# Management Options for Chronic Non-Cancer Pain

In the Context of Codeine Up-scheduling

Paul Gray

13 December 2017

# Alarming Stories

- 45 year old male admitted with lumbar vertebral body fracture
  - Confessed to codeine dependency
  - Tried ‘cold turkey’ à seizure
  - Driving every evening after work past 4 to 5 pharmacies
  - Obtaining 20 panadeine tablets at each pharmacy.
  - He agreed to being involved with drug abuse services.
- 32 year old male in ICU
  - Gastric ulcer perforation à mediastinitis
  - Weeks of intensive care
  - Taking Brufen plus at a rate of 60-80 tablets a day


CONTROLLED DRUG
POSSESSION WITHOUT AUTHORITY ILLEGAL
KEEP OUT OF REACH OF CHILDREN
ENDONE
EACH TABLET CONTAINS OXYCODONE HYDROCHLORIDE 5 mg
20 TABLETS
AUST R 14945
SIGMA

The Sydney Morning Herald

September 2015

"More than 3.7 million prescriptions for oxycodone were issued in the year to June 2014, compared with about 721,000 in the year to June 2004."

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June 2015


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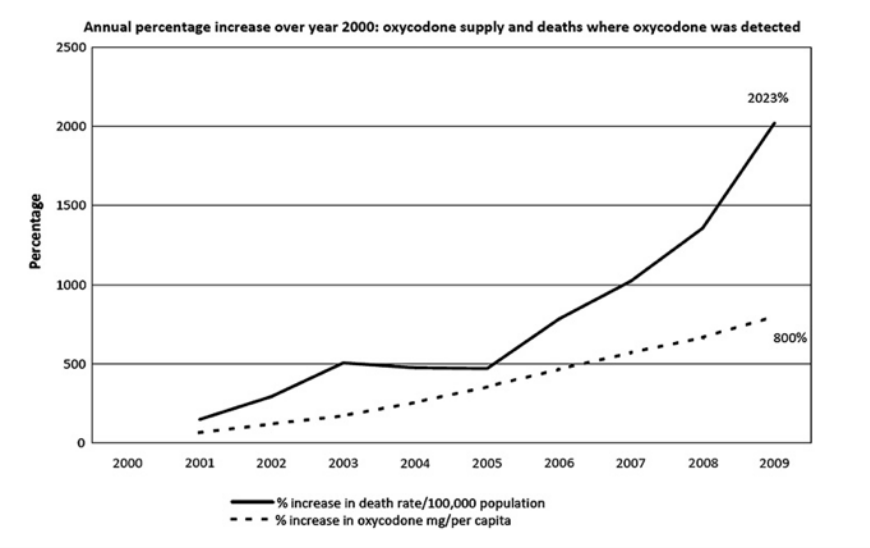
# Increasing deaths involving oxycodone, Victoria, Australia, 2000–09

Angela C Rintoul,[1,2,3] Malcolm D H Dobbin,[2] Olaf H Drummer,[1,4] Joan Ozanne-Smith[1]

- 7.5 mg per capita in 2000
- 67.5 mg per capita in 2009
- Detection of oxycodone in deaths reported to the Coroner
  - 4 in 2000 to
  - 97 in 2009
- Of the 320 cases
  - 53.8% were the result of drug toxicity
  - Of these, 52.3% were unintentional

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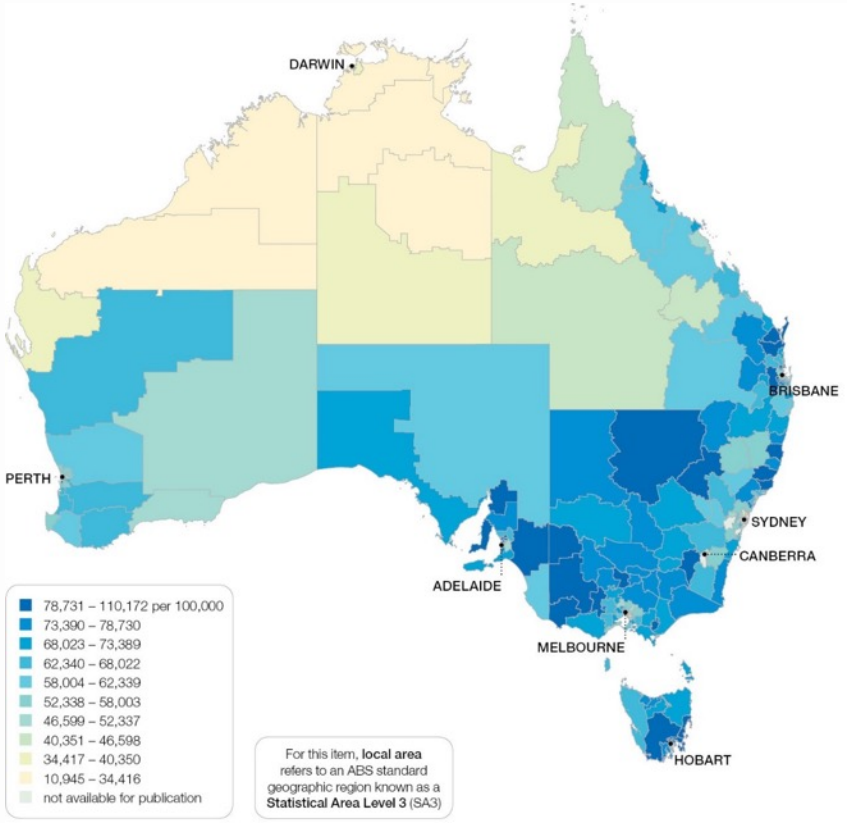
# Atlas in Healthcare Variation 2015

## Opioid dispensing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# USA : Australia comparisons

| | Opioid use DDD per thousand people | Opioid related deaths per million people | Opioid related deaths with medical prescription |
|---|---|---|---|
| USA | 51.1 (2011) | 87.8 (2014) | 50% |
| Australia | 14.2 (2011) | 30.6 (2011) | 70% |

- US National Vital Statistics System, Centres for Disease Control & Prevention
- International Narcotics Control Board. Narcotic drugs: estimated world requirements for 2013. Statistics for 2011. New York: United Nations, 2012.
- Roxburgh A, Burns L. Accidental drug-induced deaths due to opioids in Australia, 2011. Sydney: National Drug and Alcohol Research Centre, 2015

