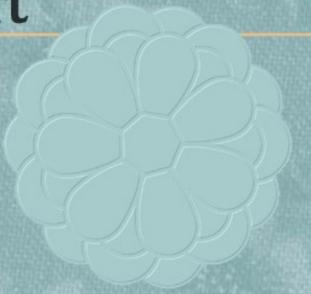
## Comfort



Promote comfort during end-of-life transition through pain and symptom relief.

#### **Pain Assessment**

Diana J. Wilkie, PhD, RN, FAAN

Collect and interpret pain assessment data.

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#### Pain

#### What is assessed?

- The word "pain" means different things to different individuals
- The *differences* among *pain*, *nociception*, and *suffering* are helpful in adopting professional definitions



Video

Mr. Sen

• A hospice nurse tries to learn more about Mr. Sen's pain

#### Clinical Definition of Pain

"Pain is whatever the person says it is, existing wherever the person says it does."



"I feel sick in my stomach – it hurts something awful."

(McCaffery, 1999)

#### Scientific Definition of Pain

"So you're telling me it's a sharp pain, right below your navel."



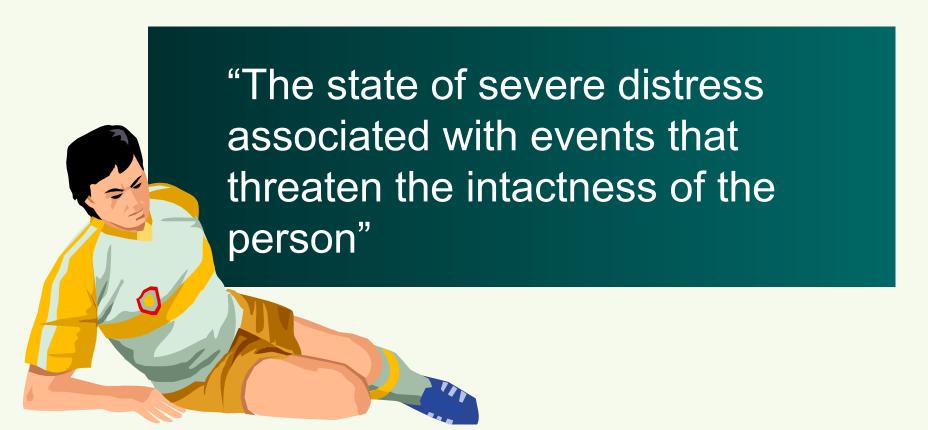
"An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage"

Reprinted from Classification of chronic pain: descriptions of chronic pain syndromes and definitions of pain terms. Prepared by the Task Force on Taxonomy of the International Association for the Study of Pain. Ed. Harold Merskey & Nikolai Bogduk (Seattle: IASP Press, 1994). Permission: International Association for the Study of Pain. www.halcyon.com/iasp

## **Nociception Definition**

- •The activation of primary afferent nerves with peripheral terminals that respond differently to noxious (i.e., tissue damaging) stimuli
- Nociception may or may not be perceived as pain, depending on a complex interaction within the nociceptive pathways

## Suffering



Reprinted from Cassell, EJ, Nature of suffering the goals of medicine. *New England Journal of Medicine* (1982) Mar 18 306(11) 639-45. ©1982 Massachusetts Medical Society. All rights reserved.

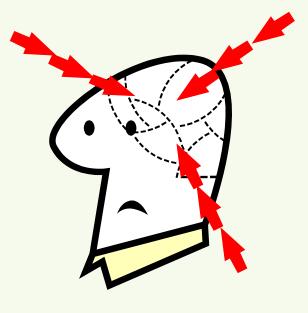
## Multiple Dimensions of Pain

## The ABCs of Pain

Affective Dimension

Behavioral Dimension

Cognitive Dimension



Physiological-Sensory Dimension

**Comfort: Pain Assessment** 

## Nociceptive Pain Definition

Pain resulting from activation of primary afferent nociceptors by mechanical, thermal or chemical stimuli

**Comfort: Pain Assessment** 

## Neuropathic Pain Definition

Pain resulting from damage to peripheral nervous or central nervous system tissue or from altered processing of pain in the central nervous system

### Experts: Of What?

#### Physicians

Diagnosing and treating the health problem

#### Nurses

- Monitoring the health problem & treatments
- Diagnosing & treating pain responses



 Diagnosing & treating a specific aspect of health problem

## Experts: Of What?

#### Patient

- Pain sensation & relief
- Attributed meaning

#### Family Members

- Reporting presence or absence of pain
- Less reliable reporting
   *intensity*, *location*,
   *quality* or *pattern* of pain

Who is the ultimate expert?

