Pain Management Guidelines & Red Flags

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COST of CHRONIC PAIN ????

A. More than heart disease and cancer

B. Total cost $560-635 billion

C. Health care cost $300-334 billion

D. All of the above

EPIDEMIOLOGY

- 50 million chronic pain
- $560-635 billion annually
  - Medical care, wage replacement, disability
- $299-334 billion lost productivity
  - 13% workforce loss in productivity
  - 50 million lost work days

STANDARD CYCLE OF CARE
Step 1: PCP/Pain Killers
Step 2: Ortho Consult
Step Three: MRI
Step Four: Physical Therapy
Step Five: Surgery
Step Six: FCE/Perm Restriction
Step Seven: PCP/Pain Killers
Question Mark

GUIDELINES

A 28 year-old woman is involved in rear end collision and incurs a whiplash injury. Which of the following risk factors is MOST likely to result in chronic pain?

A. Higher education
B. History of anxiety
C. Age younger than 60 years
D. Nighttime collision.

PAIN

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

Subjective

HETEROGENEITY of Pain Sensitivity

HUMAN SPECIES

Age

Gender

Ethnicity

Psychosocial Factors

depression, anxiety, sleep

Cultural

Socioeconomic Factors

Alcohol, Smoking

Genetics SCN9A

Pain Variability

Neuroplasticity

- cellular function
- gene expression
- molecular changes
- synaptic

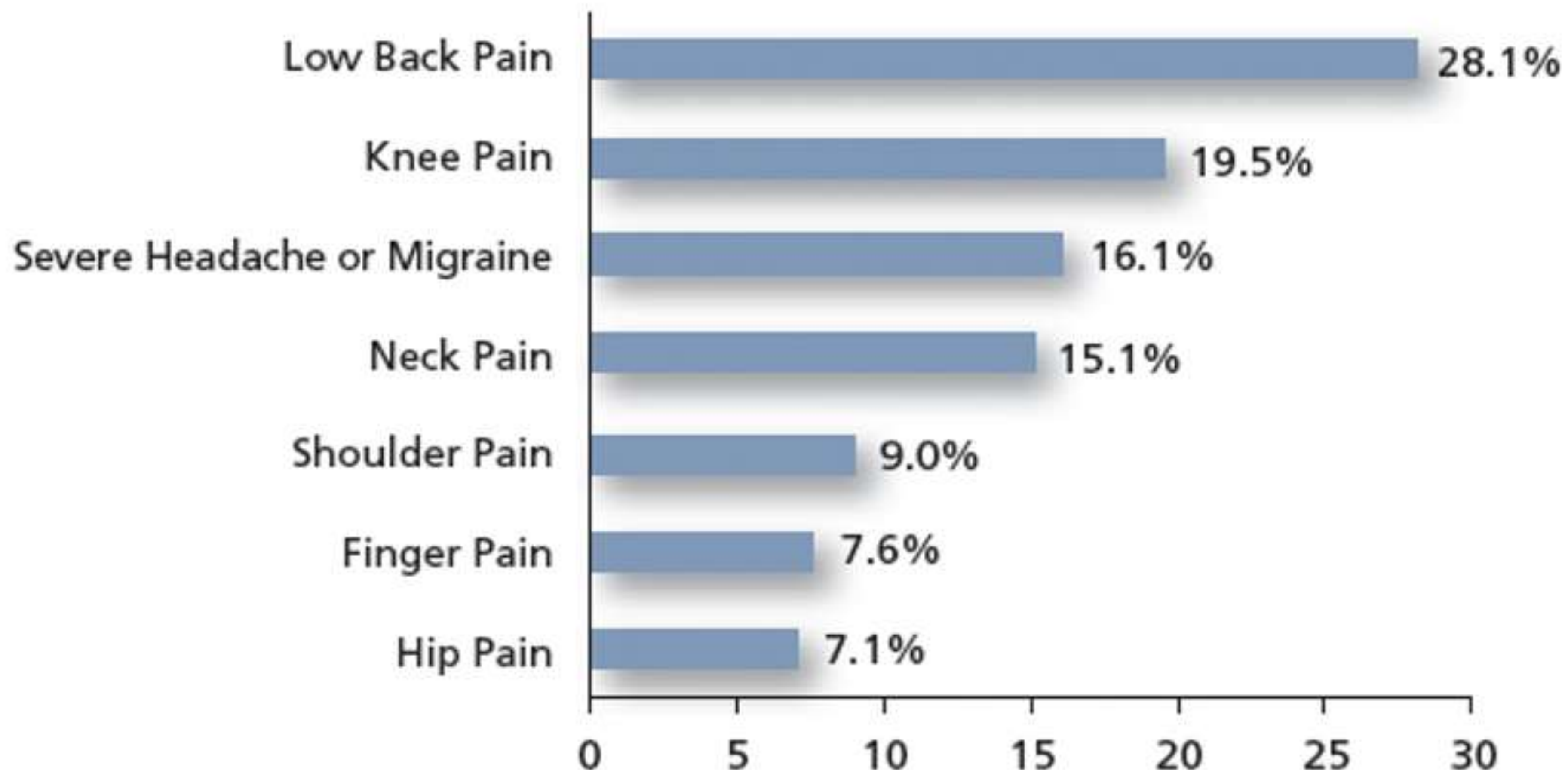
Cerebral processing

Pain is Dynamic

What is the most common cause of chronic pain?

A. Hip pain
B. Neck pain
C. Low back pain
D. Headache

Figure. Age-Adjusted Prevalence Rates of Select Causes of Chronic Pain in US Adults



