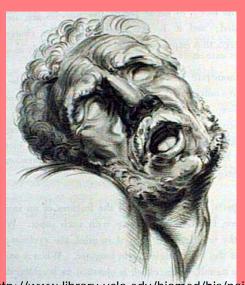
# Pain Assessment and Management – beginnings



Ruth Ringland, NP pain program SMH November 2009

http://www.library.ucla.edu/biomed/his/painexhibit/images/gaze\_o'pain.jpg

## Pain – beginnings

The Appetizer Platter:

-to tantalize and entice you to sample more in learning about Pain

## Disclosures:

None

No any affiliation with any company other than the Fraser Health Authority

## Topics everyone wants to hear about

#### • Pain:

- types,
- Pathophysiology
- Assessment
- Pharmacological management
- Non-pharmacological interventions

## The Plan:

- an overview of the types of pain
- pain commonly experienced
- assessment and management of pain
- overall philosophy of the importance of pain assessment
- the role of the nurse in helping patients manage pain
- Pharmacology 101 medications used in pain management and what is safest in renal population

## Comments about pain

- 1. Pain is good for you. It builds strength and character.
- 2. Pain always means that some part of your body is physically damaged.
- 3. Addiction to opioid medications such as oxycodone or morphine is very common.
- 4. People should wait until their pain is bad to take medication like morphine so it will be effective when it's really needed.
- 5. Women are much better than men when it comes to dealing with pain.
- 6. All pain is curable.

## What is Pain?

"Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage."

American Pain Society, 1992

#### What is Pain?

- personal, private and unique to each person
- an experience
- cannot be separated from the person's mental state, environment and cultural background.
- Subjective:
  - is whatever a person says it is and it exists
     whenever a person says it does
    - McCaffery, M., & Pasero, C. Pain: Clinical Manual, 2nd ed. St Louis: Mosby.1999

## Types of Pain

#### Acute Pain:

( usually time limited)
Nociceptive (somatic and visceral)
Neuropathic

\*\*\*\*

#### **Chronic Pain**

( a bit of everything)

Neuropathic

Nociceptive (somatic and visceral)

## Other methods of classification

- Location (abdominal, shoulder...)
- Intensity (moderate, severe .....)
- Quality (lancinating, dull ....)
- Aggravating factors ( stress induced, sports related....)

## **Acute Pain**

- results from the activation of nociceptors (free nerve endings)
- Warning of injury or disease
- Protective
- Usually easy diagnosed and obvious pathophysiology
- Potential to be treated effectively
- Usually time-limited /short duration
- If undertreated > may go on to become chronic pain

# **Nociceptive**

- caused by or from responding to a painful stimulus.
- Nociceptive pain is usually time limited, meaning when the tissue damage heals, the pain typically resolves.
- Examples include sprains, bone fractures, bumps, bruises, inflammation
  - Two Types: Somatic and Visceral

# **SOMATIC**

—caused by the activation of pain receptors in either the cutaneous (body surface) or deep tissues (musculoskeletal tissues)..

well localized, aching, throbbing, deep, dull, gnawing or sharp, muscle/bone pain

# **VISCERAL**

- caused by activation of pain receptors resulting from infiltration, compression, extension, or stretching of the thoracic, abdominal, or pelvic viscera.
- not well localized, pressure-like, deep, aching, crampy squeezing.
- Can be referred pain

# <u>NEUROPATHIC</u>

- the nerve fibers themselves may be damaged, dysfunctional or injured
- Can be as a result of damage to a nerve or the spinal cord such as injury, chemotherapy, radiation, surgery.
- Examples: phantom limb syndrome, diabetic neuropathy, trigeminal neuralgia, Post herpetic neuropathy
- burning, shooting, numb, tingling, stabbing, touch sensitive

## Pain Quality Descriptors

The descriptors patients use are helpful to identify what type of pain they are experiencing

		Descriptors	Examples
Nociceptive	Somatic	Throbbing, aching, sharp, gnawing, constant	Surgical pain, sprained ankle, burns, bone metastases
	Visceral	Dull, cramping, squeezing, deep aching	Pancreatitis, bowel obstruction, menstrual pain
Neuropathic		Burning, shooting, tingling, electric or shock like, pins & needles, tingling	Diabetic Neuropathy Trigeminal Neuralgia Guillian Barre- Syndrome

#### **Chronic Pain:**

- persists beyond the course of injury or may not be related to a specific injury
- may spread beyond the original site of injury
- may have NO identifiable cause
- Serves no biological purpose.

## **Chronic Pain**

- has a cognitive, emotional and psychological impact
- The longer pain persists the more resistant it becomes to treatment
- Chronic pain requires complex treatment strategies
- Complete relief is generally not possible.

# One pain at one time or all at once?

Somatic, visceral, and neuropathic pain can all be felt at the same time or singly and at different times.

**Acute on Chronic Pain** 

different types of pain respond differently to the various pain management therapies.

## Other terminology

- Baseline Pain generally constant and last through at least 50% of the day. Usual or normal level
- Breakthrough Pain pain that increases over baseline and is of a higher intensity than usual
- Incident Pain pain over baseline and breakthrough that is usually related to an activity.

# Impact and Effects of Pain

## **Unrelieved Pain:**

- Is harmful
- Expensive
- Thought to enhance tumor growth
- Can contribute to atelectasis (esp. surgical/ stationary)

- Inhibits the immune system
- Increases oxygen demand
- Causes respiratory dysfunction
- Decreased GI motility
- Confusion

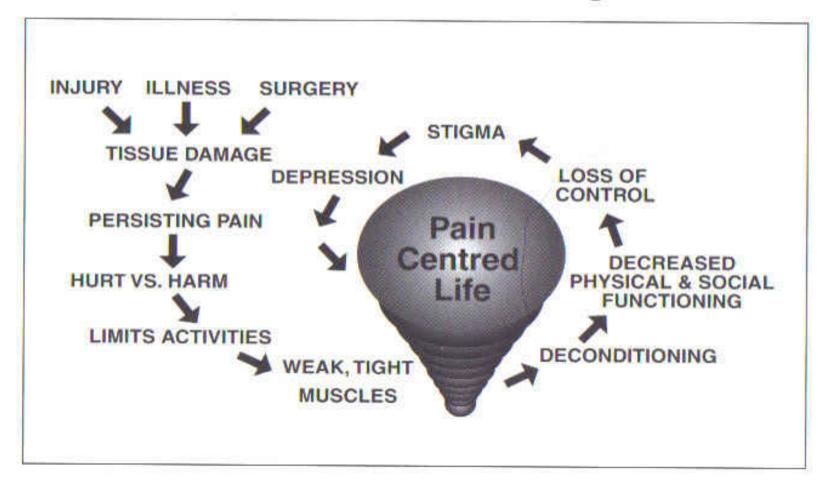
## Impact of Pain

- Interferes with:
  - sleep
  - rest
  - appetite
  - activity
  - mood
  - enjoyment
  - concentration
  - work
- Unrelieved Pain can lead to psychological discomfort: frustration, anxiety, irritability.