THE PATIENT!
Health care
professionals only
know how a
person's pain feels if
the person tells or
shows them.

#### Goal of Care: Cure

Treatment of disease or illness with intent to overcome it

#### Goal of Care: Palliation

Treatment to relieve the symptoms and distress of the disease process or illness

## What is the Goal of Care? Curative & Palliative

- Example: Right upper quadrant pain, exacerbated by eating fatty meals
  - See the difference between *curing* a disease as a means of treating pain and *palliating* all pain

Q: What are the likely *palliative* treatments for this new pain?

A: Pain medications

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### Assess or Measure Pain?

#### **Definition of Assessment**

"The act of determining the importance, size, or value of something. Making an estimate"

By permission. From Merriam-Webster's Collegiate Dictionary, Tenth Edition c 2001 by Merriam-Webster, Incorporated.

#### Definition of Measurement

"The act of applying a metric to quantify how much there is of something"

By permission. From Merriam-Webster's Collegiate Dictionary, Tenth Edition c 2001 by Merriam-Webster, Incorporated.

## Physiological Dimension

- Etiology
  - Chronic
  - Acute
  - Malignant
- Pathology
  - Somatic Tissue
  - Visceral Tissue
  - Neural Tissue

Pain Assessment Data



Neural Mechanisms of Pain

## Sensory Dimension: A Critical Component

4

Four aspects are critical to understand if the pain is nociceptive or neuropathic in its etiology

- Obtain Self Report Data from Patient:
  - Location
  - Intensity
  - Quality
  - Pattern



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#### Pain Location & Distribution Data

#### **Important Clue**

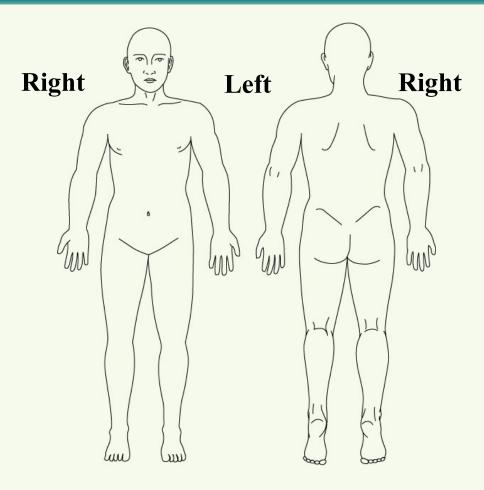
- Helps to determine pain etiology
- Suggests definitive treatment for the problem causing the pain
- Clue to pathologic pain processing
- Clue to appropriate pain treatment
  - Palliate pain
  - Relieve pain

#### **Pain Location**

#### Clue to etiology & effective treatment of the pain

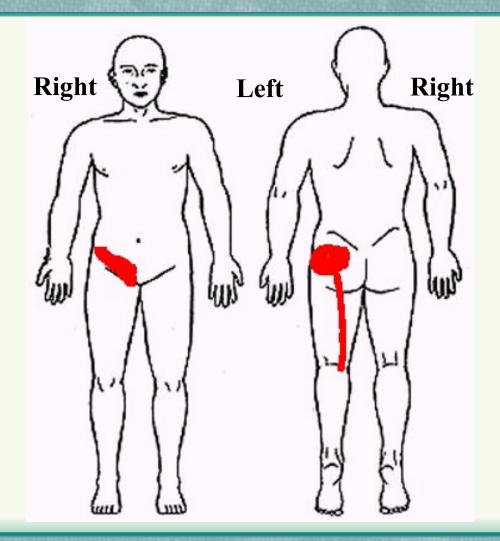
- New Site: Must determine etiology
  - Requires proper diagnosis of the cause of pain to assure appropriate treatment
- Previously Existing Site
  - Requires effective treatment based on patient characteristics and nature of the pain
    - body area
    - spinal dermatome

## Measuring Pain Location



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## Measuring Pain Location



#### Localized Pain

- Confined to original site
- Doesn't radiate
- Cutaneous hyperalgesia
- Allodynia
- Deep tenderness



