What does a Pain Clinic offer the Chronic Pain Patient?

Challenging Chronic Pain Patient
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History & Epidemiology
Classification of Chronic/persistent Pain
Types of Pain Clinics
Case presentation & Anatomy
Red & Yellow flags
When to refer
Nepean Pain Center – Personnel & available therapies
Opioid therapy
Pain center emergencies
Future

History:
- Recognised as a chronic disease process. Leriche 1932
- 1930’s onwards USA, Beecher, Alexander, Bonica.
  WWII wounded soldiers.
  1st Pain Clinic “Madigan Army Hospital, Tacoma.
- 1st formal Pain Center. University of Washington, Seattle
- UK 1949, procedure clinic for cancer pain; phenol, etc.
  University College Hospital
- 1970. Melzack & Wall (Gate control theory)
- 1980’s and 90’s – Pain as a specialty.
- Australia 1960’s.
  Faculty of Pain Medicine 1996 (5 colleges); Fellowship 1998.
  AMC recognised as a specialty October 2005

Pain
Symptom or Disease?
Can pain be classified?

WHO classified Chronic Pain as a chronic disease
Managed as a Chronic Disease

Similarity between chronic pain and Women

We talk much about them, but hardly understand them.

Pain is what patient states it is!
Definition of pain (IASP)
An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.
Melzack 1979
Acute pain
Pain of recent onset and probable limited duration. Often an identifiable temporal and causal relationship to injury or disease.
Ready & Edwards ’92
Cancer pain
Similar to acute pain but ongoing; intermittent; EOL issues.
Chronic / Persistent pain
Persists beyond the time of healing of injury and may not have an identifiable cause. (3 months or longer) Ready & Edwards ’92.
Acute pain
Cancer pain
Chronic/persistent pain

Types of chronic (persistent) pain:
- Nociceptive pain (includes visceral & incident pain)
- Neuropathic pain
- Unexplained pain (psychogenic?)

Nociceptive pain
“pain resulting from ongoing activation of primary afferent neurons by noxious stimuli. The nervous system is intact” Pasero, Paice, McCaffery 1999

Tissue injury or inflammation

Nerve system intact
- Somatic -- muscle, skin, joints, connective tissue, bone
- Visceral -- GI tract, pancreas, etc

Achy, throbbing, constant, nagging, vague, etc

Neuropathic pain

Primary lesion or dysfunction of the nervous system
Merskey & Bogduk 1994

- Peripheral
  - Post-herpetic neuralgia
  - Peripheral fibrosis
  - Trigeminal neuralgia
  - Diabetics
  - Brachial plexus injury
  - Post-amputation
  - Complex regional pain syndrome -- CPM (RSD)
  - Other causes of neural injury
- Central
  - Spinal cord injury
  - Stroke

Therapeutic Guidelines: analgesic, 2002

Why do we need to distinguish these pains?

Treatment for Nociceptive Pain?
Treatment for Neuropathic Pain?

Nociceptive Pain
Pharmacotherapy
Simple analgesics -- Paracetamol -- Aspirin
NSAIDs
Opioids

Is Tramadol an opioid?
Neuropathic pain Pharmacotherapy

Analgesic adjuvants
• Tricyclic antidepressants
• SSRIs [venlafaxine]
• Anti-epileptic drugs [gabapentin, pregabalin, topiramate, lamotrigine, etc]
• Clonidine
• Local anaesthetics
• Ketamine
• Capsaicin
• Cardiac anti-arrhythmics

What is unexplained pain?
(Psychogenic)

No real evidence of nociceptive stimulus
No primary lesion or dysfunction of nervous system.
Primarily driven by depression/anxiety, fear, acopia, personality issues, powerlessness, adjustment disorder, etc., e.g. fibromyalgia, irritable bowel synd., chronic pelvic pain, somatisation, etc.

Where do opioids fit?

Pain is the 5th vital sign
Dept. Veterans Affairs mandated; 2003; www1.va.gov/pain_management/index.cfm
Others include -- BP, PR, RR, Temperature.

