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Opioid use in chronic non-cancer pain

Part 2: Prescribing issues and alternatives

Background

Managing pain requires time and effort to attend to its biopsychosocial characteristics. This requires proper planning and a whole-of-practice approach.

Objective

This article describes how to prepare your practice for quality chronic pain care, and details a non-judgemental and effective management approach, including the minimisation of opioid harms.

Discussion

It is helpful to have a consistent, whole-of-practice approach when a patient new to the practice presents with a compelling case for opioids. Assessing patients with chronic pain includes a full medical history and detailed examination according to a biopsychosocial approach and applying 'universal precautions' to make a misuse risk assessment. A management plan should consider a range of non-opioid modalities, with a focus on active rather than passive strategies. Integrated multidisciplinary pain services have been shown to improve pain and function outcomes for patients with complex chronic pain issues, but access is often limited. Time-limited opioid use is recommended with initial and regular monitoring, including pain and function scores, urine toxicology, compliance with regulatory surveillance systems and assessment for adverse reactions and drug related aberrant behaviours. When ceasing prescribing, opioids should be weaned slowly, except in response to violence or criminal activity.

Keywords

opioids drugs; chronic pain



This article is not just about the availability and harms of opioid use; it concerns attitudes, professional identity and the business of healing. Despite our human tendency to be judgemental, no-one in pain comes to the doctor to be separated into 'genuine pain' patients or 'undeserving' drug addicts. People come for good care; which in this setting means good pain management, good dependency management or, when appropriate, a mixture of both.

Case study 1

Just before leaving work one Friday evening, your receptionist informs you that a short-acting oxycodone repeat prescription is required for a female patient, 74 years of age, who sees all the other doctors in the practice (who are absent). The receptionist says that she is a 'very nice lady', though always rushed and somewhat prone to missing appointments. The patient has rung from the next town where she is visiting her new great-grandchild. She had a total hip replacement 5 months previously and more recently has been diagnosed with complex regional pain syndrome in the foot. At her last presentation, a fortnight ago, the notes indicate that she told your colleague she had been discharged from the hospital emergency department the day before, having received an injection of morphine and a prescription for short-acting oxycodone tablets. Your colleague noted that she was in significant pain, staggering, and finding it difficult to talk and referred her back to the hospital to be admitted. You have no information about what happened subsequent to her presentation at the hospital.

You are in a terrible rush to get home as the babysitter has already arrived and your spouse has been expressing very clear displeasure about your lack of family focus. You hit the print button for the requested prescription. However, as you are signing the script you reflect on what you are about to do and consider the lack of continuity of care, her non-specific diagnosis and whether her last presentation could have been an overdose. You ring the Prescription Shopping Information Service (PSIS) to find that she has been positively identified. In the 3 months for which information is available, she has had Pharmaceutical



Benefits Scheme (PBS) prescriptions from 22 GPs, including 15 targeted medications. You discard the script and request the receptionist to telephone the patient to let her know you don't do scripts over the telephone and that she should book to see her usual doctor.

Developing a practice pain management protocol

You can prepare your practice for quality pain care in several ways. It can be helpful to put up a sign in the waiting room saying 'no drugs of addiction will be provided on the first appointment'. Work with colleagues to develop a consistent strategy for when you are faced with a patient new to the practice with a compelling case for opioids, or an urgent telephone request for a new prescription in established patients, including in time poor emergency situations similar to *Case study 1*. Here you might consider buying time for a detailed assessment by highly structured prescribing.

Before prescribing:

- check for injection sites
- order a urine drug screen
- confirm the patient's identity
- attempt to call the previous doctor
- consult the PSIS and fax (then post) to the pharmacy a 2-day prescription contingent on every dose being consumed at the pharmacy (this would need to be negotiated with the pharmacy).

Importantly, before the follow-up appointment, check that the patient is still coming, as they may only have wanted the script, not the supervision.

