PAIN MANAGEMENT

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Pain: acute or persistent?

- Acute pain: pain that is present for a shorter period, say a few seconds, minutes, hours, weeks
- Persistent (chronic): present for a longer period, say at least ~ 3 months, that continues for longer than expected, after healing would be expected to have occurred
- Aims of treatment are different
  - Acute – treat aggressively
  - Persistent – reduce pain to a level that allows patient to function

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Cancer pain or non-cancer pain?

- Use of opioids is approved in cancer pain but discouraged in non-cancer pain
- Not a lot of evidence
- Need more clinical trials

Kinds of pain

- **Nociceptive** pain
  - Pain due to tissue damage, has a distinct cause
  - Tissue damage may be on the surface of the body or deep within the body
  - Described as: acute, sharp, dull, can be sensitive to heat/cold, may be sensitive to chemical e.g. alcohol on a cut
  - May be localised to a distinct area OR 'referred' away to an area of the body away from the painful part
  - Examples: heart attack, bone fracture, prolapsed disc in spine, muscle sprain, appendicitis
- **Neuropathic** pain
  - Nerve pain
  - May be described as: coldness, burning, tingling, prickling, pins + needles, electric shock sensations, like a 'red hot poker' or a 'knife twisting', fire running down the legs, stabbing, shooting
  - Examples: shingles, phantom limb pain, peripheral and diabetic neuropathy, trigeminal neuralgia, shingles pain
- Pain may be **mixed** nociceptive + neuropathic
- Other: **psychogenic**, **breakthrough**, **incident**, etc.

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Pain management

- Important to pro-actively manage acute pain well at time of injury or surgery
  - Aims to prevent persistent pain and complex regional pain syndrome
- Multimodal treatment ideal
  - Analgesics (pharmacological) PLUS
  - Non-pharmacological strategies
- Multidisciplinary care ideal
  - Medical , nursing, pharmacist, clinical psychologist, physio, + etc.
- Pain clinic referral in difficult or complex cases

Pain relievers = analgesics

- Are like tools in a toolbox
- Should be used as one strategy to manage pain, and <u>not the only strategy</u>
- Will not cure the pain
- Help reduce the unpleasant pain sensations and improve <u>quality of life</u>
- Aim to improve level of <u>function</u> in persistent pain

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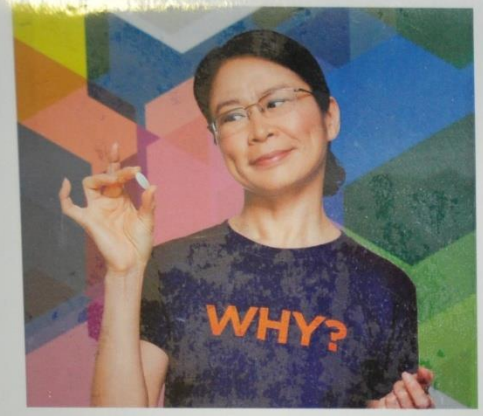

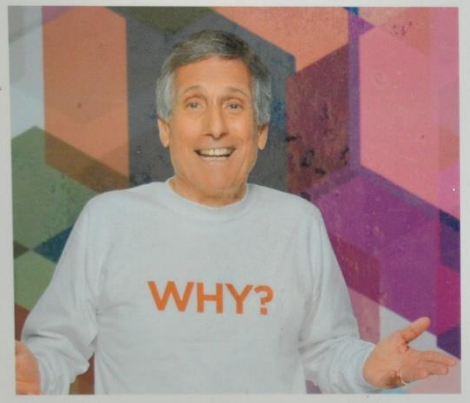

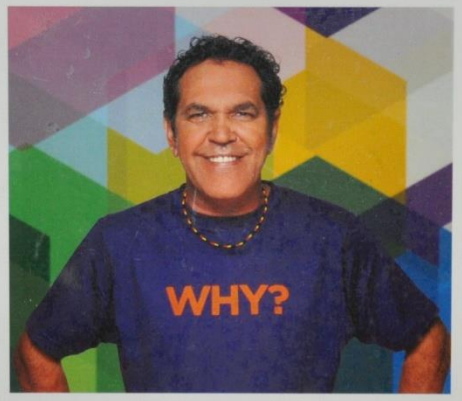

WHY DO MEDICINES COME IN DIFFERENT SHAPES, COLOURS AND SIZES?

The same medicine may come in different brand names. They may not look the same, but they'll contain the same active ingredient and be bioequivalent. So they'll work the same.

Be medicinewise ▷ Talk to your pharmacist ▷ Visit nps.org.au

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NPS
Better choices ▸ Better health
MedicineWise

Names of medicines

- Every medicine has a brand name AND active ingredient name(s)
- There may be many brands of the same medicine that are made by different manufacturers
- Brand name is in bigger more colourful print; active ingredient is in small print
- E.g. Paracetamol = active ingredient name, Panamax, Panadol, Dymadon, Febridol, Paralgin are brand names
- Potential for confusion: make sure the patient knows what they are taking; essential NOT to double up by taking different brands of the same medicine
- Check with pharmacist for clarification
    - ‘Don’t go before you know’

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Read the label

- What is the brand or trade name?
- What are the active ingredients?
- Strength? How much of the active ingredient is contained in the product?
- Is the product normal (immediate) release OR slow release? Use of SR, XR, XL, CR, CD or Contin in name.
  - Slow release must be swallowed whole, and not crushed or chewed
  - Most slow release products cannot be broken – look for score mark

