
COUNTIES MANUKAU HEALTH

# “There’s no magic wand….”

## The current pharmacological evidence for treating Chronic Non-malignant Pain.

Jane Sutton

Nurse Practitioner

Acute, Complex and Chronic Pain services

# Objectives

- Introducing Mrs P
- Current evidence in chronic pain-Take home messages
- Opioids
- De-prescribing and weaning
- Mrs P outcomes
- Questions

**No conflicts of interest to declare**

# Meet Mrs P

- **71 year old NZ European female**
- **Hx of multiple bowel surgeries resulting in a colostomy**
- **Recurrent acute pain -> visceral abdominal sensitivity/chronic abdominal pain.**
- **Long term opioid treatment since 1995**
  - Initially >200mg Oxycodone a day
    + PRN pethidine 100mg inj at GP , 2-4 times a month.
  - From 2016: Fentanyl patch 25mcg/hr + PRN Oxynorm up 100mg/day
    (oMEDD 225mg/day)
    + Gabapentin 300/200/300mg
    + Amitriptyline 10mg nocte

- Feb 2018: Discussed rationale for opioid reduction, she appeared motivated to wean.

↓

- Reduced Fentanyl patch to 12.5mcg/hr, Continued PRN Oxynorm.

↓

- Transitioned fentanyl patch to Oxycontin 50mg BD

↓

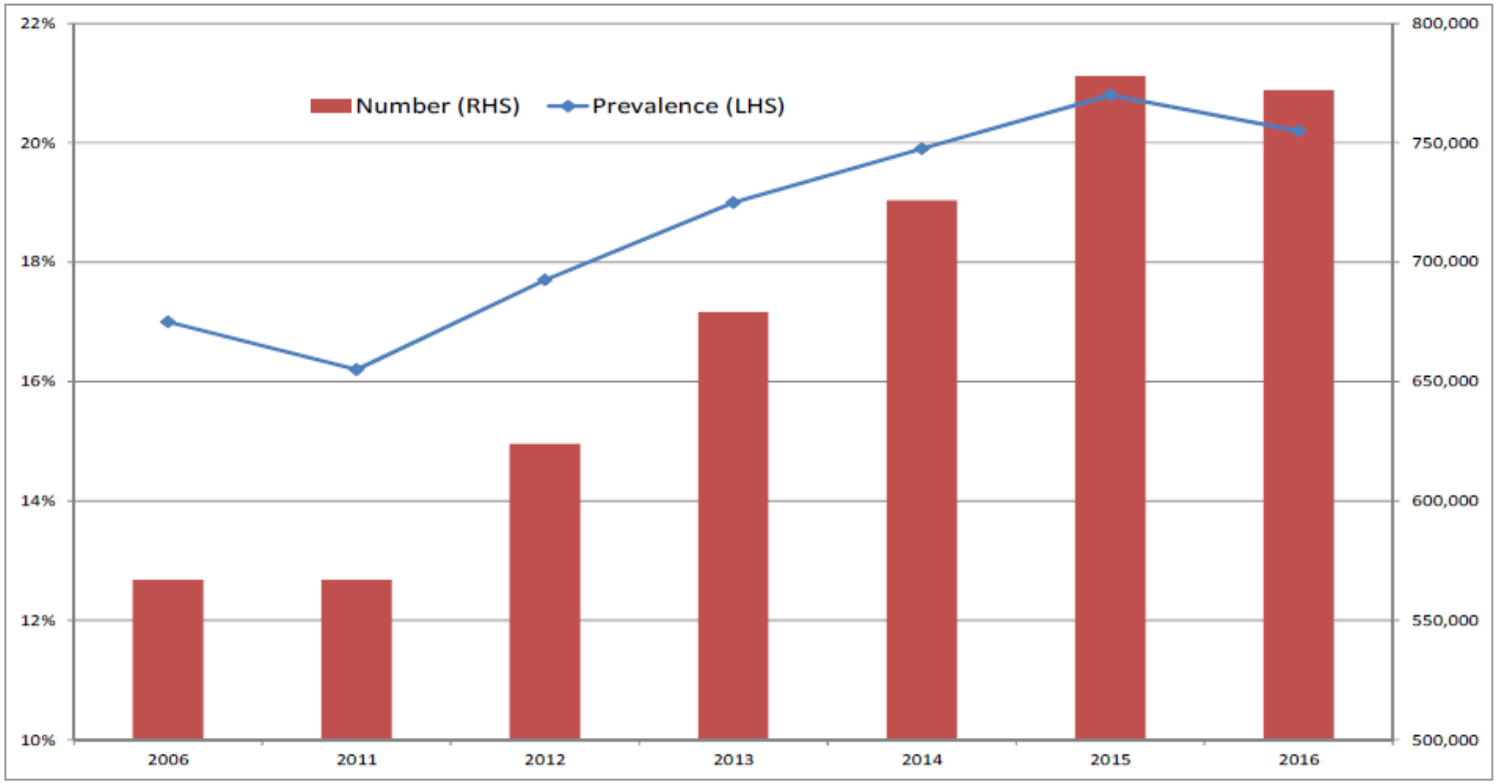
- Weaned in 5mg increments very slowly…….