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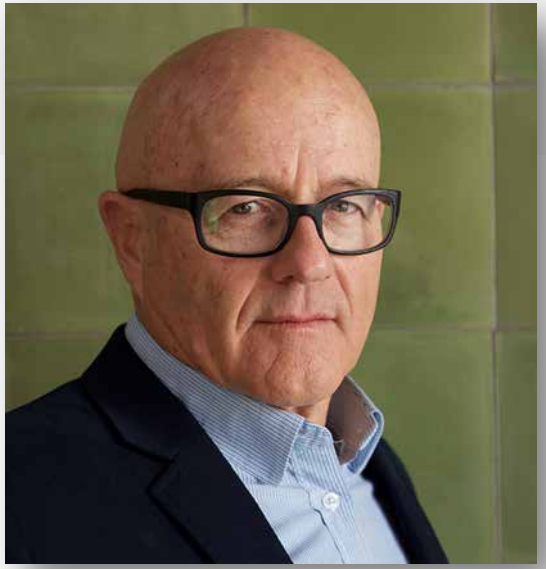

**Official Patron, Mr Kim Ledger**

Script Wise | Preventing prescription medication misuse.

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# Two Primary Purposes

1. Opioid dependency à
2. Chronic Pain Management à

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# Chronic Pain Management

- Fresh opportunity review pain and pathology
- Provide prescription for maintenance
- Rebook a long visit for deeper assessment

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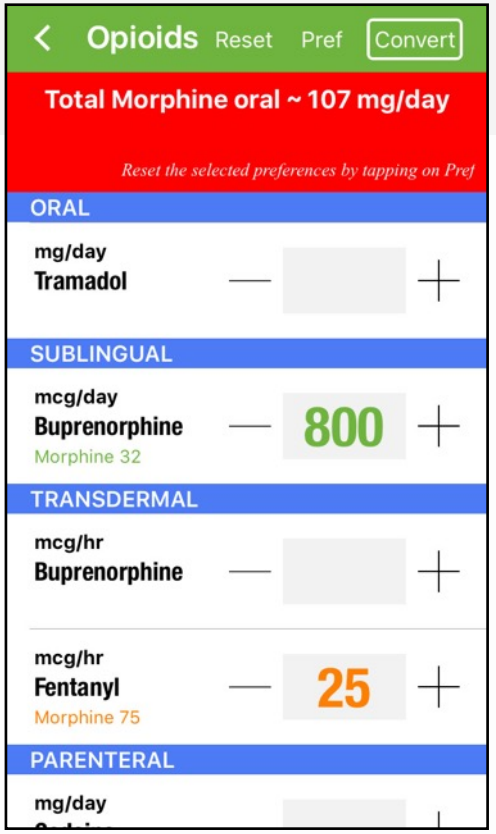


Search:

“Opioid calculator”

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# An approach to pain assessment: initial

- **Who is the person?**
  - family history, development, adversities
  - past pain experience and response
  - psychological and physical fitness: depression, anxiety, appraisals

  *yellow flags: psycho-social factors associated with increased risk of disability, distress*

- **What are the potential mechanisms?**
  - nociceptive, neuropathic, “sensitization”

  *red flags: clinical indicators of possible serious medical conditions*

- **What is the impact?**
  - biological, psychological, social
  - bi-directional interactions/cycle development: disability

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# An approach to pain assessment: review

- **What is the expected/actual journey?**
  - trajectory predicts recovery, although consider neuropathy
    - tissue recovery/injury
    - social response/interactions

*Response*: *how is the person and their environment responding?*

- *Flag system*
  - Based on RTW analysis/data, although applicable to other pain experiences
    - a flag suggesting increased risk of failed RTW
  - Orange: mental health disorders
  - *Blue*: workplace or social related factors/perceptions
  - **Black**: compensation system/legal factors

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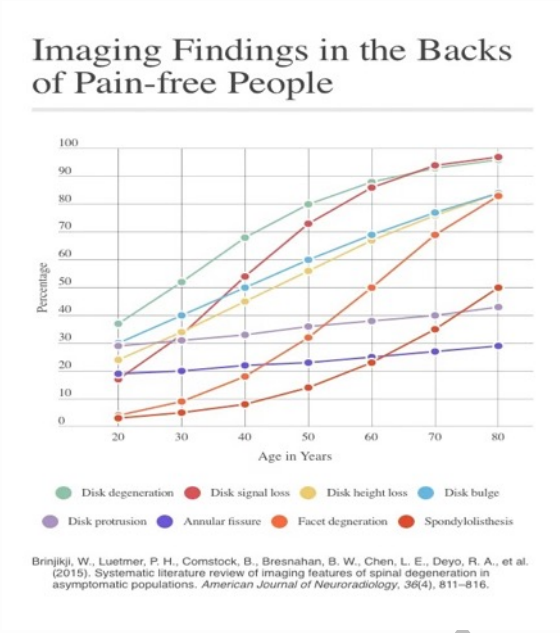
# Care with investigations

- Indicated when “red flags” identified
  - potential to increase somatic focus
  - early MRI detrimental, costly
    - » Webster B. *Spine* 2013; 38; 1939
  - changes common in asymptomatic
    - » Brinjikji W. *Am J Neuroradiology* 2015; 36: 811
- Structure vs function
  - pain is dynamic CNS evaluation

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# Clinical pain

- Sensitization
  - peripheral: inflammatory mediators, nerve changes
  - spinal cord sensitization: up-regulation (NMDA, NOS, PG's)
    - Including glial cell activation
  - brain changes: cortical re-organisation
- Behavioural change
  - sleep, mood, fear-avoidance, hyper-vigilance
- Descending modulation
  - inhibition
  - facilitation

- Catastrophising

» Yarnitsky D. *Pain* 2012; 153: 1193

**Consider a persons nociceptive spectrum in assessing current pain**

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# Factors associated with pain severity and persistence

- Acute pain severity biggest predictor of chronic pain
  - surgical factors, post-operative care, rehabilitation
  - ? neurogenic inflammation

- Psycho-social aspects important, including the trajectory
  - genetic
    - including anxiety, catastrophising
  - adverse childhood experiences
    - » Scott K. *Arch Gen Psych* 2011; 68: 838
    - plus parental style
      - » Anno K. *BMC Psychiatry* 2015; 15: 181
  - past pain and pain cognitions
  - compensation/solicitous systems
  - perceived injustice
    - » Martel M. *Clin J Pain* 2016; aug12