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Analgesic classes

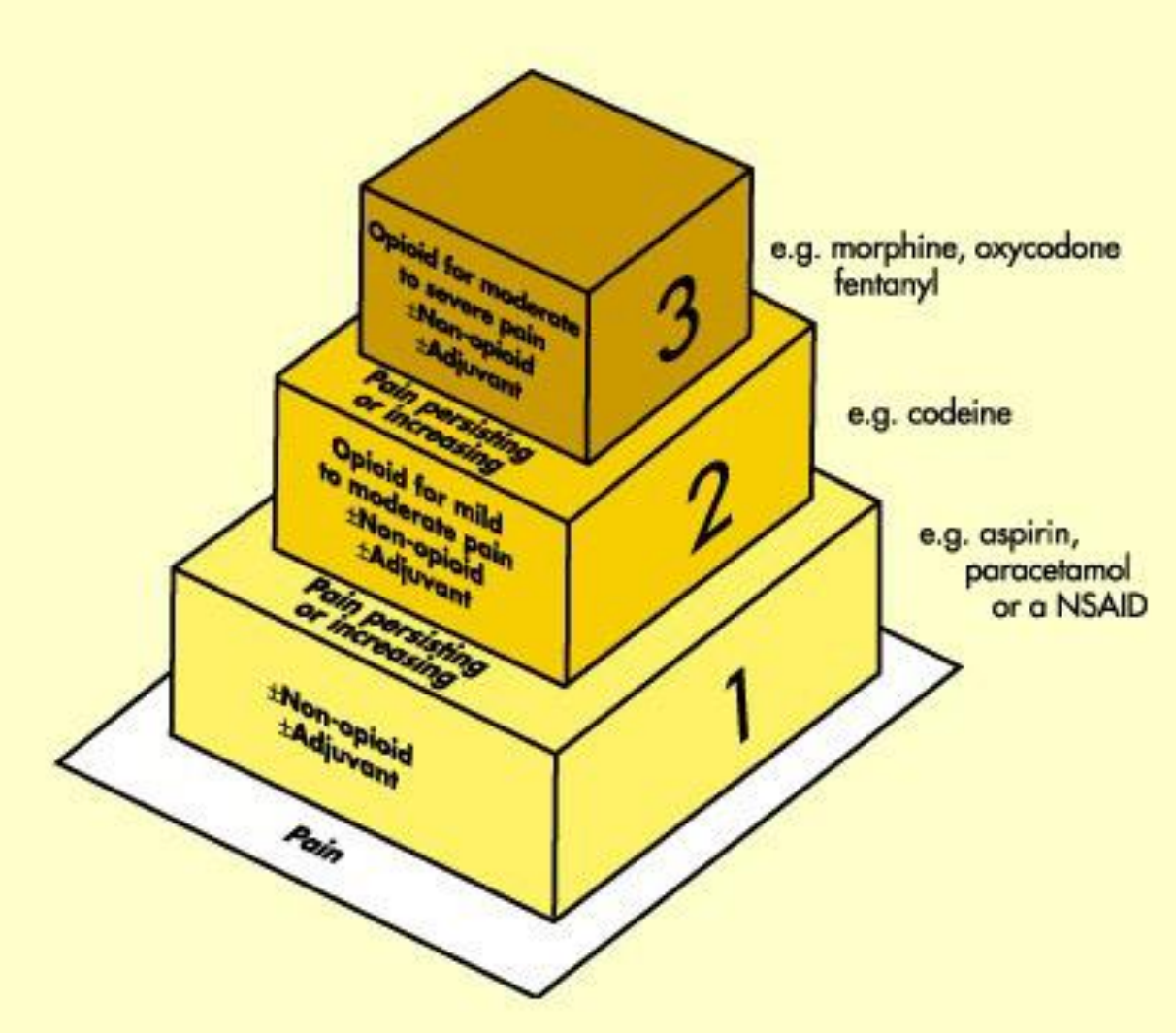
- Specific treatments related to a disease condition
- Paracetamol
- NSAIDS
- Tramadol + tapentadol
- Opioids
- Adjuvants
- Intravenous infusions

Specific treatments related to a disease condition

- GTN for angina e.g. Anginine, NitroLingual spray
- Triptans for migraine e.g. Naramig, Imigran, Zomig
- Pizotifen (Sandomigran) for migraine prevention
- Colchicine for gout e.g. Colgout, Lengout
- Nitrous oxide for acute pain relief e.g. in ED, labor
- Steroids for inflammatory conditions e.g. prednisolone

Will not be covering these medicines today

WHO 3-step analgesic ladder



For treatment of cancer pain. 1986

Paracetamol – advantages

- The safest analgesic
- The least number of side effects (unwanted effects)
- Mixes with any other pain reliever
- Wide range of formulations:
  - tablets, capsules, minicaps, slow release ‘Panadol Osteo’, liquids, concentrated liquid for babies, suppositories, injection
- Very useful – do not dismiss it as too weak
- Reduces the dose needed of other analgesics, thus reducing side effects of those analgesics

……. BUT does not reduce inflammation or swelling

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Paracetamol

- **BUT…….** Paracetamol is perceived as a weak analgesic - ‘Panadol is not strong enough for MY pain’
- **REMEDY:** In persistent pain, **use paracetamol regularly**
- This is more effective – taking a single dose of paracetamol might not effectively relieve the pain.
- Using paracetamol reduces the doses of other analgesics needed.
- Reduces adverse effects of other analgesics because a reduced dose is required

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erse effect paracetamol

BUT:

- Paracetamol taken in high doses damages the liver
- **REMEDY :**
- NEVER exceed the maximum daily dose: **take no more than 4,000 mg daily**– if your pain is not adequately relieved with paracetamol, add another analgesic.
- 4,000 mg = 8 x 500 mg OR 6 x 665 mg tablets
- For some, no more than 3,000 mg daily is the maximum
- Paracetamol can be ‘hidden’ in different products, including cold products

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Handb Exp Pharmacol. 2010;(196):369-405. doi: 10.1007/978-3-642-00663-0_12.

Mechanisms of acetaminophen-induced liver necrosis.

Hinson JA[1], Roberts DW, James LP.

Author information

Abstract

Although considered safe at therapeutic doses, at higher doses, acetaminophen produces a centrilobular hepatic necrosis that can be fatal. Acetaminophen poisoning accounts for approximately one-half of all cases of acute liver failure in the United States and Great Britain today. The mechanism occurs by a complex sequence of events. These events include: (1) CYP metabolism to a reactive metabolite which depletes glutathione and covalently binds to proteins; (2) loss of glutathione with an increased formation of reactive oxygen and nitrogen species in hepatocytes undergoing necrotic changes; (3) increased oxidative stress, associated with alterations in calcium homeostasis and initiation of signal transduction responses, causing mitochondrial permeability transition; (4) mitochondrial permeability transition occurring with additional oxidative stress, loss of mitochondrial membrane potential, and loss of the ability of the mitochondria to synthesize ATP; and (5) loss of ATP which leads to necrosis. Associated with these essential events there appear to be a number of inflammatory mediators such as certain cytokines and chemokines that can modify the toxicity. Some have been shown to alter oxidative stress, but the relationship of these modulators to other critical mechanistic events has not been well delineated. In addition, existing data support the involvement of cytokines, chemokines, and growth factors in the initiation of regenerative processes leading to the reestablishment of hepatic structure and function.