# Prevalence

*"**Chronic pain** costs New Zealand more than diabetes or dementia"*
- 2018 Sapere Report commissioned by Faculty of Pain Medicine

COUNTIES MANUKAU HEALTH

**Figure 1 Number and prevalence of chronic pain in New Zealand by year, 2006–2016**




**Source:** Ministry of Health (2017)

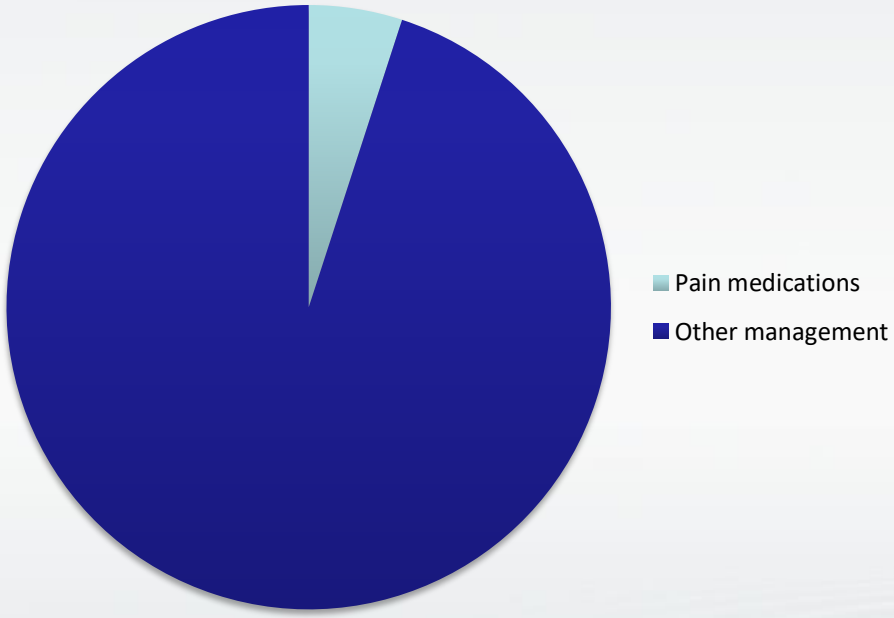
# Take home message #1


- Chronic pain is on the rise and likely to continue to rise, particulary in the elderly population

- Now is the time to learn/develop evidence based management strategies.

# Take home message #2

**“Medication has little to offer”**




## Evidence

***“The analgesic effects of many treatments for non-specific low back pain are small”***

- Machado LAC et al (2009) Analgesia effects of treatment for NSLBP:a meta-analysis of placebo-controlled randomized trials, *Rheumatology,* 48:520-527

***“Lack of real breakthroughs in analgesia, despite intense efforts”***

- Kissin, I (2010) “SPECIAL ARTICLE. The development of new analgesia of the last fifty years:A lack of real breakthrough drugs”; *Anesth Analg*; 2010; 110:780-9).

***“Most existing analgesics for persistent pain are relatively ineffective”***

- Woolf, C (2010) review: overcoming obstacles to developing new analgesic’s, *Nature medicine (supplement)*: 16, 11:1241-47: November.