## **Chronic Pain Spiral**

http://www.paincare.ca/Professional/Resources/PainManagementTools.aspx

#### The Chronic Pain Spiral - A Patient Teaching Aid



# Interpretation, Tolerance and Response to pain is affected by:

Emotional and psychological state

**Upbringing** 

**Beliefs & Values** 

Age

Sex

Social and Cultural Influences

Attitude

Memories of past pain experiences

Expectations

#### **Pain Statistics**

#### In 2000-01:

-12.0% of Canadians over age 12 had pain or discomfort that prevented at least a few of their activities.

#### In 2004-05

- 25 -30% of the adult population suffers from chronic pain

#### Did You Know?

- 4/10 people with moderate to severe chronic pain report inadequate relief
- 70% of people with cancer report inadequate pain relief
- 25 45% of older adults (>65) live with chronic pain (45 85% in institutions)

#### **Acute Pain**

• 50-80% of patients report that they experience inadequate pain relief following surgery

Reference: M Mcaffery

## Pain Pathways

 Understanding of pain mechanisms & pathways is the basis for improved pain management

- Various targets for pain treatment based on the pathophysiology of pain:
  - » Pharmacological (multimodal concept)
  - » Regional anesthesia (nerve blocks, epidurals, spinals)
  - » Complementary therapies
  - » Surgical Interventions

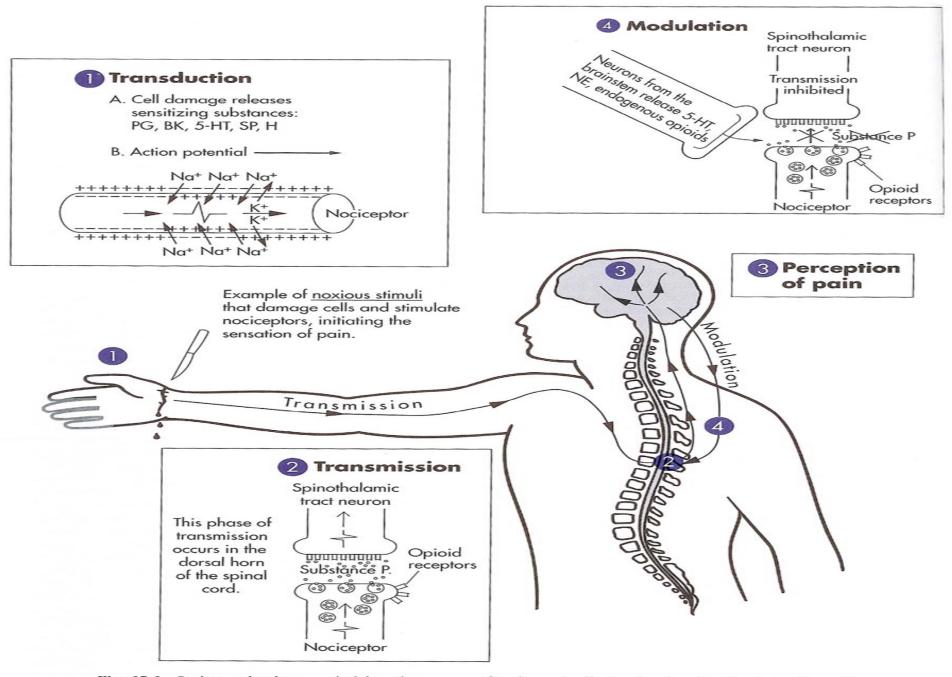
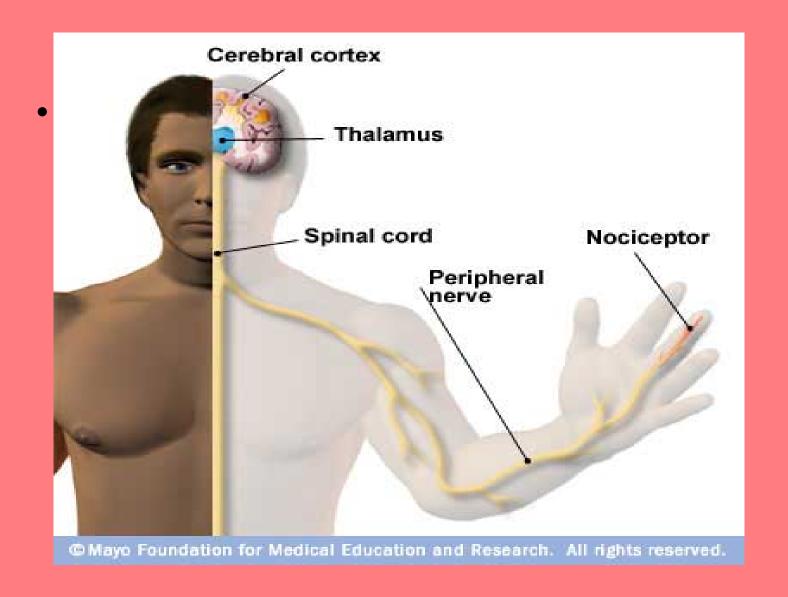
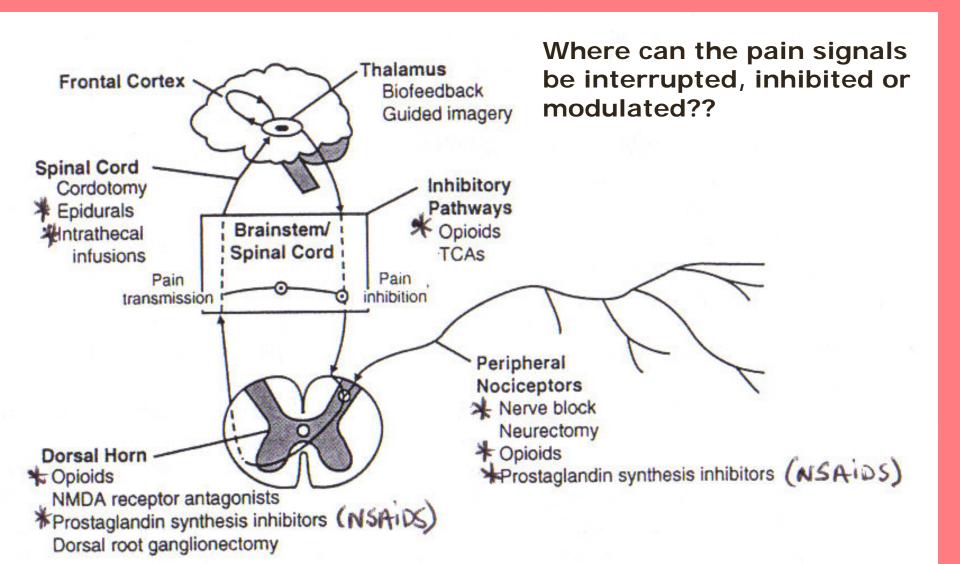


