should be used as a guide, in conjunction with the health care professional's clinical experience, when switching from one opioid to another or from one route to another. Use website references or the Editions of the Compendium of Pharmaceuticals and Specialties (CPS)
- It is important to clarify whether the patient has renal and/or hepatic insufficiency. Some opioids such as morphine and meperidine have active metabolites that may increase their analgesic effect as well as side effects
- Prevention and early management of medication related side effects must be part of providing optimal pain management relief. Possible side effects can usually be managed with careful monitoring and medical treatment. However, if side effects become unmanageable or intolerable for the patient, then a change of opioid or the addition of other adjuvant medications should be considered
- It may be preferable to consider more advanced techniques (such as nerve blocks or epidural analgesia), to manage pain for specific pain sources
- Be a pain advocate – take action, evaluate effectiveness and modify treatment as needed

Common Pain Relieving Medications

There are many different types of pain relieving medications. They fall into 2 categories opioids and non-opioids. Opioids include medications such as codeine, fentanyl, hydromorphone, methadone, morphine, and oxycodone. Non-opioids include medications such as: acetaminophen, adjuvant drugs (e.g. tricyclic antidepressants, anticonvulsants, corticosteroids, and anxiolytics), non-steroidal anti-inflammatory drugs (NSAIDs), anesthetics (e.g. injectable and topical local anesthetics such as lidocaine, bupivacaine), NMDA receptor antagonist (e.g. ketamine), and cannabinoids.

Opioids:

Opioids are the most potent class of medications used for the treatment of pain and often form the cornerstone of a pain management strategy.

Opioids may be classified as:

Full agonist e.g. codeine, fentanyl, hydromorphone, and morphine.

These common opioids may be subdivided into strong and weak opioids. Weak opioids such as codeine are most useful for mild to moderate pain. Stronger opioids (morphine, oxycodone) are useful for moderate to severe pain. Stronger opioids have no dose ceiling; meaning that the dosage can be titrated to pain relief without regard to a maximum dose, as long as side effects are tolerable. However, meperidine (Demerol) is limited due to adverse effects of its active metabolite normeperidine that causes CNS stimulation and may lead to seizures.

Meperidine (Demerol) is no longer recommended for general use with acute pain. Parenteral formulations produce an active metabolite, normeperidine, that causes CNS stimulation leading to seizures and which cannot be reversed by naloxone. Oral meperidine is not well absorbed and should never be used. As well, no form of meperidine should be used for treating persistent pain.

Some patients may not respond to certain opioids due to genetic heterogeneity. For example, approximately 7 - 10% of the Caucasian population cannot metabolize codeine to its active metabolites (ie morphine) due to a genetic polymorphism of the 2D6 isoenzyme. In this case alternative opioids should be utilized.

Antagonist e.g. naloxone, naltrexone. These agents are used to reverse opioid effects in the event of an acute adverse effect or overdose situation.

Mixed agonist-antagonist e.g. pentazocine, butorphanol. These medications act as agonists at certain opioid receptors, but also act as antagonists at other receptors. They act as agonists when given as the sole analgesic but act as antagonists and act similarly to naloxone when given to someone who has been taking an agonist opioid such as morphine. These medications can only be used up to a certain dose maximum due to the antagonist effect. These drugs are generally not recommended for use in most pain conditions.

Non-opioids:

Acetaminophen, acetylsalicylic acid (ASA) and non-steroidal anti-inflammatory drugs (NSAIDs) are used for the treatment of mild pain. Non-opioids are also used in combination with opioids to enhance analgesic efficacy and reduce side effects. For example, acetaminophen is often combined with a NSAID and/or an opioid to provide more effective pain relief for moderate or severe pain. Acetaminophen is also available with different amounts of codeine and other analgesics such as oxycodone for relief of moderate pain.

The many types of NSAIDs available vary with respect to their dosing and formulation. This information is readily available in many of the clinical guidelines. It is important to remember that ASA is not recommended for children under the age of 16 because of the risk of developing Reye's syndrome.

Adjuvant analgesics and non-opioids are drugs used to provide independent analgesia for specific types of pain, enhance the analgesic efficacy of opioids, and or treat concurrent symptoms that exacerbate pain. They may be used at any level of pain. Tricyclic antidepressants (such as amitriptyline and nortriptyline) and the anticonvulsant drugs (such as carbamazepine and gabapentin) have primary analgesic activity themselves and may be used alone or as co-analgesics.