***“A common key finding in the literature on these interventions for CLBP is their disappointing magnitude of pain reduction and functional gain”***

- Morlion B (2013) Chronic lower back pain:pharmacological, interventional and surgical strategies”; *Nat. Rev. Neurol*. 9, 462-473

# So what's worth trying?

# What's worth trying?

## Strong recommendations (1st Line)

| Drug | Dose (mg/day) | NNT |
|---|---|---|
| **Tricyclic AD's**<br>**Nortriptyline fewer side effects** | **25-150** | **3.6** |
| **Gabapentin** | **1200-3600** | **7.2** |
| **Pregabalin** | **300-600** | **7.7** |
| **Duloxetine** | **60-120** | **6.4 (not funded)** |
| **Venlafaxine** | **150-225** | **6.4** |

Finnerup NB et al (2015) Pharmacotherapy for **neuropathic pain** in adults: a systematic review and meta-analysis, *Lancet Neurol*, 162-73

# STOP THE PRESS!

COUNTIES MANUKAU HEALTH

- Pregabalin and Gabapentin are both officially class C controlled drugs in the UK as of 1st April 2019

# What's worth trying?

- Weak recommendations (2nd Line)

| Drug | Dose mg/day | NNT |
|---|---|---|
| **Capsaicin patch** | **8%** | **10.6** |
| **Lignocaine patch** | **5%-max 3 patches 12hourly** | |
| **Tramadol** | **200-400** | **4.7** |

Finnerup NB et al (2015) Pharmacotherapy for **neuropathic pain** in adults: a systematic review and meta-analysis, *Lancet Neurol*, 162-73

# What's worth trying?

- Weaker Recommendations (3rd Line)

| Drug | Dose mg/day | NNT |
|---|---|---|
| **Strong opioids**<br><br>Large doses required-demoted from 1st or 2nd line due to abuse potential, harm, death | **SR 180mg oMEDD (individual titration)** | **4.3** |
| **Botulinum A (botox)**<br><br>***only 4 small RCTs;but one large unpublished RCT –ve** | **50-200 units** | **1.9*** |

Finnerup NB et al (2015) Pharmacotherapy for neuropathic pain in adults: a systematic review and meta-analysis, Lancet Neurol, 162-73

# What's worth trying?

COUNTIES MANUKAU HEALTH

*BMJ* 2013;346:f2690 doi: 10.1136/bmj.f2690 (Published 3 May 2013)



**ANALYSIS**

## Expect analgesic failure; pursue analgesic success

Most analgesic drugs work well but in only a small percentage of people. **Andrew Moore and colleagues** argue that we need to move away from a focus on average response and seek out what works for each patient

Andrew Moore *professor*[1], Sheena Derry *senior research officer*[1], Christopher Eccleston *professor*[2], Eija Kalso *professor*[3]

[1]Pain Research and Nuffield Division of Anaesthetics, University of Oxford, Churchill Hospital, Oxford OX3 7LJ, UK; [2]Centre for Pain Research, University of Bath, Bath, UK; [3]Pain Clinic, Department of Anaesthesiology, Helsinki University Central Hospital, Finland

# NO EVIDENCE for CANNABIS

PAIN

## Cannabis and cannabinoids for the treatment of people with chronic noncancer pain conditions: a systematic review and meta-analysis of controlled and observational studies

Emily Stockings[a,*], Gabrielle Campbell[a], Wayne D. Hall[b,c], Suzanne Nielsen[a], Dino Zagic[a], Rakin Rahman[a], Bridin Murnion[d,e], Michael Farrell[a], Megan Weier[a], Louisa Degenhardt[a]

**Table 6**

Summary of key statistics on the effectiveness of cannabinoids for chronic noncancer pain in randomised controlled trials.

| Outcome | Pooled odds ratio (95% CI) | Pooled event rate (%), cannabinoid vs placebo | Number needed to treat to benefit (NNTB) (95% CI) |
|---|---|---|---|
| Pain outcomes | | | |
| 30% reduction in pain | 1.46 (1.16-1.84) | 29.0% vs 25.9% | 24 (15-61) |
| 50% reduction in pain | 1.43 (0.97-2.11) | 18.2% vs 14.4% | |
| Patient global impression of change | | | |
| Perceived "much" to "very much" improved | 1.62 (1.34-1.96) | 18.9% vs 11.8% | 38 (27-62) |
| | **Pooled odds ratio (95% CI)** | **Pooled event rate (%), cannabinoid vs placebo** | **Number needed to treat to harm (NNTH) (95% CI)** |
| Adverse events | | | |
| All-cause adverse events | 2.33 (1.88-2.89) | 81.2% vs 66.2% | 6 (5-8) |
| Study withdrawals—adverse events | 3.47 (2.64-4.56) | 15.8% vs 4.6% | 40 (35-49) |

Bold font indicates a statistically significant result. Only categorical outcomes with a moderate or higher GRADE rating are reported here.

