Better Practice Opioid Management

Conclusions from a Rapid Review

Webinar 16 September 2020

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Background

- SIRA commissioned the John Walsh Centre for Rehabilitation Research to conduct a "rapid review" on opioid medication use

- What is a rapid review?
  - **Rapid reviews** are a form of knowledge synthesis in which components of the systematic **review** process are simplified or omitted to produce information in a timely manner

- Literature search –
  - Overview of reviews (Cochrane and non-Cochrane)
  - Systematic reviews (Cochrane and non-Cochrane)
  - National clinical guidelines

Identified via Google Scholar (during 2019)

Tricco et al. BMC Medicine (2015) 13:224

What are opioids?

- Opioid medications are divided into two groups:
  - Opiates, produced from the opium poppy plant (including the illegal opioid heroin), and
  - Man-made substances, synthesized in a laboratory

- they work on the central nervous system to slow down nerve signals between the brain and the body
- opioids reduce the nerve transmission to the brain and reduce feelings of pain and affect those brain areas controlling emotion
- reduce pain but also have side effects ranging from constipation to slowing breathing (and causing death)
- our body produces its own natural opioids, called endorphins

- can be used for acute pain and chronic cancer pain
- role in chronic non cancer pain is limited

See NPS Medicinewise Program - https://www.nps.org.au/consumers/

Australian Pain Management Association. https://www.painmanagement.org.au/2014-09-11-13-35-53/2014-09-11-13-36-47/164-opiods.html

Why “morphine equivalent dose”?

- There are many different opioids currently marketed
- Need a method of summarizing opioid use
- While opioids have differing durations of action, there is no difference the one opioid is superior to another
- Termed oral morphine equivalent daily dose (oMEDD)

Opioid Tapering Calculator - health.vic

VICTORIA State Government | Health and Human Services

NPS MEDICINEWISE

Step 1:
Calculate your patient's total morphine equivalent dosage.

Guidelines recommend consulting a specialist before exceeding a maximum oral morphine daily dose of 80 - 100 mg or equivalent.

Enter information in green cells

Preparations	Medication	Current Dosage		Morphine Equivalent	
Oral	Codeine		mg/day		mg/day
Oral	Hydromorphone		mg/day		mg/day
Oral	Morphine		mg/day		mg/day
Oral	Oxycodone	40	mg/day	60	mg/day
Oral	Tapentadol		mg/day		mg/day
Oral	Tramadol		mg/day		mg/day
Oral	Methadone		mg/day		mg/day
Patch	Buprenorphine		mcg/hour		mg/day
Patch	Fentanyl		mcg/hour		mg/day
Total from all preparations				60	mg/day

Aim of the rapid review

To identify the current evidence relating to the use of opioid medication for the management of pain in a compensable population

- Review question 1: Are opioids a problem for people injured at work or on the roads in NSW?
- Review question 2: What are the risks / harms of opioid use?
- Review question 3: What works to reduce these harms?
- Review question 4: Are there differences or interventions that work in other compensable jurisdictions?

https://www.sira.nsw.gov.au/__data/assets/pdf_file/0011/823988/Best-Practice-Opioid-Management_Rapid-Review.pdf

Question 1: Are opioids a problem for people injured at work or on the roads in NSW?

- Yes ! Based on data from elsewhere
- In Victoria noted that pre-injury use needs to be considered
- North American data shows extensive opioid use by workers
- Australian data shows extensive opioid use in general population

- Opioids are effective in acute pain
- Opioids are ineffective in chronic non cancer pain
- There are significant harms associated with use of opioids in chronic non cancer pain (opioid abuse and addiction, death)
- The higher the dose the greater the risk of harm

- Since the Rapid Review additional data are available

What is pain?

- International Association for the Study of Pain (IASP), revised definition (July 2020)

- "An unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage"
  - … recognize it is a biopsychosocial experience

- Chronic pain is defined as pain that lasts or recurs for more than three months
  - … most commonly musculoskeletal, neuropathic or post traumatic

www.iasp.org

How common is chronic pain in Australia?