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# Development of Persistent Pain

- Peripheral and Central sensitisation
- Type of acute pain management may influence the development of chronic pain states
- Central nervous system is plastic in nature
- Neuromagnetic imaging has demonstrated
  - Strong relationship between cortical reorganisation and magnitude of some chronic pain states.
  - In particular, phantom limb pain
- This process of central modulation and sensitisation can lead to states of chronic pain
  - Difficult to treat
  - Considerable disability
  - Considerable cost to community

# Current thinking

- Pain is a multidimensional personal experience
  - psychosocial aspects relevant pre and post pain onset
  - neurological basis, with genetic and developmental influences
  - socio-psycho-neurological management required
- Opioids are anti-nociceptive
  - essential to (severe) acute pain management
  - role in chronic pain as part of a multidisciplinary, multimodal approach
    - function rather than pain reduction the focus
- Optimal use of opioids requires effort
  - limit opioid failure, adverse effects
    - combine with anti-hyperalgesic
  - educate, review, titrate/taper
    - boundaries

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# An approach to pain management

- **Manage from a biopsychosocial perspective**
  - Patient education essential
    - team liaison, including family, medical
  - Pharmacological
    - opioids è for nociceptive pain, with anti-hyperalgesics
    - NSAIDS, biologicals, anti-oxidants è for inflammation
    - regionals, ketamine, clonidine, TCAD/SNRI, GBP è for sensitization
  - Non-pharmacological
    - physical rehabilitation, re-exposure
    - psychology assessment/management
      - education, cognitive re-appraisals, acceptance, mindfulness
    - social
      - judicious support, lessen solicitation, legal (?early apology)

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# Opioid review (6 As)

| | |
|---|---|
| *Activity* | *Ability to perform normal/recreational activities.*<br>*Engagement in complimentary management/physio* |
| *Analgesia* | *Average, worst, best; BPI*<br>*Sleep disturbance* |
| *Adverse effects* | *Nausea, constipation, sedation, skin* |
| *Aberrant behaviours* | *Stable dosing*<br>*? Any end of dose failure* |
| *Affect* | *Pain cognitions, affect* |
| *Affect* | *? Need for permit* |

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# Mindfulness

- “non-elaborative, non-judgmental awareness” of present moment experience
  - regulated, sustained attention to sensory, emotional, cognitive events
  - recognition as momentary, fleeting and changeable
  - lack of cognitive and emotional appraisal

- EEG and fMRI suggest long term meditators change brain response to noxious stimuli (in non-meditative state)
  - less unpleasantness, greater sensory activation (insula, cingulate, OFC)
  - less med-PFC, amygdala, less connectivity between PFC-cingulate
- Increased sensory processing whilst meditating
  - » Zeidan F. *Neurosci Lett* 2012; 520: 165

- Different fMRI activation to placebo in experimental pain
  - greater effect
    - » Zeidan F. *J Neuroscience* 2015; 35: 15307

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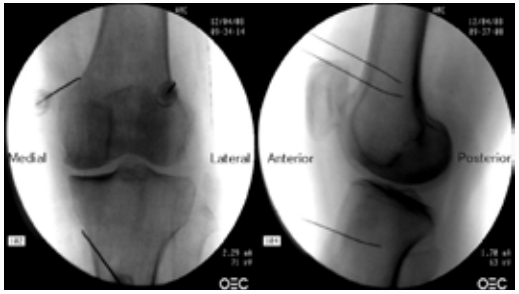
# Interventional pain management

- Influence nociceptive/pain physiology
  - steroid injections
    - ? role for PRP
  - LA/radiofrequency ablation
    - spinal facet joints
      - » van Wijk *Clin J Pain* 2005; 21: 335
    - knee, hip
  - neuromodulation
    - peripheral, spinal cord, brain stimulation
    - ? TMS
  - ? vertebroplasty
      - » Bird P. *MJA* 2017; 207: 279

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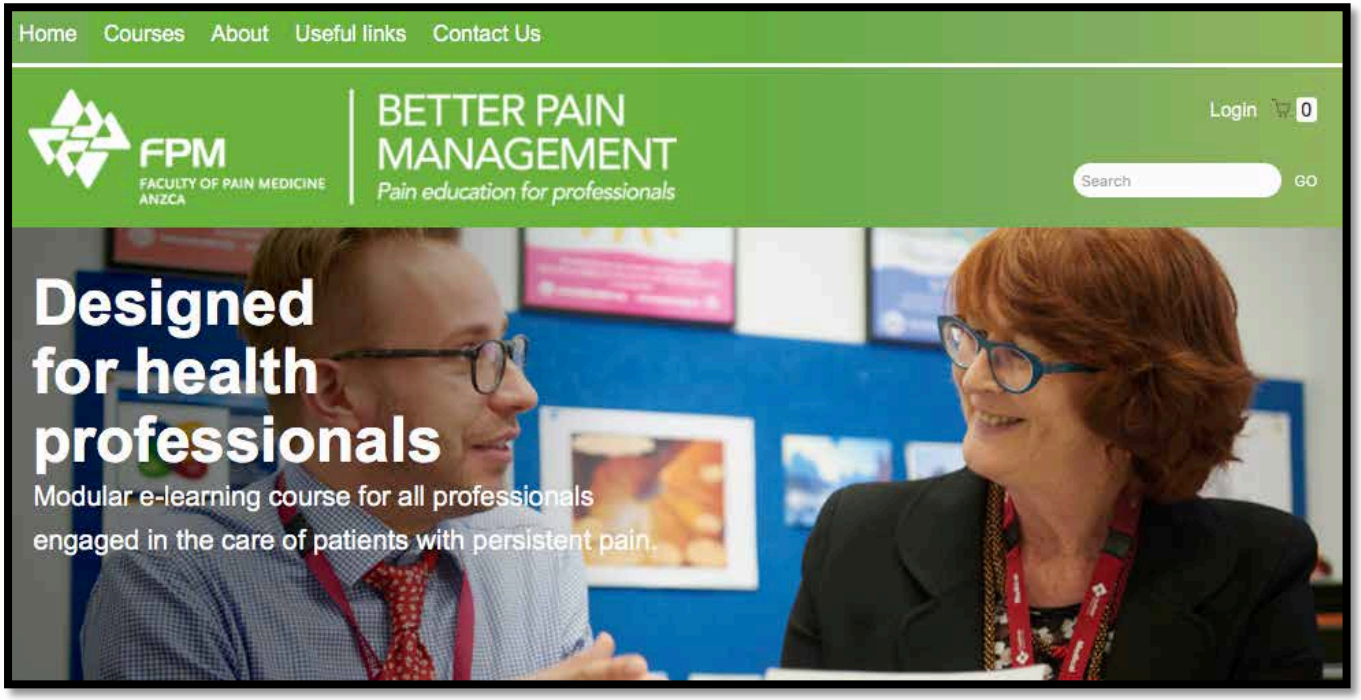
# Resources for Health Professionals