Fig. 17-1 Basic mechanisms underlying the causes of pain and effects of pain. PG, Prostaglandin; BK, bradykinin, 5-HT, 5-hydroxytryptamine; SP, substance P; H, histamine; Na<sup>+</sup>, sodium; K<sup>+</sup>, potassium; NE, norepinephrine. (From McCaffery M, Pasero C: Pain: clinical manual, ed 2, St Louis, 1999, Mosby.)

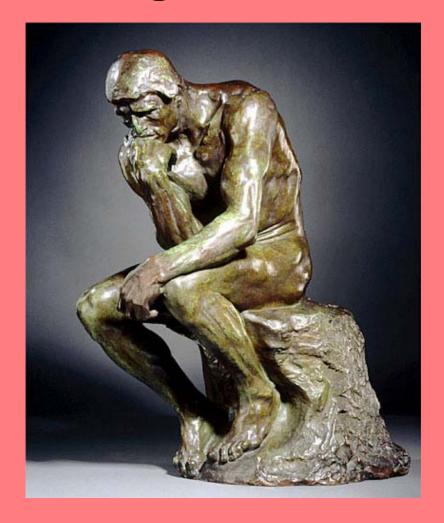
## How pain messages travel?



## Pain Pathway & Targets for Pain Treatment



# Something to think about



What can we do?

#### pain commonly experienced by renal patients

- restless legs syndrome (RLS)
- hypoesthesia (reduced sense of touch)
- pruritus (itch)
- Musculoskeletal pain (arthritis, spasms, cramps,
- Peripheral neuropathies
- Peripheral vascular disease (ischemia)

- Many of which can be attributed to a nervous system disorder due to kidney dysfunction or even to coexistent diseases.
- these symptoms are difficult to manage and they respond poorly to conventional treatment

## Barriers to effective pain management

- Lack of recognition of pain being a problem
- Poor communication regarding pain
- Lack of understanding of pain and its effects
- Altered pharmacokinetics, pharmacodynamics and adverse effects--- especially in renal clients
- Lack of assessment

#### Pain Assessment

- Patients have the right to the best pain relief possible
  - this begins with an comprehensive assessment

 Additional value of the assessment is that it improves communication between the nurse and the patient and facilitates the development of a therapeutic and trusting relationship.

## Pain Assessment



How do you know someone has pain?

- Ask them
  - Make it part of your routine assessment "the 5<sup>th</sup> vital sign"
- Pain is subjective
  - Variety of tools for assessing
  - Variety of mnemonics to help (LOTARP PQRST for example)

## Assessment

- Location where is the pain? Ask about all areas of discomfort.
- Onset— when did it start. Constant or intermittent. Any precipitating factors
- Type what does it feel like to them- descriptive words (burn, ache, sharp stabbing)
- Timing- It is constant or intermittent, worse in the am or pm.
- Aggravating-What makes it worse
- Alleviating what makes it better
- Radiation Does it radiate to any other area
- Rating- Rate pain on scale of 0-10
- Pain Scale 0-10
- Patient perception how is the pain affecting them
- Patient Goal what is their pain goal (ie 3/10)

## Assessment

- 0 = onset
- P = provoking/palliating
- Q = quality
- R = region/radiation
- S = severity
- T = treatment
- U = understanding/impact
- V = values

# How intense is the pain?

Always use a pain scale:

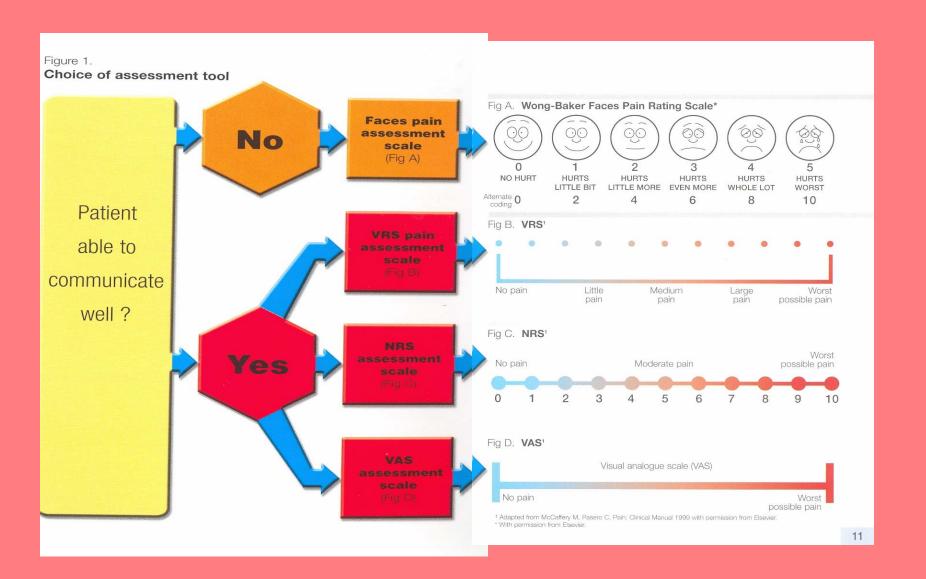
 1 to 3: Mild pain – does not functionally bother the patient – Needs no Rx usually