Example: tendonitis, arthritis, surgical incisions

## Projected Pain: Transmitted or Transferred

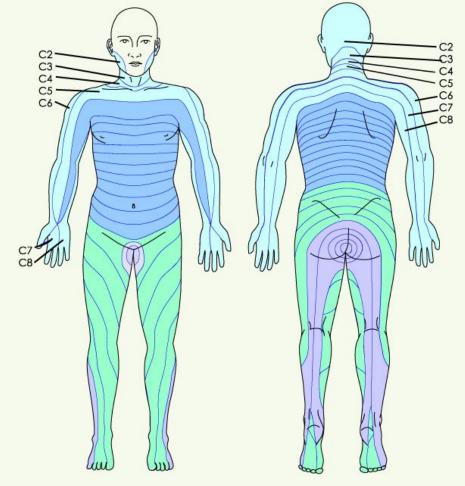
 Radiates along nerve in a segmental or peripheral distribution

Example (segmental): herpetic neuralgia

Example (peripheral): trigeminal neuralgia

## Spinal Dermatomes

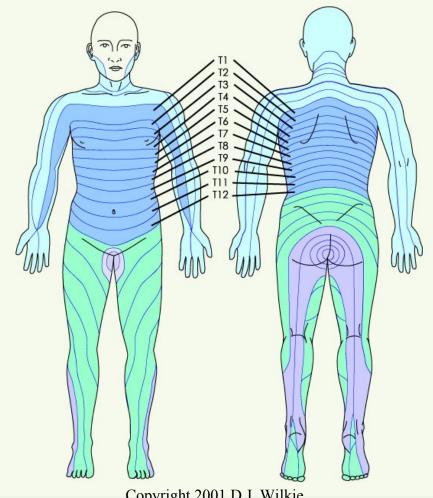
C=Cervical



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## **Spinal Dermatomes**

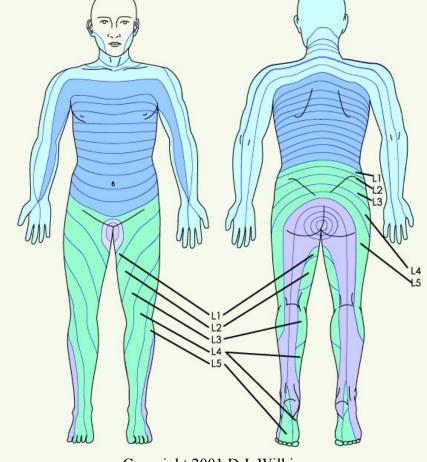
T=Thoracic



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# Spinal Dermatomes

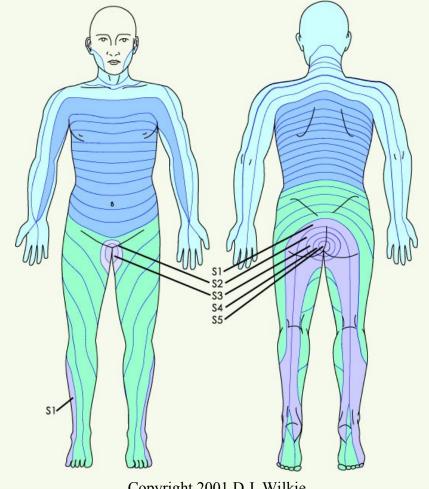
L=Lumbar



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## Spinal **Dermatomes**

S=Sacral

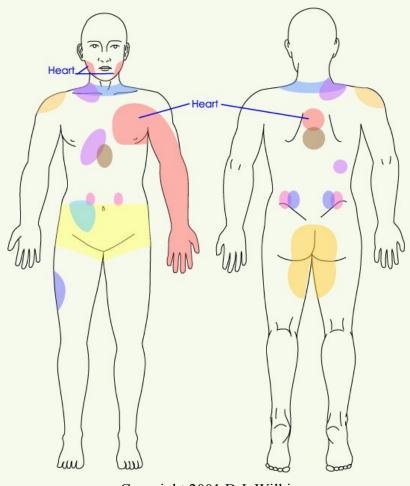


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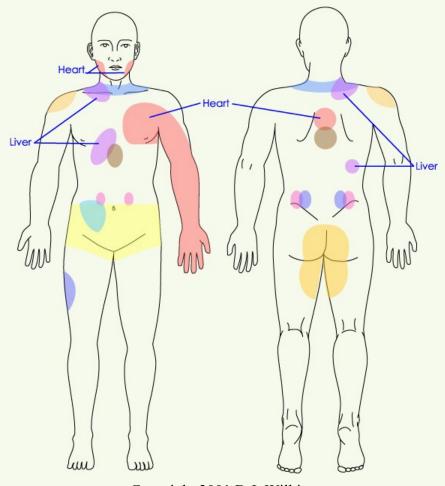
#### Referred Pain

- From deep somatic or visceral site to cutaneous region distant but within several segments
- +/- hyperalgesia or allodynia, deep tenderness, muscle spasm
- No muscle atrophy or weakness
- No change in peripheral reflexes