* Number needed to treat to benefit unable to be calculated as the pooled odds ratio crossed the line of no effect.

CI, confidence interval.

Annals of Internal Medicine — REVIEW

## The Effects of Cannabis Among Adults With Chronic Pain and an Overview of General Harms

### A Systematic Review

Shannon M. Nugent, PhD; Benjamin J. Morasco, PhD; Maya E. O'Neil, PhD; Michele Freeman, MPH; Allison Low, BA; Karli Kondo, PhD; Camille Elven, MD; Bernadette Zakher, MBBS; Makalapua Motu'apuaka, BA; Robin Paynter, MLIS; and Devan Kansagara, MD, MCR

**Background:** Cannabis is increasingly available for the treatment of chronic pain, yet its efficacy remains uncertain.

**Purpose:** To review the benefits of plant-based cannabis preparations for treating chronic pain in adults and the harms of cannabis use in chronic pain and general adult populations.

**Data Sources:** MEDLINE, Cochrane Database of Systematic Reviews, and several other sources from database inception to March 2017.

**Study Selection:** Intervention trials and observational studies, published in English, involving adults using plant-based cannabis preparations that reported pain, quality of life, or adverse effect outcomes.

**Data Extraction:** Two investigators independently abstracted study characteristics and assessed study quality, and the investigator group graded the overall strength of evidence using standard criteria.

**Data Synthesis:** From 27 chronic pain trials, there is low-strength evidence that cannabis alleviates neuropathic pain but insufficient evidence in other pain populations. According to 11 systematic reviews and 32 primary studies, harms in general population studies include increased risk for motor vehicle accidents, psychotic symptoms, and short-term cognitive impairment. Although adverse pulmonary effects were not seen in younger populations, evidence on most other long-term physical harms, in heavy or long-term cannabis users, or in older populations is insufficient.

**Limitation:** Few methodologically rigorous trials; the cannabis formulations studied may not reflect commercially available products; and limited applicability to older, chronically ill populations and patients who use cannabis heavily.

**Conclusion:** Limited evidence suggests that cannabis may alleviate neuropathic pain in some patients, but insufficient evidence exists for other types of chronic pain. Among general populations, limited evidence suggests that cannabis is associated with an increased risk for adverse mental health effects.

**Primary Funding Source:** U.S. Department of Veterans Affairs. (PROSPERO: CRD42016033623)

Ann Intern Med. 2017;167:319-331. doi:10.7326/M17-0155 Annals.org

For author affiliations, see end of text.

This article was published at Annals.org on 15 August 2017.

The use of medicinal cannabis has become increasingly accepted in the United States and globally (1, 2). Eight states and the District of Columbia have legalized cannabis for recreational purposes, and 28 states and the District of Columbia have legalized it for medical purposes (3). Between 45% and 80% of persons who seek medical cannabis do so for pain management (4, 5). Among patients who are prescribed long-term opioid therapy for pain, up to 39% are also using cannabis (6, 7). Physicians will increasingly need to engage in evidence-based discussions with their patients about the potential benefits and harms of cannabis use. However, little comprehensive and critically appraised information exists about the benefits and harms of using cannabis to treat chronic pain. The objectives of this systematic review were to assess the efficacy of cannabis for treating chronic pain and to provide a broad overview of the short- and long-term physical and mental health effects of cannabis use in chronic pain and general patient populations.

### Methods

#### Topic Development

This article is part of a larger report commissioned by the Veterans Health Administration (8). A protocol describing the review plan was posted to a publicly accessible Web site before the study began (9).