PMID: 20020268 PMCID: PMC2836803 DOI: 10.1007/978-3-642-00663-0_12

Hepatotoxicity

Chronic therapy with acetaminophen in doses of 4 grams daily has been found to lead to transient elevations in serum aminotransferase levels in a proportion of subjects, generally starting after 3 to 7 days, and with peak values rising above 3-fold elevated in 39% of persons. These elevations are generally asymptomatic and resolve rapidly with stopping therapy or reducing the dosage, and in some instances resolve even with continuation at full dose (Case 1).

While acetaminophen has few side effects when used in therapeutic doses, recent reports suggest that its standard use can result in severe hypersensitivity reactions including Stevens Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN). Both of these syndromes can be life-threatening and both may be accompanied by evidence of liver injury. However, the hepatic involvement is usually mild and marked only by asymptomatic mild-to-moderate elevations in serum aminotransferase levels.

The best known form of hepatoxicity from acetaminophen is an acute, serious hepatocellular injury as a result of intentional or unintentional overdose. The injury is due to a direct, toxic effect of the high doses of acetaminophen. Acetaminophen hepatotoxicity most commonly arises after a suicide attempt using more than 7.5 grams (generally more than 15 grams) as a single overdose (Case 2). Hepatic injury generally starts 24 to 72 hours after the ingestion with marked elevations in serum ALT and AST (often to above 2000 U/L), followed at 48 to 96 hours by clinical symptoms: jaundice, confusion, hepatic failure and in some instances death. Evidence of renal insufficiency is also common. Serum aminotransferase levels fall promptly and recovery is rapid if the injury is not too severe. Similar injury can occur with high therapeutic or supratherapeutic doses of acetaminophen given over several days for treatment of pain and not as a purposeful suicidal overdose (Case 3). This form of acetaminophen hepatotoxicity is referred to as accidental or unintentional overdose, and usually occurs in patients who have been fasting, or are critically ill with a concurrent illness, alcoholism or malnutrition, or have preexisting chronic liver disease. Some cases of unintentional overdose occur in patients taking acetaminophen in combinations with controlled substances (oxycodone, codeine), who take more than recommended amounts over several days in attempts to control pain or withdrawal symptoms. Instances of unintentional overdose in children are often due to errors in calculating the correct dosage or use of adult sized tablets instead of child or infant formulations. Because acetaminophen is present in many products, both by prescription and over-the-counter, another problem occurs when a patient ingests full or high doses of several products unaware that several contain acetaminophen.

Likelihood score: A[HD] (well established cause of liver injury, but severe cases occur only with high doses).

From LiverTox website at https://livertox.nlm.nih.gov/Acetaminophen.htm

Anti-inflammatories = NSAIDs

- Relieve pain and reduce inflammation and swelling
- Can be taken together with paracetamol
- General rule: take the minimum dose for minimum length of time
- Take with or immediately after food
- Not everyone can tolerate NSAIDs
- Doctor will advise whether NSAID is suitable
- NSAIDs have adverse effects on the gut, the kidneys, have cardiovascular toxicities, and may cause an allergic reaction in asthmatics, may cause bleeding
- Promptly report any signs of bleeding to doctor; if significant, go to Emergency Department

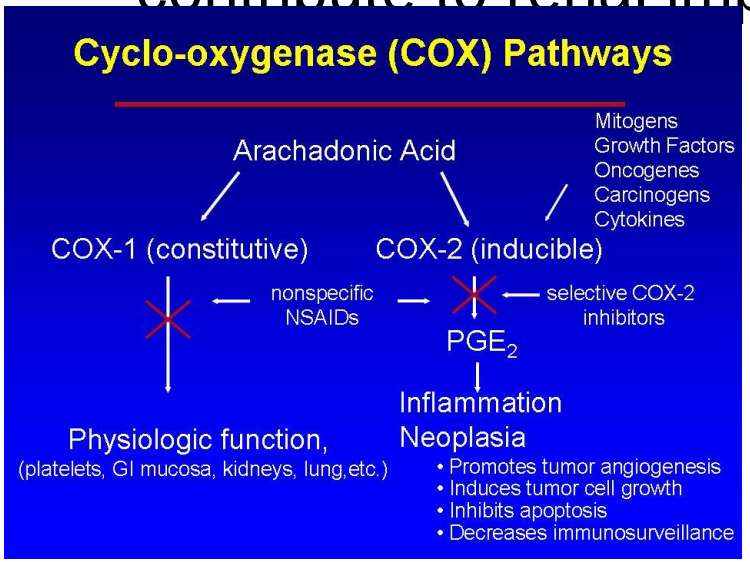
NSAID = Non Steroidal Anti Inflammatory Drug

Examples of anti-inflammatories

Active ingredient	Brand(s)
Aspirin	Spren, Solprin, Disprin
Celecoxib	Celebrex, Celaxib, Celexi, Kudeq
Diclofenac	Voltaren, Clonac, Fenac, Imflac, Viclofen Also available in a gel to apply to painful muscles + joints
Ibuprofen	Brufen, Rafen, Nurofen, Advil, Bugesic
Indomethacin	Indocid, Arthrexin
Meloxicam	Mobic, Movalis
Naproxen	Naprosyn, Inza, Proxen, Anaprox, Aleve

COX-1 vs. COX-2

- Cyclogenase (COX) is a family of enzymes
- Inhibition of COX leads to a reduction in inflammation and pain
- With COX-2 inhibitors: ↓ gastric erosion, ↑ atherogenesis, ↑ risk heart attack
- ALL NSAIDs, whether conventional or COX-2 selective, contribute to renal impairment, gut erosion + CV events



Non-specific NSAIDs	NSAIDS with COX-2 activity
Aspirin Diclofenac Ibuprofen Indomethacin Naproxen	Celecoxib Etorocoxib Meloxicam Rofecoxib

Tramadol

- Can be added to paracetamol and to NSAIDs
- Available in capsules, tablets, liquid, injection
- Available in immediate release 50 mg capsule taken every 6 hours
- And in slow release 12 hour [Tramal SR, Lodam SR, Zydol SR, Tramahexal SR] or slow release 24 hour tablet [Durotram XR]
- Effective for nociceptive AND neuropathic pain
- Works on opioid, noradrenaline + serotonin receptors → incr side effects