Case study 2

A couple moved to your area last week and have already seen your colleague. The husband presents requesting repeat pain killers for his wife who is 52 years of age. You look at the notes and find that she has attended the surgery twice for headaches and has been prescribed three prescriptions of 20 paracetamol/codeine 30 mg tablets. Unfortunately, your colleague has not completed the sections in the medical record on past history, medications or allergies. The husband says, 'We're getting desperate. Since moving here and unpacking the furniture she has had severe pain and has had no sleep at all. The tablets just aren't strong enough!' You politely refuse. 'At our practice we have a policy not to prescribe opioids without a thorough assessment of every patient to determine the best way to manage their pain.' He agrees to bring her in for an appointment later that day. She reports the pain is constant, worse at rest and 10/10 in severity. She had a breast lumpectomy and radiotherapy 6 months ago. Her neck is rigid with marked muscle spasm. You prescribe oral morphine and order a bone scan.

On review, they are delighted that she has finally been able to get some sleep, but unfortunately the scan shows bony metastases.

Clinical history and examination

Quality pain care requires a 'biopsychosocial' approach involving a careful positive diagnosis and exclusion of differential diagnoses.

A psychiatric history should consider diagnoses including depression and somatisation, as well as a history of trauma, and physical, emotional and sexual abuse in either childhood or adulthood. A suicide assessment should be performed. It is important to remember that depression and pain can trigger and perpetuate each other.

A drug and alcohol history should be routine, including licit and illicit drugs, synthetic cannabis ('Kronic') and 'designer' stimulants. This is not simply to allocate diagnoses such as abuse, addiction or dependency – which all may well change with the fifth version of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V). Rather, explore individual substances along the dimensions of the amount and pattern of use, the social consequences of use, and the experience of compulsion/craving/loss of control.¹

Ask specifically about pharmaceuticals including opioids or benzodiazepines. Has there ever been hoarding or diversion, eg. lending, giving, selling, bartering or stealing or vice-versa? Has there been use other than prescribed, eg. for stress or for escape. This may include over- or under-consumption, topping up with other drugs or pills, or tampering with tablets or patches. Tampering turns slow release formulations into immediate acting ones for smoking, swallowing or intranasal or intravenous consumption.

The physical examination should aim to clarify the pain diagnosis, monitor therapy effects and side effects, assess any opioid misuse risk and observe the behavioural responses to physical examination. Beware the tendency to over-rely on non-verbal indicators of pain (eg. limping or the wearing of a neck brace). Look for signs of intoxication or substance withdrawal. Respectfully but firmly explain you must inspect areas of potential intravenous access, including the upper limb, the femoral vein area, the feet and ankles and the neck (*Figure 1*).

Initial and regular assessments should employ measures such as the Brief Pain Inventory, which is freely available online (see *Resources*). This allows the quantification of both pain and function ('pain interference') including relationships, work, leisure, mood and sleep.



Figure 1. The neck of a patient who has been injecting the oxycodone her GP had been prescribing to her mother for cancer pain



Better documentation than that shown in *Case study 2* assists longitudinal diagnosis and continuity of care, and may minimise potential regulatory or medicolegal risks.

A full initial assessment and planning for holistic care for a patient with chronic pain (as described) can be time consuming. Importantly, reimbursement is available through the use of appropriate Medicare Benefits Schedule (MBS) item numbers. These could include a time-based item for each prescription, and where appropriate, accessing care plans, team care arrangements, mental health plans, medication reviews, health assessments and multidisciplinary case conferences.

Without sufficient clinical attention, complex pain patients will suffer from 'time poverty', so ensure they receive sufficient consultations and continuity of care.

Table 1. Non-pharmacological therapies for cancer pain or non-cancer pain based on Passik²⁵

Passive therapy: biomedical⁵	Nerve blocks Neurodestructive surgical techniques Vertebroplasty Radiation therapy
Passive therapy: other	Acupuncture ⁵ Transcutaneous electrical nerve stimulation (TENS) ⁵ Topical therapy ⁵ Desensitisation Strapping Braces Splints Massage therapy Heat or cold application
Active therapy	Patient education Lifestyle and nutritional advice Social engagement Cognitive behavioural therapy ^{5,26} Acceptance and commitment therapy Distraction Goal setting and pacing strategies Psychotherapy for comorbid depression, anxiety or emotional contributors to pain ^{5,26} Positive psychology (enhancing positive emotions) Relaxation training ²⁶ Mindfulness meditation Loving kindness meditation Exercise ⁵ Hydrotherapy Deep water running ²⁷ Range-of-motion programs Yoga Mirror boxes (for phantom limb pain) ²⁸

Managing chronic pain with non-pharmaceutical strategies

As more information comes to light about brain and nervous system plasticity in chronic pain, there is a growing realisation that active rather than passive management strategies have a greater power to 'retrain the brain' with a view to reducing pain.² This does not mean that passive modalities, pharmacological or otherwise, cannot have an adjuvant role. However, the inherent limitations of such approaches need to be clearly discussed with the patient.