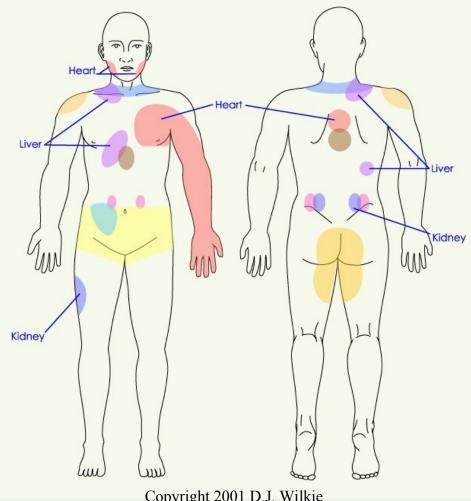
**Example:** shoulder pain - subphrenic abscess



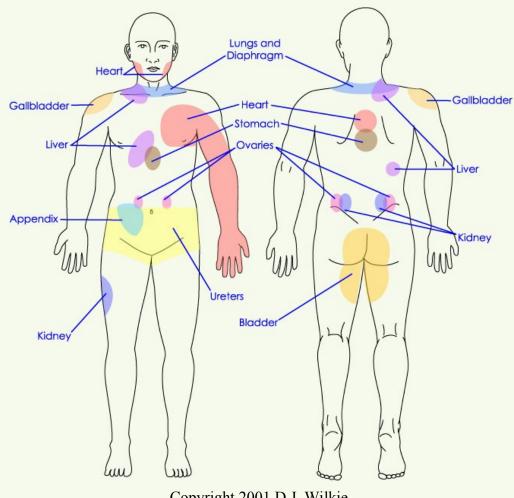
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## Other Distributions Central vs. Psychologic Pain

- Whole or hemi body
- Glove or stocking
- Doesn't fit normal neuroanatomy

#### **Examples:**

- Thalamic pain
- Sympathetically maintained pain
  - Hyperalgesia & allodynia
  - Vasomotor & trophic changes

## Location & Distribution Data: Clue to Type of Pain:

#### **Nociceptive Pain**

- Localized Distribution
  - Somatic tissue (skin, muscle, bone)
- Diffuse or Referred Distribution
  - Visceral tissue(located in areas distant from internal organ)
- Usually responds to acetaminophen,
   NSAIDs or opioids depending on severity

# Location & Distribution Data: Clue to Type of Pain:

#### **Neuropathic Pain**

- Distribution is projected along a nerve or a nerve root segment
- Allodynia & hyperalgesia is present
- Often responds to adjuvant drugs
  - tricyclic antidepressants
  - anticonvulsants
  - neuroleptics
  - clonidine
  - baclofen

# Pain Intensity or Severity Clue to Drug & Dose

- Initial Pain Intensity Score
  - Gross clue to appropriate drug to relieve the pain based on WHO Analgesic Ladder
    - Step One Drug
    - Step Two Drug
    - Step Three Drug
  - Clue to starting dose
- Subsequent Scores
  - Guide dose titration
  - Guide decision to switch to another drug

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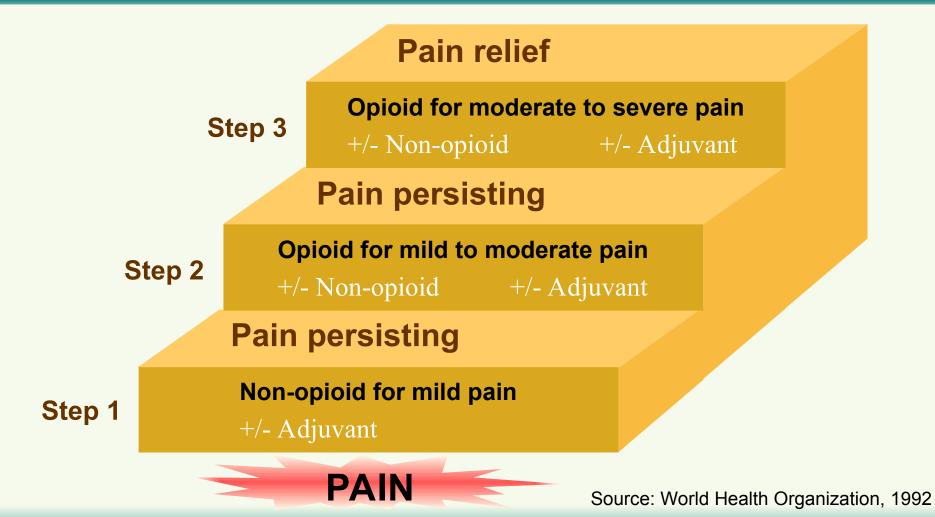
# Pain Intensity or Severity: Clue to Drug & Dose

