



MAPS GUIDE



HANDBOOK FOR GPs

A Practice based approach to
better Chronic Pain Management



There are three parts to this document: An introduction, Information for practices taking part in MAPS, Information for the designated MAPs GP.

Chronic pain: What is the problem?

Around 20 percent of the population in the UK, US and Australia complain of chronic pain: *‘chronic pain in one or more anatomical regions that is characterized by significant emotional distress (anxiety, anger/frustration or depressed mood) and functional disability (interference in daily life activities and reduced participation in social roles (ICD-11 – Beta draft definition).* This pain may have good biophysical explanations – for example a rheumatological condition, but this is not always the case. There are often repeated attempts to find an orthodox pathological account of this pain, with referrals to specialists and often frustration for patients. Patients with chronic pain may end up on large and complex medication regimes, including opiates. This in turn can lead to side effects such as weight gain, dependency, immune suppression and hormonal imbalance. Benefits of opiates are short lived in many cases and these patients may still complain of poor levels of relief despite high dose drug regimes. Drug overdoses, addiction and diversion of opiates are well publicised issues related to pharmacologically driven solutions to chronic complex pain.

Patients with chronic pain consult frequently – in our experience up to 60 times per year! These consultations can be ill-timed, prolonged, stressful for both parties and make considerable use of OOH and duty doctor services, where difficult decisions about analgesia arise.

In the last ten years the science of pain has changed. Structured and appropriate exercise and CBT have overtaken medication in proven effectiveness in chronic pain. New evidence for the effect of relaxation

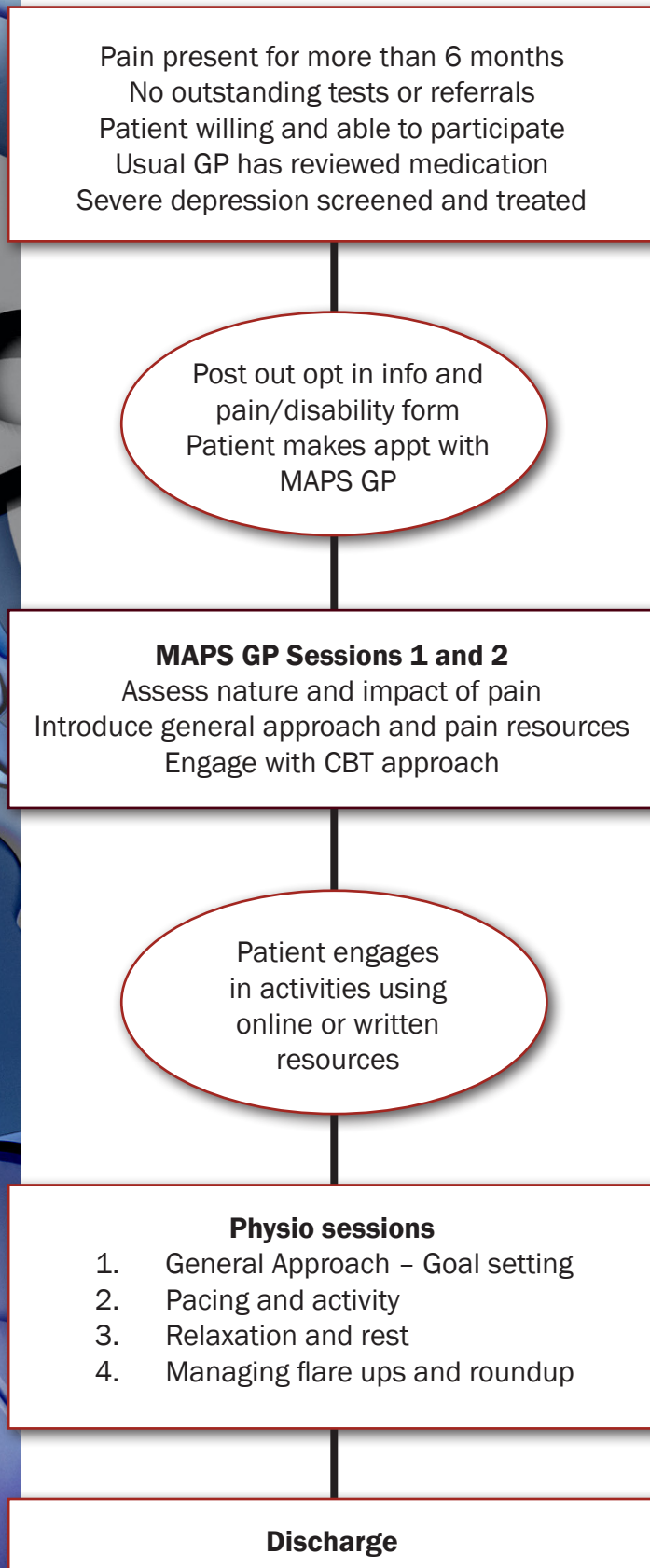
exercises, social support, spiritual practices and other non-pharmacological therapies are gaining research evidence which requires consideration and in some cases implementation in primary care.