Some non-pharmacological therapies are listed in *Table 1* and many should be possible to implement in most general practice locations. One US study of primary care patients with both pain and depression, found psychotherapies compared to usual care increased the likelihood of significant pain improvement by 2.4-fold.³ Integrated multidisciplinary pain services have been shown to be the best way to improve pain and function outcomes for those at the complex end of the chronic pain cohort.⁴ Return-to-work rates after multidisciplinary input have been shown to exceed those after spinal surgery or spinal cord stimulators.^{4,5} However in the real world, access is limited – specialised pain services are often geographically or financially inaccessible with long waiting lists.

There is an increasing interest in the practice of yoga for chronic pain management. Yoga assists with flexibility, core stability, psychological training and spiritual development: a truly 'biopsychosocial' treatment.⁶ Importantly, improvements in pain scores following spinal surgery or spinal cord stimulators are no better than those following non-invasive interventions such as psychotherapy, yoga and acupuncture.^{4,6} Acupuncture has a role in osteoarthritis and headaches,⁷ although when used in isolation, there is the potential to encourage a passive role for patients.

Managing chronic pain with non-opioid pharmaceutical strategies

Non-opioid pharmaceutical strategies may include omega-3 fish oil, paracetamol, non-steroidal anti-inflammatory drugs (NSAIDs), anticonvulsants, topical therapies and disease specific therapy such as sumatriptan for the treatment of migraines.^{4,5} Antidepressants may be useful for analgesia (even in patients without depression), with tricyclics and duloxetine preferentially used. Doses tend to be lower than those used for depression (eg. amitriptyline 10 mg).⁷

Initiating an opioid trial

After a full assessment and initiation of non-pharmaceutical and non-opioid pharmaceutical strategies, the patient's pain may be manageable – or the patient may have sacked you to get their drugs from the reckless prescriber down the road! If not, the patient's management plan may need to include careful prescribing of opioids. The use of evidence based consensus guidelines can help GPs to manage patients according to current best practice. The Australian non-industry sponsored guideline *Opioid use in persistent pain: Information for health professionals*⁸ is available free online (see *Resources*).



The 'universal precautions' approach is considered best practice and the original papers by Gourley et al^{9,10} are well worth reading. The term hails from the time of HIV/AIDS, when it described applying a minimum standard of care to all patients, regardless of their perceived or confirmed infectious status, to reduce the risk of infection and stigmatisation. In analgesia, relying on ad hoc judgements reflects cultural stereotyping and is frequently inaccurate.¹¹ Chronic non-cancer pain is common and may last forever. For this reason, if analgesia is to include opioids, it cannot be just a simple matter of a prescription. Instruments such as the Opioid Risk Tool (ORT) may help to identify patients who are at risk of misusing opioids. The ORT is available online (see *Resources*). However, you still have to deal with misuse among genuine pain patients and pain among genuine drug addicts.

If analgesia is to include opioids, this requires negotiation, constant monitoring and dealing with the psycho-emotional effects of both the pain and the analgesics. 'We need to think ... as if we were going to be marketing (or prescribing) heroin'.¹² Be frank about the addiction potential and lack of scientific evidence for ongoing use in your initial sales pitch. Intermittent prescribing for acute pain creates a subtle inertia to simply continue prescribing as the pain becomes chronic, despite a lack of scientific evidence for such ongoing use.

The current trend is to recommend time-limited rather than lifelong opioid use unless the opioid is used in terminal care. The aim of time-limited opioid use is to create breathing space in which the patient can develop active management approaches.