Compare patient's goals for optimal and able to tolerate pain intensity levels with experienced pain intensity:

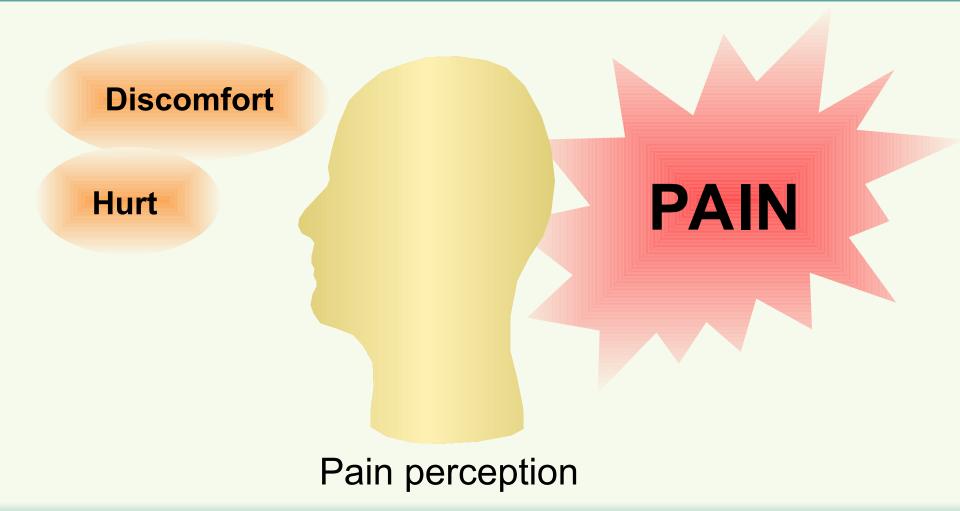
- Pain now plus its least & worst in past 24 hours
  - at rest
  - with activity (sitting, walking, coughing, breathing)
- At analgesic effect point for drugs
  - Onset: It starts to work
  - Peak: Its maximal effect and time point when another dose can be safely administered
  - Duration: Its length of effect and time point when another dose is needed

**Comfort: Pain Assessment** 

## **Analgesic Ladder**



## Pain Intensity or Severity



## Pain Intensity or Severity

Script: Using Pain Intensity Number Scale (PINS) (0-10)

"I need to know how much pain you have in order to help you with pain control. Because I can't feel your pain, I want you to use a scale to let me know how much pain you have right now. The numbers between 0 and 10 represent all the pain a person could have. Zero means no pain and 10 means pain as bad as it could be. You can use any number between 0 and 10 to let me know how much pain you have right now. Call your pain a number between 0 and 10 so I will know the intensity of the pain you feel now."

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## **Therapy Goals**

- Patient
  - Optimal Goal (Preferred Intensity)
  - Able to live with (Can Tolerate)
- Others in Environment
  - Nurse
  - Physician
  - Other Health Professionals
  - Family & Friends



# Pain Quality or Nature of the Pain

#### **Clue to Drug and Nondrug Therapy**

- Clue to type of pain:
  - nociceptive or neuropathic
- Clue to appropriate drug to relieve pain
  - burning pain often responds to tricyclic antidepressants
  - shooting/stabbing pain often responds to anticonvulsant or other adjuvant drugs for neuropathic pain
- Clue to need for emotional support
- Clue to patient's ability to cope

## Pain Quality

## "Most important distinguishing characteristic"

#### Indicates etiology is nociceptive or neuropathic.

superficial

- somatic tissue

- deep

- visceral tissue
- neural tissue

(Bonica, 1990)

## Pain Quality Descriptors

#### **Nociceptive Pain**

- Cramping
   Squeezing
- CrushingTender
- CuttingThrobbing
- Lacerating
- Piercing
- Pinching
- Pounding
- Pressing
- Sharp

#### **Neuropathic Pain**

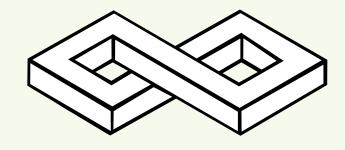
- Drilling
- Flashing
- Lancinating
- Numb
- Radiating
- Burning
- Shooting
- Stabbing
- Tingling