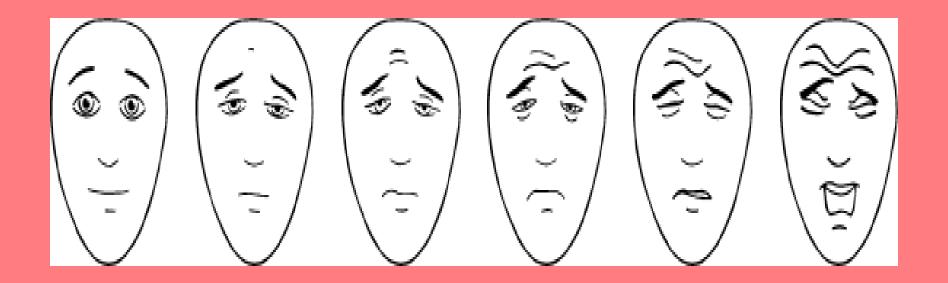
 4 to 6: Moderate pain – does functionally bother the patient – Needs Rx

7 to 10: Severe pain – severe distress, needs Rx as an emergency

### Choice of Assessment Tool

\*adapted from McCaffery, M. Pasero C. Pain: clinical manual with permission from Elsevier Page 10-11 Postoperative Pain Management- Good Clinical Practice





0 1 2 3 4 5 6 7 8 9 10

## Additional components of Assessment

- Analgesic History- what have they tried in the past, what do they take at home? Response to past and current medications, side effects, DOSAGES.
- Opioid risk assessment
- Impact of Pain- how is this pain affecting their functioning and quality of life (sleep, appetite, mood, ability to move)? Is it delaying their recovery???
- Personal perceptions about pain/analgesia
  - Fears, myths, anxiety, stereotypes
  - What does pain mean to this person
  - What is the goal of pain management for the person

# Addiction

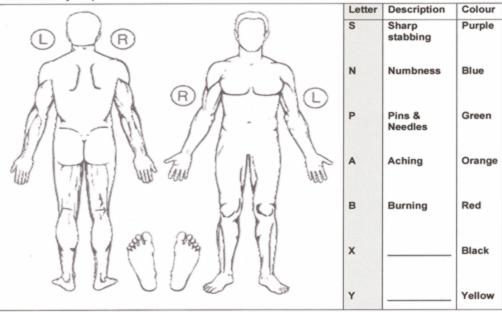
#### Example of 1 risk assessment tool

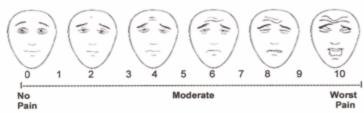
Item	Mark each box that applies	Item score if female	Item score if male
Family history of substance abuse:			
Alcohol	0	1	3
Illegal drugs	0	2	3
Prescription drugs	0	4	4
2. Personal history of substance abuse:			
Alcohol	0	3	3
Illegal drugs	0	4	4
Prescription drugs	0	5	5
3. Age (mark box if 16-45)	0	1	1
4. History of preadolescent sexual abuse	0	3	0
5. Psychological disease			
Attention-deficit disorder, obsessive- compulsive disorder, bipolar disorder, schizophrenia	0	2	2
Depression	0	1	1
Total		_	_
Total Score Risk Category: Low Risk: 0 to 3 Moderate Risk: 4 to 7 High Risk: 8 and above			

-	
ч	•
r	health

#### **Pain Assessment Tool**

Date:			Time:				
nformation Source:	Patient	Spouse	Child	☐Interpreter		Other	
Form Completed by:							
On the diagram belo show where your pa					mbol	s shaded in gr	ey to
				1.	ottor	Description	Colour





Use numbers on the above diagram or write the name of the pain area below		Please rate your pain level for the last 2-3 days			
		Worst	Best	Average	
Site 1					
Site 2		- 1			
Site 3		179			

NEUROPATHIC	PAIN SCRE	ENING	What makes your pain worse?
WOULD ANY OF THE PAIN	N YOU ARE HA	VING BE	
DESCRIBED AS:			
	YES	NO	
BURNING			
PAINFUL COLD			
ELECTRIC SHOCKS	_	ā	What medications have you tried in the
ELECTRIC GRICORG	_	_	What medications have you tried in the
OOES THE PAIN EVER FEE	LLIKE:		past and how did they affect your pain?
JOES THE PAIN EVENTEE		NO	
TINGLING			
PINS & NEEDLES	ā	ā	
NUMBNESS	ă	<u> </u>	
	ă	ă	
ITCHY	_	_	What PAIN medications are you currently
		DEA IO I IOUTI V	taking?
OOES THE PAIN INCREASE		KEA IS LIGHTLY	Please include: Prescription, Non-Prescription or Herbal
TOUCHED OR BRUSHED A	_	□ NO	r reads include. I restricted, Herricotricted of Herea
OOES THE AREA WITH PAI		FEELING OR	
SENSATION?	YES	■ NO	
STAFF SECTION: Neurop by 4 or more Ye			Does the current pain medication or pain
n each of the boxes belo	ow use this s	cale	treatment decrease your level of pain?
			YES SOMETIMES NO
Interfere and put in the number th			Rate the 3 most important goals for you if you had less pain  Sleep comfortably
NTERFERED in the las	t 2-3 days wi	Number	Comfort at rest
Quality of Li	ife	out of 10	Comfort with movement
		Out or 10	
General Activity			Stay alert Perform activity:
Mood			Other:
Walking ability			Circle where you think your pain level
Normal work (includes			would need to be to reach your goals
outside the home and	housework)		0 1 2 3 4 5 6 7 8 9 10
Relations with other p	eople		
Sleep			No Moderate Worst
Enjoyment of life			Pain Pain
		/70	
What makes your pa ☐ Heat ☐ Co ☐ Distraction ☐ Ly	old 🕻	Massage	Is there anything else you would like to say about your pain?
☐ Changing positions			
Chiropractor Ph			
	nysiotherany	,	
a chilopractor a ri	nysiotherapy		Staff Section - Please complete

# What to do after you have assessed their Pain

- Document your assessment findings
- Plan your course of action
- Apply your interventions

Pain Management has already begun!