Source: Institute of Medicine. *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research*. Washington, DC: The National Academies Press; 2011.

LBP
Evaluation and Management

LBP Diagnosis

- Axial Spondylosis
  - Facets, Sacroiliac Joint
- Vertebral fracture
- Spinal Stenosis
- Discogenic
- Infection
- Malignancy
- Non-Spinal
  - AAA, pancreatitis, kidney, hip
- Non-specific LBP

AXIAL PAIN
vs
RADICULOPATHY

RADICULOPATHY

- Nerve root compression and/or inflammation

RADICULOPATHY

- Disc herniation
- Spinal stenosis
  - Central, foramen, lateral recess
  - Spondylolithesis
- Post-laminectomy Syndrome

RADICULOPATHY Treatment

- Physical Therapy
- Anti-inflammatory medications
- Muscle relaxants
- Imaging
- Epidural Steroid Injection
- Surgery
- Spinal Cord Stimulation

EPIDURAL STEROID INJECTIONS

ESIs

Control Inflammation

- Inhibition of PLA-2
- Inhibition of neural transmission in nociceptive C fibers
- Reduction of capillary permeability
  - Edema & swelling

ESI Approaches

- Interlaminar
- Transforaminal
- Caudal

EFFICACY OF ESIs

- Fluoroscopy & Contrast
- Skill & Experience
- Multimodal Approach
  - Rehabilitation

Frequency OF ESIs

- Acute
  - 2 procedures no sooner than 2 weeks apart
- Chronic
  - 2.5 to 3 months apart
  - Not exceeding 4 per year

Somatic Low Back Pain

- Facet Joint Pain – 31%
- Sacroiliac Joint Pain- 18%
- Discogenic Pain- 42%

FACET JOINT Syndrome

After a whiplash type injury there are no structural or neurological findings. What is the MOST appropriate initial treatment?