Anesthetic medications can improve pain control and have an opioid sparing effect. They are provided by a health professional trained in the specific regional anesthesia technique of injection via epidural, intrathecal or nerve block. Topical preparations are also available and may be helpful with procedures that are painful and anxiety producing (i.e. IV starts).

Non-Pharmacological Approaches to Pain Management

A wide range of non-pharmacological therapies are being used by people of all ages and with a variety of pain problems, both acute and chronic. Commonly used non-pharmacological approaches include physical, behavioural, and psychological interventions. Approximately 12% of Canadians use complementary and alternative medicine (CAM). For pain management, this includes, but is not limited to treatments such as acupuncture, reiki, massage, and topical or herbal remedies. The body of evidence for CAM in pain management is increasing and as its use increases, health care professionals may be asked about the potential value of these treatments in the management of pain. Cognitive behavioural therapy and mindfulness stress reduction programs have shown effectiveness in the management of pain. Unless there are reasons, for example interactions with other treatments such as analgesics, it is important to support patients in their choice of effective options. More than one strategy may be required to management acute or chronic pain. Depending on the problem, pharmacological and non-pharmacological strategies often are used together.

The Team Identifies and Consults with Pain Management Experts

Pain can be a complex multidimensional problem and therefore effective management requires a variety of strategies involving all health care professionals. An interprofessional approach is essential. Health care professionals should utilize each others' expertise in working together to help patients and families with their pain management. The availability of clinical experts in pain assessment and management is a component of effective pain care.

Key Principles

- When a patient's pain is not effectively managed with standard pain therapies or for those with more complex pain conditions, referrals should be made to the appropriate consultants (i.e. acute pain service, chronic pain clinic, headache clinic, palliative care team, other specialists, etc.)
- Organizations should have an established referral process in place that provides access to clinical expertise when consultation is necessary. This can include referral to appropriate agencies and community resources

Expert Leaders in Pain Management

Organizations can benefit in many ways by utilizing pain management experts and those who may have expert opinion in the field of pain management. Interprofessional team members may possess clinical information related to pain management. For example, a pharmacist who specializes in pharmacotherapy for cancer pain will be an asset to the team as they develop policies and guidelines around cancer care.

Pain management experts are not always available within the organization. An option is to bring in an expert from outside the organization to work with a small group of clinicians who then can serve as resource personnel for others.

If your organization does not have access to experts in pain management, assistance may be available at an affiliated health care organization, or as a part of a health care system in a nearby area.

The Team Educates Patients and Families on Pain Management Strategies

Educating patients and their families about pain and the management of pain has been shown to decrease anxiety, pain intensity, and misbeliefs regarding pain management. The Canadian Pain Society position statement identifies that the “best pain management involves patients, families and health professionals”.

Education about basic pain management principles, pain assessment, pharmacological and non-pharmacological methods of treatment should be provided for all patients.

Key Principles

- The patient has a right to have their pain treated. Patients and their families may need help to understand that effective pain management is important and that it is their right to have the best relief possible. They should also be encouraged to communicate their pain to the healthcare provider
- Many misbeliefs exist around pain management. Clarification of inaccurate statements or beliefs must be identified and clarified
- The most reliable indicator of pain is the patient’s self-report. Patients must be taught how and when to communicate their pain to the healthcare provider (see pain assessment section). Pain assessment and reporting tools must be taught to the patient and used in every pain situation
- Patients should be provided with opportunities to practice using a pain assessment measure prior to painful experiences when possible (e.g., pre-admission clinics)
- Patients can be taught to describe their pain in terms of location, intensity/severity as well as aggravating and relieving factors. Pain must be assessed with both movement and at rest (i.e. moving in bed, deep breathing and coughing)
- The concept of pain prevention should be taught to patients and their families in an effort to lessen or eliminate the pain experience before it becomes difficult to manage. Patients should be encouraged to request analgesia before pain interferes with general activities (i.e. >4/10 pain score)
- Patients and families need to participate in decisions about management strategies, including pharmacological and non-pharmacological techniques
- Patients must be encouraged to report pain that has not improved after intervention
- Patients must be encouraged to report any adverse effects to the healthcare provider and assured that these discomforts can and will be managed
- Potential procedural pain needs to be discussed, including the strategies to manage it. Providing patients with control in their pain management would allow the patient flexibility and timely access to analgesia as required
- All patients in the healthcare organization will benefit from pain management education
- Patients will benefit most from pain management education that is repeated several times in various formats
- Review methods for assessing pain with the patient prior to hospital discharge and provide information about conducting pain assessments effectively at home