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#### Pain Pattern

#### **Temporal nature of pain**

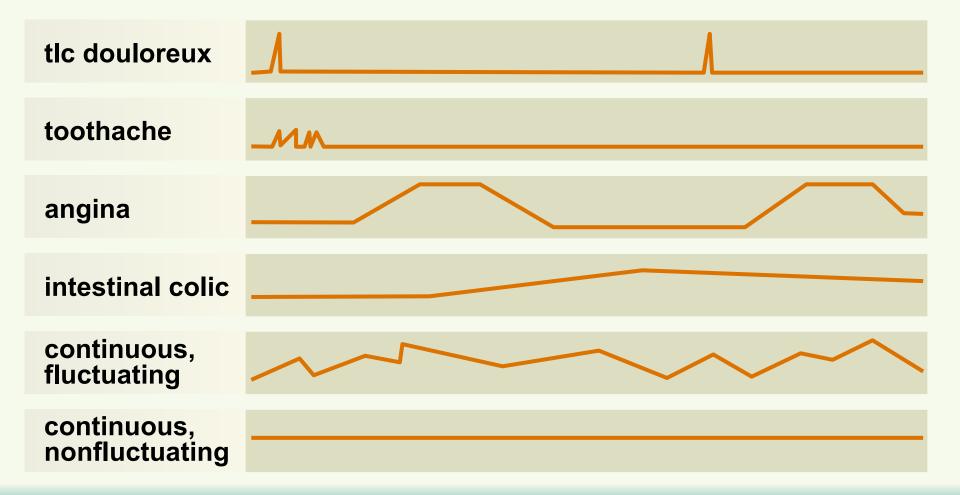
- Pattern of the pain
  - Onset
  - Duration



- How pain changes with time
  - Periodicity of least and worst pain
  - What makes the pain worse or better

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## Temporal Pattern: Onset, Duration, Periodicity



#### Pain Pattern Words

Continuous

Steady

Constant

**Rhythmic** 

**Periodic** 

Intermittent

**Brief** 

**Momentary** 

**Transient** 

#### Pain Pattern

#### Clue to Timing of Drug & Nondrug Therapies

- Clue to guide interval between analgesic doses
  - q 1 hr vs Around The Clock (ATC)
- Clue to appropriate time to introduce and apply nonpharmacologic therapies

# Reporting Sensory Pain Information

- Use similar language as medical colleagues
  - Seven aspects of symptom analysis:
    - Onset, Duration, Location, Intensity, Quality,
    - Aggravating & Alleviating factors

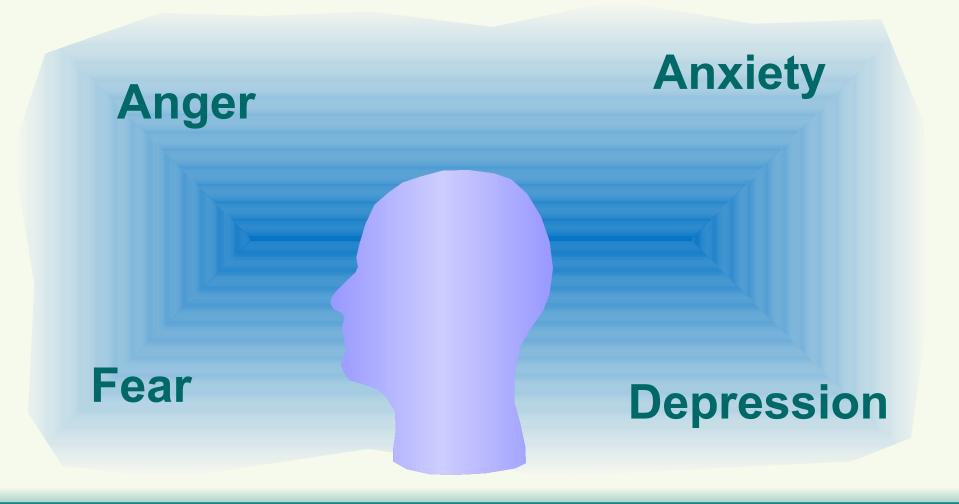
## Documentation in the medical record is essential!