A. Trigger point injections
B. Physical therapy
C. Cognitive behavioral therapy

FACET SYNDROME ETIOLOGY

Acute

- “whiplash” syndrome

Chronic- Degenerative

- arthritic changes
- “transition zone” after fusion

DIAGNOSIS

History

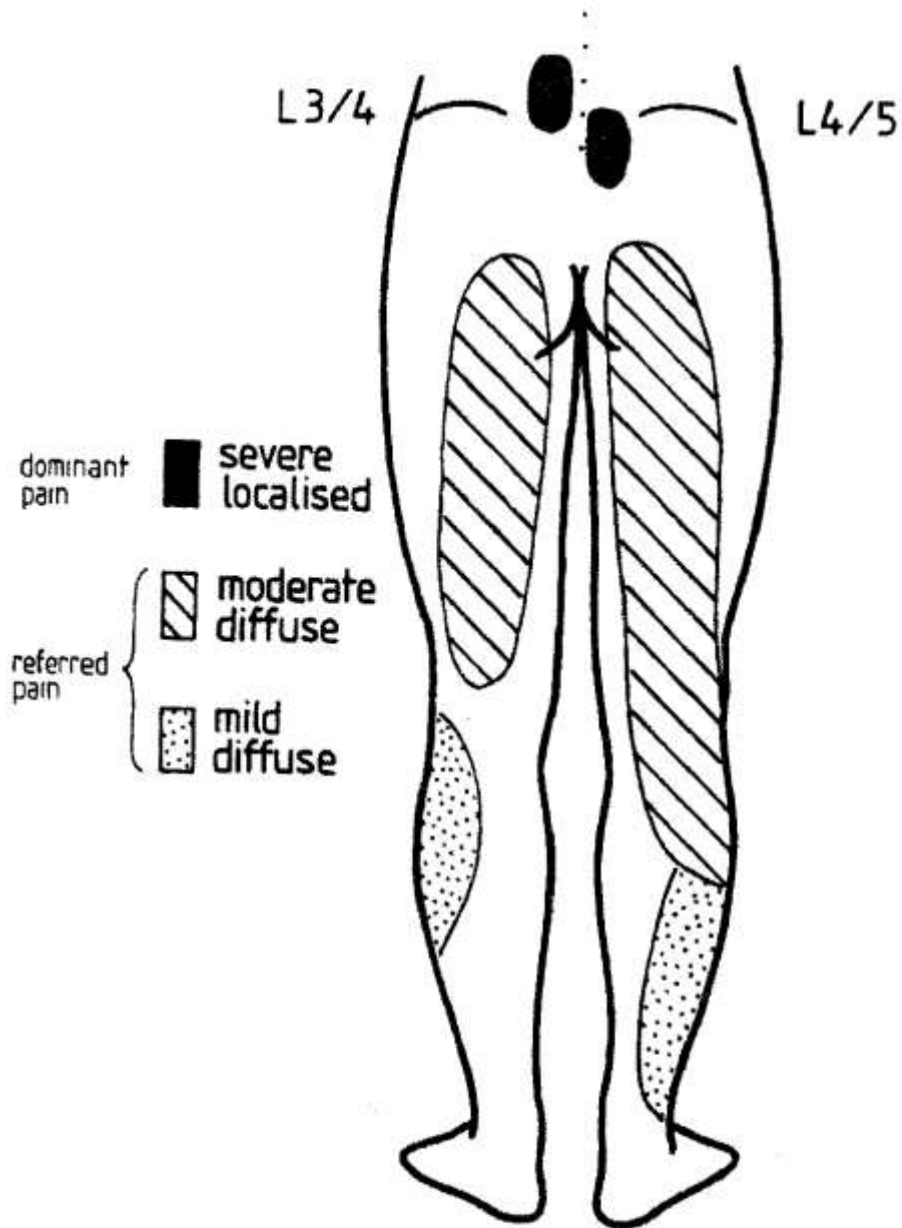
- Trauma- MVA,

Symptoms

- Dull aching – somatic referral pattern
- Aggravated by rotation, hyperextension

Treatment

- PT
  - active mobilization
- Medications
  - NSAIDS, muscle relaxants
- Radiofrequency Ablation


L3/4
L4/5
dominant pain
severe localised
referred pain
moderate diffuse
mild diffuse

X-RAY EVALUATION

MRI

CT

Xray

- X-ray status of the joint bears no relationship to the joint’s pain status

DIAGNOSTIC BLOCKS

Clinical criteria for making diagnosis is non-specific and ill defined.

Medial Branch Nerve Blocks

Vs

Intra-articular Block

INTRA-ARTICULAR INJECTIONS

Accurate placement within joint cavity

risk of over penetration

Spillage outside of cavity

specificity

Degenerative joint difficult to access

MEDIAL BRANCH NERVE BLOCKS

- Anesthetize 2 nerves per joint
  - L3, L4 nerves to L4-5 joint
- Local Anesthetic Volume $\le$ 0.3 mL
- No steroid
- Comparative Blocks ???