Other Considerations:

- Patient values and beliefs. Patients struggle with their own issues that may interfere with adequate pain management. Patients may “fear appearing weak”, “assume the healthcare provider will treat their pain”, or “fear addiction”. Education should attempt to identify and clarify these potential conflicts.
- Literacy. Patients may not be able to read printed education materials. Materials should therefore be created at a grade 4 or 5 grade level to facilitate education.
- Emotional barriers and motivation. Patients may be experiencing extremely stressful situations while in hospital and may have difficulty deciphering educational efforts. Fears of death or disability may interfere with pain perception and education regarding pain management. Utilizing healthcare professionals such as social work or spiritual and religious care may assist in these challenging situations.

Educational Interventions

Patients should be taught by physicians, nurses, pharmacists, physical therapists, occupational therapists and/or other healthcare professionals regarding pain management during hospitalization and upon discharge. This may be in a pre-admission setting, physician’s office, or post discharge. However, it should also be provided on an ongoing basis during hospitalization.

Printed material is an important media for providing patient education. Materials should be provided in different languages specific to the community population and at appropriate grade levels of reading. A minimum of a 12 pt. font size is preferable for older adults. The printed material should also be printed on matte paper to minimize glare. Patients can be mailed information before hospitalization or provided with information in a pre-admission visit.

Fact sheets about pain management can be provided. Posters can promote pain management. Pocket cards with pain information can be placed in patient rooms or attached to analgesia pumps (i.e. PCA or Epidural Infusion Pumps). Pain scales can also be laminated and provided in patient rooms or attached to analgesic equipment.

An excellent opportunity for presenting patients with pain management education in a repeated fashion is the education channel provided by some hospitals within the patient’s room. Videos, audiotapes, or CD-ROMs can also be provided in pre-admit teaching sessions, to patients at home, or in hospital/public libraries.

The use of clinical pathways is helpful for providing patients with an expected plan of their hospitalization. Pain management should always be incorporated into clinical pathways providing the patients with information about their pain management. Examples may include: discharge criteria for pain scores during hospitalization and upon discharge (i.e. 4/10), pain control at home, possible side effects of analgesics, guidelines for analgesia at home, pain rating and assessment for family members, and contact numbers for help. Patients can be provided with website links as resources regarding pain management before or after hospitalization. The internet can possibly provide an education opportunity to improve patient pain outcomes. Community resource information and contact telephone numbers can be provided for patients.

Discharge Planning

Discharge planning is an important aspect of treatment of care for all patients. As a part of discharge planning, members of the health care team should identify the patients and families continuing needs related to pain management. This includes, arranging for the appropriate services to meet these needs and providing relevant information about treatment. Relevant information about treatment issues related to inadequate relief and/or side effect management needs to be included. Patients can be provided with important pain management information in the form of take-home packages and discharge checklists. Post-discharge telephone follow-up calls regarding pain management can be helpful. Patients and families need to be involved in identifying priorities where they perceive needing help with pain management after discharge. For example, consideration needs to be given to activities of daily living, changes in mood, symptom management, cognitive status and social or spiritual concerns. Effective planning involves not only the patient and family but the interprofessional team as well.

The Team Documents and Shares the Results of Pain Management Strategies

Documentation is a means of communicating pain assessment, intervention utilized for pain and response to this intervention. Documentation of pain is closely linked to assessment of pain.

Key Principles

- Documentation of pain contains all the information/components of a pain assessment and should occur as frequently as assessment occurs
- Any education regarding pain that has been provided to the patient and family should be documented
- Standardized forms/tools for the documentation of pain allow for the initial assessment and ongoing re-assessment. They can also be used for the documentation of the efficacy of pain relieving interventions
- Forms/tools should be accessible to the entire inter-professional team to help facilitate communication
- Documentation should include:
 - Type of pain
 - Onset and frequency of pain
 - Description of the pain
 - Location(s) of the pain, including radiating patterns
 - Intensity of the pain at rest and with activity
 - Factors that induce and/or exacerbate pain and associated signs and symptoms
 - Factors that relieve the pain. This can include both non-pharmacological and pharmacological interventions
 - Side effects of interventions along with side effect management and their effectiveness
 - Degree of pain relief or intensity of pain after a pain relieving treatment/intervention

Putting mechanisms in place that make documentation of pain easy for clinicians helps ensure consistent documentation. Pain intensity scoring and assessment can be included on standardized tools such as: admission assessment forms; pain flow sheets for pain modalities such as intravenous or epidural patient controlled analgesia; medication administration records; and the vital signs record. Including pain intensity as part of the vital signs record allows for pain to be assessed, documented and taken as seriously as other vital signs. It is hoped that by including pain with vital signs, unrelieved moderate to severe pain will receive immediate attention and action. Standardized documentation tools for pain assessment and intensity can be either electronic or paper depending on the organization's requirements.

