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PAIN NEWS

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PAIN NEWS



Credit: Eva-Foreman

A role for cannabis in pain?
Is there a future for pain physicians?
Consenting in pain medicine
Will we ever be able to measure pain?

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THE BRITISH PAIN SOCIETY
PAIN NEWS

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The Editor welcomes contributions including letters, short clinical reports and news of interest to members, including notice of meetings.

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The colour of pain?

Rajesh Munglani *Editor for Pain News*



Dr Rajesh Munglani



Ludwig Wittgenstein

But isn't it absurd to say of a *body* that it has pain? ... In what sense is it true that my hand does not feel pain, but I in my hand? Is it the *body* that feels pain? ... How is it to be decided? What makes it plausible to say that it is *not* the body? ...

Well, something like this: *if someone has a pain in his hand, then the hand does not say so (unless it writes it) and ... one does not comfort the hand, but the sufferer: one looks into his face ...*

Ludwig Wittgenstein, *Philosophical Investigations* [286]

Portrait of Wittgenstein on being awarded a Scholarship from Trinity College, Cambridge, 1929¹



© rajesh munglani

All those moments will be lost in time, like tears in rain.
Final scene, *Blade Runner*, 1982

*There was a faith-healer of Deal,
Who said: 'Although pain isn't real,
If I sit on a pin
And it punctures my skin,
I dislike what I fancy I feel'*

Anon.

On 6 May 2018, it was announced to the world via the news networks that a team of Australian scientists had developed a test to identify chronic pain. Apparently, using photonics – a fancy measurement tool that employs light – they were able to quickly identify a biological difference in immune cells between people who are suffering from pain and those who are not. It was proposed that this would help those who could not communicate their level of suffering, such as babies or people suffering with dementia. The team went on to claim that it would also be possible to objectively measure the severity of

pain in patients with back issues, cancer and migraine.²

Apparently, a test will be available within 18 months. I look forward to such a test, but in principle how can we be sure that anything that we measure is in any way related to what we seek to understand? In principal, how can the reflective light bounced from some white blood cells or such like accurately characterise the experience of suffering with pain?

The key, in my view, is perception: *what does pain look like to each of us?* What associations does it invoke for an individual?

Dr Isador Coriat^{3,4} in 1913 described an unusual type of association of pain in one of her patients. The patient suffered from *coloured pain*, a form of synaesthesia. As far back as the patient could remember, pain had produced a sensation of colour; as a young girl, attacks of severe abdominal pain were referred to as a '*long blue/black*'. A small

amount of pain would fail to elicit any colours for her, but as the intensity of the pain increased, a sore pain would be perceived as red, a deep headache would be scarlet and superficial headaches and shooting neuralgic pains would be white. Her pains could be predictably reproduced by von Frey hair testing; in other words, a reproducible peripheral trigger of a certain force would reliably initiate the *coloured* pain experience.

Understanding these physical/ immunological or even cognitive/ emotional associations might allow us to attempt to create a biomarker for pain, but it carries inherent difficulties, as pain means different things to different people. Moseley⁵ states that pain experience involves the brain evaluating a massive amount of information, including danger data, visual and cognitive data (e.g. expectation of the severity of the pain, memory of previous exposure to pain, together with cultural and social beliefs), and other forms of sensory data. He goes on to emphasise that the body does not have actual pain receptors as such; what is done instead are specialised receptors that detect the potentially dangerous changes in temperature, chemical balance or pressure.

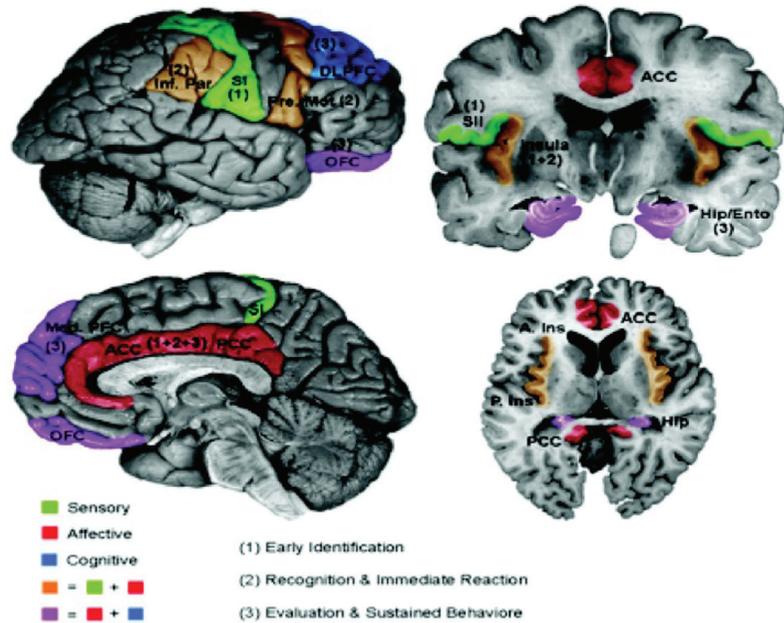
Edward Perl, in his grand overview of the development of the understanding of pain, noted the implicit tension of whether pain is best expressed in the physical or in the emotional sphere. Aristotle (384–322 BC) considered the heart to be the seat of feelings and so pain is an emotion, while Galen (AD 130–201), a leading physician and surgeon of Alexandria, recognised the brain as the organ of feeling (*rather than feelings*) as in like touch and placed pain firmly in the sphere of physical sensation.⁶ In this Galen was later supported by Avicenna (AD 980–1037), who considered that physical pain could be reliably distinguished from say light touch or temperature and therefore pain was thought to be primarily another fundamentally a physical sensation.

However, it is clear that the fundamental perception of pain most likely changes over time, even in the same individual. The work of Hashmi

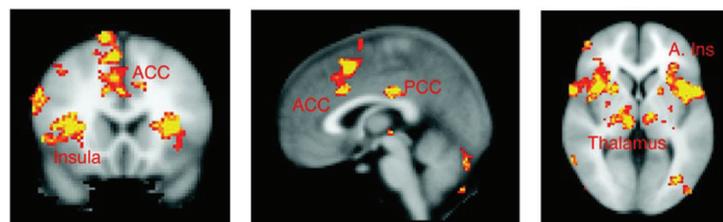
Figure 1. Examples of CNS Functional Measures. A. Schematic of cortical areas involved with pain processing. The highlighted areas summarize areas found active in previous functional imaging studies. Colour-coding reflects the hypothesized role of each area in processing the different psychological dimensions of pain. Numbers in parentheses indicate the relative involvement of these areas during different temporal stages of the pain experience. Areas displayed include insula, anterior cingulate cortex (ACC), posterior cingulate cortex (PCC), primary somatosensory cortex (SI), secondary somatosensory cortex (SII), inferior parietal lobe (Inf. Par), dorsolateral prefrontal cortex (DLPFC), pre-motor cortex (Pre-Mot), orbitofrontal cortex (OFC), medial prefrontal cortex (Med. PFC), posterior insula (P. Ins), anterior insula (A. Ins), hippocampus (Hip), entorhinal cortex (Ento). [Reprinted with permission from Casey and Tran, Ch.12, Handbook of Clinical Neurology, vol. 81, 2006]. For examples of brainstem involvement in pain processing, please refer to Tracey and Lannetti ([52]). B. Example of fMRI responses to painful phasic thermal stimulation to the forehead in a cohort of 12 subjects. (Moulton et al., unpublished observations). Borsook et al., Molecular Pain 2007 3:25 doi:10.1186/1744-8069-3-25 . Distributed under wiki commons license.

Functional measures

A. Brain areas functionally related to pain processing.



B. Example of functional MRI response to painful stimulation.



The colour of pain?

et al.⁷ from Apkarian's group in 2013 showed that acute pain tended to be represented in the bilateral insular, thalamus and anterior singular cortex, while chronic pain overlapped more with emotion, given the involvement of the bilateral amygdala and medial pre-frontal cortex.

Indeed, the neurological signature of acute cutaneous physical pain was explored by Wager et al., who stated that a functional magnetic resonance imaging (fMRI) could be used objectively to assess pain produced by noxious heat in healthy persons. The authors called for further validation studies to assess whether the fMRI signature they found would predict clinical pain. Such a reliable objective test of the perception of acute pain would be valuable, but would it be helpful to most of the patients that we see in pain clinics?⁸

This question was answered in an accompanying editorial by Jaillard and Ropper, who stated that the results may be of great practical importance.⁹ They went on to state that physical pain is the most common reason for consultation with a physician, and because pain is only comprehended as a subjective phenomenon – and the experience and subjective display of pain differ from person to person and culture to culture – an objective measure would be extremely useful to facilitate an assessment of the validity and relative severity of the pain being experienced.

Physicians are flummoxed by pain because of the paucity of objective manifestations of pain in our patients. Jaillard and Ropper wondered,

how all fields of medicine could be altered if pain could be objectified by a measure that did not require direct patient reporting ... what would be seen in patients with fibromyalgia, depression or narcotic addiction who have both physical and emotional pain?

In fact, they accepted that the fMRI study of Wager was limited in scope to acute nociceptive cutaneous physical pain, and that extrapolation of this possible

biomarker to other types of more complex pain was premature.

We then come back to the question of finding a biomarker for pain. In my view, this search encapsulates much of the tension that lies between those who treat the physical aspects of pain and those who treat its emotional or behavioural aspects. While we all want the best for our patients, we are usually confident about our own assessment of the reality of the patient/pain situation in front of us, which is naturally influenced by our own experience and perspective. As mentioned in my last editorial, many of the truths that we cling to depend greatly on our point of view (Obi-wan Kenobi).

Borsook¹⁰ described the challenges in developing biomarkers for pain and looked at the current subjective measurement tools and possible role of fMRI in becoming an objective measurement tool in pain (Figure 1). He highlighted the need to understand the different types of biomarkers and discussed the conclusions of the Food and Drug Administration (FDA) and National Institutes of Health (NIH) conference in 2015, which sought to harmonise the terms used in translatable science and medical product development with the focus on study end points and biomarkers. They came up with the BEST (Biomarkers, End point S and other Tools) resource to facilitate communication between workers from different disciplines. They described different types of biomarkers; for example, one type of *diagnostic biomarker* might confirm the presence of disease or a condition such as sweat, chloride might be used to indicate cystic fibrosis, and glomerular filtration rate to identify patients with chronic kidney disease.¹¹

However, there are other forms of biomarkers. For example, HIV-RNA might be used as a *monitoring biomarker* to measure and guide anti-retroviral therapy, and blood concentrations of an addictive drug as monitoring biomarkers in drug addiction prevention and treatment trials to measure abstinence and compliance. Other biomarkers include *pharmacodynamic response biomarkers* which

show that a biological response has occurred in an individual who has been exposed to a medical or environmental agent; for example, haemoglobin A1c can be used as a biomarker when evaluating patients with diabetes who are responding to anti-hyperglycaemic agents or lifestyle changes.

Predictive biomarkers will be used to identify individuals who are more likely than others to experience a favourable or unfavourable response to a treatment; for example, the BRCA1/2 mutation is a predictive biomarker to identify women who are likely to respond to poly ADP ribose polymerase inhibitors. A *prognostic biomarker* is used to identify the likelihood of a clinical event, disease or recurrence of progression in patients; for example, the Gleason score is used to assess whether patients with prostatic cancer are likely to suffer disease progression.

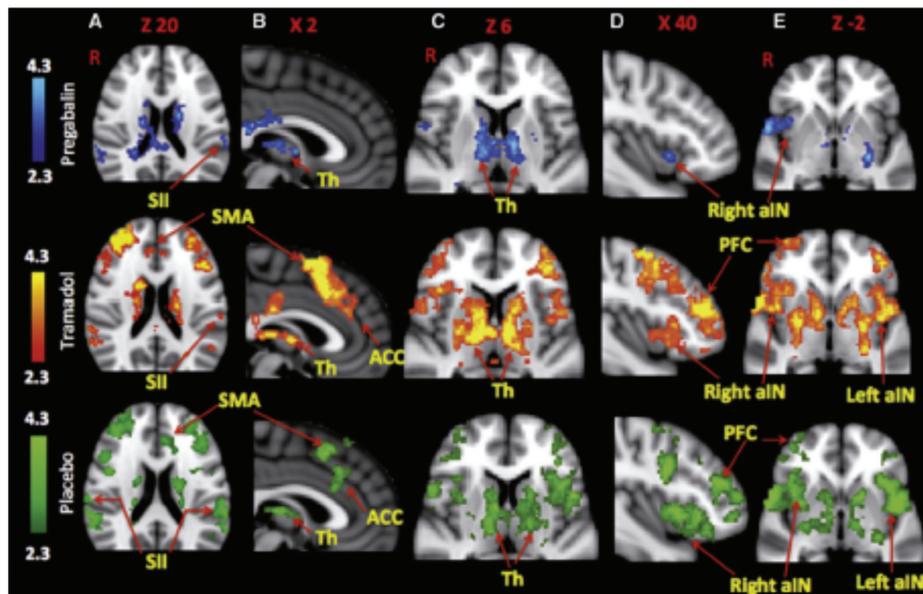
Further useful concepts include 'reasonably likely surrogate end point' such that an easily measurable surrogate end point exactly correlates with the desired clinical end point.¹² Unfortunately, this is where many erroneous assumptions may occur. For example, fluoride helps raise bone density, although what we are really trying to assess is whether that would translate into a reduction in fracture risk. The answer is, of course, that it does not.¹³ As Daniel Kahneman¹⁴ puts it,

Do we still remember the question we are trying to answer, or have we substituted an easier one?



Credit: SKapl.

Figure 2. Group mean activation maps. Significant group mean activations in response to dynamic mechanical allodynia on the affected site were observed in the supplementary motor cortex (SMA) and anterior cingulate cortex (ACC), bilateral thalami (Th), bilateral anterior insula (aIN), bilateral secondary somatosensory cortex (SII), and bilateral prefrontal cortices (PFC) during placebo (bottom row in green) and tramadol treatment (middle row in red). During pregabalin treatment (top row in blue), significant activations were observed in the bilateral thalami, right aIN, and right SII. From BJA 2018;120(2):299-307. Disambiguating pharmacological mechanisms from placebo in neuropathic pain using functional neuroimaging by Wanigasekera et al an Open Access article distributed under the terms of the Creative Commons Attribution License.



This leads on to the issue of *validation*, that is, does the effect (of our therapy or intervention) on the surrogate end point (or biomarker) predict a specific clinical benefit? The use of opioids in apparently producing short-term acute pain relief does not automatically mean it will promise a long-term reduction in suffering and improvement in quality of life, even in the same individual (in fact it does not).

But what happens if the goalposts keep moving? What happens when somebody's experience of pain, using the synthetic model of Moseley (and previously formulated as the neuromatrix model of Melzack¹⁵), suggests that what is considered pain may morph from moment to moment in an individual, making it impossible, it would seem, to develop a consistently reliable pain biomarker.