A urinary drug screen is a good tool to use initially and regularly. While some misusers may purchase a urine sample or even deliver it through a penile prosthesis, it may pick up a few surprises or reveal the absence of the drug that was prescribed. Be aware that oxycodone, fentanyl and buprenorphine are often omitted from routine immunoassay screens and analysis for these drugs with gas chromatography-mass spectrometry may need to be specifically requested, involving additional time and cost.

It is important to find out what is required to meet individual state regulations, such as obtaining a prescribing permit. A real-time online prescription surveillance system has been successfully piloted in Tasmania, and in the future should be rolled out across Bass Strait. Until this is available, for doctors on the mainland the PSIS (1800 631 181) remains a vital resource and GPs should register and routinely check it. Unfortunately, this limited and delayed service overlooks private prescriptions, prescriptions from specialists or dentists and identity fraud. You can also access a complete list of PBS prescriptions for an individual patient, albeit retrospectively, from Medicare (see *Resources*). This requires the patient's consent.

A patient centred care plan or contract, either written or verbal, educates about entry and exit strategies, informs consent and may cover boundaries and goals, benefits and harms (*Table 2* and *Resources*).^{13,14} It spells out the considerable effort required of both patient and doctor.¹⁵ However, it is important not to impose this type of contract coercively, as the patient may view it as a 'prelude to abandonment'.¹³

Monitoring and changing opioid therapy

Two-way communication takes time and should improve pain assessment and decrease overprescribing: a risk factor for hoarding and diversion.^{16,17} It is the basis for the routine '4As' of monitoring:¹⁸

- Analgesia
- Activities of daily living
- Adverse reactions¹⁹
- Aberrant behaviours ('red flag' behaviours or proxies for addiction) (*Table 3*).

Case study 3

A distraught single mother presents for prescriptions for venlafaxine and oxycodone/naloxone prolonged release tablets, usually prescribed for endometriosis pain. You decline as last week she injected three of her pain tablets and required admission for 4 days for assessment and management of abdominal pain, hallucinations, agitation, aggression, incoherence and dyspnoea. Necessary sedation included midazolam, diazepam, morphine, clonazepam and haloperidol. She required airway management as her Glasgow Coma Score was 8. Her child has since been removed by the Department of Community Services.

She states: 'I can't cope with it all. I might as well be dead if you won't give me my pain killers.'

You answer: 'I can't imagine how awful you must feel.

However, I am committed to give you the best care I can.

This does not involve continuing chaotic use of pain killers.

Table 2. Components of an opioid contract

- Identification of the patient's functional goals
- Education about the side-effects and effects of co-ingestion with other medications or drugs
- Need for active engagement in management, including psychotherapies
- Therapy as a time-limited trial: Initially over 1–2 months and then on a rolling basis
- Only one prescriber and one dispenser
- No early repeats
- No replacements of lost or stolen scripts
- No telephone requests
- All appointments to be made in advance
- Secure storage of medications and their safe disposal
- No lending, giving or selling of medications
- Dispensing/structuring of plan for picking up medications will be according to risk assessment
- Escalating or higher doses will trigger a comprehensive review
- Option for random drug monitoring and pill counts
- Tapered termination or transfer to methadone or buprenorphine if:
 - treatment goals are not met
 - there are serious adverse outcomes
 - there is evidence of misuse
 - there are contract violations
 - review appointments are not kept



However, I can help you find stability and control with regular opioid doses like in a methadone program. Then together we can work on the broader issues of the pain and getting your life and family back together again.'

She states: 'I was on methadone before and no f***ing way will I go back on those liquid handcuffs.'

You answer: 'Okay, here is some information about buprenorphine, which works like methadone and goes under the tongue, have a read about it. Will you come back in tomorrow so we can meet to discuss it?'