- Females 20%, Males 17%
- Prevalence of interference with activities of daily living – females 13.5%, males 11%
- Strongly associated with social disadvantage

Blyth et al 2001

Pain 89 (2001) 127–134

www.elsevier.nl/locate/pain

Chronic pain in Australia: a prevalence study

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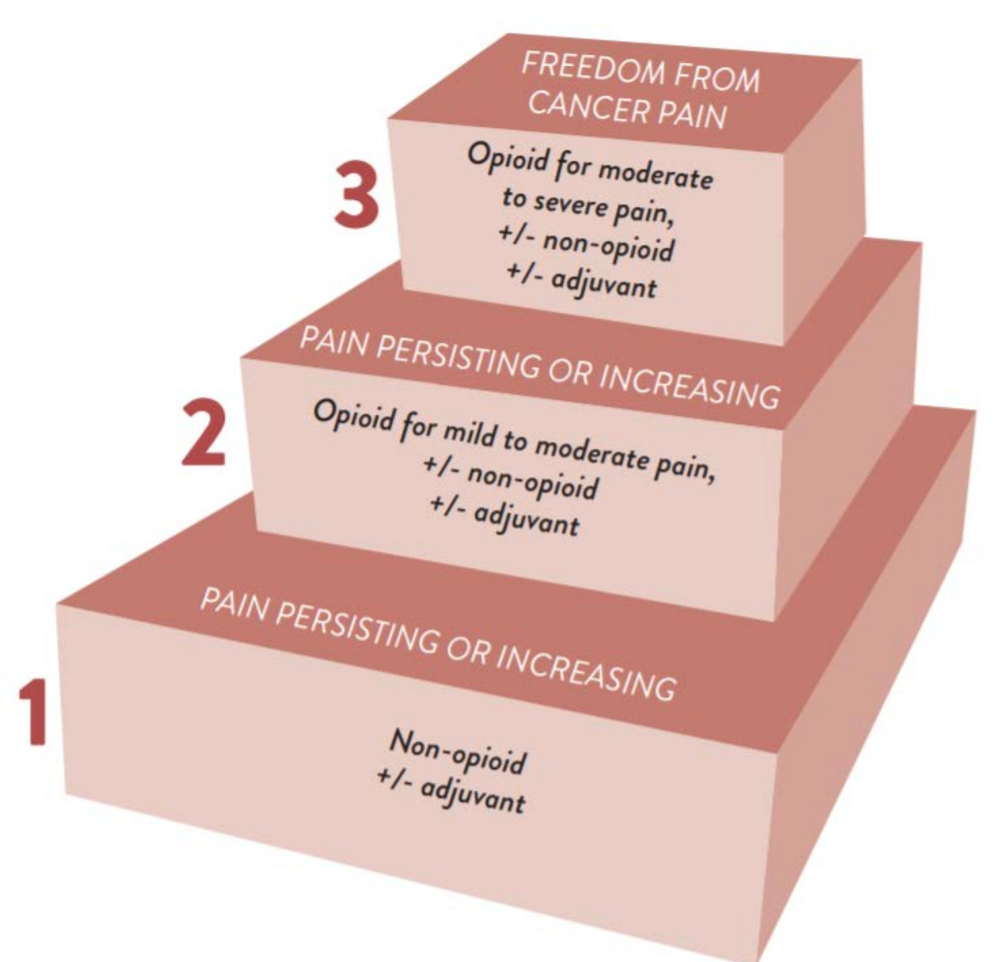
Why the difference between "chronic non cancer pain" and "chronic cancer pain"?