For example, when I was training in pain medicine, it was stated that there was a difference between pain threshold and tolerance; that is, most people would have a similar level of what is known as acute pain threshold, but their pain tolerance may vary depending on gender, race, culture and circumstance. We would certainly all recognise what was (nociceptive) pain (hence, for example, the level of what is considered a noxious thermal stimulus was set at 42°C, that is, what is associated with tissue damage, hence the International Association for the Study of Pain (IASP) definition¹⁶), but some people could tolerate a higher level of noxious input for longer than others.

However, we can in fact easily modulate even this widely accepted human threshold for acute – perhaps innate – pain, using classical conditioning (the Pavlovian

learning experiment where the conditional stimulus of a bell and the unconditional stimulus of food were associated when feeding a dog). In the study by Madden et al.¹⁷ that used this classical conditioning approach, the simultaneous pairing of non-noxious and noxious stimuli would change acute pain thresholds.

This, of course, raises the issue that people may link pain with other stimuli, as well as making us consider that our prior associations with pain may well determine our future experience of what is considered noxious – and importantly, what causes us to suffer. Tragically, it seems, this type of learning may be significant and lifelong in cases of childhood abuse and the development of chronic pain in adulthood.

Unfortunately, the striking association between childhood abuse and the development of chronic widespread pain

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in future life does suggest that some learning or associations may well be very difficult to modify. This has been explored by Professor Naomi Eisenberger, who describes *why rejection hurts*, in relation to a common neural alarm system for both physical and social pain. The part of the brain that is particularly involved in this is the anterior singular cortex, known to be involved in the emotional aspect of pain.¹⁸ Eisenberger's work emphasises that social and physical pains may rely on overlapping neural processes and this was adapted for mammalian survival, which might explain why those who suffer from abuse in childhood at a time where they cannot process the information adequately are more likely to suffer from pain and suffering later in life.

Will we have an objective biomarker for acute pain? I suspect so: probably one based around *fMRI* will eventually be validated, but it may be more important for us to look instead for a biomarker for chronic pain and suffering. Unfortunately, Borsook concluded,

A reductionist approach to understanding chronic pain using objective functional brain imaging markers alone is unlikely to capture the complexity of the pain syndrome that is a subjective sensation influenced by factors such as emotion, memory, stress, anxiety, and individual history of therapeutic response to analgesic agents. Brain imaging is therefore not a magic bullet.

This caution continues even to the present day and the use of *fMRI* to validate chronic pain experience in the medicolegal setting has been advised against, indeed the prohibition is strongly worded:

*Use of brain imaging as legal evidence of an individual's pain is not advisable until the specificity and sensitivity of such tests are improved, and validated protocols exist (Figure 2).*¹⁹

A recent paper by Wanigasekera et al.²⁰ from Irene Tracey group in Oxford also seem to support this view point.

They examined responses to analgesics in acute neuropathic pain and found pregabalin-induced changes in *fMRI* in area previously thought to do with pain processing but with a striking absence of any accompanying behavioural change in pain experience, though did find a change compared to placebo (see above). What does this all mean for understanding pain and the human response to it?

In fact, the quest for a chronic pain biomarker may turn out to be as easy as identifying teardrops in the rain.

Rajesh Munglani
Cambridge

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In this issue

Jenny Nicholas



Jenny Nicholas

As I enjoyed my first foray into writing a piece for the last issue of *Pain News* so much you'll be hearing more from me in

the future as I take the opportunity each issue to highlight some of the varied and stimulating contributions that make our newsletter such a **must** read.

So what does our September issue have in store for you?

Is there a role for cannabis in pain?

In this article Dr Rajesh Munglani looks at the relationship between cannabidiol and cannabis. We'll also be featuring further articles around the topic of cannabis and cannabis derivatives in future issues so keep watching!

Fun in the sun in Brighton. We'll be taking a closer look at this year's ASM in Brighton where we were blessed with beautiful sunshine as the backdrop to this year's stimulating programme. We'll be showcasing the incredible achievements and commitments our recipients of Honorary Membership have

made to the field of pain, and Professor David Walsh will be recapping on the events highlights and keynote speakers.

What does valid consent look like?

We continue with this thought provoking and important issue in part 2 of 'Consent in pain medicine'. Follow the story as we move from the transformation of the doctor/patient relationship with respect to consent discussed in part 1, towards the implications of decision making and how it impacts on pain medicine practice.

Is there a future for pain physicians in the treatment of fibromyalgia? Dr Marcia Schofield explores this question in more detail in her personal perspective piece. What do *you* think?

I could go on but I don't want to spoil what's ahead.

Happy reading!

Implanted Pelvic Materials and Chronic Pain: The Full Story- Study Day 12th November 2018 Churchill House, London

The British Pain Society is proud to present a Study Day focusing on why some of those living with mesh may suffer chronic pain and what are the best ways of investigating, managing and supporting these individuals for the future. Audits of patients show that those living with pelvic pain fall into the most severe category of pain sufferers.

Topics will include epidemiology of mesh and its pathophysiology when chronic pain occurs as well as the role of investigation, surgery and pain management techniques, including the difficulties faced in pain management clinics.

For more information, or to book, please visit:

<https://www.britishpainsociety.org/mediacentre/events/implanted-pelvic-materials-mesh-and-chronic-pain-the-full-story/>

Or contact the Secretariat at: meetings@britishpainsociety.org



From the President-Elect

Dr Arun Bhaskar



Dr Arun Bhaskar

Change is inevitable; change for the better is a fulltime job.

Adlai E Stevenson

Dear Friends,

This is my first piece in *Pain News* as President-Elect of the British Pain Society (BPS). I humbly accept this great honour to serve you, and I am determined to do my utmost to take the Society forward with your help; for this, I need all of your support, suggestions and involvement. After all, the BPS is the multidisciplinary Society that represents each and every one of us and that is our strength. I have the pleasure and privilege to work alongside hardworking and passionate

colleagues in the Council and the Secretariat, and I would like to use this opportunity to share my vision for the future. You will hear more from the newly elected Council members, Hon. Secretary-Elect and Hon. Treasurer-Elect, in the coming issues so that you get to know them better. I would also like to take this opportunity to thank Andrew, Roger, Heather and the Council members for their guidance and continued support.

I do not think there is another Pain Society in the world that has a multidisciplinary representation as the BPS. I know the current Council comprises mainly medics, but my colleagues who have put themselves forward for Council positions and for the positions of Hon. Secretary and Hon. Treasurer along with myself share a vision to take the Society forward as a multidisciplinary organisation. Andrew and Roger have already described that there had been a real effort from us to encourage members of all disciplines to stand for the elections; this did not happen for a number of reasons including personal or professional commitments and also having concerns about the future of the BPS. We would like to sustain the vision that all disciplines should be represented at the Council level and involved with the activities of the various committees and the Society generally. We are in the process of reviewing the governing documents (M&A) to consider how we ensure that elected Council members represent the many disciplines that reflect our membership.

We no longer enjoy the financial stability of previous years and this is mainly due to a declining membership

and reduced attendance at the ASM along with diminishing industry support. These factors have adversely affected the income generated by the ASM that supports the running cost of Society. In 2016, in the run up to the 50th Anniversary ASM, I did a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the past 10 years of the ASM programme and there was very little for the interventional pain clinician at the BPS ASM compared to most of the other pain meetings that happen across the globe. It seems that this was one of the main reasons that, at a time of restricted educational budgets, some of the consultants decided to attend other meetings rather than the BPS ASM. Also, the BPS Pain Management Programme SIG organises a very successful biennial meeting, which is well attended and this too has made an impact on the attendance at the ASM in that year:

The vision must be followed by the venture. It is not enough to stare up the steps - we must step up the stairs. (Vance Havner)

We are currently facing a situation where inaction or continuing in the same vein is no longer a viable option. Andrew and the current executives have started projects with a long-term vision and it is up to us to ensure that they progress to fruition. One of the arguments I have heard from some colleagues is that the '*BPS does not change in its ways and there is nothing in it for me*'. However, there were also other reasons why some of you decided not to renew membership of the BPS. But we need to have faith in ourselves and it is time to



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rally together. Dr Ayman Eissa and Prof. Roger Knaggs will be leading on projects to get more engagement with the membership and this is our top priority. BPS should provide the platform where we can discuss issues pertaining to the changing landscapes in commissioning of services and supporting each other in engaging with local and national stakeholders. We are committed to working with other organisations such as DoH NICE, FPM, EFIC and IASP to support our members locally, nationally and beyond. More importantly, I am committed to engage in conversation with you across various platforms so that you are aware of the developments and identify opportunities for your engagement. We are also committed to carefully listen to your suggestions and act on it.

Organising a successful ASM is very important as it is the best environment where we can learn, network and exchange ideas with our peers as well as hear first-hand about the latest developments in the field of Pain

Management. There are several good ideas that could address this and a topic-based multidisciplinary (MDT) approach to the ASM programme may be the way forward with one day focusing on special interests including interventions, acute pain and individual disciplines. On listening to the feedback following on from Brighton ASM, it became apparent that most of the membership prefers a 3-day conference and this would also allocate more time for networking and catching up with old friends and making new ones. In response, the Council will be working alongside the Scientific Programme Committee to ensure that we have an ASM that is attractive to the delegates as well as our industry partners. Additionally, several of our SIG meetings and study days need to be promoted more widely to attract attendance from across the globe:

The mark of a good action is that it appears inevitable in retrospect.
(Robert Louis Stevenson)

I was speaking to a colleague recently and she commented that I have taken a huge leap of faith in putting myself forward as President-Elect. I have done so because I have faith in you and also in the future of the Society. On speaking to many of you, I see you share the same feelings. I am also delighted and reassured to know that there are colleagues who I can count on to be my 'voices of counsel' and to help advise me to deliver on our shared vision to you and to the Society. My own vision, and I hope yours is too, is first to put aside any differences, laying the ghosts of past hurts to rest and support the Society. I would like to invite each and every one of you to be an integral part of the Society. For some of you that would mean joining the Society or re-joining the Society. This is and will continue to be your home and its doors are always open to welcome you.

Kindest regards
Arun

Join our Special Interest Groups (SIGs)

The British Pain Society recognises the importance of providing members who have specific interests with a forum (Special Interest Groups) to discuss their interest in more depth. The Society actively encourages and supports the development of such Special Interest Groups, as they are an important element of our multidisciplinary Society and are a key member benefit. There are currently 14 SIGs;

- Acute Pain
- Clinical Information
- Headache
- Information Communication Technology
- Interventional Pain Medicine
- Medicolegal
- Neuropathic Pain
- Pain Education
- Pain in Children
- Pain in Developing Countries
- Pain in Older People
- Pain Management Programmes
- Philosophy & Ethics
- Primary & Community Care



For more information about any of our SIGs and how to join please visit: <https://www.britishpainsociety.org/for-members/special-interest-groups/>

Dr Andrew Baranowski



In the last *Pain News*, I noticed that Roger Knaggs started by reflecting on the fact that because of editing and printing schedules we have to write these editorials months in advance of the publication date. Every time that I write for *Pain News* that thought is also prominent in my mind. It is a bit like ‘time travelling into the future’ and returning to the present. However, I can only guess what the future holds.

I am informed that Lao Tzu, widely considered a key influencer of Taoism, said: ‘If you are depressed you are living in the past. If you are anxious you are living in the future. If you are at peace you are living in the present’.

The recent past (since the last *Pain News*)

I see very little to be depressed about; but I agree that there is always time for reflection on how we could have done things differently. I guess that is where I differ from Tzu’s perspective. Reflection can be healthy, if we don’t ruminate, amplify and cry out helplessness.

The British Pain Society Annual Scientific Meeting

My main regret is that I was not able to meet up with more people and attend all the lectures and talks that I would have liked. There is a lot of business that goes on behind the scenes that can distract the President! Corridor conversations and interactions with members over coffee (and occasionally with a drink other than coffee) are an important part of my understanding the views of the British Pain Society (BPS) members, the non-BPS attendees and trade. Having said that I was impressed with the plenaries and workshops that I was able to attend. There will be a summary in *Pain News*, but I particularly wish to thank the following speakers:

Professor Jeffrey Mogil – who gave the Pat Wall Lecture

Dr David Armstrong

Professor Kate Seers

Professor Eloise Carr

Dr Amanda Williams

Professor John Cryan and

Professor Blair Smith – who gave the BPS Lecture.

As well as these eminent authorities, there was a plethora of workshops, satellites and trade exhibits. The Society is grateful to all who contributed.

There were many posters as well. These are the cutting edge of the Annual Scientific Meeting (ASM). The poster winners were:

- Impact of Brief Psychological Interventions for Patients with

Complex Needs: The Role of the Clinical Psychologist within the Inpatient Pain Team. Chandran Jepegnanam

- Assessment of pain in adults who have a learning disability A snapshot survey of practice in secondary care NHS Trusts across the United Kingdom. Lorraine de Grey
- Prescribing opioids for chronic pain in primary care: a qualitative metasynthesis. Mary-Claire Kennedy
- What do people with persistent pain think about when they complete the Tampa Scale of Kinesiophobia (TSK)? A qualitative study. Lorna Semple
- Exploring perceptions of pain relief strategies as masculine and feminine gender norms and stereotypes using Q-methodology. Samantha Wratten

Well done.

The BPS Annual Scientific Meeting – what could we have done better?

As always, the feedback from those attending will be analysed by David Walsh and the ASM Scientific Programme Committee will lead on that – and I am thankful to them. There will be an ongoing effort to ensure that themes will continue through the programme, with the aim of trying to ensure that there is nearly always something for everyone – if not too many choices! Those who did not attend are feeding back through a range of media as to what they would like to see, and their views are also being considered.

The Annual General Meeting

The report from the Annual General Meeting (AGM) will be published as usual. Following a question on the cost

of being a member, a healthy debate took place around membership fees. In my opinion, there are two points to note:

1. For most, the savings made when a member attends the ASM and one study day cover the costs of membership. Non-members pay more to attend these events. Being a member is a cost-effective way of covering your Pain CPD. As well as this you receive the *British Journal of Pain*, *Pain News* and membership of The European Pain Federation (EFIC).
2. The BPS, through its membership, is the only agency that represents the MDT. The BPS does a lot of work around guideline publication, consultations and lobbying on behalf of its members.

The Annual General Meeting – what could we have done better?

It is traditional that the President reads a version of the Annual Report. I think this is too long because there is a lot in the report. The debate at the end was well received, even if not all agreed, but the vote showed that most did! We need more time for debate.

Exec & Council elections

By now you will know that:

Arun Bhaskar has been voted
President Elect

Glyn Williams has been elected
Honorary Treasurer Elect

and

Ayman Elissa has been elected
Honorary Secretary Elect

There are also five newly elected Council members and two returning for a second term.

Congratulations to them.

As they are all medics, Council will co-opt Council members to ensure that the MDT is represented.

Council elections – what could we have done better?