Opioid rotation has been used to deal with tolerance and escalating doses. However, the evidence is poor unless one is rotating to an opioid substitution program.^{4,7,20} Opioid equivalence tables are available online (see *Resources*) but were based on rapid multiple opioid changes for inpatients with cancer pain crises. As such, they should be used cautiously, as indiscriminate use in patients with chronic non-cancer pain may risk an overdose.²¹

Weaning patients off opioids

Case study 4

A panel beater, 42 years of age, fractured his pelvis and femur in a motorbike accident 3 months ago. He was discharged from hospital on 40 mg slow release oxycodone twice daily, 28 tablets of which have been prescribed regularly seven times. Today he presents requesting his next prescription. He still has a pain score of 8–9/10, enough to stop him sleeping or returning to work and there are no aberrant behaviours. You can see that he is neither getting on with his life, nor getting any relief from his pain. What could you say?

GP: 'How is our treatment going?'

Patient: 'Not great. I'm passing bricks and after I take the medication I can just manage to get out of bed for an hour or so. My fractures are real, Doc, and my pain is real and they said they may need to replace the hip. I just need to increase the dose until then.'

GP: 'I really want to help your pain. It would be magic if one medication could cure it. But you are already on a dose of opiates that would flatten most people and they clearly are not working. One of the problems of this class of drugs, such as oxycodone, morphine or heroin, is that once you have been on them a month or so you don't keep getting the same benefits without increasing the dose. There's lots of side effects, like your constipation, not to mention slower recovery, worsening pain, sexual problems and even a tendency for stopping breathing in your sleep. We need to look at some longer term options to manage your pain that are much safer than narcotics.'

Patient: 'No-one told me they could do that. But I don't think I can get off them.'

You negotiate a 10 week taper adding some non-opioid therapies. At review after cessation his pain remains severe, 5–6/10 at worst, but he says he has learned to get along with it with occasional use of weak opioids and is not so keen now on more surgery. He has lost some weight and reports more energy and a clearer head without the sweats or constipation. He has returned to selected work duties and is swimming more and walking.

Abrupt termination of long-term prescribing may be regarded as an abuse of power and should be avoided unless in response to violence

Table 3. Spectrum of aberrant drug taking behaviours among cancer pain patients²⁹

Aberrant drug-related behaviours more suggestive of addiction	Aberrant drug-related behaviours somewhat suggestive of addiction	Differential diagnosis of aberrant drug-related behaviours
- Selling prescription drugs - Prescription forgery - Stealing or borrowing drugs from others - Obtaining prescription drugs from non-medical sources - Injecting oral formulations - Concurrent abuse of alcohol or illicit drugs - Multiple dose escalations or other non-compliance with therapy despite warnings - Repeatedly seeking scripts from other clinicians without informing the initial/ongoing prescriber - Evidence of deterioration in function related to drug use - Repeated resistance to a change in therapy, despite clear evidence of drug related diverse physical or psychological effects	- Aggressive complaining about the need for more drugs - Drug hoarding during periods of reduced symptoms - Requesting specific drugs - Openly acquiring similar drugs from other medical sources - Unsanctioned dose escalations or other non-compliance with therapy on one or two occasions - Unapproved use of the drug to treat another symptom - Reporting psychic effects not intended by the clinician - Resistance to a change in therapy associated with tolerable adverse effects accompanied by expressions of anxiety related to the return of severe symptoms	- Addiction/substance use disorder - Unrelieved cancer pain - Psychiatric disorder: - depression - anxiety - borderline personality disorder - Organic brain syndrome - Criminal intent



or criminal activity. Prescribers need to become as comfortable weaning patients off an opioid trial as they are at initiating one. There is no evidence-based recommended rate. A 5–10% per week reduction is reasonable, reducing the interval between prescriptions if required.

Training in pain management and addiction medicine

All opioid prescribers in California are required to do a 1 day course in pain management. Calls have been made for prescribers to spend similar time training in addiction medicine.²² Such training has been associated with greater adherence to guidelines with more positive attitudes toward the identification, prevention and management of opioid disorders.^{23,24} If you currently lack these skills, either seek training or consider referring patients to a pain or addiction medicine service. Contact your Medicare Local or state health department addiction services for details of training.