#### Data Sources and Searches

We searched MEDLINE, Embase, PubMed, PsycINFO, Evidence-Based Medicine Reviews (including Cochrane Database of Systematic Reviews, Database of Abstracts of Reviews of Effectiveness, Health Technology Assessments, and Cochrane Central Register of Controlled Trials), and gray literature sources from database inception through February 2016. We updated this search specifically for new randomized controlled trials (RCTs) and systematic reviews in March 2017. We obtained additional articles from systematic reviews, reference lists, and expert recommendations. We also searched for ongoing, unpublished, or re-

See also:

Related article ..... 332
Editorial comment ..... 355

Web-Only
Supplements
CME/MOC activity

# Take home message #3

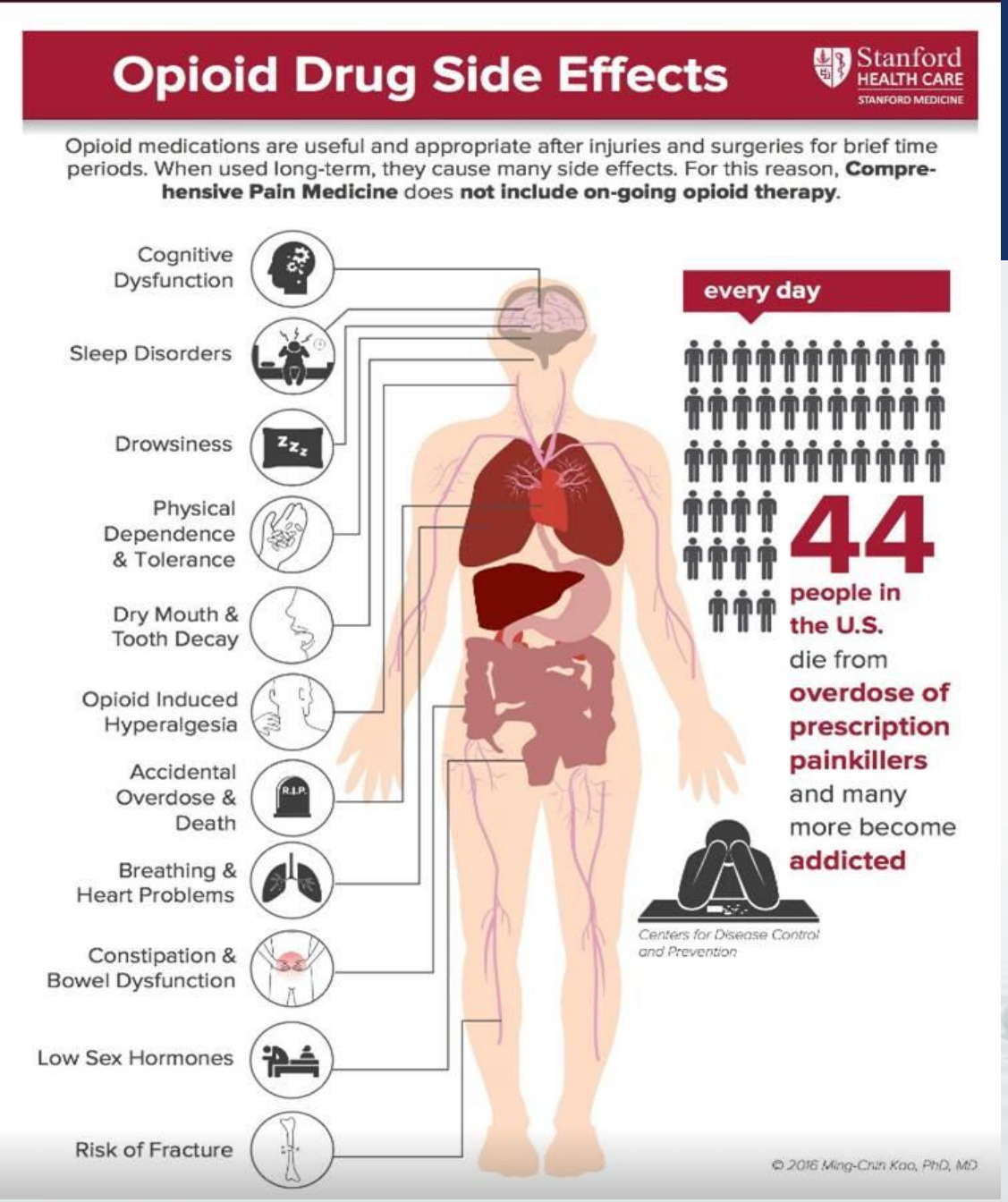
"Opioids are **not** first-line or routine therapy for chronic pain"