## Assessment and REASSESSMENT

Assess the effectiveness of your interventions, and include what patient coping strategies have been incorporated

**REASSESS** their pain and your interventions – critical

Document (this is the start of a continuing plan of action)



www.nashvilleistalking.com/wp-content/uploads...

## Pain Management

- Comprehensive assessment of the patients understanding and experience of pain
- Consistent use of assessment tools
- Continuous reassessment & evaluation
- Customization (multimodal approach) & collaboration (involving interdisciplinary team).

## Goal of Pain Management

 to eliminate or decrease the pain to a level that is acceptable to the patient.

# What is an acceptable level?

Subjective.....

### But for example:

- An acceptable level is one that allows the post operative patient to move, deep breath and cough.
- For a patient with chronic or cancer related pain an acceptable level of pain allows them to continue with their daily activities and have an acceptable quality of life.

# Ask the patient what is their acceptable pain level.

- Establish a baseline
  - What is their pain like as you start your shift assessment.
  - Use the pain scale with the patient,
    - this will ensure the consistent measure of pain intensity for both the patient and any staff caring for them.
    - Using the pain scale identifies when medication or intervention is effective and when these measures are not providing adequate pain relief.

# Pain Management

#### Multimodal:

- Self management
- Psychological
- Medications: Opioids, NSAIDS & Adjuvants, nerve blockade
- Cognitive Behavioural : distraction, musice, biofeedback
- Physical: heat/cold massage, TENS

# Pain Management Multi-modal

#### Non-Pharmacological

- Heat/Cold
- Massage
- Distraction
- Self Management
- Psychology

#### **Pharmacological**



## Pain Management

#### Select an intervention:

```
Monitor
      Tylenol
       Opioids
       NSAIDS
   antispasmodics
adjuvant medications
   ? intervention
     heat/cold
     Distraction
         ???
```

# Pain Management

Evaluate the patient's response to the intervention

Usually 20-40 minutes depending on intervention
 » A flow sheet or a pain diary is helpful



## Why does the evaluation and time matter?

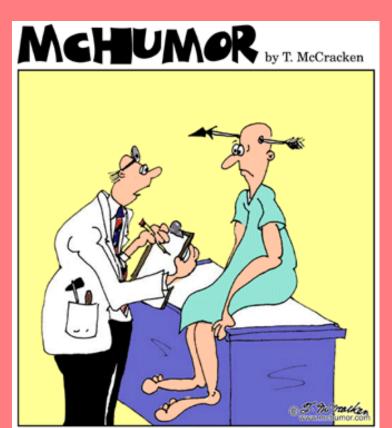
- Pain is no different than any other VS we evaluate
  - Temp 40 C
  - P 140 bpm
  - RR 32
  - O2 Sat 90%
  - BP 83/50



- If interventions are ineffective, we need to be patient advocates for alternate interventions
  - ( other options, medications, doses) which may prove more effective.

The assumption being made is that:

the patient's source and reason for pain has been or is being investigated.



"Off hand, I'd say you're suffering from an arrow through your head, but just to play it safe, I'm ordering a bunch of tests."

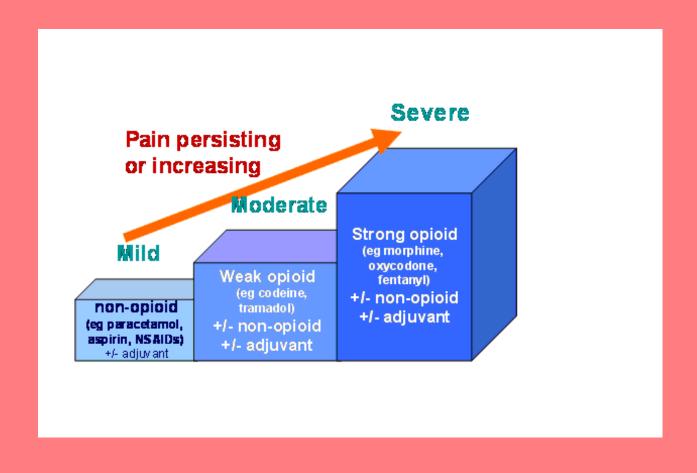


# Medications



### WHO Ladder

created for cancer pain but has been used for all pain



# Principles of Analgesic Use for the WHO Ladder

- By the mouth-use the simplest route
- By the clock-give scheduled doses
- By the ladder- select level by pain intensity
- Individualize treatment
- Monitor response
- Use adjuvant drugs as needed
- Prevent and treat side-effects

# Adverse Effects can be common in certain classes

Delirium – Opioids esp. Demerol,

Seizures – Demerol,

Nausea – Codeine (P450 system)

Esophagitis, gastritis - NSAIDS

# Organ Toxicity can be common with certain classes

Renal, GI, Hepatic – NSAIDs CNS- Demerol, Darvon, MORphine Hepatic -- Tylenol



# Analgesic compounds

- Tylenol
- Opioids (Morphine, HYDROmorphone, oxycodone, meperidine, codeine
- Cannabinoids (Sativex, Marinol, Nabilone)
- NMDA inhibitors (Methadone, Ketamine)

# Adjuvant Analgesics

NSAIDs - Motrin, Naprosyn, Indocin, celebrex, voltaren

Steroids – prednisone, Decadron, depomedrol

Anti-depressants – Elavil, Desyrel, Celexa, Effexor

Anti-neuroleptics – Neurontin/Gabapentin, Tegretol, Lyrica Anxiolytics – Valium, Ativan, Xanax

» May be used in combination with each other

## MSK pain

#### @ Acetaminophen

- @ Analgesic without anti-inflammatory propriety
- As effective as NSAIDs in relieving mild-moderate
   osteoarthritis pain if taken 4 times/day, with less ADRs
- © Tylenol arthritis pain  $\rightarrow$  8 hours duration