Key points

- A sign in the waiting room saying 'no drugs of addiction will be provided on the first appointment' can help prepare your practice for quality pain care.
- Apply a biopsychosocial approach to the assessment of patients with chronic pain, including a full medical history and detailed examination.
- Active rather than passive management strategies have a potentially greater power to 'retrain the brain' with a view to reducing pain.
- Non-pharmaceutical strategies and non-opioid pharmaceutical strategies should be trialled, if possible, before commencing an opioid trial.
- A 'universal precautions' approach helps avoid relying on ad hoc judgements that reflect cultural stereotyping and which are frequently inaccurate.
- The Opioid Risk Tool may help to identify patients who are at risk of misusing opioids.
- The aim of time-limited opioid use is to create breathing space in which the patient can develop active management approaches.
- Useful tools in management include contacting the PSIS, urinary drug screening and preparing a patient centred care plan or contract.
- When monitoring patients use the '4As' (**A**nalgesia, **A**ctivities of daily living, **A**dverse reactions, **A** aberrant behaviours).
- When ceasing prescribing, opioids should be weaned slowly except in response to violence or criminal activity.

Resources

- The Brief Pain Inventory is available at www.hnehealth.nsw.gov.au/__data/assets/pdf_file/0003/28614/BPI.dec06.pdf
- Opioid use in persistent pain: Information for health professionals, including the Opioid Risk Tool and opioid equivalence tables, is available at www.hnehealth.nsw.gov.au/__data/assets/pdf_file/0007/76039/opioid_use_April_2012.pdf
- An excellent article by Cohen and Wodak is available at www.medicinetoday.com.au/cpd/files/articles/201201/MT2012-01-024-COHEN.pdf
- The recent article by Shand et al, 'Real-time monitoring of Schedule 8 medicines in Australia: evaluation is essential', has a most useful accompanying online appendix: 'Details of regulatory systems in Australia for S8 opioid analgesics for chronic non-cancer pain' is available from the Medical Journal of Australia at www.mja.com.au/journal/2013/198/2/real-time-monitoring-schedule-8-medicines-australia-evaluation-essential (access is limited to MJA subscribers)
- Opioid prescription guidelines by Drug and Alcohol Services South Australia are available at www.dassa.sa.gov.au/webdata/resources/files/Opioid_prescription_chronic_pain_guidelines_for_SA_GPs.pdf
- An example of an opioid contract is available at www.hnehealth.nsw.gov.au/__data/assets/pdf_file/0007/76039/opioid_use_April_2012.pdf
- A retrospective list of PBS prescriptions for individual patients is available from Medicare at www.medicareaustralia.gov.au/common/utis/files/authority-release-personal-pbs-claims-info-third-party.pdf
- The Australian Pain Society: www.apsoc.org.au
- ThinkGP education website for GPs: <http://thinkgp.com.au/education/content/16040>
- The University of Washington online CME course in opioid prescribing: <http://depts.washington.edu/cme/online/course/EN0903>
- The RACP free online CME modules on addiction medicine are available at www.racp.edu.au/page/australasian-chapter-of-addiction-medicine-acham/addiction-medicine-online-education-modules.

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References

1. Room R. Substance use disorders – a conceptual and terminological muddle. *Addiction* 2011;106:879–82.
2. Flor H. Maladaptive plasticity, memory for pain and phantom limb pain: review and suggestions for new therapies. *Expert Rev Neurother* 2008;8:809–18.