- **Limited evidence for opioids for chronic non malignant pain.**

***Key Concerns:***

- Tolerance, dependence and addiction
- Risk of accidental/non-accidental overdose (Opioid epidemic/crisis)
- Opioid induced hyperalgesia
- Withdrawal is usually challenging


- Moore et al (2013) Expect analgesic failure; pursue analgesic success, British medical journal; 346-f2690



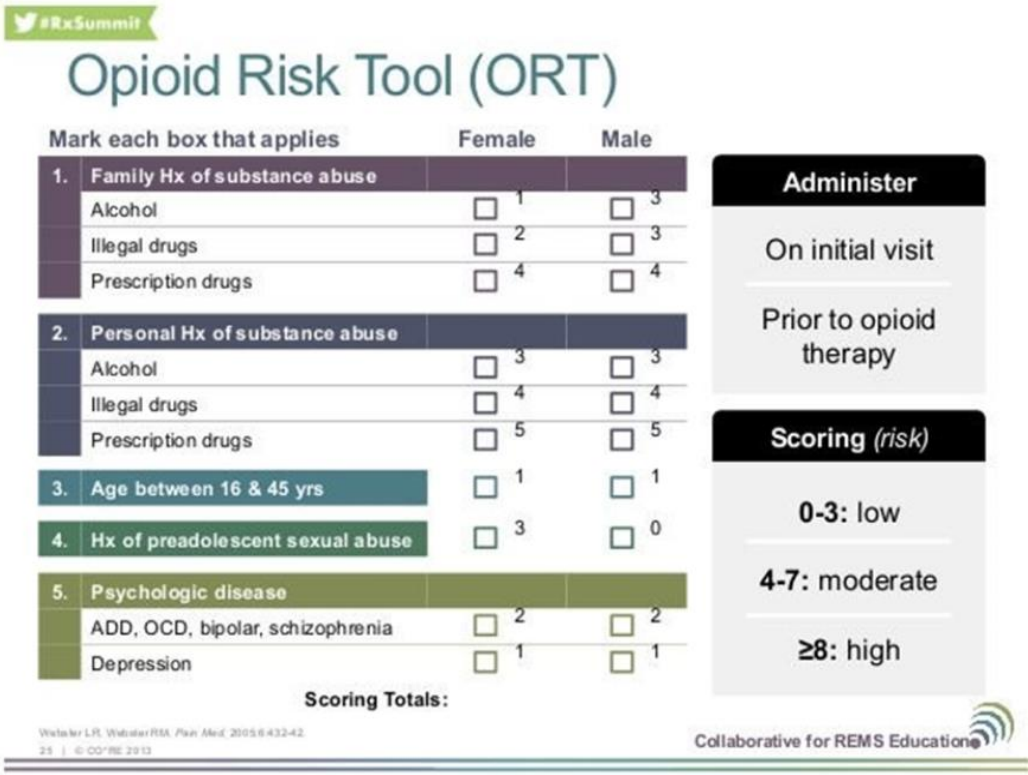

COUNTIES MANUKAU HEALTH

# Opioid related harm

***Risks outweigh benefits***

**When measured in the New Zealand Quality of Healthcare study in 2013, opioids were the number one medication class causing harm in NZ hospitals. (Atlas of healthcare variation, 2013)**

# Opioid risk tool




**CLINICAL REMINDERS**

- **Opioids are not first-line or routine therapy for chronic pain**
- **Do not prescribe LA opioids for acute pain**
- **Establish and measure goals for pain and function**
- **Discuss benefits of other options (drug and non drug) with patient**
- **Clinicians should avoid prescribing opioid pain medication and benzodiazepines concurrently whenever possible.**

# Opioid weaning tips
# De-prescribing

COUNTIES MANUKAU HEALTH

- **Only ONE prescriber.**
- **Consider opioid contract/taper agreement.**
- **Convert short acting formulations to long acting.**
- **Consider daily, weekly dispensing.**
- **Seek support from specialist services if struggling-liaise with CADs if SUD concerns.**
- **Good communication between specialist and prescriber AND patient**
- **Monitor for withdrawal symptoms-consider clonidine patch-small amount of evidence suggesting its decreases withdrawal symptoms, plus modulates neuropathic/noiciplastic pain.**
- **Educate patient on what to expect.**
- **Make sure the patient WANTS to decrease. Timing is right.**