12 Modules

1 hour each

CPD Points

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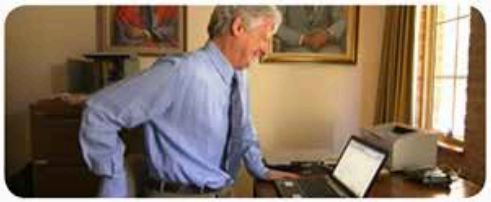
# Better Pain Management

**Module 1: Making an effective pain diagnosis: a whole person approach**

Understand the importance of a whole person approach to pain assessment, including awareness of important pathophysiological pathways and the complexities underlying pain experiences.



**Module 2: The impact and management of psychological factors in pain**

Recognise patients at risk for long-term distress and disability. Develop a management plan for psychosocial comorbidities in patients with chronic pain.

**Module 3: A whole person approach to chronic pain**

Comprehensively assess and manage complex chronic pain presentations. Educate patients about multidisciplinary pain management.

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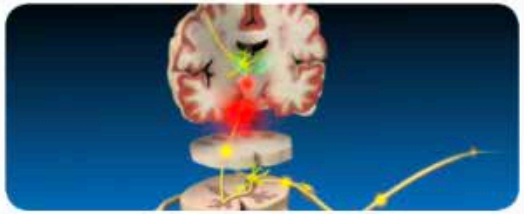
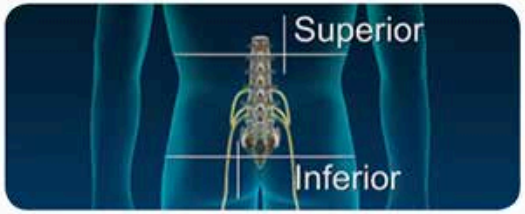
# Better Pain Management



## Module 4: Identification and management of neuropathic pain in the primary care setting

Use a systematic assessment to diagnose neuropathic pain, including how to distinguish between neuropathic and nociceptive pain. Develop a treatment plan to address common comorbidities, including when referral is indicated.




## Module 5: Identification and management of low back pain in the primary care setting

Develop an evidence-based approach to assessing low back pain, with a focus on using practical, effective and time-efficient strategies. Understand why a multimodal vs. unimodal approach to low back pain is more effective.

## Module 6: Opioids in pain management

Initiate and monitor opioid therapy appropriately in patients with non-malignant chronic pain. Includes resources such as the Opioid Risk Tool for assessing a patient's risk of problematic opioid behaviour.

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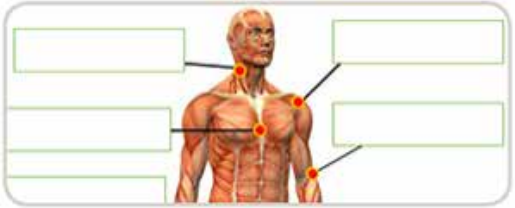
# Better Pain Management


## Module 7: Pharmacology of pain medicine

Develop an understanding of analgesic medications and mechanisms present in chronic pain to drive rational prescribing.



## Module 8: Non-joint musculoskeletal pains

Explore less understood causes of chronic musculoskeletal pain.


## Module 9: Post-discharge acute pain management

Learn about current evidence and best practice in the management of post-surgical acute pain in the community.

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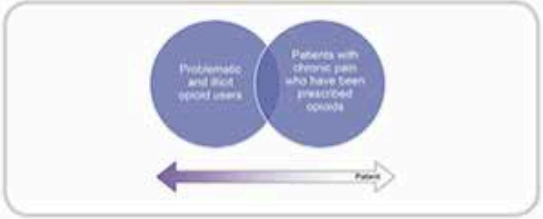
# Better Pain Management


## Module 10: Understanding pain-related procedures

Commonly performed procedures for pain reduction explained in detail.



## Module 11: High-dose problematic opioid use

Unravel this complex problem by understanding the influences that drive high opioid use within vulnerable patients.


## Module 12: Pain in children

Appreciate the differences between adult pain and acute and chronic pain in children to improve your practice.

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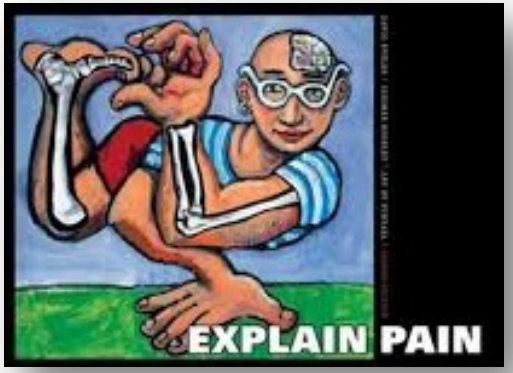
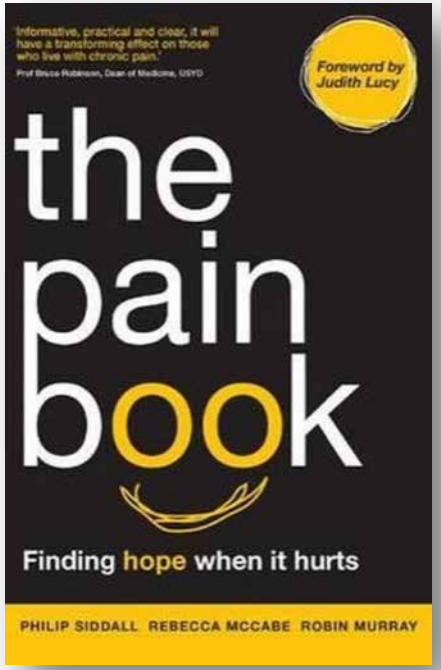
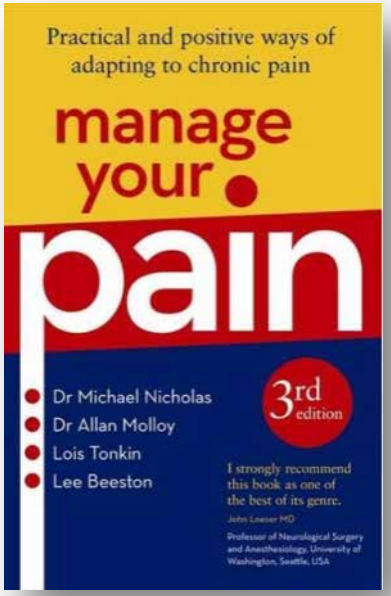
# Resources for Patients

