

Slide 1

Treatment Regimens for Acute and Chronic Pain Patients: How to Progress All Injured Workers to Working Status

ANESCO
ANALGESIA NETWORK

Anesco Interventional Pain Institute

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What is Acute Pain?

- Physiologic response to tissue damage
- Warning signals damage/danger
- Helps locate problem source
- Has biologic value as a symptom
- Responds to traditional medical model
- Life temporarily disrupted (self limiting)

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What is Chronic Pain?

Chronic pain is persistent or recurrent pain, lasting beyond the usual course of acute illness or injury, or more than 3 - 6 months, and adversely affecting the patient's well-being

Pain that continues when it should not

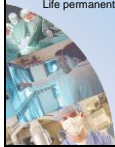


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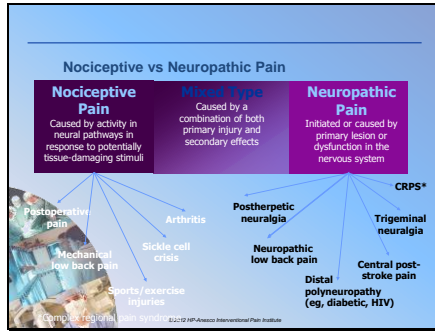
What is Chronic Pain?

- Difficult to diagnose & perplexing to treat
- Subjective personal experience
- Cannot be measured except by behavior
- May originate from a physical source but slowly it "out-shouts" and becomes the disease
- It has no biologic value as a symptom
- Life permanently disrupted (relentless)

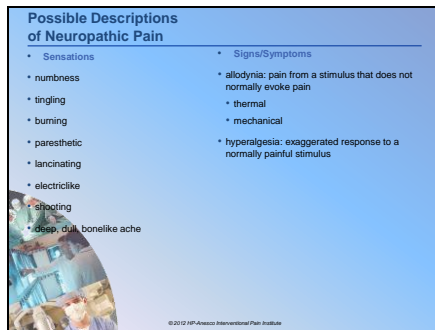


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Primary Goals

- Relieve symptoms
- Restore function
- Return to work
- Minimize disability

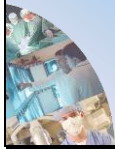


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Treatment options

- Medications
- Interventional Procedure
- Rehabilitation
- Surgical intervention

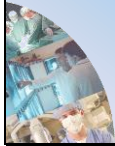


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Medications

- Ease for patient
- Symptom management
- Cost of treating complications
- Decreased productivity

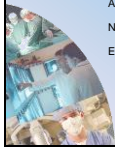


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NSAID

- Reduce synthesis of PGs
- COX inhibitors (cyclooxygenase)
- Diminish nociceptor activation
- Block peripheral sensitization
- Antipyretic
- Anti-hyperalgesic
- No sedation
- Examples: Advil, Aleve, Celebrex



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Side effects

- Gastrointestinal ulceration
- Renal dysfunction
- Embryotoxic
- Prolonged bleeding

PPI/H2 blockers for prevention

- *Ex: Nexium, Prilosec, Zantac



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Muscle relaxants

Used to alleviate muscle spasms


Example: carisoprodol, cyclobenzaprine, and methocarbamol

Mechanism

- * Not entirely known, GABA agonist, Ca channel

Centrally acting causing sedation, anticholinergic side effects

Dependence



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OPIOIDS

Spinal cord

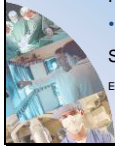
- *Decreasing neurotransmitter release
- *Blocking postsynaptic receptors
- *Activating inhibitory pathways

Receptor subtypes

- * mu> delta> kappa

Supraspinal analgesia

Examples: Morphine, Fentanyl, Burprenorphine



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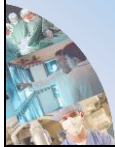
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Side effects

respiratory depression, severe bradycardia, decreased gastric motility, drowsiness, memory loss, impaired judgement

Addiction

Physiologic dependence

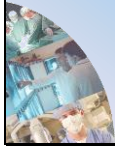


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Steroid Injections

- Steroids decrease inflammation (phospholipase A2) and swelling around the compressed or inflamed nerve around the dural sac
- Local anesthetics "break the pain cycle" while steroid decreases inflammation
- Volume of injected solution may "wash away" local inflammatory mediators or loosen adhesions



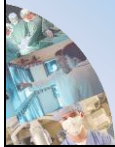
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Side effects

Complication rate < 1% Spinal Anesth. Appl Radiol 2010;39:14-23

- Temporary blood sugar elevation
- Cartilage damage
- Adrenal gland suppression
- Infection – with sterile technique an infection occurs much less than 1%
- Intravascular injection – embolism rare