Berna et al (2015)

# De-Prescribing opioids


Study of 1520 patients

*"Many patients fear that their pain will increase during an opioid taper. However, according to studies of long term opioid treatment tapers, overall patients report improvement in function without worsening pain"*


- Berna et al (2015) Tapering long term opioids therapy in chronic non-cancer pain: Evidence and recommendations for practice; *Mayo clinic Proc,* (8) 828-843

# Slow and steady wins the race…..

COUNTIES MANUKAU HEALTH

# Key points

- There is no evidence that opioids are effective for treating chronic non-malignant pain.
- Opioids are associated with significant adverse effects, initial analgesic efficacy decreases with time as tolerance and dependence develops; opioid-induced hyperalgesia can make the pain worse!
- **Improving or retaining function** should be the goal of treatment for most patients with chronic non-malignant pain; regular use of potent opioids at high doses is contrary to this aim.

- **Medication is only one aspect of managing a patient with a chronic pain condition; attention to psychological and social factors is essential.**

# Brief non-pharmacological interventions

- **Interdisciplinary approach-ideal**
- LISTEN-reassure that pain is taken seriously
- EDUCATE and VALIDATE
- Building rapport/managing distress
- Psychological support-identify any underlying MH-refer to specialist services/counselling as required.
- Relaxation
- Mindfulness classes/colouring
- **Physiotherapy-encourage function and movement**

# Mrs P

- **April 2019**

*"It's been challenging at times, coming off all the opiates, but overall, my pain is pretty much the same and my function both physically and mentally has improved.*

*I'm proud of myself, after 23 years of feeling hopeless and struggling, I feel like a new person, I can see a bright future with my family and 2 grandsons."*

# Questions?

Jane.Sutton@middlemore.co.nz

# Resources

- Online modules for health practitioners to complete to develop knowledge on persistent pain-gain prof dep credits-http://fpm.anzca.edu.au/resources/better-pain-management
- Retrain pain-https://www.retrainpain.org/1-1
- Explain pain-http://www.noigroup.com/en/Store
- Why things hurt-Lorimer Moseley https://www.google.com/search?q=why+things+hurt+lorimer+moseley&sourceid=ie7&rls=com.microsoft:en-NZ:IE-SearchBox&ie=&oe=&gws_rd=ssl
- Neuroplastix website-http://www.neuroplastix.com/
- Hunter integrated pain service-NSW-http://www.hnehealth.nsw.gov.au/Pain/Pages/Pain.aspx
- -Useful phone apps-calm, headspace, breath2relax
- Calm website: www.calm.auckland.ac.nz

# References


- Berna et al (2015) Tapering Long-term opioid therapy in chronic non cancer pain: Evidence and recommendations for everyday practice. *Mayo clinic proc*; 90 (6);828-842
- Machado LAC et al (2009) Analgesia effects of treatment for NSLBP:a meta-analysis of placebo-controlled randomized trials, *Rheumatology,* 48:520-527
- Kissin, I (2010) "SPECIAL ARTICLE. The development of new analgesia of the last fifty years:A lack of real breakthrough drugs"; *Anesth Analg*; 2010; 110:780-9).
- Woolf, C (2010) review: overcoming obstacles to developing new analgesic's, *Nature medicine (supplement)*: 16, 11:1241-47: November.
- Moore et al (2013) Expect analgesic failure; pursue analgesic success, *British medical journal*; 346-f2690
- Finnerup NB et al (2015) Pharmacotherapy for neuropathic pain in adults: a systematic review and meta-analysis, *Lancet Neurol*, 162-73
- Morlion B (2013) Chronic lower back pain: pharmacological, interventional and surgical strategies; *Nat. Rev. Neurol*. 9, 462-473
- Cunningham et al (2016) Opioid tapering in fibromyalgia patients: Experience from an interdisciplinary pain management program, *Pain Medicine*, 17, 1676-1685
- Frank et al 2017) Patient outcomes in dose reduction or discontinuation  or discontinuation of long-term opioid therapy, systematic review, *An int med,* 16, 14-19