RADIORFREQUENCY ABLATION

2 nerves/joint-overlap

RFA of L3, L4, L5 ablates the nerves to the L4-5 and L5-S1 joints

Bipolar

Unipolar – 3-4 lesions per level 18 g

SACROILIAC JOINT

Sacroiliac Joint

- History
- Physical
  - Provocative Exam
    - Gaenslen's, FABER, Compression, Distraction, Thigh Thrust
- Imaging ?
- Diagnostic Block

Sacroiliac Joint Treatment

- Rest, Ice/Heat
- NSAIDs
- Physical Therapy
  - 6 weeks ?
- Diagnostic Block – confirm diagnosis
- Therapeutic Injection
- Radiofrequency Ablation
- SI Fusion

Discogenic LBP

Discogenic LBP
IDD

DIAGNOSIS
- History & physical
- MRI
  - High Intensity Zone
  - Modic Changes
- Discogram

No Gold standard

A

B

Discogenic LBP Treatment

- Rest, Ice/Heat
- NSAIDs
- Physical Therapy
  - 6 weeks ?
- Cognitive Behavioral Therapy

Discogenic LBP Treatment

NOW WHAT ??

- Fusion
- Disc Replacement
- IDET
- ESI
- Regenerative Techniques
  - Via Disc

Complex Regional Pain Syndrome

Treatment for CRPS includes:

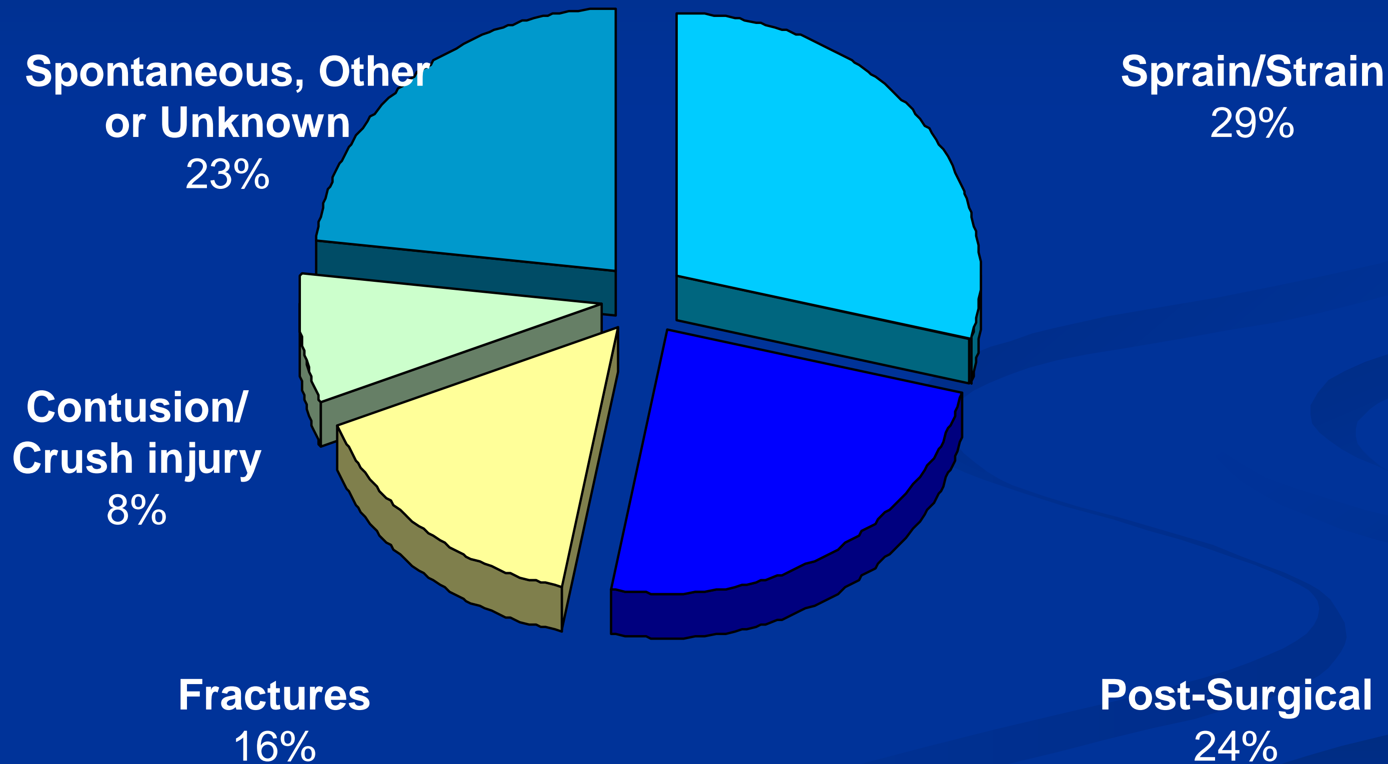
A. Physical Therapy
B. Cognitive Behavioral Therapy
C. Sympathetic Nerve Blocks
D. All of the above