There were many who expressed concerns that non-medics did not stand for Council. This is not an issue about there not being a system of proportional representation, but rather that for some reason non-medics did not feel that they could stand for election. This may reflect personal reasons or professional reasons (as more and more pressure is placed on us at work). We have now had several reviews of our membership over the past few years, and there is no simple answer. My suggestion is that the various disciplines work with their membership to identify individuals whom they as a group can support for Council. Arun Bhaskar will touch upon the multidisciplinary nature of the BPS in this edition of *Pain News*.

Special Interest Groups Chairs meeting

This meeting is a meeting of the BPS Execs with the Chairs of the Special Interest Groups (SIGs), and was considered to be very successful. The focus was on how the Society as a whole could work best with the SIGs. One of my proposals was that the Chairs could rotate around attending Council so that each Chair attended one meeting a year. This would enable us to ensure that our priorities are aligned, and once more re-enforces the MDT nature of the Society.

SIGs Chairs meeting – what could we have done better?

It is generally agreed that more regular meetings (virtual and otherwise) between the Chairs would benefit closer working and better outcomes.

The present

Being in the moment...

From the President

Dr Andrew Baranowski

The Execs are settling in to their new positions, and the Council convened for its first official meeting in June.

We are currently looking to further re-organise the structure of the Society. The main emphasis of this review is to look at the work load of the Secretariat, how they interact with the Executives, Council and our members, and how the Executives work together.

Arun is looking at reviewing how we work with our membership as a Society in order to ensure that the needs of all within the MDT are met.

We have also agreed to look at how we can support the Society moving forward around marketing, income generation, raising awareness and supporting the Society to strengthen it for the future.

The Council will review a number of issues, for instance the structure of the ASM for 2019.

There are always a number of ongoing projects and work streams. As always, I am grateful to the teams of individuals who undertake that work in the background.

All of these projects are grounded, and it is reassuring to see those involved being willing to get on with the job.

The future

It is easy to be anxious about the future. When I listen to the new team on board, I am sure that they will work together with those established in their roles. We face difficult financial times and pressure on personal space. However, I believe that the work done over the past few years places us in a good position to move on to the next phase. As Arun recently stated: 'There is no "Us" or "Them." We are in this together. Let us expand our vision for the BPS and the future of Pain Management in the UK and look forward to limitless possibilities by working together'.

Professor Roger Knaggs



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SAGE



Roger Knaggs

Membership matters

While preparing for my report for the Annual General Meeting (AGM) in Brighton and for a recent Council meeting, I was reviewing the numbers of members from different professional groups. In June 2018, the current membership of the professional groups represented includes the following:

- Anaesthetists – 526;
- Nurses – 158;
- Psychologists – 127;
- Physiotherapists – 101;
- General Practitioners – 16;
- Neurologists – 4;
- Occupational therapists – 13;
- Pharmacists – 9;
- Rheumatologists – 4.

Other groups include Accident & Emergency, Chiropractic, Gynaecology, Musculoskeletal Medicine, Neurobiology, Neurosurgery, Oral Surgery, Orthopaedics, Osteopathy, Paediatrics, Palliative Medicine, Pharmacology, Physiology, Psychiatry and Rehabilitation Medicine.

It will come of no surprise to those reading this column that our membership has reduced significantly over the last few years as this has been mentioned by at least my two predecessors.

Over the last few years, numerous Council members and Executives have tried to grapple with how *The British Pain Society* (BPS) can maintain, and ideally increase, its membership. Most recently, overseen by the Vice President Dr Martin Johnson, the current membership structure has been reviewed. Those of you who attended the AGM will recollect that the outcome that was agreed by Council was to maintain the current membership structure but to consider ways to reduce the number of categories. A more concrete proposal obviously will need approval from members and should be presented at the AGM next year.

The real strength of the *BPS* is in its multidisciplinary membership. We are all members of professional bodies and groups within our own discipline, but it is our interest and expertise in pain management that brings us together.

Related to this, the topic of largest discussion at the AGM in Brighton was the discussion about the benefits that membership brings to all members of the Society. Being a membership organisation, we need to hear from YOU about what you consider the challenges and priorities for the Society. I am more than happy for you to contact me personally to discuss, and I will ensure that they are raised with the most appropriate person or Committee. In addition, we all have a responsibility to encourage those with whom we work with to consider joining or even re-joining to make the Society represent the many facets of pain management with a united voice.

Pain News

You would have seen from the editorial in the last issue, that Dr Raj Munglani has been appointed the new editor of *Pain News*. The Society is very grateful to Dr Arasu Rayen for his long association with *Pain News* and particularly for the recent time in which he was editor. Raj briefly outlined his vision in the last issue; however, I am certain that we will see more changes and certainly articles that may challenge our thoughts and beliefs. In order to be a publication of a vibrant and dynamic Society, do consider either contributing an article or making a comment on a published article.

Have your say and contribute to *Pain News* today

Pain News is the newsletter for members of the British Pain Society and we welcome member and non-member contributions to share your news with the wider membership and beyond.

Do you have a news item to share?

Perhaps a professional perspective, or informing practice piece?

Maybe you would you like to feature as our 'Spotlight' member?

We'd love to hear from you so drop the Editor an email today at: rajeshmunglani@gmail.com

Upcoming submission deadlines:

Issue	Copy deadline
December 2018	28 th September 2018



Highlights of the 2018 Annual Scientific Meeting, Brighton, 1–2 May 2018

David Walsh *Chair of the British Pain Society Scientific Programme Committee*

Our 2018 Annual Scientific Meeting (ASM) lived up to all expectations in beautiful Brighton. Scientific and social programmes interfaced seamlessly, and the Hilton Brighton Metropole provided a top class venue on the seafront.

Jeff Mogil in his Pat Wall lecture kicked off in grand style with a masterclass in translational science. Pain reporting in humans and behaviour in mice display remarkable parallels. The ways in which we feel about the people (or mice) around us can importantly impact on pain, influencing both how we assess pain in others and how they experience pain. Blair Smith rounded off the meeting with equal flare, presenting the British Pain Society lecture to a full house. As well as explaining why we know how prevalent chronic pain is, Blair demonstrated in practical terms how numbers can change government policy to make real impact. Scotland leads the world on pain policy, and Blair has taken no small part in ensuring that happens.

Between Jeff and Blair's presentations was non-stop delight. Kate Seers, who recently completed her term as chair of the Scientific Programme Committee after years of dedicated service, impressed all with her presentation on the meaning of pain, both for patients and for clinicians. The selections she made from her own massive research output fully justified her award by the Society of Honorary Membership. Eloise Carr gave erudite and very practical advice on how education can help both health professionals and patients to

manage pain, resonating with the International Association for the Study of Pain 2018 Global Year for Excellence in Pain Education. John Cryan gave, for me, one of the more surprising highlights for a Pain meeting on the gut microbiome. Why would pain clinicians be interested in bacteria in the gut? I think we all left John's presentation realising that given the pharmaceutical powerhouse that our microbiome represents, how could it *not* influence human pain? Other plenary sessions covered diverse topics from sociology to torture, and the Scientific Programme Committee hopes that it has gone a considerable way to address criticisms raised in a previous edition of *Pain News* that ASMs have become less relevant to the practicing clinician.

This year's workshops and plenary sessions also touched important nerves for everyone, although there was, as usual, the frustration at not being possible to be in multiple places at the same time. Workshops ranged from practical hypnosis, through a range of common clinical problems such as headache and sciatica, to detailed discussions of commissioning, training, pain in the elderly and at the end of life. A highlight for me was the session chaired by Tamar Pincus who provided a model workshop on diagnostic uncertainty, with a great balance of robust science and clinical practicalities. Although focused on paediatric and adolescent medicine, there was much to be learned of high relevance to adult practice.

As always, the scientific content of the meeting was critically dependent on contributions from Society members, through planning of plenary and parallel sessions, through the excellent abstract submissions of original research and service evaluations, and through their active and enthusiastic participation during the meeting itself in Brighton. Submitted abstracts judged to be best by the Scientific Programme Committee were selected for plenary oral presentations, and the presenters did the Society credit for the high quality of both their research and their talks. The diversity of presentations underlines our holistic approach to pain management and the multidisciplinary nature of the British Pain Society.

The ASM is much more than its name suggests. Member feedback has emphasised how our ASM plays important roles both in training and for networking, as well as keeping members up to date with recent advances and future prospects in pain management. The Hilton Metropole provided excellent facilities for a conference, with plenty of opportunities for discussions between delegates, around posters, over lunch, or along the promenade outside the front door. An undoubted success was the social event held this year at The Mesmerist, with music, refreshments and dancing to break down any few remaining barriers that there might have been between participants.

Highlights of the 2018 Annual Scientific Meeting, Brighton, 1–2 May 2018

The Scientific Programme Committee would like to thank all participants for their constructive feedback on the meeting. I'm also keen to thank the Society's Secretariat and Council,

without which the ASM would be impossible. Together, I'm confident that the ASM will continue in 2019 building from strength to strength. There are exciting developments for pain

management just around the corner, and no challenge is insurmountable.

Abstracts of presentations at the 2018 ASM are available in *British Journal of Pain* 2018; 12(2, Suppl 1): 5–54.



The British Pain Society is nothing without you, its members, and we appreciate your continuing involvement and support. We recognise that, for many members, in recent years, the decision to pay the membership fee for a non-compulsory professional society has been more challenging so we will continue to look closely at our fees and we will take care to limit any increases. We hope that you will continue to encourage your colleagues to join us.

May we also remind you that The British Pain Society is a registered charity and we welcome funds received from legacies and through sponsorship. As we know from the numbers who have joined fun runs at previous ASMs, many of our members are actively engaged in sporting activities. So, if you are signing up for any marathons, half-marathons, triathlons, swims or tiddlywinks contests, please consider nominating The Society as your chosen charity.

Thank you for supporting the BPS!

BPS Honorary Membership Citation for Professor Kate Seers

Gillian Chumbley

Emma Briggs



It is our great pleasure to present this citation for Professor Kate Seers for the award of Honorary Membership of the British Pain Society. Her contribution to the field of pain management has been outstanding and her influence on the careers of nurses in pain management and research has been immeasurable.

Kate was the nurse representative on the working party that produced the 1990 Royal College of Surgeons & the College of Anaesthetists Report on Pain After Surgery. This was a seminal moment in the development of acute pain services. This report influenced the development of inpatient pain services throughout the United Kingdom and ensured that patients received expert care in pain management after surgery. It highlighted the need to develop the role of the nurse in pain management and to develop nurse specialists who would require formal training, thereby creating a career pathway for nurses. In fact, we can safely say that, before Kate's involvement in the working party, there

was no recognised career path for nurses in acute pain management. Today, nurses working in acute and chronic pain services can progress from staff nurses to nurse consultant and enjoy lifelong careers in this important field, in no small part thanks to Kate Seers.

At the risk of embarrassing Kate further, let us take a look back at her long list of achievements.

Kate trained for a BSc (Hons) in Nursing Studies at Chelsea College, University of London and Charing Cross Hospital. In 1987, she obtained her PhD from Kings College London and her thesis explored pain, anxiety and recovery in patients undergoing surgery. Her PhD made a significant contribution to our understanding that pain assessment in clinical practice was sub-optimal. She has been a pioneer for nurse academia, gaining a PhD when few nurses achieved this formal recognition, especially in the field of pain management.

Kate has demonstrated a sustained commitment to improving pain management through research and has worked in academia for over 30 years. She has taught, inspired and encouraged countless students in the field of pain management. She has been an excellent role model for nurses, motivating them to pursue an academic career. She has supervised 17 PhD students and has 6 PhD studentships and 2 post-doctoral fellowships on-going. She has been the external examiner for 34 PhD's, as many of you here at the Annual Scientific Meeting (ASM) will know.

Kate's CV is truly impressive. She has published over 100 peer-reviewed journal articles, editorials and original research reports and she was listed as a 'highly cited' researcher on the Thomson Reuter's list in 2014. Over the past 10 years, she has attracted a phenomenal, 19 million pounds in research grants. Six grants have been awarded by the National Institute of Health Research (NIHR), where she has been the lead researcher or co-applicant. Success has included European grant funding, which has allowed for international collaborations, such as her work on 'Promoting Action on Research Implementation in Health Services (PARIHS)' framework.

As we have heard from her eloquent and passionate plenary, her commitment to improving the quality of life for people in pain has continued throughout her career to the present day, with her most recent publications providing insight into the experiences of patients living with chronic nonmalignant pain and the

BPS Honorary Membership Citation for Professor Kate Seers

difficulty of providing compassionate care.

Kate, in collaboration with colleagues, has produced pain-related educational materials for professionals and patients. The video entitled 'Struggling to be me with chronic pain' has had nearly 30,000 views on YouTube. The most recent video release entitled 'Struggling to support people to live a valued life with chronic pain' has been viewed over 600 times.

Apart from her direct participation in research, she has played a vital role evaluating research as a member of seven different working parties in pain management. She has worked with the Royal College of Surgeons, Royal College of Anaesthetists, Royal College of Psychiatrists, British Pain Society, Clinical Standards Advisory Group and the International Association for the Study of Pain (IASP). These groups have reported on pain after surgery, the use of nonsteroidal anti-inflammatory drugs (NSAIDs), psychological care of surgical patients, criteria for pain management programmes, services for patients in pain and the curriculum for pain nurse education.

Kate was the first nurse to be elected to the British Pain Society (BPS) council in 1994 and part of the International Association for the Study of Pain working group who produced the original pain curriculum for pre-registration nurse education; their report was published in 1993 and has had two further updates. The publication provides vital guidance on the content of curricula for courses worldwide.

She has been the European editor for the Canadian Journal of Nursing Research and an associate editor for Evidence Based Nursing and the IASP's journal, Pain. She has been on the editorial board of four other journals and the Cochrane Pain, Palliative and Supportive Care Review Group since 1998.

Kate, along with Prof. Eloise Carr, co-founded a national professional

network for pain, the Royal College of Nursing Pain Forum in 1989, which is still going strong today. Here at the BPS, we have all benefitted from her leadership skills. She was the chair for the British Pain Society's Scientific Programme Committee and successfully organised three ASMs, culminating in the 50th Anniversary of the ASM in Birmingham in 2017. Prior to this, she worked for 3 years as a member of the committee. During her years as chair, she ensured that all disciplines in the British Pain Society were represented in plenary sessions and workshops and re-crafted many elements of the programme. She has also been on the Scientific Programme Committees at both European Federation of IASP Chapters (EFIC) and IASP.

Kate is Professor of Health Research and Director of the Warwick Research in Nursing Group at the University of Warwick. In 2013, the university honoured her with a Doctor of Science for her sustained and original contribution for pain related research.

Now you might think that someone who could marshal this impressive list of achievements on paper might be a little forbidding in person. Nothing could be further from the truth with Kate.

She is the opposite of pretentious; her caring and modest manner hides these great achievements; she is a joy to work with and an asset to any working party. She puts people at their ease and, despite her vast knowledge and experience, is approachable and welcoming to all.