The Organization Trains and Updates Staff on Evidenced-based Strategies to Prevent, Minimize or Relieve Pain

Building an organizational commitment to pain management requires a sustainable infrastructure that supports staff development, training, preceptorship, mentorship, and a comprehensive approach in the use of evidence-based strategies for optimal pain management.

Educational campaigns and an increase in pain related research have not been translated into practice change. Change that results in long-lasting effects requires ongoing initiatives that are multi and interprofessional and that reflect the multidimensional nature of pain.

Key Principles

- Pain assessment and management should be included in orientation programs
- Professional development opportunities on pain management should be made available to all health care professionals
- Educational programs should be designed to facilitate change in knowledge, skill, attitudes and beliefs about pain assessment and management
- If advanced techniques (such as regional analgesia, nerve blocks, etc.) are utilized, it is important for health care professionals to have the appropriate knowledge and skills to execute, and to monitor for the safety and effectiveness of these techniques
- There are many beliefs and fears about using opioids, which prevent optimal use of these agents in controlling pain. For this reason, it is important to learn the difference between physical dependence, tolerance and opioid addiction

Physical dependence: is a state of adaptation that often includes tolerance and is manifested by a drug class specific withdrawal syndrome that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug, and/or administration of an antagonist. It is not the same thing as addiction. The symptoms of withdrawal include hypertension, nausea, vomiting, fever, shivering, diarrhea and muscle aches. These symptoms can be minimized by slowly decreasing the dose of opioids. Weaning should be planned for any patient who has been taking opioids for more than one week.

Tolerance: is a state of adaptation in which exposure to a drug induces changes that result in a diminution of one or more of the drug's effects over time. This is also not the same as addiction.

Addiction: is a primary, chronic, neurobiological disease, with genetic, psychosocial, and environmental factors influencing its development and manifestations. Addiction is characterized by behaviors that include one or more of the following (4C's)

- Impaired Control over drug use
- Compulsive use
- Craving
- Continued use despite harm (Consequences)

Pseudoaddiction: is a term which has been used to describe patient behaviors that may occur when pain is undertreated. Patients with unrelieved pain may become focused on obtaining medications, may "clock watch," and may otherwise seem inappropriately "drug seeking." Even such behaviors as illicit drug use and deception can occur in the patient's efforts to obtain relief. Pseudoaddiction can be distinguished from true addiction in that the behaviors resolve when pain is effectively treated.

Benefits of Staff Development

Health care organizations have benefited from educational interventions. Some of these outcomes include:

- Enhanced staff knowledge related to pain management;
- Consistent use of evidence-based practice guidelines;
- Consistent utilization of pain assessment tools;
- Increased overall patient satisfaction with pain management;
- Increased overall health care professional satisfaction in managing pain

Staff Development

Health care organizations will utilize several approaches to learning. Including pain as a core component in orientation programs serves a dual purpose. Including pain assessment and management in the orientation of all new health care professionals, emphasizes its importance as a quality indicator. And secondly, it provides an opportunity to assess knowledge and attitudes amongst disciplines. Orientation sessions can provide a forum for further learning and the opportunity to identify “pain champions”.

Assessing current practice whether for the entire organization or individual departments/units can be an invaluable tool in understanding current practice, knowledge level, identifying gaps in service provision and producing ideas for future initiatives. Other strategies and issues to consider include:

- An interprofessional working group that examines issues related to pain management
- Specific policies and guidelines
- Effective assessment and documentation tools
- Accountability for pain management is clearly defined
- Adverse consequences of untreated or poorly managed pain
- Specific needs for specific populations
- Information related to both pharmacological and non-pharmacological therapies available
- Barriers to practice change
- Information on the appropriate and safe use of opioids
- Patient and family advocacy
- Methods of ongoing educational opportunities
- Mechanism for retrieving and utilizing evidence-based materials
- Process for ongoing evaluation of outcomes