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Tramadol

- Has many adverse / side effects
- Includes: sweating, headache, agitation, co-ordination disturbance, constipation
- Adverse effects are more common in young slim females
- If occurring, promptly report to doctor
- Contributes to serotonin syndrome
  - Need to be used with caution when taking some other medicines such as antidepressants, antipsychotics, St. John's wort, one cough suppressant dextromethorphan, older style antihistamines, lithium

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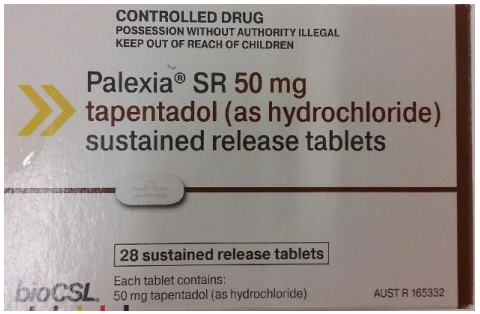
Tapentadol (Palexia®)

- Newest analgesic
- For moderate to severe pain
- Slow release, must be swallowed whole
- Some similarity to tramadol but slightly stronger opioid effect and no serotonin effect
- Works on opioid (μu) and noradrenaline receptors
- Useful addition to armoury
- Can be used in acute pain, persistent pain and neuropathic pain
- Because it is new, limited experience
  - Report any adverse effects to TGA



Opioids

- The strongest analgesics
- Can be combined with paracetamol and with anti-inflammatory medicines
- Many different opioid pain relievers available
- Good range of formulations – tablets / capsules, slow release, liquids, some in oral granules, some in sub-lingual (under the tongue), some in patches, one in suppository, injections

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Opioid adverse effects

Potential adverse effects include

- Drowsiness / sedation, inability to concentrate, dizziness
- Slowed/suppressed breathing
- Nausea / vomiting
- Flushing, urinary retention, sweating
- Constipation: to assist bowel function, eat a high fibre diet, drink plenty of fluids, exercise, probably need to take laxatives. Cannot ignore + must manage the effect of these medicines on bowels.
- Itch (that does not necessarily mean allergy)
- Dependence: is different to addiction. Quickly become physically dependent on opioids = withdrawal symptoms on abrupt cessation; do not abruptly cease. Can become psychologically dependent = fear being without our pain relievers.

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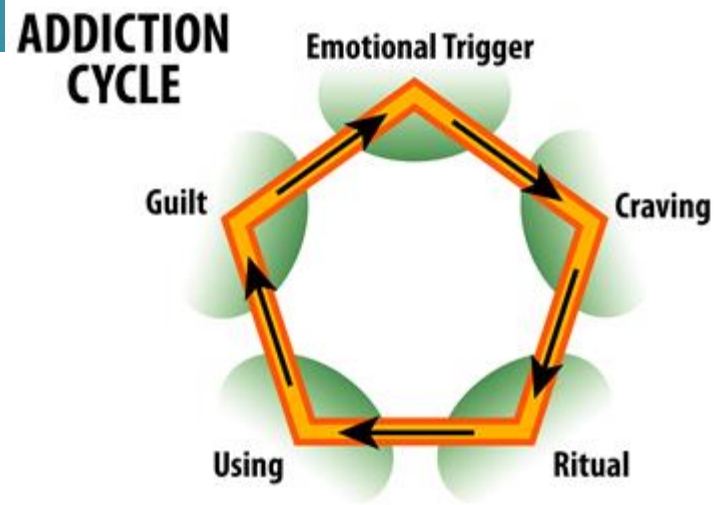
Addiction



- The continued use of a substance despite adverse consequences
- Features include: impaired control over the use of the substance, 'craving', preoccupation with that substance, continued use despite consequences, and denial.
- Immediate gratification (short-term reward), together with delayed adverse effects (long-term costs).
- Fear of causing addiction limits use of opioids by patients, nurses + family members

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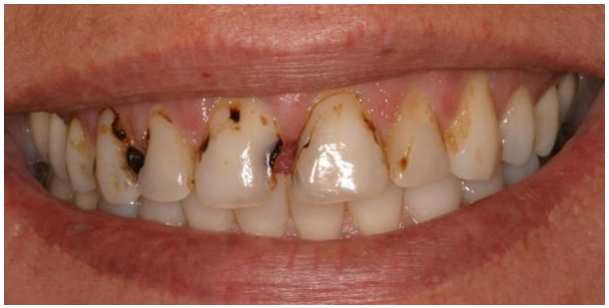
Addiction is different to physical dependence

More opioid adverse effects

Using opioids long term can be associated with:

- Decreased saliva production → teeth decay
- Depressed immune function → more infections
- Memory and concentration deficits
- Suppression of sex hormone activity → sexual dysfunction, ↓ libido, ↓ arousal, infertility
- Prolongation of QT_c interval → torsades de pointes, cardiac death
  e.g. mainly with methadone, and to much less extent, slow release morphine and buprenorphine



Targin

- Oxycodone + naloxone
- Reduced constipation compared to oxycodone alone
- Naloxone antagonises effect of opioid on gut wall
- Should replace Oxycontin
- Good range of strengths available

Examples of opioids used in chronic pain

Active ingredient	Some brand name(s)	Comments
Buprenorphine	Norspan	Patches are useful in persistent pain.
Codeine	In Panadeine + Panadeine forte	A weak opioid. Adds strength to paracetamol products.
Fentanyl	Durogesic, Denpax, Actiq	Patches are useful in severe chronic pain. Lozenge for under the tongue for breakthrough pain.
Hydromorphone	Dilaudid, Jurnista	Not widely used. Commonly used in palliative care. Approx. 5 x more potent than morphine mg for mg
Morphine	MS Contin, MS Mono, Kapanol, Ordine, Sevredol, Anamorph	Wide range of formulations available. Well known. Widely used.
Oxycodone	Endone, Oxynorm, Oxycontin, Targin, Proladone	Wide range of formulations available. Well known. Widely used.

Intravenous treatments

- Lignocaine infusion, low dose

USES

- Severe acute and chronic neuropathic pain
- ‘Circuit breaker’ for neuropathic pain
- Adjuvant analgesia during and following surgery
- Burns pain management
- Severe headache or migraine
- Cancer pain
- Palliative care

These uses are not necessarily approved by the TGA.