This is what some of colleagues have said about her:

Kate inspired my clinical academic career in pain. Her PhD was one of the first I read and gave me the vision for what nurses can achieve through pain research. Subsequently, I was daunted when I found out she was to be my PhD examiner. I need not have feared, she was then and has

continued to be a critical friend. She is able to mix academic rigour with generosity and kindness. I always walk away from a conversation with Kate feeling better.

Many colleagues have commented on her modesty, thoughtfulness, generosity, humanity and sense of humour. How she always treats people as her equal, though she is no 'pushover'. She is supportive to colleagues and notices when they feel overwhelmed or stressed. Just like the quote in Kate's plenary, people never forget how she makes them feel. One colleague commented particularly on her sense of humour, they told us,

I have never seen Kate laugh so much as when a survey response to one of our workshops at British Pain Society's ASM read 'Your hair colour does not suit you'!

Having shared with you all the accolades, the testaments to her personal achievements and attributes along with her workshop feedback, we have failed to mention an enormous part of Kate's life which is her family, Chris her husband and her two sons Tim and Ben. She has managed to successfully dovetail a hectic work schedule with family life.

Many people may not be fully aware of Kate's achievements, her influence on nursing research, her pioneering teaching and her inspiration as a role model to others. By honouring her with this prestigious award, we feel that her contribution and commitment to improving the management of pain for patients and revolutionising nursing careers will get the acknowledgement it deserves. Ladies and gentlemen, we would like you to join us in congratulating Professor Kate Seers for the extremely well-deserved award of honorary membership of the British Pain Society.

BPS Honorary Membership Citation for Vidyamala Burch

Amanda C de C Williams



In 2001, Vidyamala started developing her Mindfulness-based Pain Management Programme in Manchester, with funding from the Millennium, and set up the Breathworks Community Interest Company with other mindfulness experts. Since then she has run many courses for people with chronic pain, under the umbrella of Breathworks, written two books, done numerous interviews and energetically promoted the practice of mindfulness for chronic pain.

Vidyamala was a young and budding photographer when she was severely injured, but I think that capacity to stand aside and observe has served her well both in developing mindfulness for pain and in engaging research to ensure that what she offers is good value, both to those with chronic pain who take part and to funders. She recently calculated the 'social return on investment' to be a

saving of £5.76 for every £1 invested in the course, savings in reduced health costs, welfare services and contribution in the community. She has a fundamental honesty and accountability that informs all her work.

Vidyamala is committed to making mindfulness accessible and available. She has published many resources for use by people with pain and made her CDs and downloads free. Her first book, *Living Well with Pain and Illness*, published in 2008 won First Prize in the *BMA Medical Book Awards* in 2014 in the 'Popular Medicine' category. The second, *Mindfulness for Health – a practical guide to relieving pain, reducing stress and restoring well-being*, was published in 2012; both have been multiply translated.

After several years of running treatment programmes, Vidyamala developed a Teacher Training Pathway

to enable many more people to access the programme, and over 250 people have completed training and accreditation, mostly in the United Kingdom but also in 21 other countries. These courses attracted compliments from Jon Kabat-Zinn, the originator of the approach, and Vidyamala has joined the academic team at Bangor University to teach an MSc module on mindfulness. She is active in the training community and in discussions around maintaining integrity and standards in a rapidly expanding field. Vidyamala was also an expert witness to the All Party Parliamentary Group on mindfulness in 2015, providing the keynote address at the Parliamentary hearing on Mindfulness and Physical Health. Breathworks' contribution is noted in the *Mindful Nation UK* report (<http://www.themindfulnessinitiative.org.uk/>).

Although Vidyamala's work sits in the non-professional third sector, she has held herself accountable to the wider pain community for her therapeutic work and consistently worked to build mutually beneficial links with academic and clinical colleagues, welcoming interest and listening to a wide range of opinions. I have always been impressed by her complete commitment to accessibility, openness, collaboration and high standards. Throughout her professional life, she has drawn on her own experience of chronic pain and has achieved an extraordinary amount despite the restrictions it imposes. I am deeply impressed by her generosity with her own efforts and resources, and the pain field has hugely benefitted from her wisdom, compassion and example.

The Medicolegal SIG: a joint personal history and a future direction

Jon Valentine and Rajesh Munglani *Co-chairs Medicolegal SIG*

The authors of this article have each been in medicolegal practice for close to 20 years. Looking back, expert witness work sneaked up on us both quite unexpectedly around the same time as we were getting ourselves established as early forerunners of a new generation who wanted to work as consultants with practices wholly dedicated to Pain Medicine. At the time, neither one of us had been at all prepared during our specialist training to engage in this line of work, but we were both very quickly fascinated and ultimately enamoured by challenges associated with the provision of expert opinion for the courts in a specialist field that many lawyers and the vast majority of judges did not even know existed.

Nearly 20 years later, the legal profession recognises Pain Medicine as an important specialist field. Solicitors, barristers and judges rely on the opinions and guidance of experts in Pain Medicine in the assessment and valuation of many a complex personal injury claim. They recognise the important role that multidisciplinary pain management can have within the rehabilitation process.

In 2018, the vast majority of consultants in Pain Medicine are well aware of the medicolegal aspects of our specialty. Many Pain Medicine consultants, and a number of specialist clinical psychologists, have now developed busy medicolegal practices. Interest in the medicolegal field continues to grow and the number of Pain Management professionals working as expert witnesses steadily increases.

In contrast to years gone by, there are now many opportunities to learn about medicolegal practice. There is now a



Credit: andresr.



Dr Jon Valentine

wide range of expert witness training courses available to provide us with the opportunity to learn about the Civil Procedure Rules, writing medical reports, attending case conferences and court and last but by no means least, cross examination. In addition, there have also been, and continue to be, regular conferences dedicated to important issues pertaining to medicolegal practice.



Dr Rajesh Munglani

Over recent years, the British Pain Society (BPS) has played a key role in promoting the education of its members in a variety of aspects of medicolegal practice. Since the Medicolegal Special Interest Group (SIG) was revived back in

The Medicolegal SIG: a joint personal history and a future direction

2011, there has been at least one medicolegally focused parallel session at the BPS Annual Scientific Meeting (ASM) each year. The authors have both played leading roles within the Medicolegal SIG since 2011 and currently co-chair the group. Our vision is to promote a greater understanding of the challenges and rewards of working in medicolegal practice and to encourage more BPS members, from all subspecialty groups, to join our SIG and participate in the discussions. We would welcome BPS members who are not Pain Medicine consultants onto our SIG committee to assist us in shaping and forming a robust and modern multidisciplinary Medicolegal SIG that will continue to grow and have clinically important influence long into the future. We also encourage the membership of those among us who might have no great desire to work as expert witnesses, but are interested in the medicolegal ramifications of modern clinical practice, including how those important ramifications might be avoided and how to manage them when they arise, as in this day and age, they almost inevitably will.

There is no doubt that entering the field of medicolegal practice had a positive impact on the authors' clinical practices. Through the detailed evaluation of claimants' medical, employment and Department for Work and Pensions (DWP) records, knowledge of the opinions of experts of other disciplines, perhaps most particularly psychology and psychiatry, and consideration of covert surveillance and photographs and postings on social media, we learned so much more about the complexities of the chronic pain patient population that fills our clinics and challenges our diagnostic skills. After many years of (almost literally at times) coming head to head in complex catastrophic injury claims, and spending hours and hours arguing our particular case so as to persuade the lawyers and judges to favour the opinion of J.V. over R.M. or the opinion of R.M. over J.V., we unanimously agreed that the

time has come to impart elements of our medicolegal knowledge and experience, and we hope a few might also say wisdom, to the wider audience, and provide Pain Management clinicians of all backgrounds with insight into our interpretation of the presentations and practices seen within our specialty, particularly insight into those that the legal profession, and the medical community outside of Pain Medicine, might see as contentious and/or controversial.

Over the coming months, we shall, with the assistance of other experienced clinicians, expert witnesses and lawyers, present the readers of *Pain News* with a series of articles. Each article will provide a rather forensic analysis of an important clinical topic that lies within our specialty. Topics that we shall discuss will include the treatment of chronic pain with strong opioids, pain management programmes (PMP) and the diagnosis of complex regional pain syndrome (CRPS). Is it appropriate that our patients should be denied access to strong opioids? When is a doctor negligent in prescribing strong opioids? Why should an insurer fund a PMP, and if they do, what should they expect for their money? Why is CRPS such a controversial diagnosis in medicolegal practice?

We shall evaluate the quest for objective evidence of chronic pain with a focus on functional magnetic resonance imaging (fMRI), the aetiology of chronic widespread pain (CWP)/fibromyalgia and the impact of delay in diagnosis and treatment of cauda equina syndrome in the causation of chronic pain. Does fMRI provide reliable objective evidence for chronic pain? Will all claimants (perhaps patients?) reporting chronic pain be required to undergo fMRI in the future? Did the very minor 'whippy whiplash' really cause severe and disabling fibromyalgia? Would the claimant have suffered such severe chronic neuropathic pain if decompressive surgery had been performed 12 hours earlier or would the pain have been much less severe and intrusive?

We shall discuss the impact of the long-awaited publication of the 11th revision of the International Classification of Diseases (ICD-11). Psychiatrists have for many years used 10th revision of the International Classification of Diseases (ICD-10; first published some 26 years ago in 1992) and other classifications such as 4th edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) and 5th edition of *Diagnostic and Statistical Manual of Mental Disorders* (DSM5) in their clinical and medicolegal practices. Meanwhile, Pain specialists have struggled to provide their patients, medical colleagues and indeed lawyers and judges with a medically classified diagnosis for a chronic pain condition. What impact will ICD-11 have on our specialty? Will chronic pain finally be recognised by all as a medical condition/disease?

The issue of consent since a Supreme Court ruling in the case of *Montgomery versus Lanarkshire Health Board* in 2015 is already being discussed in *Pain News*. However, new General Medical Council (GMC) guidance will soon be published, and we shall then be revisiting the subject of consent with a view to stimulating further discussion and debate.

In bringing this introductory article to a close, the authors emphasise our intention that our series of articles appeals to the wider Pain Management community that makes up the BPS and not just the diehard medical expert witnesses among us. It is our intention that they are relevant to day-to-day practice within our specialty, and we very much hope that they will promote even more interest in the medicolegal issues and encourage many more members of the BPS to join our Medicolegal SIG, attend our meetings and parallel sessions, and most importantly of all, take part in a stimulating conversation (over a glass of red wine at the ASM perhaps?) that will continue for many years to come.

When a food and a medicine is also in a banned drug: the relationship between cannabidiol and cannabis



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Make the most of the Indian hemp seed, ... and sow it everywhere

George Washington 1794

Where's the buzz, tell me what's a happening ...?

(with apologies to Tim Rice from Jesus Christ Superstar)

As I began to write this, Billy Caldwell, a young boy of 12, had been admitted to hospital with severe intractable epilepsy following removal of his medication by UK customs. For the previous 250 days, he had not suffered any epileptic attacks as they had been well-controlled with an extract of an oil derived from the seed of the hemp (cannabis) plant. In Billy's case, the likely active substance in the cannabis oil is cannabidiol or CBD, a non-psychoactive compound with unique anti-epileptic properties. Billy's oil did also contain a small amount of tetrahydrocannabinol (THC), which in larger doses could provoke 'highs'.

Despite its name, cannabidiol has little in common with illicit cannabis use, apart from being one of the hundreds of phytochemicals present within this ubiquitous wild plant which has also been cultivated by mankind for thousands of years.¹⁻³

CBD has already been shown to be a clinically effective anti-epileptic and anxiolytic, and animal studies suggest a major potential therapeutic role in many sorts of pain and other medical conditions.



After 2 days of Billy suffering severe fits, and with the accompanying adverse publicity, the government – and, in particular, the Home Office – relented and returned the cannabis oil which had been taken from Billy and his mother. Billy's severe fits stopped soon after and he then was discharged from hospital.

The reason that he suffered such a recurrence of his fits is because a border force official seized the illegal medication when Billy and his mother returned with the oil from Canada, where a paediatric neurologist had quite legally prescribed it. The cannabis oil is known to be efficacious for young patients with particular forms of severe intractable epilepsy. Home Office

Minister Nick Hurd apparently initially lectured Billy's mother on the Misuse of Drugs Act (1971) because his medication contained tiny amounts of THC and stated that the prescribed medication would not be returned to them. However, the media attention given to the recurrence of the severe life-threatening fits in Billy forced the hapless Home Office into a humiliating and very public U-turn.⁴⁻⁹

There is great confusion around hemp/cannabis regarding the active ingredients within it and their effects on the human body.

Of these chemicals, two are well known, and one in particular – THC – concerns the Home Office most and is

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Credit: Creative-Family.

prohibited under the 1971 Misuse of Drugs Act. The group of compounds based around THC are psychoactive in the sense of causing a 'high' and are also, in larger doses, associated with the precipitation of psychosis. This was reported following the smoking of high-potency THC-containing strains of cannabis known as 'skunk'. The effects of 'skunk' are known to be severe and in some people long-lasting if not permanent in terms of alteration in mood and personality and general medical health.¹⁰

However, there are other likely useful compounds in hemp/cannabis. Despite the concerns about THC and skunk, the World Health Organization at the end of last year declassified cannabidiol (CBD) as a drug of misuse due to lack of evidence of harm.¹¹ This was shortly followed by the World Anti-Doping Association, which also then removed CBD from the banned list.¹²

THC and CBD are very different substances indeed. THC, the psychoactive 'high'-producing compound in cannabis, activates the CB1 and CB2 receptors which are part of the increasingly well-understood endocannabinoid system. THC, via the CB1 and CB2, does seem to cause many useful therapeutic effects¹³⁻¹⁷ but its use is hampered by the concomitant potential for abuse and the possible precipitation of psychosis in higher doses. This means THC remains effectively a banned substance in many parts of the world.

In contrast, CBD does not appear at present to have any such adverse effects

and indeed at the time of writing is not known to particularly activate CB1 or CB2 receptors. In fact, it is a very different class of agent altogether (but also present in the same cannabis plant), which in animal studies has been shown to have very significant analgesic, anti-inflammatory, anxiolytic, immunosuppressant and neuroprotective effects. These effects are probably mediated, at least in part via the inhibitory alpha 3 glycine receptor.^{18,19}

The deregulation of CBD has meant that it is now considered, in the view of the Medicines and Healthcare products Regulatory Agency (MHRA), a food supplement.^{20,21} This recent deregulation is critical to understanding the recent explosion in availability of CBD-containing products.²²

CBD is currently extracted from cannabis plants, particularly from those that have been specially bred to produce high levels of CBD (and also concurrently bred to produce very low levels of THC), and then dissolved in either in inert hemp oil, that is from those cannabis plants that have little or no psychoactive substances within it, or in another inert carrier compound, such as coconut oil or olive oil.

CBD can be ingested, applied sublingually or topically, vaped, and is now even sold dissolved in designer water in doses of 2 to 5 mg or in even in 'wine gums'. While THC-containing hash brownies continue to be illegal in the United Kingdom because they are psychoactive, CBD-containing food products are, in contrast, becoming more commonplace and now you may be offered a shot of CBD in your coffee or cocktail.²³ You can purchase CBD-containing products in the high street in the United Kingdom from outlets including Holland and Barrett, and they can also be ordered from Healthspan, Amazon and Ocado.