Experience of pain often a composite of causes. Important to identify major component. Treatment/Management based upon this. Clinical decision.

Spectrum
Physical Pain
Emotional Pain

Nociceptive pain
Neuropathic pain

Understanding basic pathophysiology of pain becomes an essential component in management.

Prevalence

A prevalence study amongst Australian adults showed that persistent pain was reported by:
• 17% of males
• 20% of females

Prevalence levels of pain peaked at:
• 27% for males aged 65-69
• 31% for females aged 80-84
Of the estimated one in five people who suffer from pain:
• more than one-third of those reported substantial interference to their lives - either in their work, home, or at play

Prevalence

• Pain is under-recognised and is difficult to diagnose and quantify by objective tests
• Patients may under-report pain due to fear or stigma
• Doctors may be reluctant to treat pain symptoms due to scepticism about aetiology
Impact of pain on society

The cost to the community is substantial due to:
• high cost of continued treatment
• the loss of productivity people may experience

In Australia it is estimated that (2005)
• 75 million work days are lost each year due to pain
• at least 40,000 people are not working as a consequence of pain
• the annual cost of pain is estimated at $10-$15 billion
  (complementary, alternative therapies not inclusive)
• Loss productivity $5.1 billion (absenteeism 20%;
  presenteeism 80% )

Types of Pain Clinics:

1. Single modality oriented clinic
2. Free standing multi-dimensional private pain clinic
3. Multidisciplinary pain clinic (private or hospital based)
4. Multidisciplinary pain center university/teaching hospital based
   (center of excellence)

Everyone is a pain expert?

Level 1. Single modality oriented clinic:
  e.g. nerve block clinic, acupuncture clinic,
  physical therapy clinic, Radiology,
  psychiatry, based,
  complementary and naturopathic clinics etc.
  Useful role
  Cynicism and disdain by practitioners from MPC
  Symptom therapy / simplistic

Level 2. Free standing multi-dimensional private pain clinics:
  Various specialists and allied health staff in one center,
  Close to hospitals, Day centers.
  Work independently with cursory interaction between disciplines
  Well defined guidelines.
  Serve useful purpose to specific communities

Level 3. Multidisciplinary pain clinic (hospital or private based):
  Conforms to highest ethical and professional standards.
  Group of clinicians + allied health centrally located.
  Fulltime director.
  Interactive and interdisciplinary
  At least 3 medical specialties (Pain physician & Psychiatry)
  Full spectrum of assessment, investigations, management options

Level 4. MPC – Center of excellence:
  All of above
  Training for Registrars, Pain Fellows to Fellowship
  Education in pain medicine
  Center of learning and visitation by other MPC specialist for education
  Accredited to academic colleges and recognised training facility
  Research and publication
  Outcome studies
  Psycho-education group therapy

Four basic personality types
Where are the pain generators?

**A chronic pain experience**


X-rays, CAT scan -- disc prolapse. Neurosurgeon. Laminectomy. Improved. LBP present but manageable.

Hoping conservative or surgical treatment will cure.

Worried. S/s GP. Referred to 2nd Neurosurgeon. Minimal significance. Unable to work. Poor sleep, taking too many pills.

Anxious, depressed. Family and friends --- *seeking sympathy, putting it on, etc.* Worried for his future, finance, family, fear of wheelchair, etc.

2nd Surgeon mentioned "unstable spine" following myelogram. Suggest fusion surgery.

Desperate patient. Agrees to 2nd surgery.

2nd surgery done (Fusion). No help. Became worse after 2 months. Heightened anxiety, depression, poor sleep, increased analgesic intake. On to opioids. X’s opioids, benzodiazepine. Various allied health options, complementary Tx.


Referred to Psychiatrist. On tranquillisers. Excess opioids/benzo’s. Learn to live with it?

Referred to our pain centre

PROBLEMS:

A familiar story !

COMPLEX PRESENTATION:
• physical problems
• psycho-social problems
• powerless, helpless, anger, maladjustment, etc.
• locking coping skills
• reinforcemtn
• entitlement
• hoping for a "cure"
• too many medications
• not understanding the problems, confusion, catastrophising, etc.
• family issues with partner, children, friends, workmates, etc.