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# Fifteen Years of Explaining Pain: The Past, Present, and Future

G. Lorimer Moseley*,† and David S. Butler*,‡

*Sansom Institute for Health Research, University of South Australia, Adelaide, Australia.
†Neuroscience Research Australia, Sydney, Australia.
‡Neuro-Orthopaedic Institute, Adelaide, Australia.

- Education psychology
  - conceptual change: pain is dynamic
  - pain as a perceived need to protect rather than as a marker of damage
  - doesn't deny peripheral nociceptor activity
  - not behavioural or educational therapy per se, rather cognitive modulation


- Effective
  - improves knowledge
  - decreases catastrophising
  - short term reduction in pain, disability
  - assists (should integrate) with MDT rehab
    - » *Journal of Pain* 2015; 16(9): 807-13

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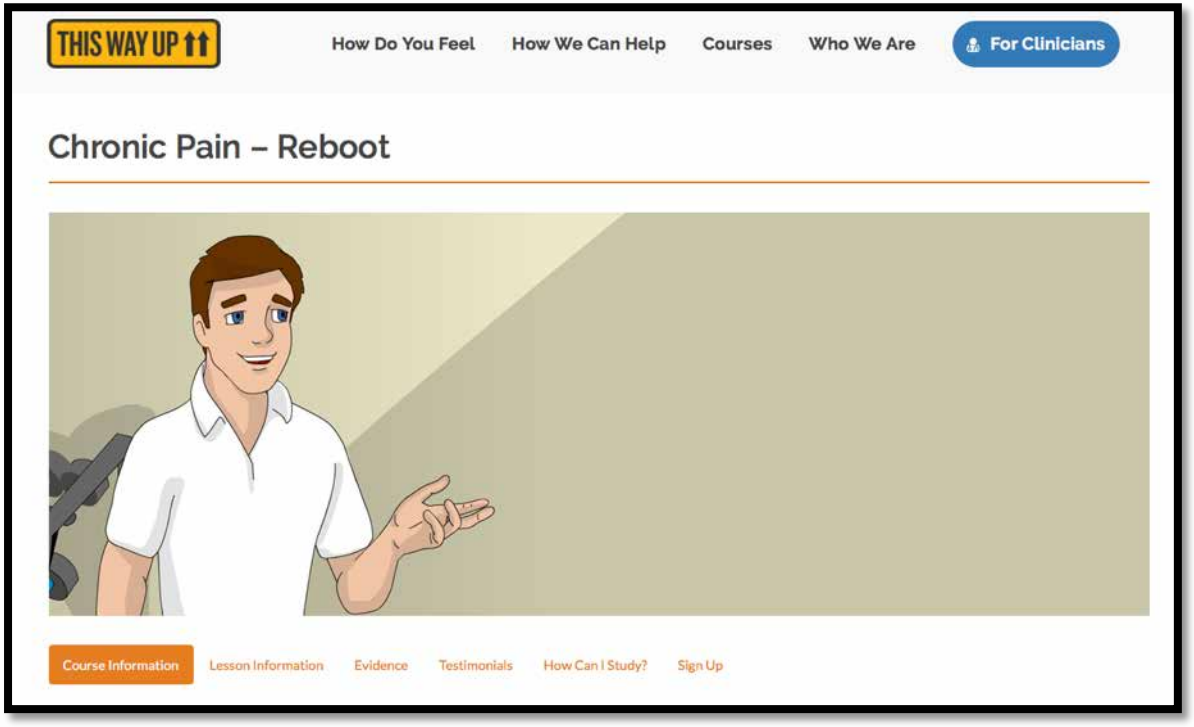
# Resources for Patients




www.thiswayup.org.au

8 lessons over 120 days

CBT based program

$59 dollars

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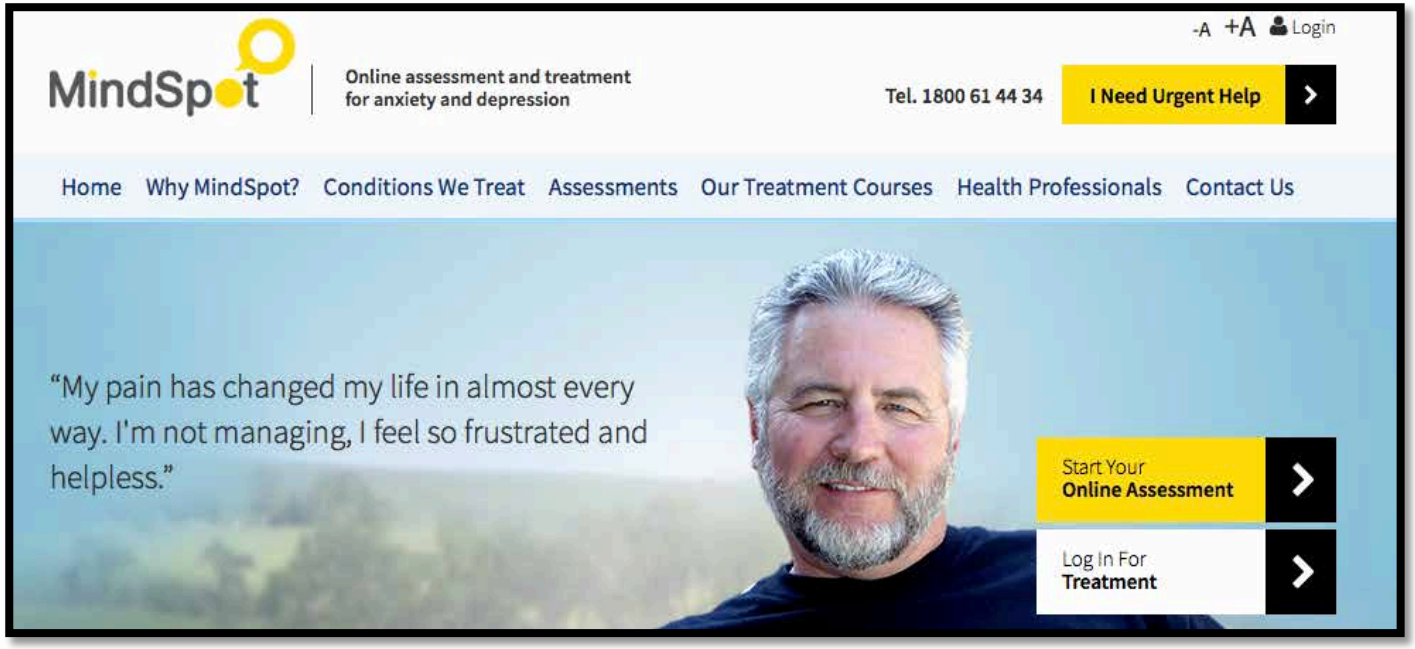
# Resources for Patients