MAPS is a simple solution then?

It has been said that for every complex problem there is a simple solution – one which is completely wrong! Pain can be described both as physical (tissue damage) and perceptual (the experience of being in pain). The human brain has around 6 to 20 billion neurones, comfortably the most complex known system in the Universe. This is connected to the body through a sophisticated web of nerves, which is in turn influenced by mood, context and even culture in bidirectional multiple interaction relationships. This is difficult to align with the standard, linear, sequential and invariable “cause and effect” models of orthodox biomedicine. A complex understanding of pain, where physical, biochemical, neuronal, cognitive, emotional, existential and even cultural, and relational factors are all contributors is now necessary.

Fortunately we don’t need a complete description of this complex system to intervene effectively. Dave Brailsford, team leader of the successful Sky Cycling team understood that success in complex environments is about the “multiple accrual of minor gains”. Sky did not simply spend more time on the road than other teams; coaches looked for small improvements in many factors rather than single cause solutions. In chronic pain this may mean that slight improvements in activity, mood and understanding of the nature of pain might create cumulative useful improvements – that’s what MAPS is about.

What is MAPS?



MAPS (Managing pain skills) is a structured approach to managing pain in primary care. It involves a whole practice commitment to an up to date holistic approach to pain management. Additionally, MAPS offers patients a GP and Physio delivered short package/intervention of information and skills to allow them to:

1. Understand better why they have chronic pain
2. Have realistic expectations about management and relief
3. Gain skills to manage and reduce pain
4. Live a more fulfilling life – being more active and worrying less about pain

How does MAPS work?

MAPS work through several aspects of change: Creating a common framework for managing chronic pain across the whole primary care team. The patient should hear the same messages from all health care staff who are involved in their chronic pain management and this is based on a common holistic framework for understanding pain. This approach should also ideally be aligned with chronic pain secondary care, and with up to date research.

Providing a short pain – skills intervention using existing GP, and physiotherapy resources, the MAPS pilot project provides support and training for a number of practices to set this up. The intervention consists of a 7 session course in chronic pain, delivered by a GP and a Physio, which patients can be internally referred to by colleagues. MAPS can be adapted by a local practice to suit their circumstances; however we know that the version of MAPS trialled in the pilot study, led to statistically significant and measurable improvements.

In the pilot study MAPS has resulted in:

1. *Reductions in referral to chronic pain clinics and rheumatology clinics (40-50%)*
2. *GP Workload: The average number of appointments per patient in the 6 months before and after the intervention fell 8.13 pre, versus 5.4 post, MAPS. This represented a 33.61% drop in total practice appointments used by these patients. This includes reduced use of unscheduled services and duty doctor calls*
3. *A reduction in average number of prescribed analgesics from 2.4 per patient to 1.8 per patient*
4. *No additional service cost to practices – the total GP time spent in supporting the course being recovered in 6-8 months, due to lower consulting levels*
5. *Increased levels of satisfaction among GPs about pain management*
6. *Patients understand and manage their pain better*

But what about all the time this will take?

We all make strategic investments of time – to recover time back later, for example: spending Saturday buying a washing machine, so we don't spend a day a week washing clothes!

You are part of the extended evaluation – supported by Realistic Medicine Scotland, to discover whether the same approach creates similar improvements in other practices and practice populations. You may think that you are being asked to take on secondary services or do something additional for nothing. However – perhaps an audit to see how much time patients with chronic pain already take would be revealing.

The premise – and evidence - of the MAPS approach is that an inefficient system (for example multiple GP appointments for analgesic

adjustment, or discussion of further tests, or for the patient to vent their frustration) uses more resources (GP appointments, duty doctor calls, difficult medication reviews and side effects from ineffective opiate prescribing) than a structured intervention which involves a strategic investment of time earlier on.