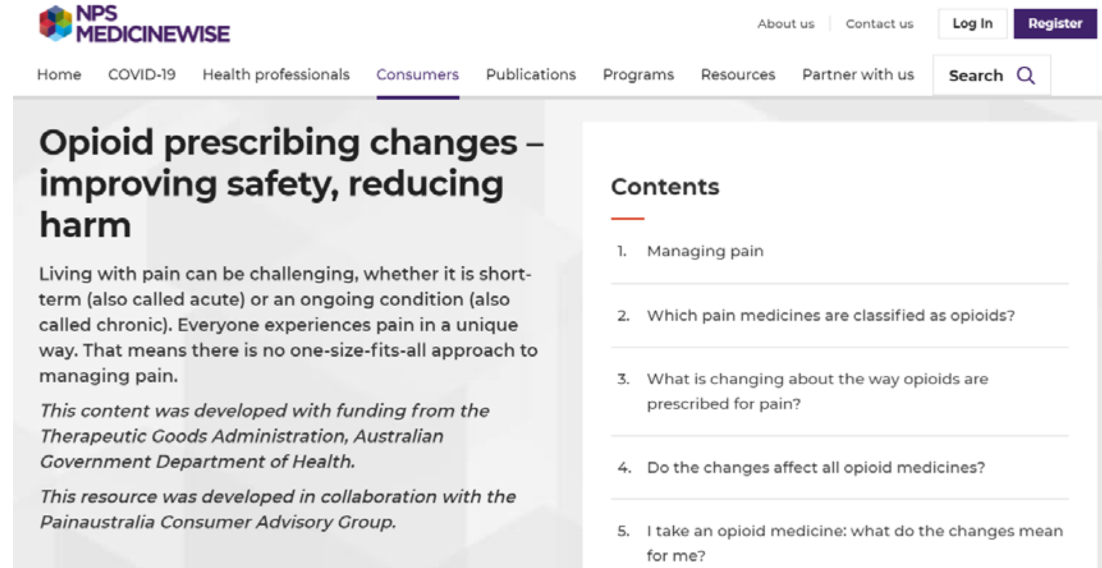


- World Health Organisation "Pain ladder" for cancer pain since 1980s
- Evidence is that opioids are effective in cancer pain

(WHO guidelines for the pharmacological and radiotherapeutic management of cancer pain in adults and adolescents 2018. ISBN 978-92-4-155039-0)

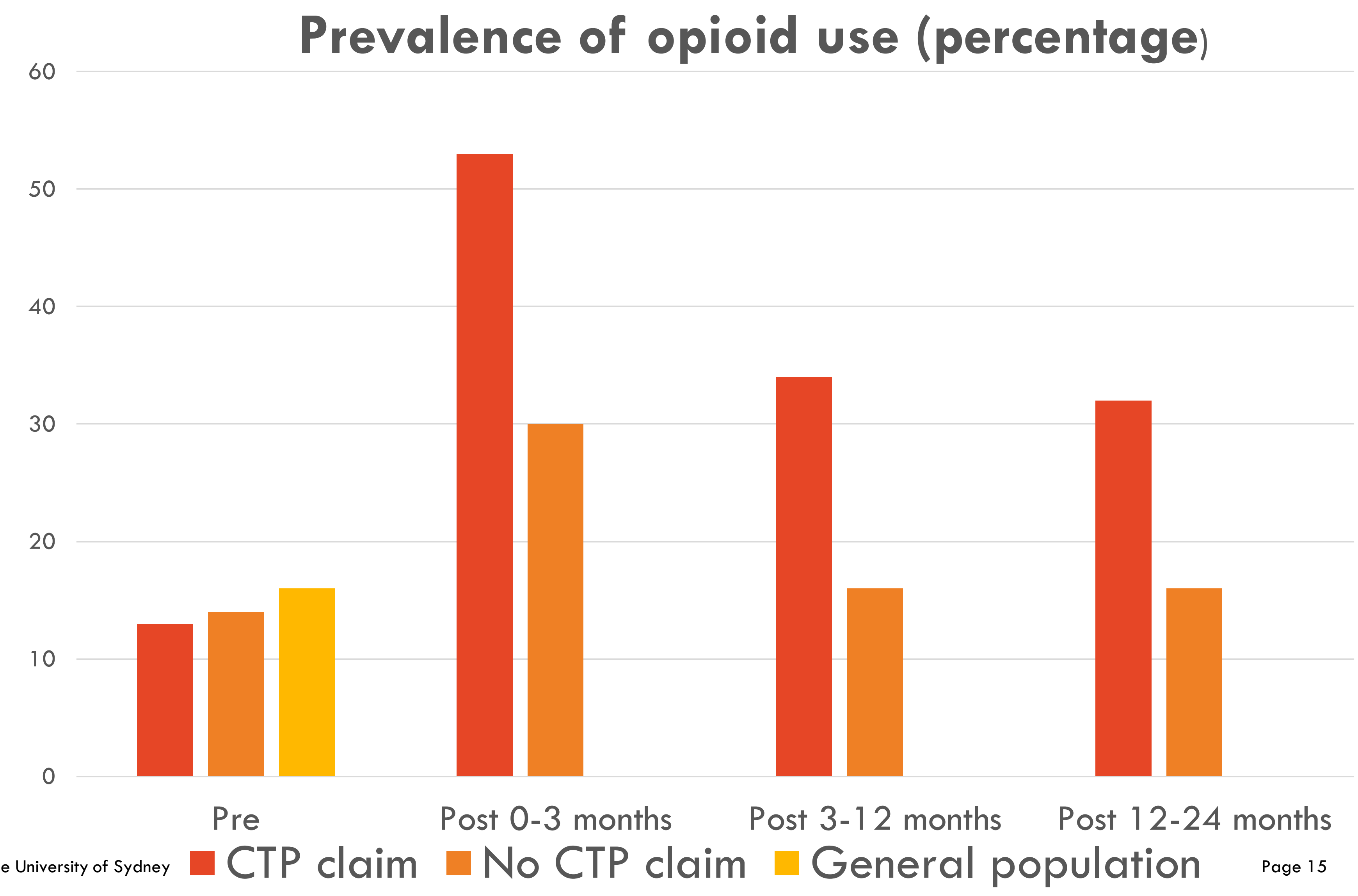
Why the difference between "chronic non cancer pain" and "chronic cancer pain"?