The promotion of the possible health benefits of CBD will currently continue to be in an indirect fashion because the

Food and Drug Administration (FDA) in the United States and MHRA in the United Kingdom do not allow claims for medical benefits to be made for food supplements, a position ignored for the most part by the Internet.²⁴⁻²⁶

This ambivalent and confusing position means that while high-dose CBD products are available as food supplements (with no apparent limit to their CBD content), pharmaceutical companies are now developing CBD-containing compounds for medical conditions such as pain relief;²⁷⁻²⁹ headaches;³⁰ anxiety, depression, treatment of alcoholism;³¹ arthritis;³² Parkinson's;³³ and even graft versus host disease (GVHD) in transplantation cases³⁴ and these medically standardised products will have to pass far more rigorous tests for what may be in practice, very similar preparations to the food supplement forms of CBD.³⁵ In fact, Epidiolex is a pure CBD-containing compound which has just been approved for epilepsy by the FDA and at the very same time the FDA has promised to crack down on 'unsubstantiated' claims for CBD found on the Internet.³⁶ Currently, in the United Kingdom, we do have Sativex, an extract of cannabis for multiple sclerosis-induced pain and spasms that has CBD and a few molecules of THC within it, but is highly regulated and expensive. Many CCGs will not allow its prescription and the licence is only one for multiple sclerosis spasm and pain.

The ambivalence and confusion of the authorities as regards CBD is likely to continue for some time, despite the fact that medical cannabis is legal in many countries, including 29 states in the United States. Nine states and the District of Columbia have legalised both medicinal and recreational Cannabis, and 18 US states have legalised cannabidiols only. Canada, which has long permitted cannabis-based compounds for medicinal use, legalised recreational use of cannabis in 2018. Yet, France is

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closing down the shops that sell CBD-containing products due to its strict (though increasingly out of date) drug laws,^{37,38} while recreational use of cannabis and of course CBD products is notably allowed in the Netherlands along with generally unpredictable availability through the rest of Europe.³⁹

Quite frankly, in the last few years, there has been very little in the way of new analgesic compounds available to pain clinicians and clinics. More novel analgesics are required in a world where we are increasingly limited in our analgesic armamentarium due to widespread opioid abuse and fatal overdoses along with severe medical side effects from nonsteroidal anti-inflammatory drugs (NSAIDs). The increasing abuse of gabapentinoids, particularly within our prison system, is worrying.

CBD may well prove very helpful. It is noted that chronic pain is the most commonly quoted reason for the use of either medicinal or recreational cannabis but its role needs to be clinically evaluated. There are very few human studies with CBD to date, given that we have been hampered to a large extent by the previously strict regulation of such compounds.

If one looks on the Internet, CBD is promoted for anxiety, headaches, migraines, slowing the advancement of Alzheimer's, Parkinson's and other neurodegenerative conditions, autoimmune conditions, joint pain, fibromyalgia,⁴⁰ Crohn's disease,⁴¹ pain management generally,^{42,43} depression,⁴⁴ cancer⁴⁵ and as a general panacea for the general unhappiness of everyday life.^{46,47} The increasing drive to promote self-management of our health or perhaps more accurately put – management of our chronic disease, especially as we age, may mean that the consumption of a food supplement such as CBD may become commonplace.

Having watched some of the debates in the House of Commons, it is my clinical view that a dollop of anxiolytic

CBD might also be usefully added to some of the tea – or gin – that is consumed by MPs, prior to such televised and usually embarrassing interactions within our Parliament.

It will be interesting to see how this area develops in practice and how on earth one regulates such a complex plant if at all. There are plans for future issues of this journal to explore in more detail the questions surrounding the therapeutic use of CBD, in particular, and cannabis, in general. It is likely that cannabis-derived phytochemicals will have an increasingly clinically important role in pain management and medicine generally.

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Help design future educational content for the Society

The Education Committee is keen to involve the membership in the design of future study days and would value your input.

If you would like to propose a Study Day please send us a proposal covering the below details and return it to meetings@britishpainsociety.org

The proposal will need the following information:

- Title of Study Day
- Your details (Session Organiser)
- Summary of the Study Day
- Details of Plenary Speakers and Topics
- Details of Masterclass Speaker and Topics
- Study Days need to reflect the multidisciplinary nature of the Society

We have reserved the following dates for Study Days at Churchill House, London. However we would be happy to explore options for holding Study Days outside of London

2019

1st February
18th March
28th June

The Education Committee will judge the proposals at their regular meetings.

Consent in pain medicine: law and implications for practice

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Part 2: What does valid consent look like?

Your patient has no more right to all the truth than he has to all the medicine in your saddle-bags ... he should get only just so much as is good for him.¹

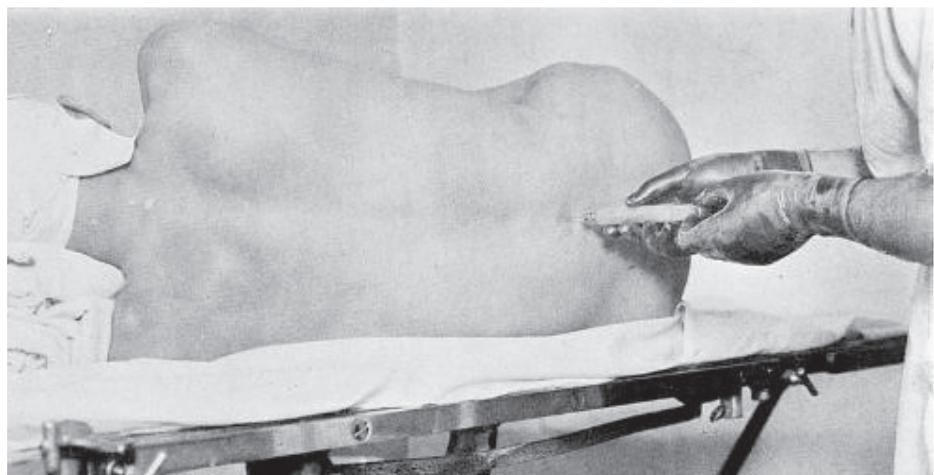
Oliver Wendell Holmes, 1871, in an address delivered to the graduating class of the Bellevue Hospital Medical College²

What should a doctor tell a patient? The surgeon has admitted that on the evening before the operation he told the plaintiff that there was no risk ... but that he did it for her own good because it was of vital importance that she should not worry ... [the surgeon] told a lie; but he did it because in the circumstances it was justifiable ... But the law does not condemn the doctor when he only does what a wise doctor so placed would do.

Lord Denning, 1964

You cannot consent to a thing unless you have knowledge of it.
Jessel MR. *Ex parte Ford*;
In re Cauchey (1876),
L. R. 1 C. D. 528

In fact, consent is better seen as a cherished object belonging to the patient, like a unique gold coin ... which the patient is invited to relinquish to the clinician. The clinician should not snatch it away, abruptly,



Spinal anaesthesia, Charles Hawes Evans, taken from the Wellcome Images collection, Wellcome Trust, under the CC BY 4.0 license.¹

deceptively, or without careful explanation ... Explaining all this can take time and skill. It is a two-way process, but ultimately the decision remains with the patient.

Sokol D *BMJ* 2014;348:g2192

Due to the restrictions of space there are obvious limitations to this article in the number and details of cases and literature that can be cited. The aim is to present in as concise a fashion as possible to 'the man on the Clapham omnibus'³ our view of the implications of the current position of medical consent in English law upon medical practice with special reference to pain medicine following the ground-breaking decision of the Supreme Court in the case of Montgomery 2015.^{4,5}

In part 1 of this article (BPS *Pain News* June, 2018), we explored the transformation of the doctor–patient relationship with respect to consent, in its move away from medical paternalism towards patient autonomy.

In that article, we also distinguished between the two roles of a doctor:¹

1. The art of diagnosis and treatment: the standard is judged by what is thought to be reasonable by a group of professional peers (the 'Bolam Test').
2. The equally important role of the provision of medical information and consideration of non-medical factors to enable the proper process of consent. This is now to be judged by what may be materially relevant to

Consent in pain medicine: law and implications for practice

that particular patient in that particular circumstance rather than using the previous test of what a reasonable doctor might tell a reasonable patient.

The patient is now at the heart of the consenting process. The doctor with specialist knowledge imparts the relevant information, but the ultimate decisions are made by the well-informed patient, even if these decisions may not seem medically correct to the doctor. The situation has now also been described as having gone from the doctor having a bedside manner, to the doctor being beside the patient.⁶ Alternatively, *The doctor [now merely] advises and the patient [now ultimately] decides.*⁷

While some have argued that the Montgomery ruling has simply affirmed in law what the British Medical Association (BMA) and General Medical Council (GMC) (2008) have been saying for some time – that the doctor and patient should be in partnership – in our view the ruling goes much further in swinging the pendulum firmly towards patient autonomy.

A number of court case decisions subsequent to Montgomery have occurred that will have a major impact in giving guidance to the process of obtaining consent and the implications for the conduct of the doctor and the amount of time spent in obtaining that consent.

In this article, we will now explore the implications of two particular decisions and specifically how this will impact pain medicine practice.

Why compensation may be due for 'non-negligent' complications

One particular point needs emphasising: these judicial decisions made subsequent to Montgomery demonstrate that a Claimant is able to sue and obtain

compensation for complications that are not considered the consequence of negligent clinical practice outside the consenting process (that is the doctor operated to a reasonable standard).

This is an area that clinicians often find very difficult to understand when, seemingly, their standard of clinical practice has not been impaired, and yet a patient is able to claim for what was apparently the inherent (and inevitable) risk with any medical intervention. Put another way, the claim arises because the clinician falls below an acceptable standard for consenting the patient as distinct from being negligent in the standard of practice. A doctor falling short on either or both of these duties of care can be sued.

The case of *Thefaut v Johnston* highlights this.⁸ Lisa Thefaut had severe back pain. An magnetic resonance imaging (MRI) showed an isolated problem of her spine at L4/5 and she was referred privately to Mr Johnston, who initially advised *against* surgery on the basis that her back pain had only been present for 6 weeks and that it would probably resolve with conservative management. The symptoms worsened, she had another scan and therefore she then telephoned Mr Johnston and during a 5-minute telephone conversation he agreed to operate. He sent her a detailed letter summarising his advice, setting out the risks and benefits of surgery. Mr Johnston wrote that 'there was least a 90% chance of ridding you of your leg pain and there is an evens chance that your back pain will settle as well'. He also stated that the risk of surgery was very small, with 0.1% chance of damage to the nerve and a 2% chance she would have a leak of spinal fluid.

Following surgery on 17 May 2012, the leg pain was generally exacerbated and the back pain did not resolve. Unfortunately, after revision surgery in February 2013, she continued to suffer from disabling leg pain, altered sensation and weakness in the left foot and ankle.

There were also disturbances of bladder and sexual function.

Importantly, although Mrs Thefaut alleged that the surgery was performed negligently, this aspect of the case did not succeed.

Mr Justice Green not only criticised the mode of consent, by a telephone conversation, but also found that in the letter following the telephone conversation the surgeon had overstated the benefits and understated the risks of the surgery. In particular, the claimant had consented to surgery with the aim of resolving her back pain. She was reassured that her back pain would resolve more or less completely when in fact the chance of resolution was approximately 50%, *and without considering the option of the pain resolving within 12 months with conservative management.* The surgeon had also stated that there was a 90% chance of ridding her of leg pain, and this according to the judgement was substantially overestimated as the experts agreed that it should have been 85%. She was also not warned of the 5% risk of non-negligent surgery exacerbating her condition. The surgeon, at trial, accepted this.⁹

It was accepted by the experts that if the surgery had not taken place or had been deferred, *the Claimant's condition would have recovered naturally over time.* Or alternatively, if the Claimant had had surgery at a later date, in all probability the damage would not have occurred.ⁱⁱ

While Mr Justice Green noted that *there was a conversation between the surgeon and patient immediately prior to surgery, this was too late to remedy any defects in the consenting process.*

In relation to this time just before surgery, Mr Justice Green stated,

At this point on the very cusp of the procedure itself the [doctor] is likely to be under considerable pressure of time ... and the patient is psychologically committed to going

ahead. There is a mutual momentum towards surgery which is hard to halt. There is no 'adequate time and space' for a sensible dialogue to occur and for free choice to be exercised.

John De Bono QC commented that prior to this case, it was difficult for a Claimant to win a consent case where elective surgery had led to a non-negligent complication. However, the *Thefaut v Johnston* case has left the door wide open for consent claims.¹⁰ Just to emphasise the point, if the patient had been properly consented the surgery or procedure would not have taken place, and therefore, any resultant adverse outcome (negligent or non-negligent) could not have been claimed for.

Writing in the *BMJ*, Godlee states that medical optimism in the form of overstating the possible benefits of any intervention has no place in modern-day consent. The over-optimism of patients is often compounded by the over-optimism of a treating doctor and leads to over-treatment, making a doctor vulnerable to a successful claim – as can be seen in the *Thefaut v Johnston* decision.¹¹

The issue of recording of the consent was the issue in the subsequent case of *Hassel v Hillingdon*.¹² The details are important.

Mrs Hassell was 41 at the time of surgery to her neck in 2011. She worked full-time as head of year for years 7, 8 and 9 at a secondary school and had 3 children. Prior to the neck surgery in question she had undergone 2 previous (lumbar) operations. On 25 January 2011, she saw the surgeon with left arm pain and a subsequent MRI scan showed a left paracentral disc lesion at C5/6. A neck injection failed to relieve her symptoms. Mrs Hassell saw Mr Ridgeway again on 28 June 2011. What happened at this consultation was an important issue in the subsequent claim. She complained of neck pain radiating

down the C6 nerve distribution. Her surgeon advised a cervical fusion of C5 and C6 or disc replacement. There was a disagreement as to what was actually said at the time of consent about the risks of surgery and about alternative conservative treatments. On the day of surgery, 3 October 2011, she signed a consent form which listed 'cord injury' as a risk. Unfortunately, she woke from the operation with tetraparesis secondary to spinal cord injury.

Mr Justice Dingemans found that the operation had been performed to a reasonable standard and Mr Ridgeway was not to blame for the spinal cord injury, the cause of which is unknown. However, he found that Mrs Hassell had not given informed consent to surgery and, given proper advice, would not have gone ahead. He found that that brief warning wasn't sufficient. She had neither been (properly) warned of the risk of spinal cord injury nor advised of alternative treatments (despite the previous one injection) *Sankey 2018*.¹³⁻¹⁴ Despite the operation being performed to a reasonable standard, the operation should nevertheless not have gone ahead and the Trust was liable for tetraparesis and resulting damages of £4.4 million, including all the future care costs.

The decisions in *Thefaut v Johnston*⁸ and *Hassel v Hillingdon*¹² highlight the emphasis given by the Courts to the process and content of the consenting process, and not just what is written on a piece of paper.