The specific premise of MAPS is that GPs save all the time they spend delivering MAPS in lower consulting rates. The pilot evaluation in Aviemore shows that 6 months after a MAPS intervention this time has been recovered – and any subsequent reduction after that period is GP time savings.

Are there any risks to MAPS?

Indiscriminate use of MAPs in poorly investigated patients would likely result in harm. When you advise the MAPS intervention for a patient it is recommended that:

1. The patient fits the pattern for chronic pain, usually multiple sites with pronounced emotional distress and/or lifestyle limitation.
2. The patient is not waiting for important diagnostic tests or have outstanding abnormal results.
3. The patient's medication has been reviewed by the usual GP and medication (such as amitriptyline, NSAIDS, paracetamol/codeine) has been prescribed as appropriate.

Any small risk of the MAPS approach must be balanced with the considerable risks of escalating opiate and other pharmacological treatments and the harms related to inappropriate investigations and referrals.

Preparing for MAPS

As preparation for MAPs It may be helpful to review one or more patients with chronic pain as an SEA, particularly where high consulting rates or adverse clinical events form part of the background.

It may be useful for one of you to review current guidelines on chronic pain and bring it to the practice in summarised form (resources: <https://www.rcoa.ac.uk/faculty-of-pain-medicine/opioids-aware>). Choosing a GP who is more skeptical about a need for change is sometimes a good way of starting to harmonise your approaches – GPs who share common, up to date information are more likely to find agreements in practice.

Looking at risk tools for selecting patients for opiate treatment may help start to identify the type of patient who may benefit from a non opiate approach. For example their articles provide useful background information

[https://bjanaesthesia.org/article/S0007-0912\(17\)54137-9/pdf](https://bjanaesthesia.org/article/S0007-0912(17)54137-9/pdf)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4731442/>

Signs Guideline 136 is also useful (but 6 years out of date now) and the NICE 2020 scoping paper is also recommended

<https://www.nice.org.uk/guidance/indevelopment/gid-ng10069>

For Practices the key elements of the MAPS approach are

This is a whole practice change: It is important that you have consensus about the process and in particular:

1. That you agree to harmonize your approach to chronic pain, patients getting a consistent approach no matter who they see.
2. That you agree to internal referral of patients to one of you who is “MAPS doctor” for the time limited MAPS skills intervention.
3. MAPS is a non-pharmacological, but scientific intervention. The MAPS doctor does not take on medication adjustments, initiating tests or other treatments. The patients usual GP remains responsible for this.
4. That you work closely with a physio who delivers the second half of the course.

Won't all the chronic pain patients migrate to the MAPS GP?

This should not happen. After the MAPS sessions the course is finished, and patients are returned to their usual GP. It is advised that when choosing the MAPS GP you choose a GP with good availability of appointments and perhaps not a GP who naturally provides prolonged appointments to emotionally complex patients – but that is just our advice! Be clear that the MAPS intervention is short and distinct, and we recommend you do not allow patients to repeat the course without due consideration (we have found a one session top up sometimes helpful, but this is rare).

So you are ready for MAPS when: You have consensus about a need for change, you have identified a MAPS GP and are comfortable with the principle of internal referral. Lastly - you have a physiotherapy service who can partner you.

Selecting patients who might benefit from MAPS

To benefit from the MAPS intervention patients need to be able to engage with some new learning. Patients with reduced cognition, those with ongoing addiction problems to non-prescribed drugs or severe personality disorder are likely to be unsuitable. Patients with dependency on prescribed medication are suitable – but plan reductions after the MAPs programme.