System failure.

Mind and body --- inseparable

Mind

Nervous system, hormones, Metabolism, others

Body
Referral to Pain Center

Consider referral to a pain centre when:
- The patient fails to improve in function
- The patient has difficult-to-control pain
- A satisfactory diagnosis cannot be reached
- There are complex psychosocial influences
- Pain is accompanied by medication misuse
- Require structured psycho-education
- Invasive intervention or Advanced pain therapy may be necessary

Gibson SJ et al, 1996; Goucke CR, 2003

RED FLAGS:
- weight loss
- below 18 or above 55 age
- fevers
- recent change of symptoms
- weight loss
- definite recent neurological signs

YELLOW FLAGS:
- fear/avoidant
- maladjustment, acopia
- enhancement of self
- depression
- confusion, self-esteem
- demand for excess medications
- demand for specific medications, etc.

BEWARE OF STATEMENTS:
"I have a high pain threshold but this pain....."
"I was always a strong person and cared for others but this....."
"Others always depended on me but....."
"I was the best worker in the office but I'm still a hard time....."
"I don't want to talk about my past....."
"I develop side effects to most medications except....."

NEPEAN Multidisciplinary Pain Centre: Level 4
University and Teaching Hospital based
Fulltime Director, 5 Pain Consultants (Anaesthesia, Psychiatry, Rehabilitation)
Senior Registrar, Registrars
"Occupational Therapists" Overseas, local
Clin. Psychologist Physiotherapist, OT, Social Worker, Dietitians, Nurses, Secretaries
Close consultation with -- Neurosurgery, Neurology, Psychological medicine, Palliative Care, D&A, Orthopaedics, Radiation, others.
Management strategies & regular case conference
Education – department, hospital, area staff, GP's, others.
Participation in Major Conferences domestic & international
Publications in peer review journals
Protocols
Liaise with College Registrar and Pain Fellow training
Research
Conjoint meetings with a number of disciplines

Opioid Therapy (briefly):
- Selected patients suffering from Nociceptive Pain
- If Neuropathic pain
- 70-80% referred cases on opioids: harm minimisation.
- No place for parenteral opioids
- Sustained release
- Caution with "Yellow flag" patients
- Start low dose, titrate, improving ADL's
- Opioid contract

Australian consensus: Opioids in non-cancer pain
A small group of patients with chronic non-cancer pain can benefit
from the use of opioids:
- Thorough diagnosis and patient history must precede any decision to prescribe opioids
- Patients should be psychologically stable
- Patient and doctor should agree beforehand on how to assess the outcome of therapy
- A trial of therapy, with goals and endpoint agreed between patient and doctor, should precede any decision to prescribe opioids in the long term
- One prescriber; one pharmacy; opioid contract
- Outline side effects, complications
- Nociceptive vs Neuropathic pain
- others
Chronic pain patients suitable for opioids: A biopsychosocial approach

- Are maintaining some (versus very few) normal activities despite their pain
- Are not engaging regularly in escape or avoidance behaviours
- Display evidence of working on minimising alarmist thinking styles
- Are using non-pharmacological ways of calming themselves


Issues in pain management

(Negative impact for opioid Tx)

- Adverse effects of medication
- Tolerance, dependence, addiction
- Hyperalgesia
- Recognising patients inappropriate for opioid
  - Substance abusers
- Dealing with treatment non-response
  - Opioid-resistant pain (pseudo-tolerance)
  - Counselling / family / social issues

Case report – opioid therapy in non-cancer pain

Mrs. H 88 yo nursing home pt.
About 4 year h/o severe OA knees, Alzheimer’s, profound deafness & visual impairment
Until 3/12 ago managed walking short distances with frame. Now requires 2 nurses to assist standing.
When sitting often exhibits spontaneous pain behaviour, crying, Rubbing her knees, abnormal vocalisation. Could not verbalise pain experience due to dementia and deafness.
Pain behaviour recorded on Abbey Pain Scale.
GP tried paracetamol/codeine and tramadol without success.
NSAIDs not appropriate – renal and cardiac problems.