# Reporting Sensory Pain Information

- Nurse colleagues
  - Shift report
    - location, intensity, quality, pattern, of pain
    - pain relief response to analgesics administered
- Other health professionals
  - Physician colleagues
    - reinforce effectiveness of treatment plan
    - especially when pain relief is inadequate

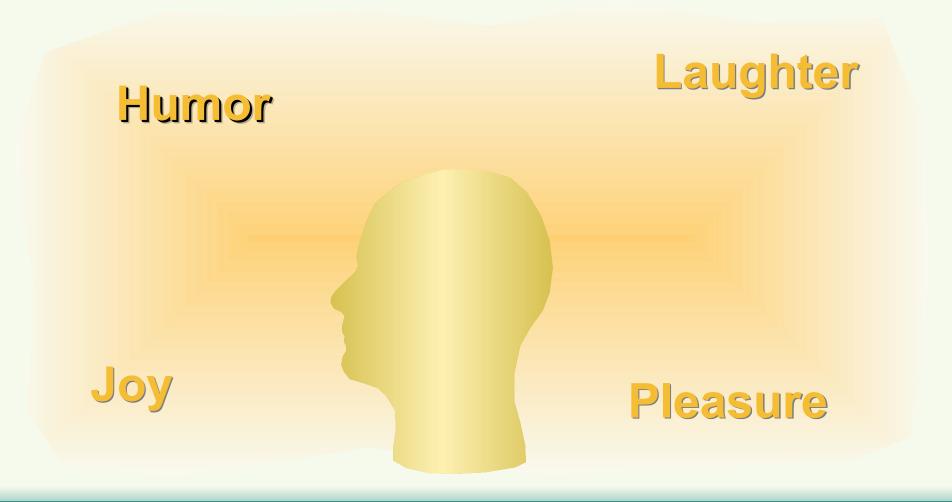


## Affective Response: Negative Emotions



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# Affective Response: Positive Emotions



### Behavioral Responses

#### **Control the Pain**

- Prevent onset of pain
- Reduce pain intensity
- Tolerate the pain



#### **Controlling Pain:**

Many patients tolerate pain and do not tell others

#### **Objective Data (NANDA, 2001)**

- Guarding
- Impaired thought process
- Social withdrawal
- Introspection
- Altered time perception
- Moaning
- Crying



#### **Objective Data (NANDA, 2001)**

- Pacing
- Distracting self
- Restless behavior
- Facial Mask of Pain
- Physical signs: diaphoresis
- BP/Pulse/RR Change



Restless
Behavior: Not being able to sleep

#### **Subjective Data (NANDA, 2001)**

- Verbal Report
  - Location
  - Intensity
  - Quality
  - Temporal Pattern



#### **Facial Expressions**

- Poor indicators of pain experienced in people who face the end-of-life transition
  - Typical facial
     expression of pain
     illustrated by a
     wounded soldier



San Francisco Examiner photo by Kim Komenich, reprinted with permission

## Cognitive Responses

- Beliefs
- Attitudes
- Meaning of the pain
- Memory of past pain
- Cognitive resources to cope
- Locus of control

#### **Memories:**

Connections to past pain shapes a patient's response



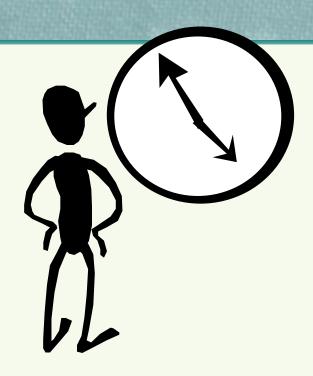
#### When to Assess?

#### • Initial:

Assessment of the critical components of pain

#### Follow-up:

Routine reassessments are essential



Two Times: A minimum of 2 times to assess a patient

#### Initial Assessment

- When responsibility for patient care begins
- As complete as possible
- At least:
  - Location
  - Intensity
  - Quality
  - Pattern

**BEFORE** treatment ...



assessment

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## Follow-up Assessment

- At onset, peak, duration of analgesic therapy provided
- Routinely



#### When to Assess?

Video

Mr. Sen

The Follow-up: Mr. Sen is treating his pain continuously, and is now meeting with you, taking a break from teaching another Buddhist monk. Mr. Sen is smiling and eating some fish stew – the largest meal he's eaten in days. You again ask him questions about his pain – and find the results much more encouraging than earlier.



#### What Else to Assess?

- Side-Effects of Therapy
  - Constipation
  - Gastric Fullness
  - Nausea
  - Sedation
  - Dry Mouth
- Symptoms of Disease
  - Dyspnea
  - Fatigue