Staff development initiatives should be interprofessional. Strategies to promote staff development, increase awareness and share information regarding evidence based practice may include, but is not limited to the following:

- Formal lectures
- In-services
- Self-learning materials
- Guest speakers
- Informal case-based discussions
- Lunch and learn sessions
- Monthly segment in the organization’s newsletter
- Electronic media (videotapes, CD-ROMS, e-tests)
- Program rounds
- Family meetings

Preceptorship/Mentorship

Role modeling expert clinician practice has been demonstrated to be a successful educational technique in many practice settings across health professions. Preceptorship/mentorship programs in pain management are now offered by provincial nursing agencies in which a preceptor is matched with a mentor (pain expert) designed to enhance the knowledge, skills, and abilities of the preceptor (i.e. Registered Nurses Association of Ontario's Advanced Clinical Fellowships). Many organizations have developed preceptor and resource programs that reflect the organization's goals. These programs specifically designed for clinicians can last a few days or longer depending on the needs of the team. Typically, these programs include observation of practice, attending lectures, observation of procedures, group discussion, and interdisciplinary rounds.

Sustained Practice Change

Improving pain management practices within any organization is an on-going process that requires checks and balances. Staff development is a key component of that process. Evaluation of staff development initiatives both from the health care professional perspective and the patient's is valuable in understanding if sustained practice change has taken place as a result of the initiative.

The concept of sustained practice change is complex. The following items require special consideration if practice change is to continue beyond the limited time following a simple educational opportunity.

- Identification of barriers to practice change – i.e. legislative, system-level, resources, myths, knowledge and skill
- Mentorship/Preceptorship
- Link practice change to positive outcomes and/or CQI programs – these alone can boost career satisfaction
- Multidimensional approach to knowledge delivery and application
- Links to experts and resources
- Inclusion of pain management within the core curriculum of all undergraduate health care professional education

Evaluation and Changing Current Practice

What is the Current Pain Management Practice in your Organization?

Current practice must be assessed in order to know how your organization is practicing and where improvements/education is needed. The following Institutional Assessment may be helpful when doing an initial assessment of your organization's pain management practices.

Institutional Assessment:

Modified with permission from the Wisconsin Cancer Pain Initiative

Assessment and Documentation	Yes	No	Don't Know
Is there a written standard of practice that articulates the method and frequency for assessment and documentation of pain?			
Do documentation forms screen for pain on admission?			
Do documentation forms provide for the ongoing recording of assessment, intervention and trends of pain relief?			
Does your method of pain documentation place pain in a highly visible and prominent position that encourages regular review by the interprofessional team?			
Does your system assure the communication of the pain management plan as patient's transition across settings?			
Do health care professionals have access to the pain assessment tools needed to assess pain across populations (e.g.: infants, children, adults, cognitively impaired, inability to communicate verbally)?			
Appropriate Management of Pain			
Are the necessary analgesics available on formulary?			
Can you utilize drug utilization reviews to monitor prescribing practices?			
Is the appropriate analgesic at the appropriate interval and appropriate dosage being used?			
Are there appropriate opioid alternatives for patients who do not respond to codeine?			
Is the interprofessional team aware of the maximum daily dose and concerns regarding neurostimulatory side effects of meperidine?			
Are specialized techniques for analgesic administration available (e.g.: IV PCA, Epidural analgesia, Continuous peripheral nerve blocks)?			
Are there tools to help the interprofessional team select and dose analgesics (e.g.: algorithms, protocols, formulary guidelines or pre-printed orders)?			
Is there a mechanism in place to manage procedural pain?			
Are there guidelines in place for monitoring patients who have received analgesics? Including the assessment and management of side effects?			
Are there non-pharmacological resources available in your organization?			
Can the interprofessional team readily provide or access non-pharmacological interventions for pain management?			
Are there mechanisms in place to elicit feedback regarding the effectiveness of the pain management from patients and family members (e.g.: patient satisfaction survey, internal measures, and external measures)?			