#### © Topical NSAIDs

- © Localized osteoarthritis pain of superficial joints
- © For mild to moderate pain (score < 4/10)</p>
- © Can also be used as co-analgesic / adjuvant

## Neuropathic pain

#### @ Anticonvulsants

- @ Gabapentin, pregabalin
- Act on GABA receptors to modulate nerve influx
- ADRs: somnolence, dizziness, and ataxia

#### © Capsaicin cream

- Stimulates the nerves, to then desensitizes them (depletion of substance P)
- @ Also use in osteoarthritic pain
- Causes erythema and feeling of warmth at application (lidocaine x 2 weeks)
- @ Wash hands after using it
- @ Can take up to 2-4 weeks before onset of action
- @ Maximum response after 4-6 weeks of regular use

## Neuropathic pain

### Antidepressants

@Good choice if concomitant depression or insomnia

### © Tricyclic antidepressant (TCAs)

- © Desipramine and nortriptyline preferred agent© Less anticholinergic effects
- @ADRs: Cardiac toxicities, orthostatic hypotension, constipation, dry mouth

#### © Venlafaxine

- @Less efficacy/safety data available
- @ADRs: HTN, nausea

## Neuropathic pain

#### Nabilone

- © Cannabinoid class
- @ Good choice if concomitant malnutrition, nausea
- ADRs: drowsiness, vertigo, dry mouth, euphoria, hallucination, disorientation, anxiety, tachycardia

# Opioids



describe drugs with "Morphine like effects"

Morphine, fentanyl, codeine, oxycodone, demerol & hydromorphone

--ceiling dose individualized & dependent on pain control vs manageable side effects

# Approximate Equivalency to Morphine

Approximate Equivalency to <b>10mg</b> IV Morphine			Approximate Equivalency 1mg IV Morphine		
Drug	Route	Dose	Drug	route	dose
Morphine	РО	20-30mg	Morphine	РО	2-3 mg
Hydromorphone	РО	7.5mg	Hydromorphone	РО	0.75 mg
Hydromorphone	IV	1.5mg	Hydromorphone	IV	0.15 mg
Fentanyl	IV	100mcg	Fentanyl	IV	10 mcg
Oxycodone	РО	15-30mg	Oxycodone	PO	1.5-3 mg
Codeine	IM	120mg	Codeine	IM	12 mg
Codeine	РО	200mg	Codeine	РО	20 mg
Methadone	РО	10-20mg	Methadone	PO	1-2mg

•Reference McCaffery, M., Pasero, C. Pain: Clinical Manual

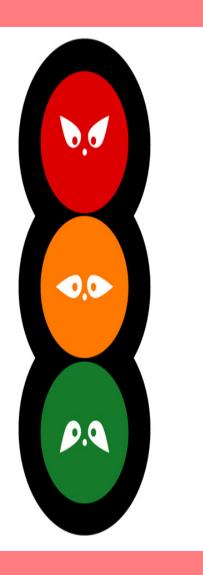
### Opioids

- ✓ Efficacy in MSK and neuropathic pain
- ✓ Usually use in conjunction with other analgesics ⇒ ↓
  dose of opioid
- ✓ Opioids have similar efficacy if appropriate dosage conversion
- ✓ Routes (PO/IV/SC/IM) have similar efficacy if appropriate dosage conversion

### Opioids

- Administer on a regular schedule with interval corresponding to duration of action
  - SR formulation use when daily dosage established
  - Appropriate breakthrough dose equal to 10% of daily dosage Q2Hrs PRN
- Opioids of choice: hydromorphone, oxycodone, fentanyl
  - Avoid morphine since risk of neurotoxicity (eg. seizure, myoclonia, hallucination, etc.) related to metabolites.
- ADRs: Sedation, nausea, constipation, hallucinations, hyperalgesia, respiratory depression, cognitive impairment, gait disturbances





- Increased ADR /Toxicity with:
  - Morphine (M3G/M6G)
  - − Meperidine
  - Codeine
- Use with caution:
  - HYDROmorphone \*
  - Oxycodone
- Safest with:
  - Fentanyl \* has to be titrated from another
  - Methadone

# **Opioid Neurotoxicity**

- Myoclonus-uncontrollable twitching and jerking of muscles or muscle groups, usually occurs in the extremities.
- Hyperalgesia-increased sensitivity to noxious stimuli or even light touch
- Delirium with hallucinations
- Grand mal seizures-late

### Transdermal Fentanyl

- Good choice for patients with stable level of pain
- Good choice for dysphagic patients
- Do not use in the opioid-naïve

### Methadone

- Opioid analgesic with an antagonist effect on NMDA (N-methyl-D-aspartate) receptors (responsible of constant and exaggeration of pain)
- Option if pain refractory to usual opioids
- Long half-life
- High inter-patient variability, multiple drug interaction
- Physician needs special privilege to prescribe it
- ADRs: Bradycardia, hypotension, general weakness, sedation, nausea, constipation, respiratory depression, dysphoria, insomnia, anxiety

# Indications for Opioid Rotation

- Intolerance to side-effects of drug
- Pain not satisfactorily controlled
- Loss of oral route
- Cost issues
- Convenience/compliance issues
- Drug abuse concerns

Can not just substitute due to variances in molecular structure

### **Cautionary Notes:**

### Short Acting Medications

- Must be given at q2-3h (sometimes are given q1h in certain cases)
- Use Oral preparations when possible
- Never use 2 short acting preparations together

### Long Acting

- NEVER use 2 long acting opioids together
- May have Q8H or Q12 H dosing rarely more frequent
- Never to be used as breakthrough

#### Clinical Pathway and Drug Choices for Chronic Pain in Patients on Dialysis - FHA Renal Program

Before selecting drug therapy below, determine current and previously tried analgesics and document on page 2

Musculoskeletal/nociceptive Pain

Pain Score is 1-4 out of 10 Non-opioid analoesics

► Acetaminophen to a maximum of 4 g/day, including acetaminophen in other products (caution if Hx of EtOH or other liver enzyme inducers e.g. rifampin and in heart failure). Follow GGT & ALT at least q 3 months if dose is over 2.6 g/day)

➤ Topical NSAIDs localized pain. Apply TID to QID — no association with GI bleeding. (e.g. dictofenac 1.5% in DMSO (Pensaid® or 5 to 25% in Phiocel®.