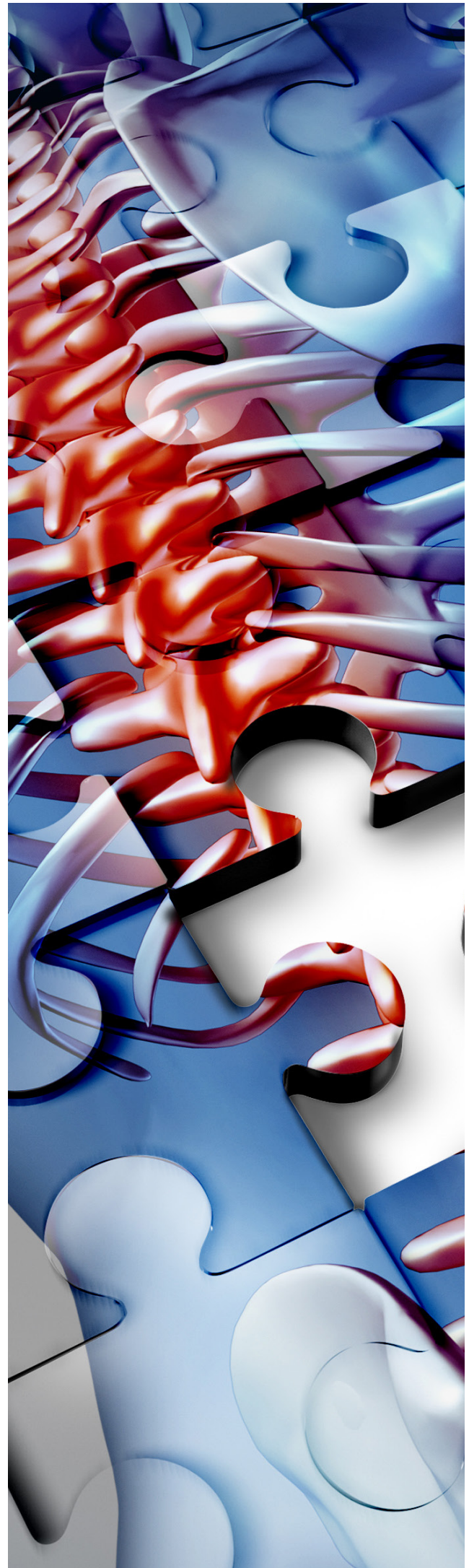
Patients who are being seen at the pain clinic or undergoing psychological treatments may find the approaches, while not contradictory, are out of sync and this may impair the effectiveness.

If prescription opiate dependency is an issue we recommend maintaining historical doses during the MAPS programme – however, many patients who engage with MAPS decide they wish or are able to reduce opiate doses. In the long run it would be hoped that MAPS would enable rationalization of opiate medications. Leave prescribing with the usual GP and plan this once the MAPs course is finished and patients have additional skills and understanding.

Data collection

MAPs is a service evaluation not a research project and is supported by Realistic Medicine Scotland. However, evaluating the programme determines whether MAPS works across different practices. In return for the training and support we ask you to collect a small amount of data, and you will be reimbursed for administrator time in collecting this.

The data collection templates will be provided.



Information for the designated MAPS GP

Thanks for being the MAPS GP – your colleagues and patients will appreciate this. Hopefully you will also get fulfilment from being able to offer a more sophisticated and effective approach. Most of what you need to know is contained in the information above, and in the information and links for patients. Familiarise yourself with this. Remember you have been managing chronic pain for a long time – and you may well have developed your own approaches. This is an opportunity to add to them.

You are in control of referral rates: We suggest you take on one or two patients per month. Do not keep these patients or keep going with extra appointments. When the MAPS intervention is finished tell the patient they have completed the theoretical course and its outcomes now depend on practice at home!

What are basics of being the MAPS GP?

Remember this is a whole team thing – you are just part of what is effective. You will need an understanding of chronic pain – and develop language to communicate this with patients. Key to being MAPS GP will be

1. Being comfortable with a non pharmacological but science based approach
2. Being able to explain to patients why they have chronic pain using metaphors and analogies
3. Being able to explain to patients what a “functional element” to pain means (please note that functional has been use as a metaphor for mental, psychiatric or attention seeking. This is unfair, out date and frankly, incorrect)
4. Practicing holistically
5. Managing expectations – being able to help but not cure a patient’s pain

You might find some of what has been written about communicating functional or unexplained symptoms to patients useful – for example Chris Burton’s work or, publications by Fink and Rosenthal such as the book “Functional disorders and medically unexplained symptoms” (Fink 2015).

Key concepts

Listen to how the patient is affected by their pain, their story about it. Why has this happened? What does it mean to them? How do they understand it? What does the patient tell themselves about the pain? – the “suffering narrative”. This has powerful effects on how the pain is experienced and the effects it has. Changing this, even slightly, can create change in pain perception, mood or functioning.

It is always mind and body

“Are you saying this is all in my mind” is still a significant hurdle you will have to overcome when helping patients understand the cognitive and functional contribution of pain.