Dry Mouth: A common side effect

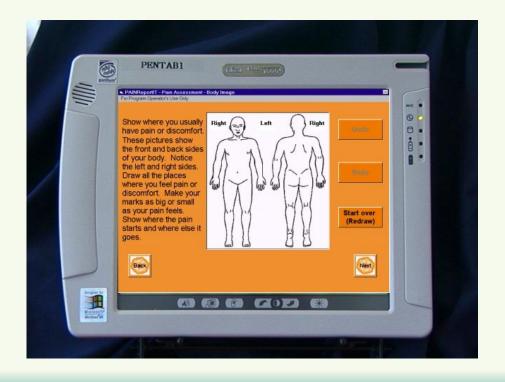
#### Measurement Tools

#### **Multidimensional Tools**

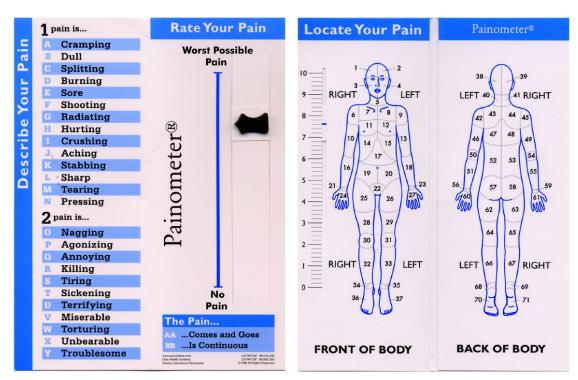
- McGill Pain Questionnaire (Location/Intensity/Quality/Pattern-Affective-Behavioral-Cognitive)
- Brief Pain Inventory

  (Location/Intensity/Quality/-Affective-Behavioral-Cognitive)
- Memorial Pain Assessment Card (Intensity/-Affective)
- Painometer(Location/Intensity/Quality)

- Example of PAINReportIt, the first computerized McGill Pain Questionnaire.
- Several other tools are available to measure pain intensity.

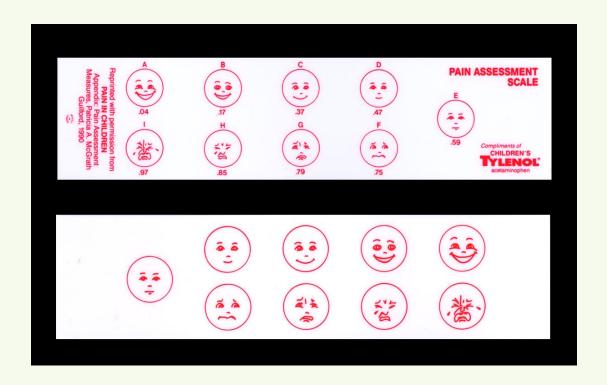


Painometer

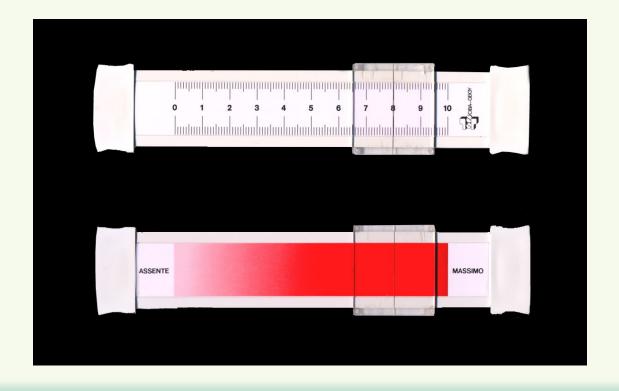


You can order Painometers at: orders@painometer.com www.painometer.com | questions@painometer.com

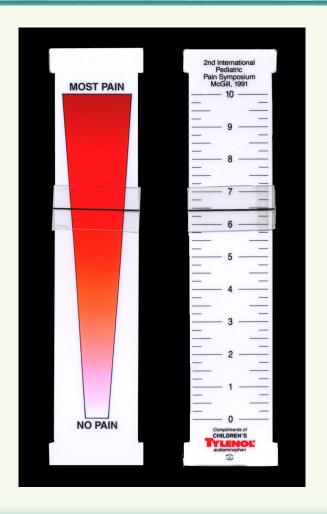
McGrath faces scale



• Italian color VAS scale



• Pediatric color VAS scale



#### Barriers

#### **Related to Health Care Professionals**

- Inadequate knowledge of management
- Poor assessment of pain
- Concern about:
  - regulation of controlled substances
  - side effects of analgesics
  - tolerance to analgesics
- Fear of patient addiction

#### Promise Attentive Pain Care

#### Make Pain Visible as the 5th Vital Sign

- Obtain patient's self report of pain
  - patient is the expert data valid
  - review pain data often
  - display pain data in patient's room & chart
  - share pain data during nursing report
- Set red flag for unrelieved pain
- Display usual pain experienced by patients on the unit - day by day

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## Pain Assessment Summary

- What?
- Who?
- How to?
- How to Report?
- When?
- Practice?

Important Barriers



**Just Do It!** 

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