The decisions emphasise that time must be taken for dialogue, that there must be detail provided by the doctor, there must be time available for reflection by the patient, and documentation of such a conversation need to be made. The decisions also highlight that the natural history of the condition needs to be taken into account when discussing consent (i.e. whether a patient is likely to improve in any event without the operation or procedure).

Spinal pain as part of the human condition

Issues about the natural history of pain in spinal conditions and the appropriate use of such interventions such as spinal surgery are critical to consent. Why is this so?

Spinal pain is part of the human condition; three-quarters of the population in any one year will experience some sort of musculoskeletal symptoms.¹⁵ Hestbaek et al.^{16,17} described how following a single episode of significant spinal pain or sciatica, it is more likely than not that one is going to experience such symptoms again in the future.

Thus, it should be stated to patients that musculoskeletal pain is an expected part of life. It is likely to be persistent, recurrent and associated with exacerbations in most of us. Only once the 'landscape' of the natural history of the condition is understood by all can one discuss the possible magnitude and duration of any therapeutic intervention.

NICE guidance NG59 treatments for (lumbar) spinal pain

NICE guidance 59 highlights that spinal fusion can have complication rates up to 20% in the short to medium term and furthermore that long-term studies *do not* show a clear advantage of fusion over no, or conservative, treatment (NICE 59).¹⁸ It also states one should *not* now offer spinal fusion for people with low back pain unless it is part of a randomised controlled trial. Any possible (modest) improvement in pain, function and quality of life following such fusion needs to be set against usual care, no surgery or other treatments in the context of the natural history of the indication.

What about injections? Epidurals are discouraged for back pain but can be considered for acute or severe sciatica. Radiofrequency treatment is only recommended after non-surgical

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treatment and identification that the (facet joint) medial branch mediates the pain. Even then there is no good long-term data that pain relief following radiofrequency is long-term, but 2 years of relief would not be an unreasonable expectation. However, it is clear that the symptoms do recur, and repeat treatment is often required.

Particulate steroids

The situation with spinal injections has become more complicated because of the general acceptance now that a small proportion of spinal injections, most very likely with particulate steroids, may be associated with catastrophic neurological outcomes.¹⁹ This concern is expressed in the latest guidance of the Faculty of Medicine/British Pain Society working party.²⁰ It is clear that within the committee there was a wide variation of views. The guidance makes it clear that there was a consensus that particulate steroids should not be used in the cervical region, but there was a wide variation of opinion as to whether the same definitive prohibition should apply to the lumbar region.

For the purpose of obtaining consent, such a possibility of catastrophic neurological complication after injection of particulate steroids in the lumbar region must be discussed with the patient, regardless of the clinician's own particular view of its relevance, as it is likely to make a material difference to a patient's choice of what agent is injected into them.

A patient who suffers a catastrophic complication following, for example, a particulate steroid injection in the lumbar region could say: 'Why did you not tell me that there was a possibility of a safer steroid being used? I would have chosen that drug instead and not agreed to the particulate steroid being used.'

In our view, this type of failure to inform of the possible complication associated with the use of particulate steroids may

lead the Court to find there has been a failure to obtain proper consent and so award damages even if the injection itself had been performed, in all other respects, in a perfectly blameless way.

What might fully informed consent look like?

The Royal College of Surgeons has produced an excellent guideline called Consent Supportive Decision Making (RCS),²¹ The BPS/Faculty of Pain Medicine are waiting until the expected GMC guidance is produced this year²² before producing more specific guidance, but in the meantime, we recommend that there should be evidence of the following issues being discussed with a patient in their specific circumstance before any interventional pain procedures. This list is neither comprehensive nor are all the questions likely to be relevant to every case. We recommend a patient information leaflet or similar to be considered *a priori* to address these issues prior to a final discussion about whether to proceed with any spinal intervention. Documentation within the clinic letter of evidence that a thoughtful dialogue has taken place between patient and doctor in our view is close to mandatory.

1. What is the natural history of my spinal condition? In particular, what are the chances that I will get better or my condition will deteriorate without this spinal injection and what are likely to be the implications of that for me?
2. Are there alternatives to this invasive injection, such as other oral analgesics or oral steroids? How effective are they likely to be and what possible complications might there be from such treatment?
3. Will this injection work for me (a) in the short term, that is, days to weeks and perhaps months; (b) in

the long term, that is, many months to years or permanently? Put another way: how likely is it that following this procedure my spinal condition will recur?

4. If this injection works well for me, will I need it again?
5. If this injection does work and wears off, is it simply delaying another more definitive treatment (such as surgery) that I would have required in any case?
6. How risky is spinal surgery compared to these injections and how likely is surgery to be an effective mode of treatment?
7. Are there safer ways of performing the injections, and does the use of contrast and of imaging make a difference to the risk?
8. What difference does the addition of steroid make to the efficacy of this injection?
9. How do the risks of the injections compare if I have no steroids in them at all?
10. What are the risks of (a) minor complications (short-term, non-life-changing effects) and (b) major complications (life-changing effects, including rare catastrophic neurological complications) following this procedure?
11. Does the use of non-particulate over particulate steroids make the injections safer, and, if so, by how much?
12. Does the use of non-particulate over particulate steroids make the spinal injections less effective?
13. Are cervical injections more dangerous than injections in the thoracic and lumbar region, and, if so, why and what difference does the use of non-particulate steroids make to that risk?
14. Does the presence of other agents such as preservative in the steroid preparation have any possible adverse effect on me?

15. Does the use of preservative-free injections mean that I am more likely to get an infection from a possibly contaminated batch of drugs?

Health-resource implications of post-Montgomery consenting

There is no doubt that such a dialogue, which must in our view take place, will take time, and the Court's decision above suggests that a clear record of such consenting needs to take place. As a result, current practice will have to change. We foresee that

1. Adequate time is required to obtain consent. Leslie Hamilton, an RCS Council Member, said,

Patients must be given enough time to make an informed decision, and hospitals are going to have to give serious thought to how they plan in time for these discussions ... many NHS trusts are not allowing enough time for consent to be gained sufficiently during consultations.

Shafi Ahmed, cancer surgeon at the Royal London Hospital, said: '[the new process of consent] had roughly doubled the length of a consultation to 30–40 minutes – nearly halving the number of new patients in a clinic; however patient satisfaction had increased, and follow-up consultations had decreased'.²³

2. Many fewer (interventional) procedures will be done in the future, once patients realise that such a procedure has a chance of not making any long-term difference to them.
3. It is likely that fewer procedures are going to be performed on one treatment (theatre) list, as further time will need to be taken to ensure the patient understands fully what is being done and why something is being done, as well as the identity of

the person who is operating. In order to be valid, consent must be current and for the procedure actually being performed, and it can be withdrawn at any time. Consent is likely to be considered patient-and-doctor specific (i.e. who is operating: '*I only ever consented to this seniority of doctor operating on me*'), and therefore the role of pooled waiting lists needs to be reconsidered.^{24,25}

4. Work-load pressures will not be considered by the Courts to be an excuse for poor consenting practice.²⁷

The particular issue of regional anaesthesia before surgery

It has not been the usual practice of anaesthetists to take much time to consent for such procedures before surgery. For example, a patient receiving a brachial plexus block adjunct to shoulder surgery who then suffers neuropathic pain following and despite a seemingly uneventful stimulator/ultrasound guided injection could ask the question: *Why was I exposed to this risk when there was a possibility of a severe long-term complication such as neuropathic pain with very little evidence that it changes outcome after shoulder surgery?*

In our view, it should be considered that regional anaesthetic consenting (and follow-up) clinics should occur for those who use such procedures as an adjunct to surgery²⁷ and Bassler.²⁸

The future of the doctor–patient relationship

In 2017, Lady Justice Arden addressed the question, what does patient autonomy mean for the Courts?²⁹ It has been recognised that the pendulum has swung very much towards the patient, but as to the future she stated,

The law does not want doctors to spend all of their time explaining risks,

moreover many patients will not want the detail or will find it unnecessarily frightening or be confused by it. They may be so ill they cannot really exercise judgement about it. They may principally want to know how competent a doctor is, they may want statistics about how many cases a doctor has dealt with successfully and in how many cases treatment has failed and gone wrong.

There must be trust between a patient and a doctor, and this will be separate from the concept of autonomy. Lady Justice Arden stated that in practice the choice is not always between paternalism and autonomy; the relationship is more of a two-way process ... of dialogue.

Like Lady Hale in the judgement in Montgomery, Lady Justice Arden also recognised that there are going to be difficulties about the allocation of finite health resources and balancing that against medical advice and patient choice.ⁱⁱⁱ

In our view, the aftershocks of Montgomery⁴ will impact many and indeed unexpected areas of health care and in the process what it means to be a doctor or indeed a patient will be scrutinised further.

Notes

- i. For convenience, we refer to a doctor, but the situation applies in whole or in part to all those who practise the healing arts.
- ii. For this latter issue of the timing of surgery and risk, see the case of *Chester v Afshar* in part 1 of this article.
- iii. In the next few issues, I will be commissioning articles to explore these issues in pain medicine. RM Editor *Pain News*.

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Dr Google: friend or foe?

Jenny Jessop *Retired Consultant in Pain Management, Doncaster*



Jenny Jessop

For as long as there have been people with brains, there have been people who have used their brains to research their own health. We could probably go back to Ancient Greece, but let's start in 1889, when Jerome K. Jerome wrote 'Three Men in a Boat'. For those who haven't read this classic, the narrator describes how he went to the British Museum to find a book to research a complaint, possibly hay fever. By the end of his research, he concluded that the only complaint he didn't have was housemaid's knee, so he went to see his doctor. He came away with a prescription:

1lb beefsteak with 1 pint bitter beer every 6 hours,

1 ten mile walk every morning,

1 bed at 11 sharp every night.

And don't stuff up your head with things you don't understand.

It's interesting to speculate as to what the GMC would make of such advice today. I have a brother who is a bit of an

artist when it comes to uninformed research. Shortly after going to University, he was diagnosed with glandular fever. Using only Chambers Dictionary, he decided that the symptoms and blood tests could equally well be diagnostic of leukaemia. A few years later, when he was in hospital with an infected and swollen parotid due to duct stenosis, he was convinced he had a highly malignant cancer. No reassurance would help, so I took in my Otorhinolaryngology (ENT) textbook for him to read at his leisure. He rapidly realised that he wasn't dead yet, and I congratulated myself on my psychological skills. What I hadn't foreseen was that he'd pass the book round the ward. A poor registrar who came to do a round wasn't amused to be confronted by a side ward of patients armed with a textbook, and all firing questions at him.

Nowadays, of course, Dr Google has made it much easier for patients to do their own research. That can be a nightmare for proper doctors. It is reported that one general practitioner's (GP) practice threatened to strike off patients who consult Dr Google before seeing them. This must be confusing for the poor souls, as it is also reported that the Royal College of General Practitioners has asked patients to try consulting Dr Google as an alternative to booking an appointment with their overworked GP! Certainly, we can all agree that everyone who sees pain patients has, at some time, gripped the desk tightly as a patient with widespread and undiagnosable pain passed them a long printout and asked them to read it, as it would explain their condition. The temptation to tell them not to stuff up

their heads with things they don't understand can be very great, but it may be a bit unfair. After all, most healthcare professionals like to have patients who understand their condition and are active partners in their own management. What's important, though, is that the patient's understanding bears some passing resemblance to that of their doctor. That is where Dr Google usually throws a spanner in the works. Patients see what fits their view of the universe, they see what they dread, and they see what they want. However, we all know that doesn't always make for a balanced and accurate understanding of the real state of affairs.

So how does the poor consultant cope?

Maybe it's useful for them to remember that doctors aren't averse to consulting Dr Google when it comes to themselves and their families. Come on, be honest, if a relative or a friend is diagnosed with something you're not familiar with, what do you do? You google it, of course. And if they describe a constellation of



Credit: Andras Csontos

Dr Google: friend or foe?

symptoms that you can't quite put together? You google that too.

And while we're at it, did you ever get any symptoms yourself that you decided to look up? And have you ever done that and made a complete horlicks of it? Yes, I thought so! In the spirit of openness I will confess that, when I was diagnosed with a low-grade bladder cancer, I decided to google it and frightened myself to death, although I will almost certainly die of something completely different. I'd have been much better sticking to what I was told – but that's anathema to a control freak, isn't it?

So, maybe the reflex exasperation that doctors experience when confronted by a google-informed patient requires a rethink. Almost every patient who has a computing device will google their own condition, so get over it or you really should stop doing it yourself. A printout is good because you

know they've been at it and you can make sure they've extracted accurate and balanced information, and you can debunk the crazier sites they've found. The ones who come with no printout are more worrying because clearly they have also been consulting Dr Google but don't want to tell you, because they think you'll be offended, or because they're trying to catch you out. They are much more deadly, because they give you a false sense of security. Much better to have it out in the open with a printout to share and discuss.

Dr Google will eventually be replaced with apps that are just as good as doctors in a range of situations. You will then be pleased that you have practical skills and that you will still be needed, but you may look back with nostalgia on the days when a patient actually wanted your opinion on a printout and didn't simply trust the app.

Sic transit gloria mundi



Juan de Valdés Leal, Finis gloriae mundi (1672), Seville, Hospital de la Caridad, 'Thus passes the glory of the world'.¹

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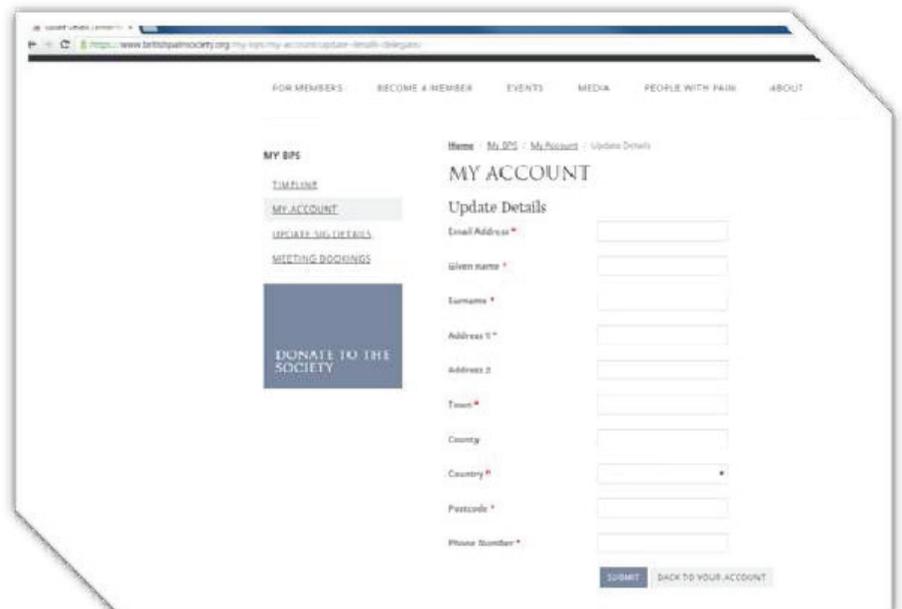
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Is there a role for pain physicians in the treatment of fibromyalgia? A personal perspective

Marcia Schofield *Pain Physician, West Suffolk Hospital, Bury St Edmunds*



Dr Marcia Schofield

Chronic pain affects significant numbers of people – up to 28 million in the United Kingdom. Fibromyalgia (FMS), or central widespread chronic pain (CWP), is thought to affect from 4.5%–15% of the total population.