- Opioids in chronic non cancer pain always controversial
- Opioids often needed in acute pain – trauma or with surgery
- Opioids in acute pain are effective
- No strong evidence that opioids are effective in chronic non cancer pain
- Opioids cause major harms with long term use (note concerns express at > two weeks' use)



https://www.nps.org.au/consumers/

Additional information about opioids from the FISH study



Further information about opioids from the FISH study

Predictors of opioid use: adjusted model

	Outcome	
	Any opioid prescription 3 to 12 months after the accident	Any opioid prescription 12 to 24 months after the accident
	OR (95% CI) [p value]	OR (95% CI) [p value]
Any opioid prescription before the accident (0-12 months before)	4.7 (2.4, 9.1) [<0.0001]	3.0 (1.5, 5.9) [0.002]
Baseline pain severity	1.2 (1.08, 1.4) [0.001]	1.3 (1.1, 1.5) [<0.0001]
Any CTP† claim	**2.3 (1.2, 4.3) [0.009]**	1.7 (0.89, 3.2) [0.1]

- Opioid use doubles from 18% prior to the crash to 35% after the crash
- Opioid use before MVC strongly associated with opioid use after
- Higher baseline pain is associated with opioid use after
- CTP claim is associated with greater opioid use from 3 to 12 months after injury

Question 2: What are the risks / harms of opioid use?

- Increases opioid use = Increase in morbidity and mortality (for individuals and for the population) - potential for harm after use for more than two weeks
- Opioids affect many body systems
  - Respiratory – respiratory depression
  - Gastrointestinal – constipation, biliary problems
  - Central nervous system – sedation
  - Endocrine
  - Immunological
- Increasing recognition of "opioid induced hyperalgesia" – ie amplification of pain with prolonged opioid use
- No indication for continuing opioid use unless objective reduction in disability and pain

Question 3: What works to reduce harms in compensable setting?

01

Enhance surveillance activities and use of overdose data across sectors

02

Increase end-user awareness about opioid misuse, diversion, and overdose prevention

03

Increase healthcare provider and patient education on opioid use and managing chronic pain

04

Increase awareness about non-pharmacological interventions for managing pain

Note that there are programs with these strategies

NPS Medicinewise Program https://www.nps.org.au/consumers/

NSW Pain Management Network https://www.aci.health.nsw.gov.au/chronic-pain

Question 4: Are there differences or interventions that work in other compensable jurisdictions?