Mindspot.org.au

Free

Especially for people with elements of anxiety and depression

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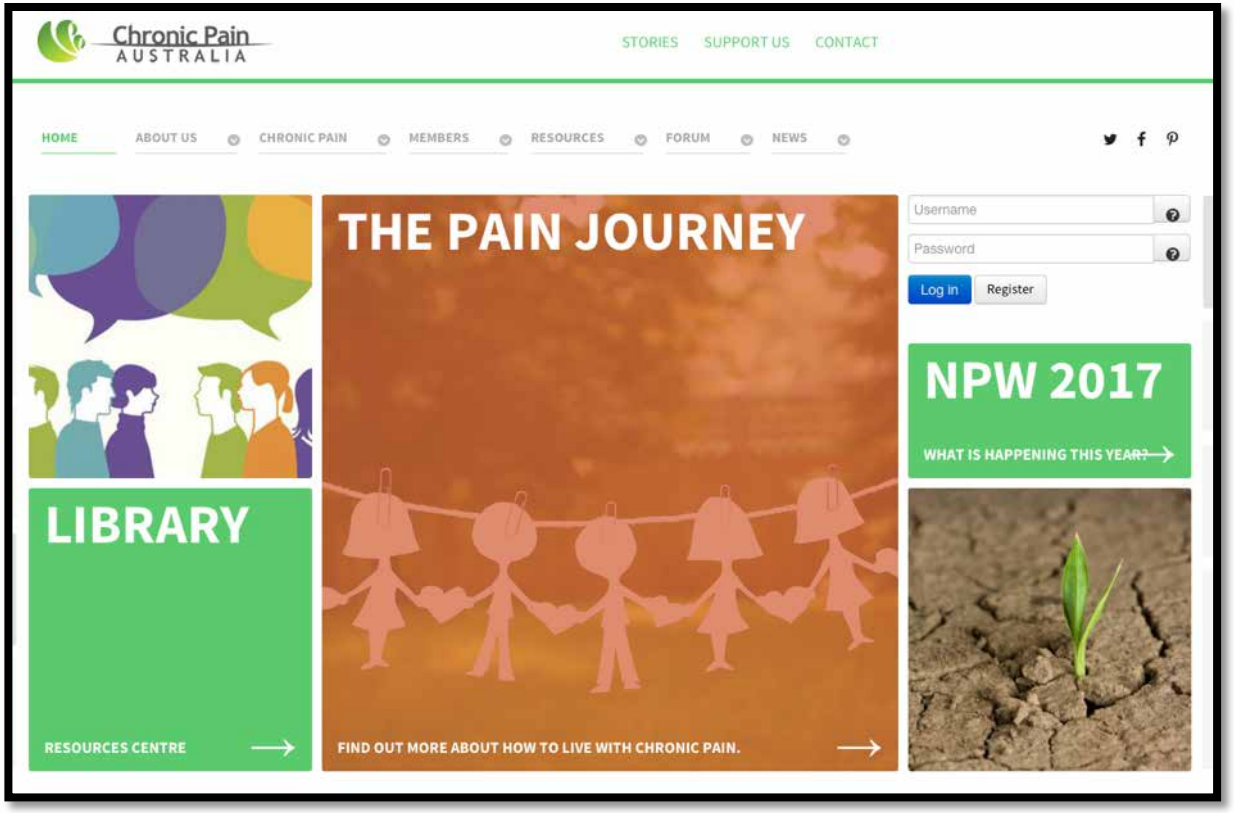
# Resources for Patients – Consumer Groups