Many qualitative studies looking at the patient's experience have revealed general dissatisfaction with the treatment of chronic pain. In one such study, themes highlighted include systemic failing of the National Health Service (NHS) system, including long waits for appointments, investigations and diagnosis. Another aspect is the dissatisfaction of patients with individual clinicians: general practitioners (GPs) are

perceived as not having enough time, expertise or interest to thoroughly explore the patient's problems. All healthcare professionals are generally thought to be pursuing a single modality of treatment, usually ineffective. Sadly, treatment within the NHS is also considered a poor substitute for private treatment, which is seen as caring, listening and timely.

Interestingly enough, patients in general seem to value the opinion, assessment and treatment of Pain Consultants more than those of other healthcare professionals, with up to 90% of patients expressing satisfaction with Pain Consultants in particular, in a large European study. And yet, the national agenda in the United Kingdom has tended to sideline the Pain Consultant in favour of nurse, physiotherapist and pharmacist-led disease-management services. Why has this happened and is this the correct direction of travel?

In my opinion, there are two problems. One problem is the ever-present problem of increasing healthcare costs. The other is the complex and difficult nature of the FMS/CWP disorder.

As GP services become more pressured, time spent with patients has been reduced. While demand for face-to-face services has risen by 13%, the GP workforce has only risen by 4.5%, and many more experienced GPs are retiring early, leaving due to a combination of factors. The Department of Health suggests that 5,000 new GPs will be needed just to keep services at

current levels. General practice has become, due to a combination of factors, a less attractive place to work. Much work is currently under way to examine and reverse these factors, but in the interim, for the FMS patient, it means delays to obtaining appointments, a lack of continuity of care (having to explain their 'story' over and over again is one of the chief frustrations that patients describe) and unimodal treatment – usually with a prescription that is ineffective.

Doctors are expensive, and worldwide are an increasingly and relatively rare resource, compared to demand. Papers published in the 1990s and early 2000s by the Department of Health have promoted a perception among commissioners and transformation officers that most tasks that a doctor can do in the management of chronic disease are replaceable by an appropriately trained extended-scope practitioner. In consequence, there has been a significant increase in the community practitioners in the treatment of many of



Credit: Asiseeit

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the long-term disorders such as diabetes, asthma, heart failure and chronic obstructive pulmonary disease (COPD). However, unlike FMS/CWP, many of the chronic disorders have clear biomarkers of disease and evidence-based therapeutic ladders by which to monitor treatment progress.

Conversely, in painful conditions such as arthritis, outcomes for patients have remained static. In the United Kingdom, the outcomes and satisfaction of patients with arthritis are among the worst in Europe and have hardly changed in decades.

Indeed, since the first supplementary prescribers began to practise in the United Kingdom, the number of non-medical prescribers has grown to over 53,000 – including nurses, pharmacists, physiotherapists and radiographers. Non-medical prescribers are a valuable resource in improving patient access, but they themselves will admit that they are not trained in diagnosis, or able to request more than a limited amount of investigations. In my experience, a common FMS patient complaint is that they feel ‘fobbed-off’ with a visit to a nurse-consultant or physiotherapist: the patients feel as if they are not taken seriously and do not engage with the recommended treatment.

Which brings us to the second issue with FMS/CWP patients. These are complex and difficult patients, as much affected by their sense of loss and grief as they are by pain intensity. They seek explanations of why their symptoms are so intrusive, why ‘nothing shows up on the blood tests and scans’ and why most treatments are ineffective.

Most studies searching for the elusive biomarker for FMS/CWP show there is clearly a contribution from neuroinflammation and interaction from the immune, endocrine and mood regulation systems. The FMS/CWP subjects studied not only have similar brain changes on functional magnetic

resonance imaging (fMRI) scanning (is it cause or effect? – does it really matter?), but such imaging reveals consistency with clinically increased sensitivity, lower tolerance for experimentally induced pain and demonstrable sleep disturbance.

I remember going to a fascinating lecture at International Association for the Study of Pain (IASP) some years ago about predisposing factors, which demonstrated that FMS/CWP sufferers have an incredibly high proportion of early adverse life events, but that not everyone with those life events gets the FMS. So, while there are those who think that FMS is an extreme variant of conversion disorder (it isn't; by definition – those with conversion disorders are generally indifferent to their symptoms) and there are those who think FMS is all about secondary gain, the truth is likely to be much more complicated.

Pain doctors have much to add to the treatment of FMS/CWP. Pain Consultants are used to complexity and practising within the biopsychosocial framework. Unlike other branches of medicine, they are comfortable with indeterminism and are generally pragmatic. It isn't always necessary to have a very specific diagnosis to be able to make a difference to a patient's lived experience of pain – indeed, some of the interventions that patients value most are listening, explanation and being believed.

Part of the treatment of any disease is to engage the patient in the best active treatments by helping them to get a good understanding of what the disorder is and how they can best manage it. As Pain Specialists, we have the training, knowledge and expertise to fully coordinate a patient's treatment. That treatment does include a thorough explanation of their disorder, the difficulties they will face living with it in the future and the non-drug treatments that have some evidence of effectiveness. Only an expert who understands the condition in depth can really teach.

Just because we can't inject or neuromodulate something doesn't mean we should wash our hands of the patient and shove them into a box called 'self-management' without ongoing support (to many commissioners this appears to mean taking them off all drugs, sticking them in a room to give them some 'barefoot CBT' in an inappropriate group setting and discharging them.).

As with diabetes, asthma, ischaemic heart disease (IHD), COPD and so on, FMS patients generally do self-manage, but occasionally they fall in a heap and need help and support. Imagine the outcry if neurologists told people with primary-progressive multiple sclerosis or Parkinson's; endocrinologists told patients with diabetes; or respiratory physicians told patients with complex COPD that they couldn't do anything for them, hence they would no longer see such patients?

Pain physicians can and do discharge FMS patients, often after input from excellent community multidisciplinary teams (MDTs). However, many are re-referred back from GPs who simply do not have the time or the confidence to support such patients in their self-management.

Patients in pain do very much appreciate being believed, having their symptoms explained and having the support to come off ineffective medicines. They also appreciate the experience and expertise of pain physicians giving them advice about the ability to remain in work; the message that pain does not equal damage and that they are unlikely to injure themselves further by maintaining their valued activities. It is the case that such information tends to have more credibility when delivered by a physician.

Patients also tend to consult less as they learn more about FMS and learn to tell the difference between their FMS symptoms and other pains, such as carpal tunnel or radiculopathy. However, even a cursory survey of evaluation

Is there a role for pain physicians in the treatment of fibromyalgia? A personal perspective

literature shows that there isn't a single study published in the last 10 years that shows a decrease in healthcare utilisation due to a long-term disease-management service. Confidence? Yes. A decrease in disease-related fatigue? Yes. A decrease in pain? No. Maybe we do need to look harder and more critically at the evidence for the shift away from pain physicians to see whether the community conditions management services really do represent value for money.

We as pain physicians shouldn't allow ourselves to fall into the trap of becoming

needle-jockeys or buying into the treat-and-street model. What we do is skilled, complicated and difficult, and that includes all interventions – even talking ones.

Successful treatment of FMS/CWP is measured in patients having the confidence to go back to work, school, family life and responsibilities, and paring back their drug treatment to only what works. I'm more interested in the patient voice and not particularly interested in the commissioner's voice. In fact, I've known sceptical

commissioners and GPs become overnight when they or a family member develop persistent pain and have some input from the team.

So, until the exact neurological/genetic/patho-psycho-physiological cause is found that allows a better specificity and sensitivity of diagnosis, I'm going to keep seeing these patients, trying to help them to understand their condition and engaging them with the wider team to learn more about how to begin to self-manage.

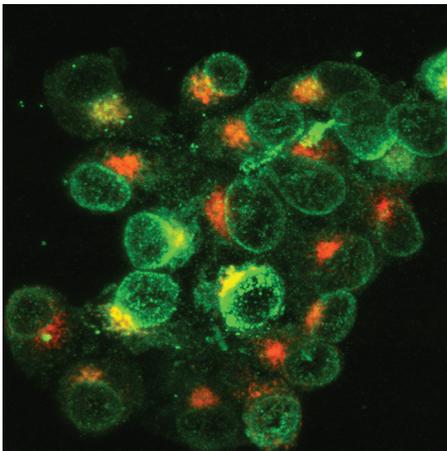
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LIPS and MYPS: Low-dose intravenous immunoglobulin for the treatment of long-standing complex regional pain syndrome and mycophenolate in long-standing complex regional pain syndrome: a big thank you to the UK Pain Community

Andreas Goebel *Consultant in Pain Medicine, Liverpool*



Credit Dlumen.

We have completed two randomised controlled trials using immune modulating treatment in persistent chronic regional pain syndrome (CRPS).

In the LIPS (low-dose intravenous immunoglobulin for the treatment of long-standing complex regional pain syndrome) trial, we tested the efficacy of infusion treatment with 0.5g/kg intravenous immunoglobulin (IVIg) ('low-dose') to relieve pain from persistent CRPS of 1–5 years' duration in patients reporting pain intensities of Numerical Rating Scale (NRS) 5 or higher. Funding was provided by the Efficacy and Mechanism Evaluation

Program, a MRC/NIHR partnership, Biotest (an immunoglobulin-producing company), and the Pain Relief Foundation, a UK Pain Research Charity.

The trial enrolled 111 patients in seven UK centres in Bath, Cambridge, Glasgow, Leicester, Liverpool, London, and Norwich, with new recruitment completed in late 2015, 1 month ahead of schedule. The outcome was soundly 'negative' – there was no effect of IVIg over placebo.¹ No patient in the IVIg group experienced more than 50% pain relief, whereas we had previously observed in two smaller studies that about one quarter of all patients had benefitted from such a substantial level of pain relief. The overall placebo response was low in this new trial, consistent with what is known from other trials in this patient group.² The positive results in the earlier IVIg studies^{3,4} may have been due to selection bias: we may have inadvertently selected patients who would do well; for example, in retrospect, two out of three patients with an excellent response in our earlier small randomised control trial had concomitant severe autoimmunity, an otherwise very rare combination. Since the LIPS outcome was so clearly negative, it would be fair to say that a good response to low-dose IVIg is very

rare in the general UK CRPS patient population. We did not test high-dose IVIg (2g/kg), that is, the typical dose used to treat autoimmune conditions. Our main rationale for using the *low* dose was that it had seemed to work consistently in earlier studies for a proportion of patients.

The outstanding support of the UK pain community for the LIPS trial allowed an exceptionally efficient trial conduct – recruitment ahead of schedule, as in this trial, is extremely rare in drug trials. We have thus demonstrated to the NIHR funders that academic multicentre trials can be successfully delivered within the United Kingdom, even in a rare pain condition. This should stand future applicants in good stead. We plan to publish a paper describing the trial recruitment strategy. We are very grateful to all of you who have contributed to this result.

The MYPS 1 (mycophenolate in long-standing complex regional pain syndrome) trial was a single-centre proof of concept study in 12 patients (of which 11 received the drug) with persistent CRPS of more than 2 years' duration and with a pain intensity of NRS 5 or higher; unlike in LIPS, there was no upper disease duration limit.⁵ All patients were recruited over a period of 12 months at the Walton

Low-dose intravenous immunoglobulin for the treatment of long-standing complex regional pain syndrome

Table 1. Treatment outcomes recorded by the four mycophenolate responders (#2, #3, #5, #11)

Outcome	Baseline	End of treatment
Pain intensity	7.7 (7, 7, 8, 9)	4.2 (4, 5, 4, 4)
Pain unpleasantness	7.2 (6, 6, 8, 10)	3.4 (3, 3, 4, 4)
Worst pain	8.75 (8, 8, 10, 9)	4.5 (5, 5, 4, 4)
Sleep quality	7.2 (6, 7, 7, 9)	3.4 (3, 3, 4, 3)
Brief pain inventory interference	6.2 (5, 5, 6, 7)	3.5 (2, 3, 5, 4)
Quality of life (EQ-5D)	0.38 (0.28–0.48)	0.64 (0.59–0.70)
Anxiety/depression	6/5	3/2
Use of limb	6.75 (8, 7, 8, 4)	3.75 (4, 4, 7, 0)
Lack of energy	6.5 (5, 5, 8, 8)	1.75 (2, 2, 2, 1)
Pain at rest	7.75 (7, 7, 8, 9)	3 (3, 5, 4, 0)
Affected limb muscle spasms	5.75 (8, 8, 7, 0)	0 (0, 0, 0, 0)
Worthwhileness of the treatment	–	10
Acceptability of the treatment	–	10
Pain intensity to stimulation of the CRPS-affected skin ('evoke pain')		
After 5 slow strokes	5.25 (7, 2, 3, 9)	0.43 (1.2, 0, 0.5, 0)
After 2 × 10 rapid brush strokes	6.9 (10, 2, 5.5, 10)	1.8 (5, 0, 2.3, 0)

CRPS: chronic regional pain syndrome.

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Centre NHS Foundation Trust in Liverpool; the last patient completed the study in May 2017. While we had to recruit from a relatively narrow geographical radius to ensure low patient burden and costs, we were delighted to receive a good number of enquiries about this trial from throughout the United Kingdom.

Mycophenolate is a potent disease-modifying anti-rheumatic drug (DMARD), which is being used in the NHS for other indications in rheumatology and transplantation medicine, and which has recently come off licence; drug costs are about £350/year. Overall, 6 of the 11 patients who received the drug reported meaningful benefit from mycophenolate, of which 4 patients continued receiving the drug for the planned 5.5 months. These four patients reported very few side effects, whereas the other two responding patients developed side

effects and stopped taking the drug. A summary of outcomes for these four drug responders is shown in Table 1 (from Goebel et al.,⁵ with permission). Given the encouraging results we may explore the efficacy of mycophenolate in a larger trial.

Recent reports on a novel pain-generating mechanism, 'autoantibody pain', have highlighted that assessment of immune modulation treatments may be a fruitful avenue towards relieving some chronic pains.^{6–8} I am hoping that we will have the opportunity to contribute further in this field. Should you be interested in participating as a centre in upcoming studies, please contact me.

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The effects of mental health and life experiences on chronic pain: a commentary

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Michael D Spencer

The Andrew Lawson prize is awarded annually by the Pain Section of the Royal Society of Medicine, in memory of Dr Andrew Lawson, Consultant in

Anaesthesia and Pain Medicine, who died in 2014.¹

The essay title is set every year by the Council of the Pain Section, with different themes being addressed in order to stimulate trainees to consider, research and discuss various important topics and areas of pain medicine and of its wider multidisciplinary context.