<i>Pain Consultation</i>	Yes	No	Don't Know
Are there standards/guidelines that define the maximum acceptable pain intensity and triggers for change in plan of care or consultation?			
Are there expert preceptors/role models in pain management that are readily available to health care professionals?			
Is there a clear line of consultation for difficult pain problems?			
Do you have a pain team or pain specialist that you can refer to or discuss difficult cases with?			
<i>Patient and Family Education</i>			
Are all patients informed verbally and in an electronic or printed format that effective pain relief is an important part of their care, that it is essential that they report unrelieved pain/discomfort, and that health care professionals respond quickly to patient's requests for pain management?			
Is information about pain management integrated in patient education classes or educational materials?			
<i>Health Care Professional's education</i>			
Has the organization completed a needs assessment regarding health care professional's knowledge and attitudes about pain management?			
Is information about pain management incorporated in health care professional's orientation programs?			
Are there educational resources on pain management for health care professionals to access (in-services, self-directed learning packages, videos, printed materials)?			
Are there ongoing opportunities for case presentations or teaching rounds on patients with pain problems?			

**“We cannot do everything
at once, but we must do
something at once”**

Author unknown

Resources/Websites/References

Table 1: Misbeliefs about Pain

Misbeliefs are defined as incorrect beliefs that are thought to be true despite evidence to the contrary and that interfere with effective pain management

Misbeliefs and Facts about the Pain Experience

Misbeliefs	Facts
Patients should expect to have pain in hospital.	Unrelieved acute pain has pathophysiological consequences involving respiratory, cardiovascular, gastrointestinal, immune, neurological, musculoskeletal systems (Cousins, 1994; Page & Ben Eliyahu, 1997) and may cause long-term pain (Katz, et al, 1997).
If tests are negative, pain is not real and is “all in your head”.	Tests lack sophistication as yet to determine causes of all pain.
People who are in pain always have observable signs which are more reliable than patients’ self-reports.	Physiological and behavioural adaptation occurs within a short time period and should never be used instead of self-report (AHCPR, 1992).
Patients will tell us when they are in pain and will use the term “pain”.	Patients will not necessarily tell us when they are in pain and can express their pain in different ways (Watt-Watson et al., 2001).
Pain is directly proportional to the tissue injury.	Pain is multidimensional and influenced by many factors (Melzack & Wall, 1996).

Source: Adapted from: Watt-Watson, J. (1992). Misbeliefs about pain. In J. Watt-Watson & M. Donovan (Eds.). Pain management: Nursing perspective (pp. 36-58), St. Louis: Mosby Yearbook.

Misbeliefs and Facts about the Older Person

Misbeliefs	Facts
Pain is a normal part of getting older and can never be very intense; pain sensation decreases with age.	Chronic pain is a common problem in older people with numerous consequences because of inadequate treatment (AGS Panel, 1998).
Opioids are too potent for older patients.	Opioids can be safely administered to elderly patients in any setting, with careful titration and monitoring (AHCPR, 1992).
Pain cannot be assessed with older patients who are cognitively impaired.	Older people with cognitive impairment are able to use scales adapted for their needs such as categorical or numerical scales (AGS Panel, 1998).

Source: Adapted from: Watt-Watson, J. (1992). Misbeliefs about pain. In J. Watt-Watson & M. Donovan (Eds.). Pain management: Nursing perspective (pp. 36-58), St. Louis: Mosby Yearbook.

Misbeliefs and Facts about Pain Management

Misbeliefs	Facts
One pain treatment or strategy is all that is needed.	Pain involves more than one mechanism, e.g. inflammation, peripheral and central sensitization (Devor, 1992). Therefore, more than one modality is needed for pain relief.
Addiction is a major problem with patients taking opioids for pain.	Less than 0.1% of people have become addicted to opioids given for pain relief (Friedman, 1990).
Patient-controlled analgesia (PCA) is not appropriate for the oral route.	Oral PCA programs in hospital have increased patient satisfaction and not resulted in non-compliance or diversion (Faries, 1997).
People must demonstrate pain before receiving medication	Effective pain management requires a steady state. Therefore, analgesics need to be given regularly to keep pain in the mild or less range whenever possible (Hardiman, 1996)
People who respond to placebos do not have real pain.	Placebo response means that the person is able to turn on endogenous opioids because of a belief in the legitimacy of the treatment. Legal and ethical implications of using placebos without the patient's knowledge and consent are significant (Fox, 1994).
Injectable opioids are the most effective.	Oral opioids are as potent as injectables at equianalgesic doses; their onset is longer so need to give before pain escalates (Hardiman et al., 1996).
Respiratory depression is a common side effect of opioids in all patients.	Unrelieved severe pain can cause respiratory depression (Cousins, 1994). Respiratory depression is rare when opioids are carefully titrated and sedation monitored (Ashburn et al., 1994).