In the past *“the training of general practitioners in management techniques has been hampered by an obsolete theoretical framework and outdated diagnostic systems and a more sophisticated theoretical framework is overdue”*. (Fink and Rosendal, 2015)

The mind – body separation has historical origins, is implicit in medicine - consider the division of Psychiatry and Neurology, of “subjective and objective” disorder etc, and is culturally very

powerful. This “dualistic” approach, though common in medicine, is significantly at odds with modern philosophies and frameworks of human science. It also hampers patient care.

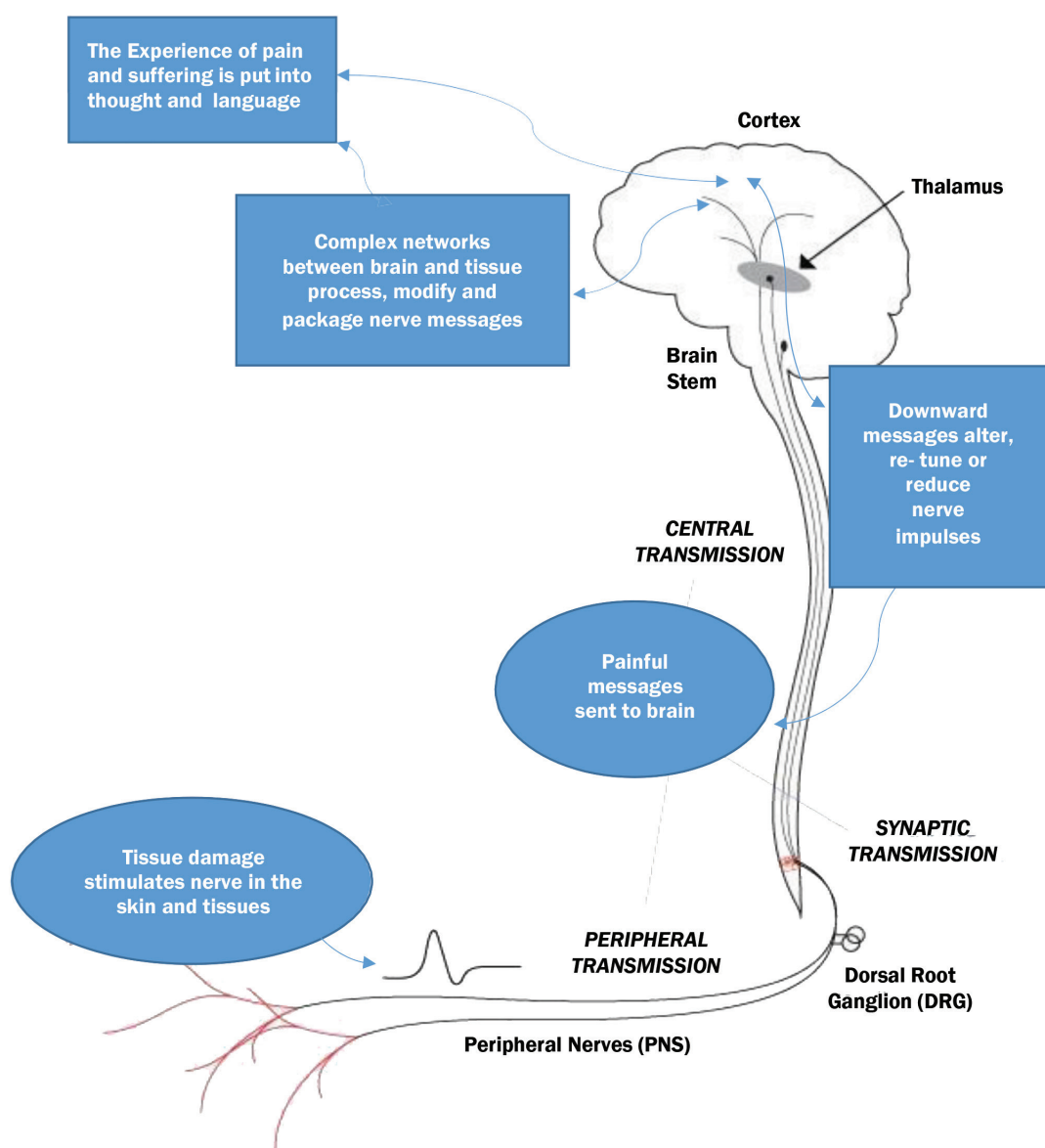
Having chronic pain is not the patient’s fault

Factors, many of which are outside the patient’s control have led to this situation (for example some adverse childhood events are strongly associated with the development of chronic pain as an adult). The patient may be making choices which make recovery less likely though. The phrase “We cannot go back to the beginning and change what has brought us here, but we can start here and change the ending” can be a useful analogy.