Neuropathic Pain Component (DN4 score > 4)

► Gabapentin: 200 to 300 mg x 1 HS then 100 mg po QHS and increase weekly to a maximum of 300 mg QHS. 
► Capsalcin Cream 0.025% or 0.075% applied BID to QID for localized pain (e.g. zoster). May take 2 weeks or more for onset of effect.

Pain control is inadequate at target dose for 2-4 weeks or initial pain > 5 out of 10

Intolerable adverse effects (e.g. sedation, hypotension) or lack of effectiveness DRAFT 02NOV2007 BL

Pain is not controlled or initial pain score is > 5 out of 10

#### Add an opioid: (AVOID MEPERIDINE & MORPHINE)

Complete opioid abuse risk assessment scale on page 2.

Titrate dosage each dialysis run based on pain assessment flowsheet.scores (note: neuropathic pain may require higher target doses)

► Hydromorphone

Initial dose in opioid naïve patients:

0.5 to 1 mg PO Q3-4 hours.

► Oxycodone (generic tablets and Percocet).

Initial dose in opiate naïve pts: 2.5 to 5 mg PO q3-4 hours.

Once analgesic requirements are stable (allow a few days) consider conversion to long-acting agents (refer to opioid conversion chart below) Continue to provide short-acting opioid & acetaminophen for breakthrough pain (approx. 1/10<sup>th</sup> total daily narcotic dose Q2H prn)

► Hydromorphone SR capsules PO Q12H (available in 3 mg increments). Titrate dosage every 2 to 3 days. (note: neurotoxic metabolite H3G accumulates if HD is d/c).

➤ Oxycodone SR tablets PO Q12H (available in 10 or 20 mg increments)

#### Alternative Agents in select cases

► Fentanyl Transdermal Patches Useful choice if non-adherance to Rx a concern (may apply in the HD unit 3x/week). Apply to new area q2-3 days. Increase dose to next patch size every 2<sup>nd</sup> run as required.

➤ Analgesic Methadone (for opioid allergy or adverse effects/refractory pain not controlled by other opioids & adjuvant drugs or if pt taken off HD — no toxic metabolites). Baseline QTc and repeat EKG if daily dose > 40 mg. Many drug interactions (e.g. macrolides, quinolones, fluconazole). MD needs approval from BCCP&S to Rx.

Initial dose: 1 or 2 mg PO or SL TID and titrate dose gradually Q dialyisis run (available as: 1 mg. 5 mg, 10 mg & 25 mg tabs or 1mg/mL liquid).

#### Choose from: Nortriptylli

- ► Nortriptylline 10 mg po QHS & titrate by 10 mg to max 50 mg QHS
- ► Venlafaxine 37.5 mg po QAM and increase in a week to 75 mg QAM
- ► Nabilione 0.25 to 0.5 mg po QHS and increase by 0.25 to 0.5 mg QHS every week to a maximum of 2 mg QHS (caution in elderly: start with 0.25 mg dose compound in simple syrup 5 mg/50mL since current
- capsules 0.5 or 1 mg only). Nabilone is also a strong antiemetic. Pregabalin: start at 25 mg po QHS and increase every few days to a maximum of 75 mg QHS (not currently covered by drug plans)

Inadequate response

Complicating Features

#### Cramp

Vitamin E 400 units or Quinine SO4 300 mg po Daily. Both effective in about 1/3 pts. Vitamin E has less adverse effects

#### Restess Legs

May be associated with inadequately treated neuropathic pain Choose from the following (switch if ineffective after a week at target dose)

- ► Carbidopa/Levodopa 100/25 CR or IR: ½ to 1 tab QPM or BID ► Low dose opioid in late afternoon/evening or BID. Consider SR
- formulations if short-acting version wears off.

  Clonacepam (if not on another benzodiazepine) 0.25 mg to max
- 1 mg QHS

  Ropinirole (Requip) 0.25 mg QPM or BID & increase q 2-3 days (max 4 mg per day; expensive)

#### Management of opioid adverse effects.

Excessive sedation, low respiratory rate etc.

Small doses of naloxone 0.1 mg SC or IV every 1or 2 minutes unless severe respiratory depression in which case 0.4 mg SC or IV should be used initially (along with other supportive measures such as resp. support). Effective dose may need to be repeated every 1-2 hours over several hours for long-acting narcotics (consider continuous infusion).

Nausea and/or vomiting

Drugs of choice: prochlorperazine (Stemetil) 2.5 to 10 mg PO, SC or PR QID PRN or haloperidol (Haldol) 0.5 to 1 mg po PO, SL, IV, SC BID prn (Haldol soln is flavourless) or metoclopramide (Maxeran) 5 to 10 mg PO, SC, IV QID prn. Dimenhydrinate (Gravol) may be used 25 to 50 mg PO, SC, IV but is less effective, except if secondary to motion/dizziness.

Constipation (monitor on the pain flowsheet)

BCPRA covers several laxatives. Use combinations of these per pt. preference. Give pt. a handout on constipation when starting opiates.

#### OPIOID CONVERSION TABLE (for patients on chronic opioids)

 Drug
 Parenteral

 Morphine
 10 mg

 Codeine
 100 mg

 Hydromorphone
 2 mg

 Oxycodone
 N/A

 Fentanyl Patch
 12 mcg/h = 10 to 30 m

Methadone

N/A
12 mcg/h =
10 to 30 mg/day
IV/SC morphine
Investigational

20 mg 200 mg 4 mg 10-15 mg 12 mcg/h = 20 to 60 mg/day PO morphine variable – 1/10" morphine dose (max initial dose is

10 mg TID)

Oral



### Nausea/vomiting

- Usually tolerance after 5-7 days
- GI stasis and impact on chemoreceptive zone
  - Domperidone/metoclopramide
     Or/and
  - Prochlorperazine/ Haloperidol
- Re-evaluation Q2-3 days

- ◆ Constipation start a bowel protocol at same time as starting opioid therapy
  - Proportional to opioid dosage
  - ◆Stool softener (docusate) and GI stimulant (sennosides) for all patients on opioids
  - ◆ Lactulose, PEGLyte, glycerin supp., bisacodyl supp. are other options
  - ◆To be avoided: fleet phosphate, Milk of Magnesia, mineral oil

**Excessive sedation**/ ↓ RR

- ➤ Naloxone 0.1-0.4 mg sc or IV initially
- ➤ Effective dose can be repeated every 1-2 hours if SR opioid formulation

### Monitoring parameters

#### Pain control

- Evaluation for every site
- Non-pharmacological methods
- In relation with initial pain score and pain score goal

### ADRs

- Nausea/vomiting
- Constipation
- Dizziness, sedation
- Itchiness
- Tremors
- Diaphoresis

### Non-Pharmacologic Interventions

- Ask the patient what helps them manage their pain.
  - Repositioning
  - Application of warmth or cool compresses
  - Diversion/distraction activities (e.g. massage, meditation, imagery, music, muscle relaxation, etc.)