- Some evidence from North American studies showing system based and local approaches
- Australian Government has already taken action
  - smaller pack sizes for immediate-release opioids that provide short-term pain relief
  - no repeats or increases to the number of tablets/capsules supplied for small packs of immediate-release opioids
  - an update to the clinical criteria that must be met before an opioid can be prescribed
  - referral to another prescriber or pain specialist for review of the situation may be required if prescription opioid use to manage severe pain is likely to be for 12 months or longer

https://www.nps.org.au/consumers/opioid-prescribing-changes-improving-safety-reducing-harm#what-is-changing-about-the-way-opioids-are-prescribed-for-pain?

Question 4: Continued…

- NSW Government has already taken action
  - Need approved for Authority to Prescribe a Schedule 8 Drug – Pain Management, if the person is a "drug dependent" person or takes certain opioid or psychotropic drugs for more than 2 months
  - "Opioid prescribing recommendations in general practice (published by ACI Pain Management Network) are as follows:
    - ≤40mg daily oMEDD for non-cancer pain for a maximum 90 days
    - ≤300mg daily oMEDD for cancer pain
    - For opioid doses ≥100mg daily oMEDD, a specialist review is recommended"

A 'drug dependent person' means a person who has acquired, as a result of repeated administration of a drug of addiction or a prohibited drug within the meaning of the Drug Misuse and Trafficking Act 1985, an overpowering desire for the continued administration of such a drug (Section 27 of the Poisons and Therapeutic Goods Act 1966).

https://www.health.nsw.gov.au/pharmaceutical/Documents/S8pain-appln.pdf

What else can be done about opioid use in chronic non cancer pain?

- An educational visit can be arranged (for GPs)
- Information for prescribers
- Clinical e-Audit
- Patient resources

http://link.nps.org.au/m/1/56989176/02-b20212-127459e9cfe740c28af617ffd921db26/2/25/6791b336-1a1f-4251-a489-4f59a8276d61

The TGA has changed the regulations around prescribing of opioid medicines, in order to minimise the harms these medicines cause to Australians each year. In response to these changes, we are extending the activities and resources we provide to support the appropriate use of opioids in chronic non-cancer pain.

Opioid Risk Tool

- Validated
- Self completion
- Quick

- Score > 7 suggests "high risk for opioid abuse"

https://www.drugabuse.gov/sites/default/files/opioidrisktool.pdf

Opioid Risk Tool

This tool should be administered to patients upon an initial visit prior to beginning opioid therapy for pain management. A score of 3 or lower indicates low risk for future opioid abuse, a score of 4 to 7 indicates moderate risk for opioid abuse, and a score of 8 or higher indicates a high risk for opioid abuse.

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

Aim for reduction in disability (and pain if possible)

Neck Disability Index

https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0017/77021/neck-disability-index1.pdf

Oswestry Low Back Pain Disability Questionnaire

https://www.worksafe.qld.gov.au/__data/assets/pdf_file/0003/76800/oswestry_-low-back-disability-questionnaire1.pdf

Visual Analogue Pain Scale

https://www.sira.nsw.gov.au/resources-library/motor-accident-resources/publications/for-professionals/whiplash-resources/SIRA08110-1117-396462.pdf

Two people with injuries – contrasting experience

- Trevor, age 65
- Spinal cord injury at work 10 years ago with neck pain
- 60mg/day morphine equivalent dose
- Complex issues – obtain further information – likely alcohol misuse, possible brain injury
- Develop interdisciplinary management plan

- Andrew, age 61
- Multiple injuries at work 20 years ago with back pain
- 60mg / day morphine equivalent dose
- Education
- Increase physical activity
- Develop contract for slow dose reduction (~10% per month)

Other issues to consider

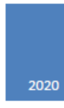
- Remember **social determinants of health** (World Health Organisation - these are conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels)

- Research shows that these are strongly associated with opioid use

- Personal factors are also important
  - personal factors issues related to pre-vocational factors, such as attitudes to return to activities and work, and social factors, such support from family, friends and work colleagues including managers