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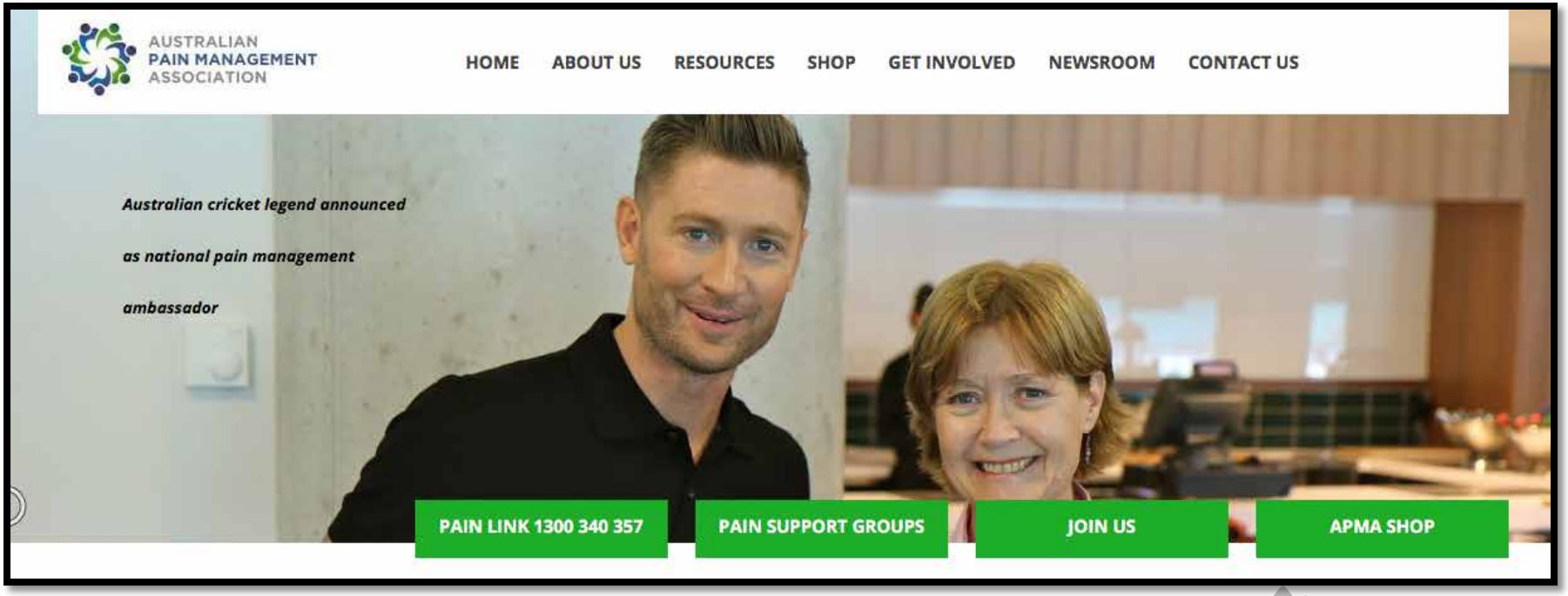
# Resources for Patients – Consumer Groups

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# Resources for Patients – Consumer Groups


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# Painaustralia

- Prosecutes case for NPS
  - Document developed 2010
  - Government submissions
    - Education grant basis for BPM program
    - Funding for prevention program, NSW
    - MBS review submissions
    - Codeine program
- Resources
- Links
  - Collaborative approach
    - consumers, clinicians, researchers


The key goals of the National Pain Strategy are:

- People in pain as a national health priority
- Knowledgeable, empowered and supported consumers
- Skills professionals and best-practice evidence-based care
- Access to interdisciplinary care at all levels
- Quality improvement and evaluation
- Research

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# PainAustralia – Resources for Patients

## For your patients

The following fact sheets are available for you to download and print for your patients.

- The Nature and Science of Pain (Painaustralia)
- Prevalence and the Human and Social Cost of Pain (Painaustralia)
- Clinical Assessment of Pain (Painaustralia)
- Multidisciplinary Pain Management (Painaustralia)
- Spinal Cord Stimulation (Painaustralia)
- Targeted Drug Delivery (Painaustralia)
- Chronic Pain – A Major Issue in Rural Australia (National Rural Health Alliance)
- Chronic Physical Illness, Anxiety and Depression (Beyond Blue)
- TENS; Transcutaneous Electrical Nerve Stimulation (Painaustralia)
- Neuropathic (Nerve) Pain (Painaustralia)
- Self-Managing Chronic Pain
- Shingles – Busting the myths (Seqirus)
- The Pain Toolkit Australia (www.paintoolkit.org)
- Chronic Pain Management Strategies (NSW ACI)
- Communicating and building your healthcare team (NSW ACI)
- Pain and Physical Activity (NSW ACI)


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painaustralia™
working to prevent and manage pain

Painaustralia FACT SHEET 9

# Neuropathic (Nerve) Pain

## Key Points

- Neuropathic (nerve) pain is caused by damage, disease or dysfunction in the nervous system.
- Neuropathic pain can include any or several of the following: shooting, radiating, tingling, crawling, stabbing or burning pain; feeling heat or coldness; pins and needles; electric shocks; numbness.
- In many cases of neuropathic pain, external stimuli that are not normally painful (such as a breeze) can cause pain.
- Untreated pain can have a significant impact on quality of life.
- Medication alone is not the answer; a multimodal approach to treatment is required.
- Pain management is most effective when patients implement pain management strategies in their everyday lives (self-management).

Because the nervous system is dynamic, changes in its structure can allow pain messages through to the brain, long after the original source of pain has healed. For example, where nerves are compressed or inflamed for a long time due to chronic low back pain, even after treatment has removed pressure on the nerves, they can continue to send impulses to the brain. This 'pain memory' leads to what is known as 'pain sensitisation', where the nervous system is sending the wrong signals to the brain.

Whatever your pain feels like, it will not always feel like anyone else's pain, even though it may have the same underlying cause. This is because pain is an individual experience, and it depends on many factors including your beliefs, attitudes, coping style, support networks and your environment.

## What conditions cause neuropathic pain and who is at risk?

# State Health websites/resources

- Better Health Channel
  - updated information (2016), limited re specialist services
  - https://www.betterhealth.vic.gov.au
- Pain Health (WA)
  - http://painhealth.csse.uwa.edu.au
- NSW Network Pain (ACI)
  - http://www.aci.health.nsw.gov.au/chronic-pain
- HNE health (HIPS)
  - Patient and clinician resources
  - Referral processes, home of “brainman”
  - https://www.youtube.com/watch?v=5KrUL8tOaQs

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# Persistent Pain Management Services

- Gold Coast Interdisciplinary Pain (Robina campus)
- Metro South PPMS (PAH)
- Professor Tess Cramond Multidisciplinary Pain Centre (RBWH)
- Sunshine Coast PPMS (Nambour)
- North Queensland PPMS (Townsville)

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# Allied Health

- Principles
  - assess and engage client in self-management approach
    - stages of change, locus of control
      - role for motivational interviewing
    - aim for functional gains rather than pain reduction per se
  - target unhelpful cognitions and behaviours
    - catastrophising, low self-efficacy
    - fear-avoidance behaviour
    - mood disorder
  - optimise physical-psycho-social function
    - muscle tone, posture
    - boom-bust vs pacing
    - solicitous systems

- Evidence of benefit, maintained at 12 mths
  - potential to benefit from group dynamic
    - » Kamper SJ. *Cochrane Database Syst Rev* 2014; 9: CD000963

CBT
ACT
Psych Flexibility
Mindfulness

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# Pain Management Programs

- Co-ordinated, multi/interdisciplinary, groups
  - selected based on prognostic indicators: ePPOC measures