### Non-Pharmacologic Interventions

Involve interdisciplinary team (PT, OT, Pastoral Care, Social Worker, etc.)

 Prepare the patient and family in advance for painful procedures/ progress (amount of pain, duration)

### Documentation

- Use progress note and/or a flow sheet to document initial and continued assessment of interventions.
- Document the administration of medications as ordered (route, continuous, single, prn, in notes, on pain management flow sheet & MAR).

### Evaluate

- Assess the patient for:
  - Psychosocial / Comfort acceptable relief
  - Respiratory RR, LOC,
  - Cardiovascular hypotension, bradycardia
  - GI nausea, vomiting, BM, constipation
  - Mental Status: acute delirium, sedation
  - GU presence of urinary retention
  - Musculoskeletal / Skin integrity diaphoresis, pruritis

# Ongoing Care and Assessment

- Assessment of the patients pain / comfort levels should be checked and documented at each encounter or q8h if admitted.
  - Use pain management flow sheets to document patients self report of pain

and /or

- Document patient behaviors that indicate pain if the patient is unable to self report. (frequently calling out, resistance to position changes, restlessness, agitation, moaning).

	Neuropathic Pa (See Pain Asser	ssment Tool)	PATIENT'S PAIN CONTROL GOAL Sleep comfortably Comfort at rest Comfort with movement Stay alert Perform activity: Other:
Date:	Current Medication	s for Pain Management	
Drug/Dose/ Frequency		Drug/Dose/ Frequency	
Drug/Dose/ Frequency		Drug/Dose/ Frequency	
0.175			
DATE:	Site 1	Site 2	Site 3
Patient's Rating of Pain	3110 1	5100 2	5110 5
Scale used Present:			
☐ Faces At Worst:			
☐ Verbal At Best:			
DATE:	City 4	Site 2	Site 3
Patient's Rating of Pain Scale used	Site 1	Site Z	31te 3
□ 0 -10 Present:			
☐ Faces At Worst:			
At Best:	o la Dala Madiantiana as Co		
Side-effects / Treatment / Change	s in Pain Medications or Co	omments	
			Initials
PRN / Breakthrough Analgesic gh	ren	: Time :	Initials
DATE:		A11. C	
Patient's Rating of Pain	Site 1	Site 2	Site 3
Scale used  0 0 -10 Present:			
☐ Faces At Worst:			
☐ Verbal At Best:			
Side-effects / Treatment / Change	s in Pain Medications or Co	omments	
			Initials
PRN / Breakthrough Analgesic giv	10.00	: Time :	Initials

### Ongoing Assessment

- Identify & Monitor emotional & behavioral coping patterns to pain:
  - Stoicism, denial, anxiety, confusion, anger, withdrawal

- Identify environmental factors that can increase or decrease pain:
  - Minimize noxious stimuli, noise, music, weather, lights, smells if possible

### Pain Management

PATIENT TEACHING



# Patient Teaching

- Include family if possible
- Use of pain scale
- Encourage patient to report pain
- Discuss misconceptions as needed:
  - such as fear of addiction, dependence, or being judged in a variety of ways

# Patient Teaching

- Emphasize the need to use/request medication to intercept pain before it becomes severe
- Use of comfort measures (repositioning, splinting area, relaxation techniques, activity modification)
- Safety measures: depend on situation: may include no machinery, driving restrictions, side-rails etc

### **URGENT NEED**

- Better professional education programs and resources
- Further dedicated research to help guide clinical practice
- Better pain management strategies that specifically target the special needs of various populations such as older persons, renal patients for example

### Conclusion

- ☐ Estimated that 50-75% of ESRD patients experience chronic pain
  - □ 82% patients reporting pain as moderate to severe

- Impact on QOL, mental and physical symptoms
  - ☐ Insomnia, depression, nausea, anorexia

### What did we do?



### FHA renal program pain initiative:

WHO? = Interdisciplinary team working together



### **GOALS:**

- -- Improve recognition of patients with pain
- --Improve pain evaluation and management in our population

Long process to find "beginning" viable solutions Numerous changes and re-inventions but .... On the road to success



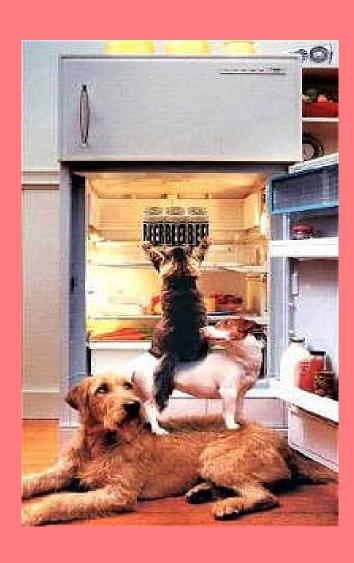
### FHA TOOLS

- 2007 meetings to develop tools to standardized pain assessment and ensure pain was incorporated in regular assessment
- Tools went into practice 2008
  - Initial assessment tool
  - Ongoing flow sheet
  - Algorithm for medication management \*

### ABC's of Pain Care:

- Ask the patient
- Assess regularly
- Believe the patient
- Be proactive and be an advocate
- Choose pain-control options
- Deliver interventions
- Empower patients
- Enable them to control their course as much as possible

### Pain Management



- Patient centered
- @ Team approach

# Questions



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