CRPS – A Clinical Diagnosis

CRPS Types I and II Diagnostic Criteria

- Continuing pain, allodynia, or hyperalgesia after a noxious event or cause of immobilization
- Evidence of edema, changes in skin blood flow, or abnormal sudomotor activity in the region of pain

Majority of Patients Develop CRPS After Injury or Surgery



Allen G et al. Pain. 1999; 80:539-544.

Key Treatment Principles

- Early diagnosis and treatment
- Rehabilitation facilitated through pain management and psychological treatments
- Appropriate pain management measures to facilitate rehabilitation

Treatment
3 Core Elements

- Rehabilitation
- Psychological treatment
- Pain management

Stanton-Hicks M et al. Pain Practice. 2002; 2:1-16. Stanton-Hicks M et al. The Clinical Journal of Pain. 1998;14:155-166.

Rehabilitation

- Mainstay of CRPS treatment
- PT/OT
- Physiotherapeutic Algorithm based on:
  - Increase function
  - desensitization
  - Mobilization - ROM

Stanton-Hicks M et al. Pain Practice. 2002; 2:1-16. Stanton-Hicks M et al. The Clinical Journal of Pain. 1998;14:155-166.

Psychologic Therapy

Cognitive Behavioral Therapy

- relaxation training
- biofeedback
- reframing

Stanton-Hicks M et al. Pain Practice. 2002; 2:1-16. Stanton-Hicks M et al. The Clinical Journal of Pain. 1998;14:155-166.

Pain Management Continuum

Initial Treatment

- Oral and topical medications
  - Antidepressants (TCAs, SSRIs)
  - Anticonvulsants
  - NSAIDs, opioids, NMDA receptor antagonists
- Partial or Inadequate Response: Minimally Invasive
  - Sympathetic nerve blocks- RFA ?
  - Intravenous Ketamine
  - Somatic blocks

Partial or Inadequate Response: More Invasive

- Neurostimulation
- Intrathecal drug delivery

Stanton-Hicks M et al. Pain Practice. 2002; 2:1-16.

Red Flags

Red Flags Patients

- Poor function/motivation
- Pain always a 10 out of 10
- Behavioral co morbidity
- Focus on particular medications
- Multiple admissions/frequent ER visits
- Alcohol, tobacco and illegal drug abuse

Red Flags Treatment

- Credentials
  - Physician
    - Board Certification
  - Facility
- Pill Mills
- One trick ponies
  - Trigger Point injections
- Blind procedures
- Shotgun Approach
  - “Bi, Bi, Bi”
- Hubris

Red Flags Treatment

Intelligible Plan ??

Communication

WKC-16

SAME DAY APPOINTMENTS!

PPWhealth
PAIN PHYSICIANS OF WISCONSIN

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NEED A SECOND OPINION? WE CAN HELP!

★ 4.9 OUT OF 5 STAR REVIEW RATING ON GOOGLE ★

WE TREAT

- Chronic Pain Conditions
- Slipped Discs
- Sciatic Pain
- Arthritis
- Neuralgic Pain
- Painful Diabetic Neuropathy
- Headaches
- Migraines
- Complex Regional Pain Syndrome
- Spinal Stenosis
- Carpal Tunnel Syndrome
- Cancer Pain

WE OFFER

- Same Day Appointments
- 2nd Opinions
- Diagnostic Services
- 4 Convenient Locations
- Interventional Procedures
- Advanced Treatment Options
- Patient Education
- Telehealth Visits
- Multimodal Approach
- Workers' Compensation Program

Call today for your consultation! 262-297-PAIN(7246)