Intravenous treatments

- Ketamine infusion

USES

- Severe pain inadequately controlled with opioids and conventional adjuvants.
- In severe chronic migraine unresponsive to other agents
- In neuropathic pain with features of central sensitisation, Complex Regional Pain Syndrome and in patients where discontinuation of opiates is desirable
- Acute pain in chronic pain patients, especially those already on large doses of opioids.
- Acute pain where there is a high likelihood of chronic pain developing, e.g. severe bone fracture with neural injury, severe burns needing prolonged opioid infusions.
- For analgesia prior to painful and frightening procedures e.g. burns dressings
- Pain in palliative care

These uses are not necessarily approved by the TGA

Managing pain

- Persistent pain is often managed by using regular analgesics e.g. paracetamol +/- NSAID +/- opioid
- Use of long acting analgesics e.g. Oxycontin or patches
- Breakthrough pain occurs suddenly for short periods of time and is not relieved by your usual pain management. Common in cancer. Requires extra medicines that are short acting + that act quickly.
- Incident pain occurs as a result of activity, such as movement of an arthritic joint, stretching a wound, etc.
- May require extra pain relievers to use only ‘when required’, e.g. paracetamol , or an anti-inflammatory, or a short acting opioid such as Endone or Oxynorm

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Adjuvant medicines for neuropathic pain

- Gabapentin [Neurontin]
- Pregabalin [Lyrica]
- Carbamazepine [Tegretol, Teril]

- Thought to act by slowing electrical messages to the brain
- Reduce but often do not eliminate the pain
- Added to other analgesics

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Other adjuvant medicines

- **Amitriptyline** (Endep), nortriptyline (Allegron), and doxepin (Sinequan, Deptran) are tricyclic antidepressants that can assist in treating pain, particularly neuropathic pain
- Are added on to analgesic treatments.
- Causes drowsiness – and so can assist sleep
- Taken at night
- Used in lower doses than that used to treat depression
- **Duloxetine** (Cymbalta) has some effect in diabetic neuropathy

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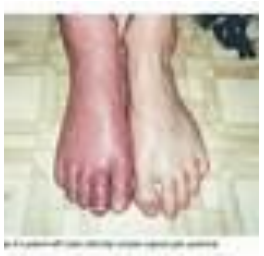
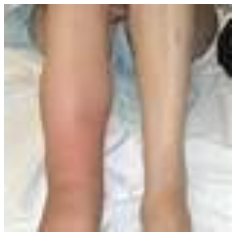
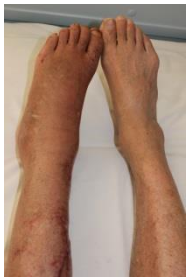
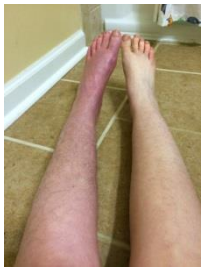
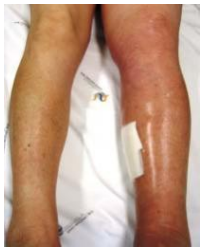
Complex Regional Pain Syndrome

- A chronic pain condition most often affecting one of the limbs (arms, legs, hands, or feet), usually after an injury or trauma to that limb.
- Believed to be caused by damage to or malfunction of, the peripheral and central nervous systems.

Common features include:

- changes in skin texture on the affected area; may appear shiny and thin
- abnormal sweating pattern in the affected or surrounding areas
- changes in nails and hair growth
- stiffness in affected joints
- problems coordinating muscle movement; decreased ability to move the affected body part
- abnormal movement in the affected limb, most often fixed abnormal posture (called *dystonia*) or tremors in or jerking of the affected limb

Complex Regional Pain Syndrome

- There is some evidence that vitamin C 500–1000 mg daily for 50 days reduces complex regional pain syndrome after wrist fracture and limb surgery (4 studies, 1065 patients).
- Perioperatively, strategies used for primary prevention and prevention of recurrence include:
  - regional, sympathetic or epidural block or infusion
  - corticosteroids
  - NSAIDs
  - clonidine tablets or ketamine or lignocaine infusions

Greta Palmer. Aust Prescr: 2015;38:82-61 Jun 2015DOI: 10.18773/austprescr.2015.029

J Bone Joint Surg Am. 2007 Jul;89(7):1424-31.

Can vitamin C prevent complex regional pain syndrome in patients with wrist fractures? A randomized, controlled, multicenter dose-response study.

Zollinger PE[1], Tuinebreijer WE, Breederveld RS, Kreis RW.

Author information

Abstract

BACKGROUND: Complex regional pain syndrome type I is treated symptomatically. A protective effect of vitamin C (ascorbic acid) has been reported previously. A dose-response study was designed to evaluate its effect in patients with wrist fractures.

METHODS: In a double-blind, prospective, multicenter trial, 416 patients with 427 wrist fractures were randomly allocated to treatment with placebo or treatment with 200, 500, or 1500 mg of vitamin C daily for fifty days. The effect of gender, age, fracture type, and cast-related complaints on the occurrence of complex regional pain syndrome was analyzed.

RESULTS: Three hundred and seventeen patients with 328 fractures were randomized to receive vitamin C, and ninety-nine patients with ninety-nine fractures were randomized to receive a placebo. The prevalence of complex regional pain syndrome was 2.4% (eight of 328) in the vitamin C group and 10.1% (ten of ninety-nine) in the placebo group (p=0.002); all of the affected patients were elderly women. Analysis of the different doses of vitamin C showed that the prevalence of complex regional pain syndrome was 4.2% (four of ninety-six) in the 200-mg group (relative risk, 0.41; 95% confidence interval, 0.13 to 1.27), 1.8% (two of 114) in the 500-mg group (relative risk, 0.17; 95% confidence interval, 0.04 to 0.77), and 1.7% (two of 118) in the 1500-mg group (relative risk, 0.17; 95% confidence interval, 0.04 to 0.75). Early cast-related complaints predicted the development of complex regional pain syndrome (relative risk, 5.35; 95% confidence interval, 2.13 to 13.42).

CONCLUSIONS: Vitamin C reduces the prevalence of complex regional pain syndrome after wrist fractures. A daily dose of 500 mg for fifty days is recommended.

Complex Regional Pain Syndrome

Several different classes of medication have been shown to be effective for CRPS, particularly when used early in the course of the disease.

No single drug or combination of drugs is guaranteed to be effective in every person.