Source: Adapted from: Watt-Watson, J. (1992). Misbeliefs about pain. In J. Watt-Watson & M. Donovan (Eds.). Pain management: Nursing perspective (pp. 36-58), St. Louis: Mosby Yearbook.

Misbeliefs and Facts about Children's Pain

Misbeliefs	Facts
Infants' nervous systems are immature and not capable of pain perception.	Infants have the anatomical and functional requirements for pain processing by mid to late gestation (Coskun & Anand, 2000) Infants demonstrate behavioral, especially facial, and physiologic, including hormonal, indicators of pain (Sweet & McGrath, 1998, McGrath, 1998).
Infants are less sensitive to pain than older children and adults	Term neonates have the same sensitivity to pain as older infants and children. In fact preterm neonates have a greater sensitivity to pain than term neonates or older children (Grunau, 1998, Fitzgerald, 2000).
Infants are incapable of remembering pain, therefore pain should have no lasting effects.	Repetitive exposure to pain may have cumulative effects and early exposure to significant pain may permanently effect children's perceptions of and reactions to subsequent pain (Grunau, 2000; Porter, Gruanu, Anand, 1999; Taddio et al, 1995; Taddio et al., 1997).
Infants must learn about pain from previous pain experiences.	Pain requires no prior experiences; it need not be learned from earlier painful experiences. Pain is present with the first insult (Anand & Craig, 1996).
Infants and young children are incapable of expressing pain.	Although infants cannot verbalize pain they respond with behavioral cues and physiological indicators that can be accurately assessed, reliably observed by others (Anand, Craig, 1996). The most reliable approach in infants is facial expression (Craig, 1998). The most valid approach is through the use of a composite pain measure (Stevens, 1998). Children as young as 3 can use pain scales and by 4 years of age they can accurately point to the body area that hurts (Savedra et al., 1989 & 1993; Beyer et al., 1992).
Opioids are more dangerous for infants and children than they are for adults. This misguided fear of the use opioids is called opioidphobia.	Infants older than 1 month of age metabolize drugs in the same manner as older infants and children. Careful selection of agent, appropriate dose and dosing schedule, as well as frequent monitoring for desired and undesired effects can minimize the potential adverse effects of opioids (Stevens, 1997; Yaster, Krane, Kaplan et al., 1997). Addiction to opioids used to treat pain is extremely rare in children (Morrison, 1991).

Source: Adapted from McCaffery, M. Pasero, C. (1999). Pain: Clinical manual, p.627, Mosby: St. Louis.

Table 2: Analgesic Administration Routes

Oral Route: This is the preferred route whenever possible. It is convenient and usually inexpensive; however taste may be a problem. Oral doses can be as effective as parenteral in the appropriate doses, given at the appropriate interval.

Transdermal Route: A small patch placed on the skin and best absorbed on hairless areas above the waist. This preparation is not recommended for rapid titration and should only be used for relatively stable analgesic requirements in patients with chronic pain.

Rectal Suppositories: This can be an effective route when nausea or vomiting is present. It is safe and inexpensive but may not always be culturally acceptable. It is inappropriate for patients with diarrhea, rectal lesions, thrombocytopenia or neutropenia.

Subcutaneous Injections: Preferable to intramuscular when a low-volume continuous infusion is needed or intravenous access is difficult to maintain. Injections are painful and absorption can be unreliable. This route is limited to administration by trained health professionals.

Intravenous Injections: This route has the quickest onset of effect but a short duration. It is useful for frequent administration of analgesia. IV infusions are easily titrated and can provide stable analgesia. This route is limited to trained health professionals and will require frequent monitoring.

Epidural Injections and/or Infusions: Pain medications (e.g. opioids and local anesthetics) are administered via a catheter into the epidural space (the fatty space around spinal cord). Epidural analgesia can be used for major surgeries such as thoracic, abdominal and lower extremity surgery, labour pain, as well as unrelieved cancer pain. When suitable, it provides good analgesia. Significant risk of respiratory depression sometimes delayed in onset. This route requires careful monitoring and is limited to administration by trained health professionals. Use of infusion pumps requires additional equipment and health care professional's education. Medications may be administered through a pump using a continuous infusion plus patient controlled breakthrough dose.

Intrathecal Injections: Pain medications (e.g. opioids and local anesthetics) are given directly into fluid surrounding the spinal cord. Risk for delayed respiratory depression as with epidural analgesia. This route requires careful monitoring and is limited to trained health care professionals.