Many patients won’t engage or complete the course. That’s a fact. Encouragingly, some of the positive outcomes seem to occur even after just one session. Simply understanding that chronic pain is common and having a better explanation of why is likely to have significant benefits for the patient, and in workload management.

Conceptual Models

Developing a robust conceptual model of pain is important for the MAPS approach. What follows are some explanation and analogies which may help you. Use them with patients, and with colleagues and develop your own – as long as they are based on current conceptual frameworks of pain.



Important things to note about this are;

The pain network is not linear – it may start with tissue damage – but generates complex networks of preferential firing behavior. Another way of looking at this is that the brain is “learning” pain (an unfortunate side effect of an entirely necessary ability), or that like a gong, the echoes of an initial injury persist in the neurological networks long after the gong it hit. In patient terms this means that pain and ongoing tissue damage are not synonymous. In chronic pain the intensity of pain does not clearly reflect further tissue damage. This is important to establish with patients and loosen the pain-harm association which leads to activity avoidance.

Pain is not “located” in tissues, or in the brain. If pain lives somewhere (and patients might need a geographical explanation) then it lives in these neurological networks which connect tissue and brain in a stunningly complex way. This allows patients to understand the role of the tissues and the brain within this network.

There are important inhibitory elements to neural networks. Descending neural pathways, hormonal and biochemical and cognitive process effect these neural networks. The normal brain produced an ongoing stream of descending inhibitory, soothing, calming impulses. In patients without chronic pain these are active – but in patients with chronic pain they become less active – thus the neural networks, and the whole neurological system become more activated, more sensitive and aware. In some respects, you could say they become “tuned to listen for pain”. In chronic pain patient ascending pain impulses are “received” with the same “hazard warning” as acute pain – creating similar responses of anxiety and avoidance.

The good news that through our ability for independent thought and intentional action and through physical therapies we can tinker with these neural networks, tuning down these painful pathways by turning back on the inhibitory networks and creating a quieter more relaxed neural environment. CBT, relaxation exercises, and physical activity help to achieve this.

Other important understandings in relation to chronic pain

In chronic pain pain impulses and circuits can become established and “ring on” like a gong, a long time after the tissue damage or gong strike.

Functional: The term “functional” has become a metaphor for psychiatric or even imagined in medicine. The MAPS approach uses a more contemporary non-dualist view of humans, the mind and body may have different qualities or characteristics, but there is no clear boundary between these and the physical and cognitive processes cannot be effectively divided. However **functional** has an important meaning in MAPS – and describes the potential for the flow of neuronal activity to be disordered. The **traffic** analogy can be helpful: In examining the cause of a traffic jam we may find little wrong with roads or the cars – it’s the way they are moving – the timing, direction and volumes of flow are responsible. This may help to explain to patients why tests have not shown anatomical abnormalities which fully explain their pain (there is little wrong with the cars), but there can be a functional or dysfunctional flow element to the messages in neural networks. Another metaphor that can be helpful is that of a “**software**” or “dataprocessing” analogy – the hardware being less a focus of the problem. Another analogy is that of a **smoke detector** – the alarm is going off despite the fact the fire went out some time ago, a repeated search for fire (blood tests and scans) does not reveal a problem – because the issue is a faulty circuit in the smoke detector. Each MAPS GP will find their own metaphors for explaining this – but make sure this rests on a complex, non-dualistic understanding of chronic pain.

Total pain and holism

Who are the “pain experts?”, Neurophysiologists, interventional anesthetists, pain clinics, pain psychologists, hospices? One important thinking trap we fall into is “either/or” – like nature vs nurture. In complex systems this either/or thinking is inadequate and limiting. Multifactorial thinking is valuable in complex systems and humans are undeniable complex. Chronic pain, while having physical correlations, often develops in the context of personal, relational or existential crises – and Saunders work on pain suggested these other forms of pain or distress all add to the global sense of pain or distress felt by that patient. (Social Science & Medicine, 1999) This tells us as GPs that these wider forms of distress may have to be recognized and may be amenable to specific treatment or referral. Referral for relationship or bereavement counselling, to a chaplain or spiritual advisor may help some patients.