Medications used to treat CRPS include:

- non-steroidal anti-inflammatory drugs to treat moderate pain, e.g. aspirin, ibuprofen or naproxen
- corticosteroids that treat inflammation/swelling and oedema, such as prednisolone and methylprednisolone (used mostly in the early stages)
- gabapentin, pregabalin, amitriptyline, nortriptyline or duloxetine
- botulinum toxin injections
- opioids such as oxycontin, morphine, hydrocodone, fentanyl
- N-methyl-D-aspartate (NMDA) receptor antagonists such as dextromethorphan and ketamine
- nasal calcitonin, especially for deep bone pain, and
- topical local anaesthetic creams and patches such as lignocaine

Other useful therapies might include:

- Rehabilitation, psychotherapy, nerve block, electrical nerve stimulation

Emerging therapies:

- Intravenous immunoglobulin, hyperbaric oxygen

From http://www.ninds.nih.gov/disorders/reflex_sympathetic_dystrophy/detail_reflex_sympathetic_dystrophy.htm

New analgesic medicines

- Tapentadol (Palexia IR®) in 3 strengths, not on PBS
- Tapentadol (Palexia SR®) in 5 strengths, on PBS for chronic ‘severe disabling pain not responsive to non-opioids’
- Lignocaine patch 700 mg (Versatis®) Not on PBS
- Fentanyl sublingual tablet (Abstral®) in 5 strengths, on PBS, authority prescription required, cancer only
- Fentanyl orally disintegrating tablets (Fentora®) on PBS, authority prescription required, cancer only
- Tramadol 37.5 mg + paracetamol 325 mg (Zaldiar®) Not on PBS

Encourage use of a pain management plan

- A written agreed plan to assist a patient in managing their pain, improves clarity for the patient and carer(s)
- Reduces sole focus on medicines
- Allows all health professionals to be 'on the same page'
  - Use relaxation techniques
  - Pace activities to your pain tolerance level
  - Exercise regularly to own tolerance level
  - Attend all appointments
  - Try heat / cold packs, TENS machine, massage
  - Supports / braces / taping / foot wear / aids
  - All are included in the plan

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Download from http://www.nps.org.au/health-professionals/resources-and-tools/for-your-patients/resources/opioids3

MY PAIN MANAGEMENT PLAN

NPS MEDICINEWISE

Patient name: _____ Initial pain assessment completed: ___/___/___

GP name: _____ Diagnosis: _____

GP contact details: _____

After hours details: _____

Goals of my pain management plan

GOALS (e.g. walk three times a week for half an hour)	REVIEW DATE	COMMENTS (including date and progress)
1.		
2.		
3.		
4.		
5.		

Other health professionals assisting my pain management (e.g. physiotherapist)

PROFESSIONAL (type and details)	GOALS OF TREATMENT	ACTION	REVIEW DATE	COMMENTS (including date and progress)

MY PAIN MANAGEMENT PLAN

Pain medicines See Medicines List at www.nps.org.au/medicines_list

NAME OF MEDICINE (prescription and over-the-counter)	STRENGTH	WHAT IS THE MEDICINE FOR?	HOW MUCH DO I USE AND WHEN?	SPECIAL INSTRUCTIONS OR COMMENTS (including date and progress)
1.				
2.				
3.				
4.				
5.				

Other ways to help manage my pain (non-medicine strategies)

1. _____
2. _____
3. _____
4. _____
5. _____

If my pain gets worse my doctor recommends

Non-medicine strategies	Medicines (include details as in the table above)
▸ _____	▸ _____
_____	_____
▸ _____	▸ _____
_____	_____

To help me manage my pain better (patient to fill out)

What makes my pain worse: _____

What makes my pain better: _____

June 2013

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Independent, not-for-profit and evidence based, NPS enables better decisions about medicines and medical tests. We are funded by the Australian Government Department of Health and Ageing. National Prescribing Service Limited. ABN 61 082 034 393.

NPS MEDICINEWISE

NPS1427

NPS Medicinewise Pain Management Plan from
http://www.nps.org.au/__data/assets/pdf_file/0005/88340/My-pain-management-plan.pdf

My pain diary

NPS
National Prescribing Service Limited

Date	Time	Describe your pain (e.g. how long it lasts, where it is, does it move, what it feels like – dull, sharp, stabbing)	Rate your pain (0–10, see overleaf)	What made your pain worse?	What did you do to relieve your pain? (medicine or non-medicine e.g. exercise)	Rate the relief of your pain – include time until relief (0–10 see overleaf)	Comments (e.g. problems with medicines, how your pain affects your daily life – sleep, mood, work etc.)

Download from http://www.nps.org.au/health-professionals/resources-and-tools/for-your-patients/resources/pain-diary

May lead to anxiety +/or depression

Persistent pain

Gets you down, lowers mood

Pain seems worse

Further lowers mood

Wimmera Health Care Group

Difficulty sleeping

- Can be an issue for people in pain
- Sleep hygiene / good sleep advice is very important
  - Avoid caffeine, smoking + exercise just before bed
  - Remove light sources from the bedroom, use heavy curtains
- Medicines can be used to aid sleep: some should be used regularly, some only when needed
  - Temazepam
  - Amitriptyline (Endep)
  - Mirtazapine
  - Melatonin

Wimmera Health Care Group

Good sleep practices

It is important to educate patients about normal sleep and provide counselling about good sleep practices and habits (see Box 8.2).

Advice on good sleep practices (Box 8.2)

Print-friendly PDF

Sleep–wake activity regulation

- go to bed at the same time each day
- arise at a regular time
- avoid lying in bed for long periods of time worrying about sleeping
- avoid oversleeping
- avoid napping (if necessary, limit to afternoon 'powernap' of 10 to 15 minutes)

Sleep setting and influences

- avoid bright light exposure in late evening or night
- seek exposure to bright light after rising
- avoid heavy meals within 3 hours of bedtime
- undertake regular daily exercise but avoid vigorous physical activity within 3 hours of bedtime
- ensure a quiet, dark room for sleeping (remove TV, music player, laptop, mobile phone)
- avoid having pets and highly illuminated digital clocks in the bedroom
- use a suitable mattress and pillow for comfort and support
- reserve bedroom for sleep and intimacy
- avoid alerting, stressful ruminations before bedtime. Allocate time earlier in the evening to go through worrying issues
- avoid caffeine after midday
- reduce excessive alcohol intake
- avoid tobacco, especially in the evening
- avoid illicit drugs

Sleep-promoting adjuvants

- have a light snack or a warm milk drink before bed
- have a warm bath before bed
- ensure a comfortable temperature for sleep and maximal darkness

From Therapeutic Guidelines Psychotropic

Mixed up with your medicines?