3. Kroenke K, Bair MJ, Damush TM, et al. Optimized antidepressant therapy and pain self-management in primary care patients with depression and musculoskeletal pain. *JAMA* 2009;301:2099–110.
4. Turk DC, Burwinkle TM. Clinical outcomes, cost-effectiveness, and the role of psychology in treatments for chronic pain sufferers. *Prof Psychol Res Pr* 2005;36:602–10.
5. American Society of Anesthesiologists. Practice guidelines for chronic pain management: an updated report by the American Society of Anesthesiologists Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine. *Anesthesiology* 2010;112:810–33.
6. Turk DC, Wilson HD, Cahana A. Treatment of chronic non-cancer pain. *Lancet* 2011;377:2226–35.
7. Beggs R, Holtzman S. Yoga as an intervention for chronic low back pain: a meta-analytic review. *J Pain* 2012;13(4,Suppl):S11.
8. Hunter New England Health Local Health District. Opioid use in persistent pain: information for health professionals. 2012. Available at www.hnehealth.nsw.gov.au/___data/assets/pdf_file/0007/76039/opioid_use_April_2012.pdf [Accessed 8 January 2012].
9. Gourlay DL, Heit HA, Almahrezi A. Universal precautions in pain medicine: a rational approach to the treatment of chronic pain. *Pain Med* 2005;6:107–12.
10. Gourlay DL, Heit HA. Universal precautions revisited: managing the inherited pain patient. *Pain Med* 2009;10:S115–23.
11. Becker WC, Starrels JL, Heo M, Li X, Weiner MG, Turner BJ. Racial differences in primary care opioid risk reduction strategies. *Ann Fam Med* 2011;9:219–25.
12. Okie S. A flood of opioids, a rising tide of deaths. *N Engl J Med* 2010;363:1981–5.
13. Volk ML, Lieber SR, Kim SY, Ubel PA, Schneider CE. Contracts with patients in clinical practice. *Lancet* 2012;379:7–9.
14. Nicolaidis C. Police officer, deal-maker, or health care provider? Moving to a patient-centered framework for chronic opioid management. *Pain Med* 2011;12:890–7.
15. Breivik H, Gordh T, Butler S. Keeping an open mind: achieving balance between too liberal and too restrictive prescription of opioids for chronic non-cancer pain using a two-edged sword. *Scandinavian Journal of Pain* 2012;3:1–4.
16. Lewis ET, Combs A, Trafton JA. Reasons for under-use of prescribed opioid medications by patients in pain. *Pain Med* 2010;11:861–71.
17. Arria AM, Garnier-Dykstra LM, Caldeira KM, Vincent KB, O'Grady KE. Prescription analgesic use among young adults: adherence to physician instructions and diversion. *Pain Med* 2011;12:898–903.
18. Passik SD, Kirsh KL, Whitcomb L, et al. A new tool to assess and document pain outcomes in chronic pain patients receiving opioid therapy. *Clin Ther* 2004;26:552–61.
19. Holliday S, Hayes C, Dunlop A. Opioid use in chronic non-cancer pain. Part 1: known knowns and known unknowns. *Aust Fam Physician* 2013;42:98–102.
20. Weiss RD, Potter JS, Fiellin DA, Byrne M, Connery HS, Dickinson W, et al. Adjunctive counseling during brief and extended buprenorphine-naloxone treatment for prescription opioid dependence: a 2-phase randomized controlled trial. *Arch Gen Psychiatry* 2011;68:1238–46.
21. Passik SD. Opioid rotation: What is the rush? *Pain Med* 2012;13:487–8.
22. Lembke A. Why doctors prescribe opioids to known opioid abusers. *N Engl J Med* 2012;367:1580–1.
23. Holliday S, Magin P, Oldmeadow C, et al. An evaluation of the prescription of opioids for chronic non malignant pain by Australian general practitioners. *Pain Med* 2013;14:62–74.
24. Holliday S, Magin P, Oldmeadow C, et al. Motivating factors amongst NSW general practitioners regarding the prescription of opioid substitution therapy. *Drug Alcohol Rev* 2012;31(Suppl S1):12.
25. Passik SD. Issues in long-term opioid therapy: unmet needs, risks, and solutions. *Mayo Clinic Proceedings*. Mayo Clinic 2009;84:593–601.
26. Elman I, Zubieta J, Borsook D. The missing P in psychiatric training: why it is important to teach pain to psychiatrists. *Arch Gen Psychiatry* 2011;68:12–20.
27. Cuesta-Vargas AI, García-Romero JC, Arroyo-Morales M, et al. Effectiveness of water physical therapy on pain, pressure pain sensitivity, and myofascial trigger points in breast cancer survivors: a randomized, controlled clinical trial. *Pain Medicine* 2012;13:1509–19.
28. Cossins L, Okell RW, Cameron H, Simpson B, Poole HM, Goebel A. Treatment of complex regional pain syndrome in adults: a systematic review of randomized controlled trials published from June 2000 to February 2012. *Eur J Pain* 2013;17:158–73.
29. Passik SD, Portenoy RK, Ricketts PL. Prevalence of substance abuse disorders in cancer patients. Part 1: prevalence and diagnosis. *Oncology* 1998;12:517–21.

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