Timeframe

The process for the patient in re-understanding this change and reflection, learning new skills, rethinking their stance in relation to their pain. Don’t rush it – the patient may need some weeks between sessions. Our experience is that 4-6 months is the usual timeframe for progression through the whole programme.

So what do I actually do?

Practical guide to the MAPS sessions for the MAPS GP

This is your “CheatSheet” – have it on your desktop while you see the patient if that helps!

The First Session – 30 minutes

Explain to the patient that you are seeing them to help them learn some skills for managing their pain – that may well result in them experiencing less pain. You may want to share that you do expect to help the patient but do not expect that they will be pain-free at the end of the course.

Collect the modified CA Pollard pain and disability score.

Re-enforce that this is a scientific, but non medication approach: It has much better evidence than opiates for example, be confident about this.

Ask the patient about their pain, and in particular its effect on them, their activity and emotions. Consider a PHQ9, HAD or other mental health assessment. 50% of patients with chronic pain are likely to be depressed. CBT and exercise, plus the principles of behavioural activation are implicit in some of the MAPS approach and will help their mood. However, you may wish to ask the usual GP to consider specific referral or medication for this.

Explain to patients why they have chronic pain: Use the diagram in the handbook, or online images, use metaphors like the Gong – an ongoing “echo” of previous tissue damage. Consider using this short video from the Australian Pain Association within this consultation: <https://youtu.be/jlwn9rC3rOI>

Asking the patient for their reflections or questions about it. Consider giving the patient more information – the “pain toolkit” and other links are shared in the patient resource section. The moodjuice “chronic pain” site is also useful <https://www.moodjuice.scot.nhs.uk/mildmoderate/ChronicPain.asp>

Introduce the patient to some CBT based resources. Encourage the patient to reflect again on what they “tell themselves” when they are in pain, or about the pain – the “suffering narrative”. Suggesting that they write these down in a journal can be helpful. Then you have three options for resources

1. Web – based ones: There are few online resources which use CBT specifically aimed at chronic pain sufferers. However the moodjuice site – either “depression” or “anxiety” tabs have good CBT resources. <https://www.moodjuice.scot.nhs.uk/Anxiety.asp> and <https://www.moodjuice.scot.nhs.uk/Depression.asp>
2. If you feel your patient will not engage with this then consider the one page CBT for pain resource we have provided - “POPS”
3. If you need to supplementary written material then Chris Williams book “Rescue your life...” can be useful too. https://www.amazon.co.uk/dp/B00CY4IEEO/ref=dp-kindle-redirect?_encoding=UTF8&btkr=1 and Aviemore practice holds copies of this for patients at cost price.

End the session: ask the patient to view the video again at home (with relatives?), look at the online resources and commit to at least 20 mins of work with CBT three times a week.

The Second Session – 15 minutes

I usually have around 2-4 weeks after the first appointment. Check what the patient’s understanding and progress from session one. Fill in any gaps about understanding, locating and using resources. Listen again carefully to the patients suffering narrative: You might help them identify some thinking problems which CBT would help. For example

Catastrophising: If this back pain does not improve I will lose my job, it will be a financial disaster.

And help the patient be more realistic: “I may need to change job or retrain, it might mean living more simply”

If you feel the patient is engaged, refer them for this physio component at this point – if need suggest more time and a third session.

The Third Session – 15 minutes

This is optional – a chance to re-cover the ground from session 1 or 2, and to overcome problems in engagement. In our experience around 10 percent of patients need a third session before they can progress.

Refer them to Physio now if they are still engaged. If they have not engaged with CBT resources the physio sessions can still be beneficial. That’s it – you should have spent a total of no more than 60 mins with the patient. Your practice should recover this in the next few months. Don’t keep this patient on – discharge them back to their usual GP.

You have now delivered the MAPs intervention. Make it clear to the patient that this has finished, and it will do its work over the coming months, and according to their engagement. Manage any disappointment and encourage progress. Sometimes “well perhaps this is as well as you can be in the present circumstances” can be helpful in these circumstances. Either collect the second pain and disability score, or arrange for this.

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