Issues:
Severe pain & disability due to severe OA. Not suitable for surgery.
Opioid Tx not started, fear of worsening confusion?

Management

Trial of opioid. Low dose i.e. 5mg daily oral morphine mixture, titrated upwards over the days.
Tolerated 30mg p.day. Severe constipation.
Converted to Norspan initially 5; stabilised to 10 mg
Weekly patch change easier on nursing staff.
Mrs. H. more comfortable, less pain behaviour, crying.
Less grimacing and less abnormal vocalisation.
No longer required 2 nurses to transfer.
Abbey Pain Scale (max 18) reduced from 6 to 0 at rest and 11 to 3 on transfer.
Reviewed by Physiotherapist – too unstable to walk. Commenced passive stretch exercise.

Invasive interventions:

Invasive interventional therapies to be combined with physical and psychological therapies.

- Nerve blocks alone inadequate/insufficient e.g. nerve block clinics, radiology intervention, etc.

Some examples of invasive interventions

- Sympathetic nerve blocks (all these done under fluoroscope or CT Scan)
  - Stellate ganglion – sympathetic block
Lumbar Sympathetic Block

Cervical Facet block (medial branch block)
Cervical Plexus Block
RF denervations of facet joints

Lumbar Facet Joint (Medial Branch Block)
RF Therapy

Epidurogram / epidural

Caudo-epidurogram/epidural

Nerve root sleeve block

Previous spine surgery
No epidural space
Back and leg pain
Nerve root irritation
CT Scan Intervention

Intra-thecal trial for refractory LBP + Lower Limb Pain

Peripheral nerve stimulator implant:

Peripheral Nerve stimulation (continue)

Spinal cord stimulator trial or permanent

Upper or lower limb neuropathic pain
Several causes
- post-spinal surgery
- CRPS (RSD)
- peripheral vascular pain
- refractory angina

Post-spine surgery Peridural fibrosis
Spinal stimulator

Drug Delivery Pump.

Vertebroplasty (osteoporotic fracture)

Our patient (Michael)

4 years unemployed
Maximal medical management
Implanted Spinal Cord Stimulator
Attended psycho-education (COPE Pain Program)
Attended D&A
Minimal medications
Significant reduction in medical & ancillary services
Vocational re-training
Employed as computer sales/delivery

Pain center urgent referral:
1. CRPS
2. Refractory cancer pain
Complex Regional Pain Syndrome (CRPS):

- Continuing pain disproportionate to inciting event
- One symptom in 3 of 4 of the following:
  - Sensory: Allodynia &/or hyperesthesia
  - Vasomotor: Temperature asymmetry &/or skin colour changes
  - Sudomotor/Oedema: Oedema &/or sweating
  - Motor/Trophic: Decreased ROM &/or motor dysfunction
- Must display 1 sign at time of assessment in 2 or more of following:
  - Sensory: Allodynia, Hyperalgesia (touch, temperature, joint movement)
  - Vasomotor: Temp. change by 1 degree, skin colour change.
  - Sudomotor/Oedema: Oedema &/or sweating
  - Motor/Trophic: Decreased ROM, skin, nail changes.
- No other diagnosis that better explains signs & symptoms.

Steering committee, Budapest, 2003

Comprehensive assessment at our centre:
- Pain Physician
- Psychiatrist
- Physiotherapist
- Occupational Therapist

Case discussion
- Psychologist for CBT
- Social Worker intervention

CRPS (RSD) Pictures

Cervical spinal stimulator
Before																						After

Future:

- PET scan + fMRI (demarcate Munchausen’s, Factitious pain, malingering, drug seeking etc)
- specific pharmacotherapy
- genetics
- preventive emphasis; medical school curriculum
- video conference with remote area practitioners
- advances in pharmacotherapy/research
- greater role/partnership with primary care physicians
- community based advocates to promote like arthritis foundation, asthma, diabetes, glaucoma, etc.

Thank you

Pain is a basic fact of life
Misery is an option.