Review findings

- Increasing recognition recently due to population health impacts
- Data showing increasing use of opioids in chronic non cancer pain



BEST PRACTICE OPIOIDS MANAGEMENT

RAPID REVIEW

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- People injured at work or on the roads have a high risk of chronic pain
- Increasing use despite safety concerns and lack of evidence of effectiveness
- Australia's consumption of opioids ranked 10th in the world
- Significant adverse effects can occur for chronic non-cancer pain

https://www.sira.nsw.gov.au/fraud-and-regulation/research/best-practice-opioids-management

Take home messages

- Opioid use is common after motor vehicle crashes (about 1 in 3 injured people use opioids)
- Short term opioid use is justified in some people with severe injuries
- Try not to start opioids after mild to moderate injury
- Recognise that pain is a biopsychosocial experience
- Use education, aim to assist with health literacy and self efficacy
- Use non medication treatments - exercise, mindfulness, distraction, cognitive behavioural therapy
- Take a broad perspective to pain management in the subacute (1 to 3 months after injury) phase
- Aim **not** to use opioids in the chronic phase (> 3 months) after injury
- Work with people with chronic non cancer pain to slowly reduce opioids

Two people with injuries and pain – outcomes

- Trevor, age 65
- Spinal cord injury at work 10 years ago with neck pain
- 60mg/day morphine equivalent dose
- **Ongoing multidisciplinary pain management program**
- **Attempting to reduce opioids (without success so far!)**

- Andrew, age 61
- Multiple injuries at work 20 years ago with back pain
- 60mg / day morphine equivalent dose
- **Ceased opioids after 9 months**
- **Continues exercise program**

Recommendations

Indications for opioid use in compensable populations:

- Don't start opioids in the first place
- Following prescribing recommendations if used
- Consider non-pharmacological strategies for pain
- Patients should be made aware of the risks and absence of evidence for opioid use in chronic pain
- Increase treatment options and ensure people can access them

The full review report and a one-page infographic summary are available on the SIRA website

https://www.sira.nsw.gov.au/fraud-and-regulation/research/best-practice-opioids-management

Best practice opioids management

Narrative review of studies published in the last 10 years in English excluding studies with findings about illicit drugs.

TYPE OF PROJECT

Rapid review

AIM OF THE PROJECT

To identify the current evidence relating to the use of opioid medication for the management of pain in a compensable population.

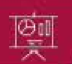
PUBLICATION DETAILS

Developed with funding from and at the request of, SIRA in 2020.

STAKEHOLDERS INVOLVED

- John Walsh Centre for Rehabilitation Research
- The University of Sydney
- SIRA

Background



- People injured at work or on the roads have a high risk of chronic pain
- Opioids are now commonly and increasingly used for the treatment of pain, despite safety concerns and a lack of evidence for effectiveness
- Australia's consumption of opioids is ranked 10th in the world
- Significant adverse effects can occur when opioids are used for chronic non-cancer pain in adults

Results

- Opioid use is justified in treatment of acute pain after major trauma or surgery
- Harms and risks can occur with people who use opioids for more than two weeks
- Opioids should generally not be prescribed in those with a history of substance misuse
- The use of opioids for chronic non cancer pain should be considered only in uncommon circumstances or after failure of other treatments

Discussion

- If used at all, opioids need to be used with appropriate safeguards and cautions to limit potential harm
- Prescription of opioids should occur in conjunction with other self-management approaches
- Opioid therapy should be reviewed regularly, with a plan for weaning off medications
- Inappropriate prescription of opioids can lead to harm
- Opioid use continues post claim at levels correlated to those used during the claim

Recommendations

- Indications for compensable populations
  - Don't start opioids in the first place
  - Follow prescribing recommendations if used
  - Consider non-pharmacological strategies for pain
- Patients should be made aware of the risks and absence of evidence for opioid use in chronic pain
- Increase treatment options and ensure people can access them

https://www.sira.nsw.gov.au/__data/assets/pdf_file/0007/882691/Best-practice-opioids-management-infographic.pdf

Note: Pain management webinar, 21 October 2020

Further details:

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