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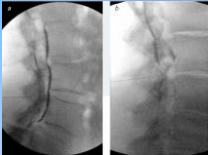
Interlaminar Epidural Injection

Between spinous process

- In the past these were done without x-rays
- The steroid injection placed right over the dural sac

Far from area of nerve compression

May be effective with broad based disc bulges

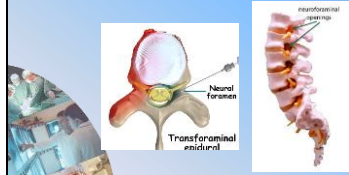


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Transforaminal Epidural Injections

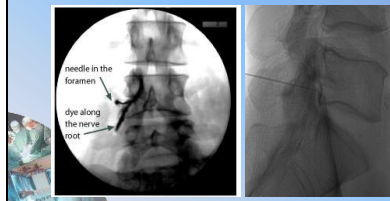
- More popular over the last decade.
- Steroid medication placed closer to the area of nerve root compression.



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Transforaminal Epidural Injections



needle in the foramen
dye along the nerve root


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Facet Pain - *Interventional Treatment*

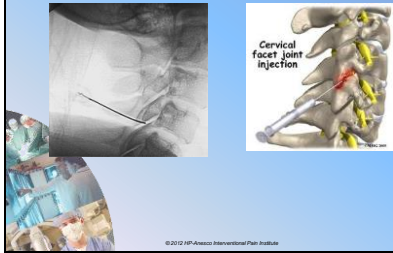
Facet Joint Steroid Injection

- Effective and minimally invasive
- Fluoroscopy
- May be effective for weeks to months



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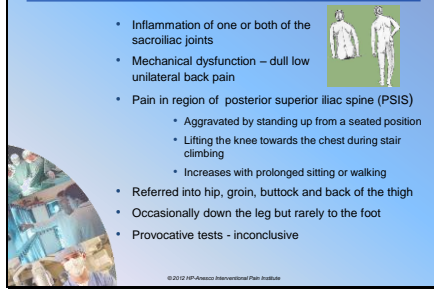
Cervical facet joint injection

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Sacroiliac Joint Pain

- Inflammation of one or both of the sacroiliac joints
- Mechanical dysfunction – dull low unilateral back pain
- Pain in region of posterior superior iliac spine (PSIS)
 - Aggravated by standing up from a seated position
 - Lifting the knee towards the chest during stair climbing
 - Increases with prolonged sitting or walking
- Referred into hip, groin, buttock and back of the thigh
- Occasionally down the leg but rarely to the foot
- Provocative tests - inconclusive



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Sacroiliac Joint Pain

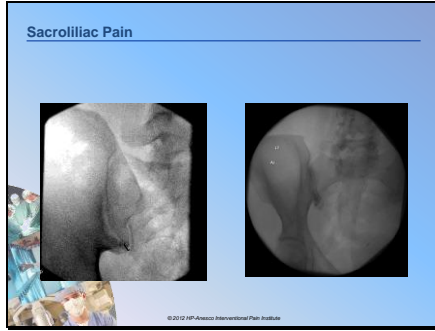
Treatment

- Conservative
 - Stretching exercises (e.g., knee to chest)
 - Anti inflammatory medication
- Sacroiliac Joint injection
 - Fluoroscopy
 - 75% reduction in pain
 - May require multiple injections
- Radiofrequency Neurotomy

Martini MB. Curr Rev Musculoskel Med 2009;2:10-4.
Vallejo et al. Pain Med 2006;7:429-34

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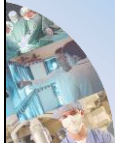
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Limitations

- Limited care per week (3hr)
- Cannot manage pain outside of therapy facility
- Tendency for patient to resume pharmacologic therapy for pain treatment
- Cost



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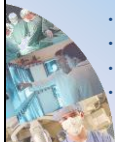
Psychological Pain Control

Biofeedback – provides biophysiological feedback to patient about some bodily process the patient is unaware of (e.g., forehead muscle tension).

Relaxation – systematic relaxation of the large muscle groups.

Acupuncture

- Counter-irritation – may close the spinal gating mechanism in pain perception.
- Expectancy
- Reduced anxiety from belief that it will work.
- Distraction
- Trigger release of endorphins

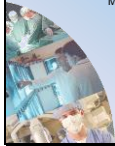


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Role of the pain physician at ANESCO

- Communication with Case Managers/Adjusters
- Minimize use and dependency on medication
- Improve outcomes through early intervention
- Physical therapy
- Encourage return to work
- Minimize cost to insurer and employer



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Thank you



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