Intramuscular Injections: It is not the appropriate route for treatment of most types of pain. Injections are painful and absorption is unreliable. Hence, avoid this route if possible.

IV Patient Controlled Analgesia (PCA): PCA is a way to deliver intravenous pain medications that allow patients to control the timing and amount of opioids they receive within safe limits. This method can provide a programmed patient controlled breakthrough dose +/- continuous rate of baseline analgesia. PCA provides even pain control and prompt relief and has been used with children aged 10 and younger if deemed developmentally appropriate. This route requires special infusion pumps and health care professional's education on pump use as well as monitoring for opioid side effects.

Sublingual route: Has a rapid onset as it bypasses first pass hepatic metabolism. It can be as effective as IV route. It is limited to the volume of liquid most patients can hold under their tongue.

Special Procedures such as nerve blocks, neurostimulation, neuroablative procedures etc. may be considered for persistent neuropathic pain and administered by personnel trained in these advanced techniques.

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Websites/resources for pain management:

Agency for Healthcare Research and Quality (AHRQ)
Formerly Agency for Health Care Policy and Research (AHCPR)
<http://www.ahrq.gov>

American Academy of Pain Management
<http://aapainmanage.org/>

American Academy of Pain Medicine (AAPM)
<http://www.painmed.org>

American Pain Society
<http://www.ampainsoc.org>

Canadian Cancer Society
<http://www.cancer.ca>

Canadian Complementary Medical Association
<http://ccmadoctors.ca>

Canadian Consortium on Pain Mechanisms, Diagnosis and Management
<http://www.curepain.ca>

Canadian Council on Health Services Accreditation
<http://www.cchsa.ca>

Canadian Hospice and Palliative Care Association
<http://www.cPCA.net>

Canadian Medical Association
<http://www.cma.ca>

Canadian Pain Society
<http://www.canadianpainsociety.ca>

Canadian Resource for Pain Management
<http://www.paincare.ca>

Canadian Society of Palliative Care Physicians
<http://www.cspcp.ca>

Chronic Pain Association of Canada
<http://www.chronicpaincanada.org>

City of Hope

<http://www.cityofhope.org>

End of Life physician Education Resource Center

<http://www.eperc.mcw.edu>

International Association for the Study of Pain

<http://www.iasp-pain.org>

Joint Commission on Accreditation of Healthcare Organizations

<http://www.jcaho.org>

MD Anderson Center

<http://www.mdanderson.org/topics/paincontrol>

National Cancer Institute

<http://www.cancer.gov>

National Center for Complimentary and Alternative Medicine

<http://www.nccam.nih.gov>

National Foundation for the treatment of pain

<http://paincare.org>

National Pain Foundation

<http://www.painconnection.org>

Partners against Pain

<http://www.partnersagainstpain.com>

Pain Hurts Canada, an initiative of the Canadian Pain Coalition

<http://www.painhurtscanada.ca>

Registered Nurses Association of Ontario

<http://www.rnao.org>

University of Toronto Centre for the Study of Pain

<http://www.utoronto.ca/pain/>

World Health Organization

<http://www.who.int>

World Institute of Pain

<http://www.worldinstituteofpain.org>

Wisconsin Cancer Centre/American Alliance of Cancer Pain Initiatives

<http://www.aacpi.wisc.edu>

Practice Guidelines:

- Clinical Practice Guidelines for Acute pain Management and for Cancer Pain Management (for adults and children) by the US Dept of Health and Human Services, Agency for Health care policy and research
- Canadian Guidelines for Palliative Pain Management
- Clinical guide to Neuropathic Pain by McGraw-Hill Companies
- American Pain Society Guidelines for Management of Acute and Chronic Pain in Sickle Cell Disease
- American Pain Society Guidelines for Arthritis Management
- American Society of Anesthesiologists Practice Guidelines for Sedation and Analgesia by Non-Anesthesiologists
- Committee on Drugs & American Academy of Paediatrics Guidelines for Monitoring and management of paediatric patients during and after sedation for diagnostic and therapeutic procedures
- Alberta Palliative Care Resource
- Canadian Association of Nurses in Oncology, Cancer Pain Management Manual
- Registered Nurses of Ontario, Nursing Best Practice Guidelines, Assessment and Management of Pain
- Canadian Pain Society Guidelines
- CPSO Evidence Based Recommendations
- British Pain Society Guidelines
- Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine-Acute Pain Management Scientific Evidence