- Range of processes and program structures described
  - education: 2-8 hrs, eg STEPS program
    - neurophysiology, self-management principles
    - options: directs ongoing care, shortens wait time
      - » Davies S. *Pain Medicine* 2011; 12: 59
  - PMP
    - Individual: targeted/focused program
    - Low: 6-24 hrs, low depression, disability
    - Medium: 25-50 hrs, over 4-8 weeks
    - High intensity: >100 hrs, intensive
  - specific approaches: yoga (mindfulness), Thai Chi, palate's
    - » ACI; PMP: which program for which patient? 2013

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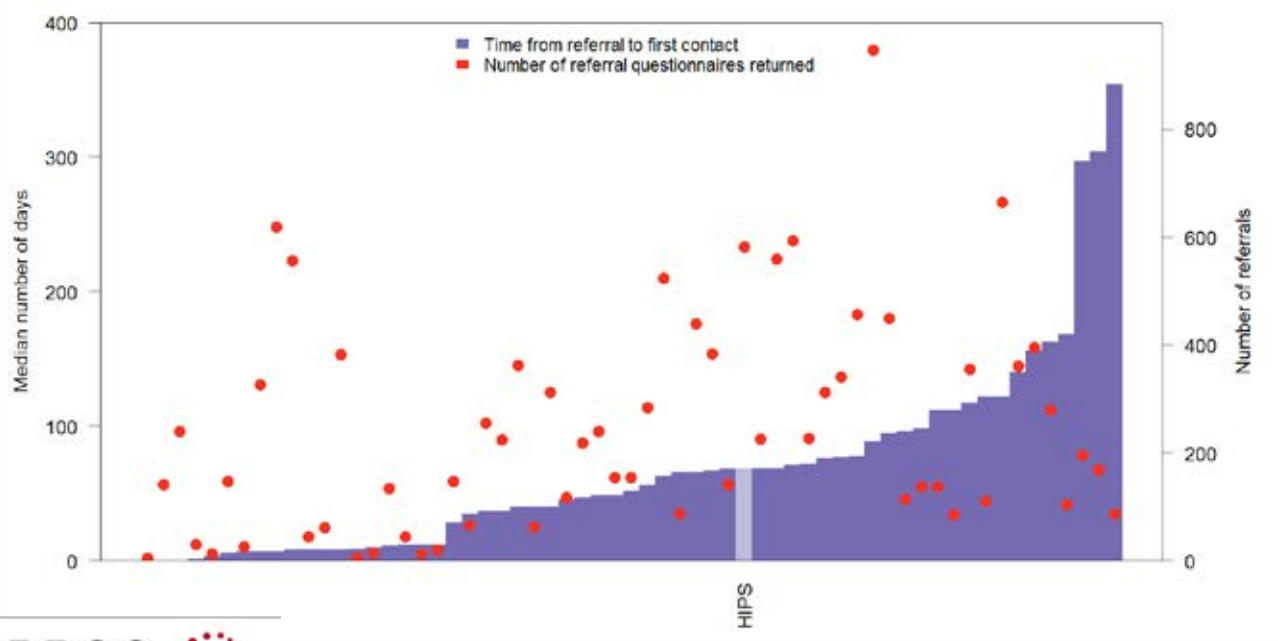
# Waitlists…

- All are long
  - Risk of patient deteriorating and deconditioning during that wait
  - Patient becomes more frustrated
- PTCMPC
  - Approximately 700 people waiting for first review
  - 3.5 FTE pain specialists
  - More added to waitlist every month than patients seen

# Median wait time = 55 days




ePPOC
electronic persistent pain outcomes collaboration

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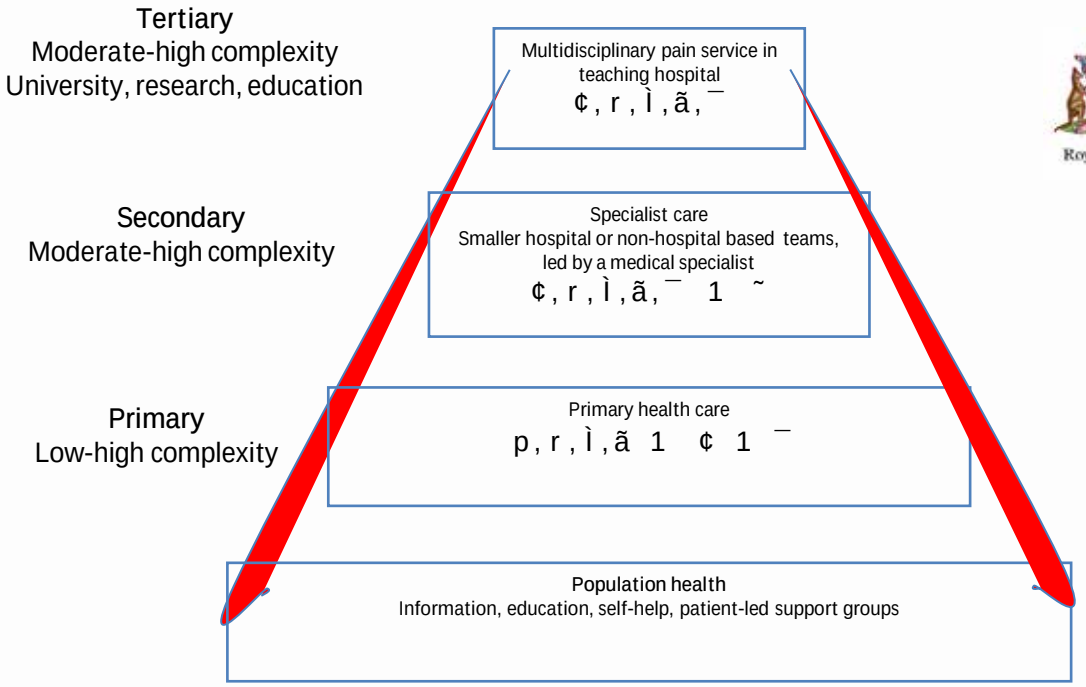
# National Pain Plan




RACGP
Royal Australian College of General Practitioners

THE AUSTRALIAN PAIN SOCIETY
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working to prevent and manage pain

FPM
FACULTY OF PAIN MEDICINE
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