

CNSBP: Rethinking an approach to pain



By Dr Stephanie Davies, Pain Medicine, Fremantle Hospital. Tel 9431 3296

Chronic non-specific back pain (CNSBP) is a common problem that illustrates the importance of rethinking our approach to treatment of chronic pain in general. Pain is the fifth vital sign, however objective assessment is lacking because “pain” is not visible, it has no simple bio-marker and it is undetectable on imaging. Moreover, the classification of acute (<3/12) and chronic (>3/12) pain is problematic – all ‘chronic pain’ sufferers had ‘acute’ pain at one point and the defined transitional point is usually well after most healing is complete.

New ideas emerging, old ones discarded

Functional MRI's have lain to rest the idea of ‘one pain centre in the brain’ (last count, 26 areas). Pain is a whole person experience and cannot be divided into ‘body’ or ‘mind’, an outdated concept. Functional MRIs demonstrate pain reductions when patients actively take control of their pain management. Plasticity of the nervous system (i.e. its ability to rewire its connections) is dependent on many environmental inputs of which nociception is only one. Glia may be as important as neurons in neurological function.

Alloplastic pain, meaning the ‘other’, ‘changeable’ pain, is a proposed new term for pain, which is neither classically nociceptive nor neuropathic and represents the persistence of ‘whole-organism’ survival response to cumulative tissue threat (load) or ‘stress’.

Active self-management should be integrated into any management plan for people with either complex ‘acute’ or persistent pain. Participation induces nervous system changes that reduce the risk of disability (compared with passivity).

Pain tip 1: Pacing

Most people with persistent pain tend to ‘overdo’ activity, then there is a “pain flare” for 1-3 days and they ‘underdo’ activity – repeating this “boom and bust” cycle gradually reduces levels of activity or escalates pain.

Giving simple ‘pacing’ information that structures activities on a time contingent (*not* a pain contingent) and is tailored to the patient's needs and interests, greatly enhances recovery. This is bread and butter to occupational therapists and physiotherapists – some medical practitioners, nurses, clinical psychologists and pain educators are also teaching this skill.

Here are two pacing skills to teach people with pain. They follow the SMART goal-setting principles (Strategic, Specific, Measurable, Attainable, Results-orientated, Time-bound):

- “10% rule”. Establish a baseline of timed daily activity (e.g. a walk) that can be done consistently without a pain flare. The patient commits to the selected activity every day for a week, and increases the time by 10% for the next week, and so on. If their activity time is less than 10 minutes, suggest they do it twice daily.
- “Small bits often”. Establish timed baselines for chores, hobbies, and other tasks. Split these tasks over the day and swap from one activity to another based on time (not pain). For example, garden for 10 minutes, then take a walk to the letter box, 10 minutes tidying kitchen, 10 minutes sitting, then garden for 10 minutes. This changes postures, muscle tone and balance and creates doable episodes of self-nurturing, whereas one fixed task tends to exacerbate pain.

Pain tip 2: Reduce uncertainty and fear

Often you can easily reduce fear, encourage more activity and counteract unhelpful beliefs. Simply letting the patient know that ‘ongoing pain doesn't mean ongoing tissue damage’ and explaining neuro-physiological changes that occur in persistent pain will help. See “Explain Pain”⁽²⁾ and “The brain that changes itself”⁽¹⁾ for ideas.

Pain tip 3: Moving with pain

Some pain tolerance is encouraged as part of ‘global’ functions, such as a non-vigorous daily walk, swimming or cycling. Slowly increasing the daily walk up to 30-40 minutes a day; maybe 3 x 10 minutes, considered equal in terms of positive health. ‘Local’ neuromuscular re-training with simple movements includes re-training of core muscles for back pain. Using real-time ultrasound gives patients visual bio-feedback of inner support muscles (and the physiotherapist can check exercise compliance), and patients visual feedback (using videos, mirrors) if awkward compensatory movements need to be reprogrammed into more relaxed global movement.

Pain tip 4: Improve coping skills

These combine with relaxation, meditation and mindfulness to

Table 1: Pharmacological Interventions

Drug	Condition	NNT 50% relief	NNH
Opioids	Neuropathic pain	2.5 (8 weeks)	8.3 (major) 4.2 (minor)
Tramadol	Neuropathic pain	3.8	8.3
Tricyclics	Neuropathic pain	3.6	28 (major) 6 (minor)
Gabapentin	Chronic pain Diabetic neuropathy PHN	4.3 2.9 3.9	3.7 (minor)
Efexor	Neuropathic pain	3.1	16.2 (major) 9.6 (minor)
Panadol (4 grams/day)	Chronic arthritis pain	4-5	12 (GI side effects)

Table 2: Procedural interventions (3)

Procedure	Condition	NNT 50% relief	Time
Cervical RF neurotomies	If +ve DRB or FJI >50% relief in LA phase	2.0	7 months
Lumbar DR neurotomies	If +ve DRB or FJI >50% relief in LA phase	4.4	8 weeks
Facet Joint Injections	Spinal Pain	10-12	weeks
Transforaminal Epidural Steriod	Radicular pain	1.4 Anti-TNF 2.7 Steroid	6 months 8 weeks
Direct epidurals (Imaging not described)	Radicular pain	10-12	weeks

counterbalance their ‘load’ or cumulative stressors (see other article by Carl Graham opposite).

Pain tip 5: Maintain patient-centred interests that are important parts of the person's (and carer's) life. Actively discuss these with your patient. Involve the person's support networks and community options.

Pain tip 6: Deal with mood, anxiety, sleep

Don't let pain dominate the conversation. Ask specific questions about mood and anxiety. Institute short term goals and consider referral to a clinical psychologist. Around 80% of people with pain have sleep disturbance (c.w. 5% of people without pain) so behavioural sleep hygiene measures may make a big difference.

Pain tip 7: Develop your pain management resources/skills

Develop a ‘virtual’ pain management team by linking up with health professionals using funding available (e.g. Better Mental Health Initiative, EPC items).

Radiology (x-rays, CT), bone scans and MRIs do not show pain, they show structure. Use wisely within their usefulness and to limit radiation.

Screening tools help! Check out Orebro, PainDETECT, K10 (or HADS, DASS21) for use in your practice.

Every treatment has failures and side effects. Drugs and procedures can be assessed using NNT (the Number Needed to Treat, where the endpoint is someone gains 50% relief, compared to placebo) and NNH (the Number Needed to Harm due to side effects). Figures for NNT range from 2.5 to 10 (see Table 1).⁽³⁾

References available on request.

Further reading.

1. Norman Doige. *The Brain that changes itself*, 2007 (International best seller and a great read).

2. David Butler Lorimer Moseley, *Explain Pain*: (book can be purchase from <http://www.noigroup.com/>)

3 The APS Position Statement on the role of, and Standards for Interventional Pain Management Procedures: Australian Pain Society 2010. ■