Home Medicines Review

Home Medicines Review

- A pharmacist visits patient and comprehensively discusses all patient's medicines
- Answers questions, informs on safe and effective and appropriate medication use
- Concentrates on prescribed medicine, but also covers "over the counter" medicines and complementary and herbal medicines
- Allows 1:1, face to face, uninterrupted access to a usually busy health professional
- Allows you to ask questions that perhaps they you might not do during consultation or when collecting scripts
- Free of charge, one per year, a carer/partner can attend
- Can take place in own home or elsewhere
- Report back to doctor for actions that might be needed
- Typical comment at end of visit: "Thank you so much for visiting today, I have a low about my medicines"
- How to access this service? Written referral required from usual GP → community pharmacy OR accredited pharmacist

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Prescription → dependence / addiction?

- Prescription Opioid Policy: Improving management of chronic non-malignant pain and prevention of problems associated with prescription opioid use. See https://www.racp.edu.au/docs/default-source/advocacy-library/prescription-opioid-policy.pdf

- Real time monitoring

Victoria coalition government in 2016 promised $7 million over 5 years to set up a real time monitoring system for prescription opioids

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Real-time monitoring of prescription medication needs nationwide approach: campaigner

ABC Western Vic By Larissa Romensky

Posted 27 Apr 2016, 4:53pm

PHOTO: Margaret and John Millington with their two daughters, Sallie Koenig (left) and Laura (right) and their granddaughter Maddie (Simon's daughter). (Supplied: Photographer Brett Wheaton)

A western Victorian mother, who lost her son to a prescription overdose, has welcomed the State Government's $30 million crackdown on

RELATED STORY: 'Prescription shopping' crackdown to monitor Victorians buying drugs

MAP: Nhill 3418

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Doctor, prescription shopping the focus of $30 millic crackdown by Victorian Government

Updated 25 Apr 2016, 10:08am

Victoria will spend $30 million to crackdown on "prescription shopping", in an effort to reduce the number of people dying from overdoses, the State Government has announced.

The real-time monitoring system will allow health professionals to conduct on-the-spot checks before prescribing and dispensing medicines that have a high risk of misuse.

Last year 330 Victorians died due to prescription overdoses, 100 more than those who died from illicit drugs, the Government said.

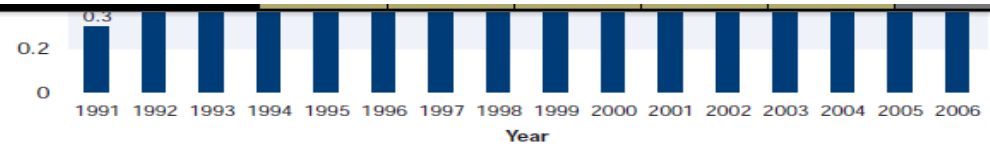
Health Minister Jill Hennessy said the new system would help doctors to better treat their patients.

PHOTO: More people died from prescription drug overdoses than road accidents. (FotografiaBasica Getty Images)

MAP: VIC

"Real-time prescription monitoring will help put a system in place that can help us see where people are doctor shopping, or pharmacy shopping, and clearly developing addictive behaviours towards these sorts of medicines," she said.

Increase in oxycodone use in Australia

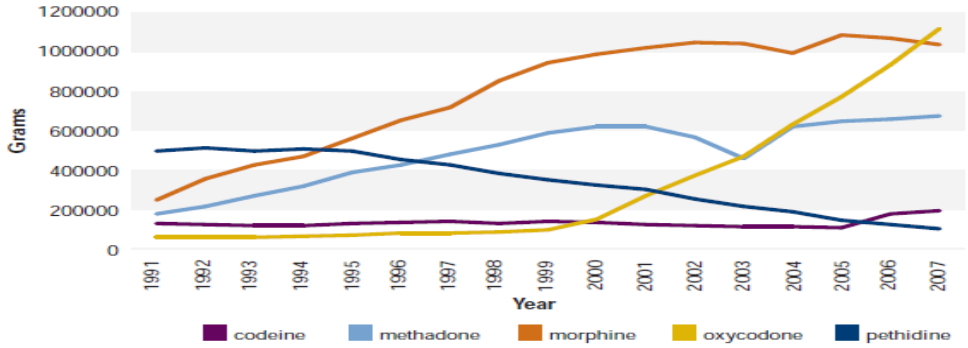


Source: Dobbin 2006, Morphine, Unpublished paper provided to the Drugs and Crime Prevention Committee. Data extracted from the National Drug-control System (NDS) domestic transaction data by the Commonwealth Department of Health and Ageing.

Oxycodone

The total number of oxycodone capsules, tablets and suppositories supplied in Australia increased from 8.4 million in 1990 to 31.4 million in 2003, representing a 3.75-fold increase.[20] However, total oxycodone base supply in Australia increased about 10-fold from 1991-2007 (Figure 4), with most of the increase occurring since the introduction of oxycodone hydrochloride modified release tablets (OxyContin) in 1999.

Figure 4: Pharmaceutical opioid base supply (grams) Australia from 1991-2007



Source: Dobbin 2008, Morphine, Unpublished paper provided to the Drugs and Crime Prevention Committee. Data extracted from the National Drug-control System (NDS) domestic transaction data by the Commonwealth Department of Health and Ageing.

Data from Australian Capital Territory (ACT) show the substantial increase in the number of prescriptions of OxyContin from the year of its approval 1999 to 2005 (Figure 5). [59]

Increase medicines use to manage pain: is it the best remedy?

Increasing pain without appropriate management

Increasing analgesic use possibly leading to better managed pain

Increasing analgesic use might not be the best first-line strategy.
Consider:

- Is patient participating in non-drug strategies to manage their pain?
- Are they attending all appointments?
- Are they using analgesics appropriately?
- Use of a pain diary then developing a written pain management plan
- Referral for specialist consult in difficult cases or high opioid doses

Penington report

'*Australia's Annual Overdose Report 2016*'

Key information from the report:

- In 2014, people aged 30-59 years accounted for 78% of all overdose deaths.
- Australians aged 40-49 are the most likely to die of a drug overdose. Deaths in this age bracket have almost doubled in 2004 to 2014.
- In 2014, per capita overdose deaths are significantly higher in **rural** and **regional** areas (5.7 deaths per 100,000 population) than in metropolitan areas (4.4 deaths per 100,000 population). Between 2008 and 2014, there was an 83% increase in per capita deaths in rural and regional Australia – up from 3.1 deaths per 100,000 population to 5.7 per 100,000.
- **Men overdose** in much **higher numbers than women**: 762 men vs. 375 women died of accidental overdose in 2014, similarly to the previous decade.
- Despite common perceptions of accidental deaths due to drugs are caused by illicit drugs, in 2014 **prescription medications were responsible for more drug-related deaths** (71%) than illicit drugs (29%). (Note: this statistic is for total drug-related deaths, not just overdose deaths).
  - Over the period 2008-2014 there was an 87% increase in prescription opioid deaths in Australia, with the greatest increase occurring in rural/regional Australia which saw a 148 per cent increase.
- **Accidental deaths due to drug overdose per capita for Aboriginal people have skyrocketed** between 2004 and 2014 with an increase of 141% – from 3.9 per 100,000 in 2004 to 9.4 per 100,000 in 2014 in the five jurisdictions with Aboriginal data. In the same period, the increase among non-Aboriginal people was from 3.3 per 100,000 to 4.8 per 100,000 – an increase of 45%.
- **Western Australia is the worst state for overdose deaths per capita** with 5.8 per 100,000 in 2014 followed by **NSW** with 5.1 per 100,000.

From http://www.penington.org.au/national-scandal-deaths-overdose-continue-climb/

Resources

Resources and management tools for chronic pain

Assessing patients for possible opioid treatment

The Victorian Department of Health promotes this screening tool to predict which individuals may develop aberrant drug-related behaviours when prescribed opioids for chronic pain.

- Opioid risk assessment

Opioid prescribing decision aid

This decision aid is based on the Tasmanian Department of Health's 8-step checklist for use at any stage when managing patients on opioids.

- Opioid prescribing decision aid

Pain Management Network

The NSW Agency for Clinical Innovation developed this website to help patients gain a better understanding of their pain. It also helps health professionals better understand and manage patients with chronic pain.

- Pain Management Network

Biopsychosocial management of chronic pain

This mangement plan is designed to help you provide advice to your patients on the biopsychosocial approach to managing their chronic pain. Use this tool to facilitate a discussion with patients about the importance of incorporating non-pharmacological strategies into their pain management.

- Chronic non-cancer pain management plan

Chronic pain fact sheet

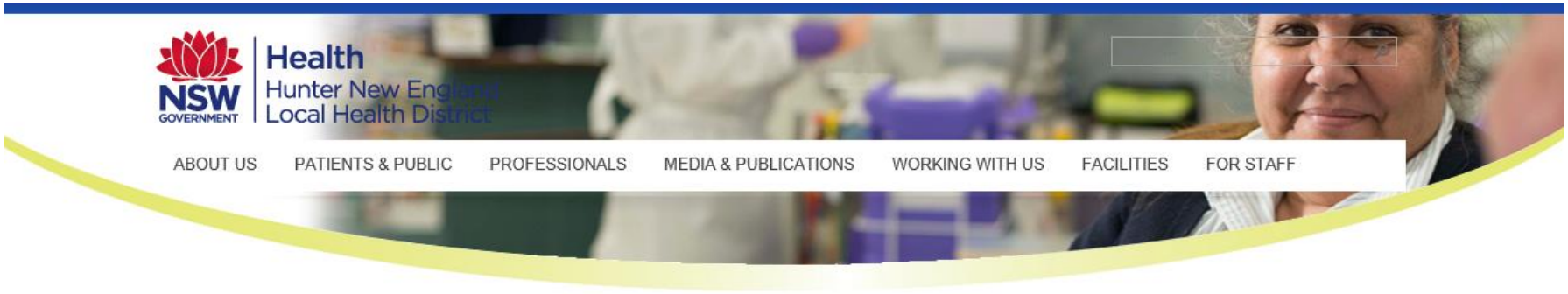
Chronic or persistent pain is when pain occurs most days of the week, for at least a three month period. About one in five Australians suffer from chronic pain and it most commonly occurs in older people.

- More facts on chronic pain

For more information

- Developing a management plan for chronic pain
- Monitoring treatment for chronic pain

Resources for managing pain from NPS Medicinewise at http://www.nps.org.au/conditions/nervous-system-problems/pain/for-individuals/pain-conditions/chronic-pain/for-health-professionals/resources-tools



Health professional resources

Hunter Integrated Pain Service develops resources and guidelines to assist health professionals to provide better pain management for their patients.

- Pain recovery plan (pdf 104kb)
- Opioid quick steps (pdf 63kb)
- Reconsidering opioid therapy (pdf 199kb)
- Opioid treatment agreement (pdf 62kb)
- Opioid authorisation and prescription (pdf 56kb)
- Group health patient handout - Chronic opioid risks (pdf 17kb)
- Opioid selection (pdf 78kb)
- Dose equivalence and opioid rotation (pdf 80kb)
- Opioid adverse effects (pdf 75kb)
- Opioid misuse(pdf 70kb)
- Reconsidering drug therapy for neuropathic pain, CRPS and fibromyalgia (pdf 142kb)
- Red and yellow flags (pdf 39kb)
- Procedural intervention guidelines (pdf 78kb)
- Managing conflict in clinical interactions (pdf 29kb)
- Analgesic medication in pregnancy (pdf 35kb)
- Pain in the elderly (pdf 38kb)
- Mindbody quick steps (pdf 31kb)
- Opioid recommendations for hospital settings (pdf 89kb)

From http://www.hnehealth.nsw.gov.au/Pain/Pages/Health-professional-resources.aspx

Pain Management Network

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Resources for Chronic Pain

Clinicians

- Referral
- Assessment Tools and Resources
- GPMP & MBS Items
- Opiates and Medications
- Pharmacy Resources
- Medical Education Resources
- Lifestyle/Heath Links
- Patient Education Resources

Consumers

- Understanding Chronic Pain
- Getting help from your Health Care Team
- Pain and Physical Activity
- Pain: Lifestyle and Nutrition
- Pain and Role of Medications
- Pain and Thoughts

From http://www.aci.health.nsw.gov.au/chronic-pain/health-professionals/resources-for-chronic-pain

Useful resources

- www.painaustralia.org.au
- www.painmanagement.org.au
- www.chronicpainaustralia.org.au
- www.aci.health.nsw.gov.au/chronic-pain
- www.painhealth.csse.uwa.edu.au
- www.hnehealth.nsw.gov.au/pain/community
- www.nps.org.au
- www.move.org.au
- www.arthritisaustralia.com.au

THANK YOU

Debbie Norton