This year's title, *The effects of mental health and life experiences on chronic pain*, was chosen by the Council in recognition of what is so often a crucial interface between physical and psychological aspects of the clinical presentation of individuals with chronic pain conditions.

Out of a very competitive field of entries this year, the winning essay was that submitted by Dr Benjamin Bennett,

who is an FY2 trainee currently working at Watford General Hospital, West Hertfordshire Hospitals NHS Trust. In addition to the quality of his writing, the judges were most impressed by Dr Bennett's interesting approach, which drew upon the well-chosen exemplars of the life experiences of refugees and torture victims and also highlighted the role of Post-Traumatic Stress Disorder in the maintenance of the chronic pain experience.

A further entry, which was highly commended by the award judges, will be published in the next issue of *Pain News*.

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The effects of mental health and life experiences on chronic pain: winner of the Andrew Lawson Prize 2018

Benjamin Bennett *FY2, Watford General Hospital*

Introduction

According to ICD-11 definition, chronic pain is currently defined as ‘persistent or chronic pain lasting longer than 3 months’.¹ Using this definition, epidemiological studies have revealed variable estimates of chronic pain. A meta-analysis by Fayaz et al.² looked at the prevalence for chronic pain within the population of the United Kingdom. The total was estimated at 35.0%–51.3%. However, these figures may represent an over-estimation of the disease burden, as many individuals do not experience significant disability as a consequence of their pain. As such, the proportion of patients assessed to have moderate–severe pain may provide a better estimate of morbidity, as these latter patients are significantly impeded by their pain on a daily basis³ and using these criteria, the estimated range of moderate–severe pain is from 10.4% to 14.3%.² Thus, a significant proportion of the UK population is suffering from severe disability as a consequence of their pain. Globally, the proportion of the adult population affected by chronic pain is similar, with a systematic review of 28 lower- and middle-income countries revealing an estimated 33% of the general adult population to suffer from chronic pain.⁴

This essay will be written from the perspective of the refugee population, including those who have experienced life at its most traumatic; fleeing persecution, war, disease and famine.



Dr Benjamin Bennett

Refugees are now more numerous than at any other time since records began in the wake of World War Two. Official United Nations High Commissioner for Refugees (UNHCR) figures record 22.5 million people forcibly displaced, part of a total of 65.6 million refugees,⁵ as many are refugees in their own country. The ongoing humanitarian crises as a result of conflict in Syria, South Sudan and Afghanistan have led to these three countries making up 55% of refugees worldwide.⁵ The large proportion of

people fleeing from these war-torn countries is important, as demonstrated by a meta-analysis of mental health outcomes (Sharp et al., 2009) in relation to torture and other traumatic events. To predict the risk of torture and other potentially traumatic experiences, the authors used the Political Terror Scale (PTS), a 5-point scale which is purely focused on violence committed by or in the name of a state, with 1 being the lowest risk and 5 classified as a threat to the entire population. Predictably, a linear

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relationship was demonstrated between high PTS scores and the proportion of refugees who experienced torture. In those countries where state-sponsored violence was endemic, scoring 4 and above on the PTS up to 40% had been victims of torture, more than double that of refugees from countries with lower levels of state-sponsored violence. The three aforementioned states are all scored as a 5/5 on the PTS.⁶ The United Kingdom has historically taken a relatively small number of refugees, with an estimated population of approximately 120,000 people classified as such.⁷ The UK has committed to a modest expansion, taking 20,000 refugees from Syria alone by 2020, with refugee applications from other countries also ongoing. Thus, the urban UK physician may be seeing an increasing number of people with complex biopsychosocial health needs within the practice. An understanding of as much of this as possible is vital to providing good quality care in the face of language and cultural barriers, which may make a holistic approach difficult to execute. This essay aims to describe how the mutual maintenance model can be used to explain the relationship between PTSD and chronic pain from a systems-based perspective and to contrast this approach with the emerging field of pain epigenetics.

Many of the studies within the refugee population are of a relatively small sample size and therefore the findings must be interpreted with caution. Candidates have often been selected specifically from clinics for survivors of torture,⁸ from psychiatric outpatient clinics based in their adopted country,⁹ or within temporary camps for arriving refugees.¹⁰ Nevertheless, it appears that refugees experience chronic pain at a level well above that of the average population,⁹ estimating that 66% of the surveyed population suffered from chronic pain, although data on severity are unavailable. In those with a diagnosis

of PTSD, the number was even higher, at 88%. While the absolute number varies, the pattern of co-existent chronic pain and PTSD are seen repeatedly in the above papers and elsewhere. Equally, even allowing for a degree of caution in interpretation of the results, the prevalence of mental illness far exceeds that of the general population: prevalence of depression and PTSD were both considered to be approximately 31% in those exposed to mass conflict and displacement, with those countries from a higher PTS grade experiencing both disorders at even higher rates.¹¹ To compare this to the estimated PTSD prevalence within Western nations, 1-month prevalence is estimated at 3.4% according to ICD-10 criteria,¹² helping to highlight the epidemic of mental illness within the traumatised population.

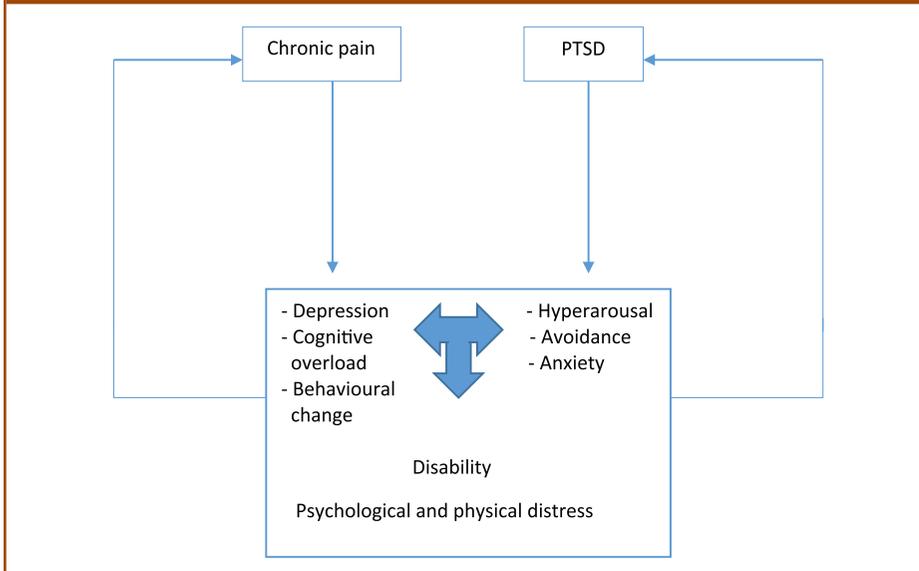
The huge burden of psychiatric illness in refugees with chronic pain is accompanied by well-described causes of pain in the refugee population. These patients have pains directly attributable to torture, injuries inflicted during their escape or from otherwise explicable medical issues, and care must be taken not to attribute a psychosomatic origin to their symptoms. It is important to enquire which methods of torture were used, depending on the method used, it is entirely feasible, for example, that a neuropathy may be induced from torture methods such as *falanga* (beating of the feet), hanging from the limbs or deliberate bodily hyperextension.¹³ The authors remind us of the critical importance of identifying biological causes of pain and treating such causes appropriately. It can be difficult to differentiate pain of a psychosomatic origin, as such patients may often somatise to those areas which were targeted during torture.¹⁴ A thorough physical examination and investigation must be performed to ensure that we are proceeding with the optimal treatment for each patient.

A further review¹⁵ within two large longitudinal studies of refugees in

Denmark provided evidence that when psychiatric symptoms were treated in isolation, the effect was found to be limited. While PTSD severity was the primary outcome measure for both studies, a multitude of other psychiatric issues was noted, with a very high rate of psychosis at 9%–16%, which was felt to be largely attributable to their recent traumatic experiences. One quarter of the population had a fundamental alteration in personality from their pre-morbid state and over half had concurrent physical health needs. In both trials, despite intensive input on a weekly basis for 6 months, only very modest gains were noted, with cognitive behavioural therapy (CBT) and antidepressant medication causing only small improvements in self-rated functioning, depression and anxiety scores. Those with co-existent pain in addition to psychiatric co-morbidity responded less well than those without, and while the immense complexity of their health needs precludes firm conclusions, the idea that chronic pain and PTSD require simultaneous treatment begins to gain traction. This idea is supported by a small US military trial which found that when returning veterans were treated concurrently from pain management perspective (predominantly through physical therapy, which was used in 85% of participants and analgesic medications both opioid and non-opioid, recommended to 74% of participants) and targeted CBT therapy, aimed at reducing avoidant behaviours, significant improvements were noted in a range of variables. These ranged from a reduction in pain interference and PTSD symptoms to a reduction in maladaptive cognitions and improved quality of life scores.¹⁶

One model which may go some way towards explaining the interaction of our three titular themes is the mutual maintenance model.¹⁷ These authors delineated seven-key mechanisms of mutual maintenance which they propose

Figure 1. The mutual maintenance model, with key components of each disease process listed and the positive feedback loop that develops



cause maintenance of both physical and mental distress in this context (Figure 1). The proposed mechanisms should not be viewed in isolation, however. For example, attentional bias, the tendency to dwell on recurring thoughts with inability to consider alternatives, is thought to perpetuate chronic pain by focusing on painful stimuli and expectations thereof, and PTSD by the expectation of re-experiencing the trauma.¹⁷ These intrusive thoughts feed into the hyperarousal occurring in PTSD, which enhances pain perception, which in turn amplifies arousal. The combination of pain and hyperarousal may remind the person of their original trauma, particularly when it is occurring at the site of torture.¹⁴ In support of the above, it has since been demonstrated that pain scores at 3 months are predictive of arousal at 1 year following presentation, and vice versa, with analysis suggestive of a mutually causative relationship.¹⁸ It has been proposed that many of the behaviours above are rooted in anxiety sensitivity, with those who are afraid of long-term harm from the symptoms of anxiety

being most likely to develop pain or mental illness. Those with anxiety sensitivity are more likely to exhibit unhelpful coping mechanisms/behaviours such as kinesiophobia, catastrophisation and avoidant behaviour when faced with pain or distress, both of which trigger these behaviours, although it is not yet entirely clear to what extent these behaviours existed prior to the traumatic event.¹⁹ It is proposed that those with high anxiety sensitivity are made more fearful in response to pain sensation – with patients with co-existent PTSD and chronic pain clustered at the higher end of the anxiety sensitivity scale.²⁰ As we are usually unable to examine pre-morbid personality traits in the refugee population, we may turn to the post-operative population, where vulnerability has been demonstrated for the transition from acute to chronic pain in patients with these cognitive/psychological characteristics.²¹

Many modern researchers are turning to epigenetics in the hope of identifying those at risk of developing chronic pain and developing novel targeted therapies.

Epigenetic modification of DNA response without change in nucleotide sequence may have far-reaching effects. Changes in DNA expression to environmental influences are increasingly suspected as contributors to disease states, although it is not yet clear for how long these changes have been present, or indeed whether they are causative.²² Importantly, these changes are often relatively stable, often persisting through the life of the organism or even displaying heritability down several generations via genetic imprinting.²³ A key part of the modulation of gene transcription is via the acetylation or deacetylation of histones, which promotes gene transcription or silencing, respectively. Another key factor is the methylation of DNA, catalysed by DNA methyltransferases (DNMTs). DNMT1, which maintains the existing pattern of gene methylation, has been of particular interest. The importance of both of these was demonstrated by Hong et al.,²⁴ with rats in a state of chronic stress, induced by placing them on a small table surrounded by water for an hour each day over 10 consecutive days, with the aim of measuring the effect on genes previously associated with visceral hyperalgesia in response to this stressor. Central upregulation of pro-nociceptive and downregulation of anti-nociceptive genes was observed. Furthermore, the direct administration of a histone deacetylase inhibitor into the cerebral ventricles caused a significant attenuation of the hyperalgesic response. As such, results are promising for further study. In humans, little has been published on the matter, with no studies or trials involving refugees. However, a genome-wide association study was performed with a small sample of women with fibromyalgia with matched controls demonstrating significant differences in DNA methylation patterns and micronuclei between the groups.²⁵ While tangible evidence remains a precious commodity within the field, the potential for genotype and epigenetic modifications to increase

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vulnerability to chronic pain is certainly a tempting target. This may perhaps go some way to explaining the high rates of pain co-existent in those who have been subjected to chronic psychological stress.

Conclusion

It is clear from the above that the relationship between mental health, life experiences and chronic pain is an immensely intricate one and the effects of these interactions are especially apparent in refugees, where pain and psychiatric illness are at an epidemic level. This is a field lacking in good studies but it appears that by approaching the patient holistically, with consideration of prior experience, and by framing the consultation within the mutual maintenance theory, we may stand some chance of successful intervention. With emerging knowledge on genotype and epigenetic actions, the future certainly holds hope for both our understanding of these conditions and for the development of pharmacological and psychological therapies to drastically impact its prevalence.

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Mindfulness movements for management of pain

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Mindfulness-based interventions were originally described by Jon Kabat-Zinn and are based around both formal and informal training.¹ Mindfulness movements involve developing awareness that emerges through purposeful physical movements. Mindful movement disciplines include Yoga, Tai Chi, Feldenkrais therapy and Ki-aikido. The goal of practitioners of these disciplines is to reduce pain, increase function and improve quality of life. The aim of this article is to present evidence about the efficacy of mindful movement techniques in the management of chronic pain. The interventions discussed will be Yoga, Tai Chi, Feldenkrais therapy and Ki-aikido.

Yoga

Yoga originated in India and has been practised for over 4,000 years.² It is

derived from the Sanskrit word *yug*, which means to bind. This refers to the union of postures and breathing to promote health. The key elements include breathing exercises (pranayama), postures (asana) and meditation (dhyana). The beneficial effects of Yoga in pain appear to be due to through descending pain inhibition and dysfunction of pain gating mechanism.³ This is achieved through cognitive appraisal measures (recognising fear avoidance, self-efficacy and self-awareness) and modifying affect and stress through physical activity. Yoga has been shown to produce beneficial neuroendocrine alterations such as increased brain-derived neurotrophic factor and serotonin levels compared to controls.^{4,5} Furthermore, there appear to be anatomical changes within the brain such as an increase in left insular cortex

in those doing regular Yoga practice. The white matter tract running along the left insular cortex also shows higher integrity and this area is involved with parasympathetic activity. Yoga training is involved with increased parasympathetic activity and positive emotions.⁶ Functional magnetic resonance imaging (fMRI) has shown significant activation in the right middle temporal cortex, left lateral orbital gyrus and right inferior frontal cortex,⁷ which are areas involved with sustained attention, memory, semantic cognition and ability to detach mentally. Furthermore, fMRI has demonstrated an increase in the anterior insular cortex activation which inhibits the areas involved with mind wandering in association with dorsal anterior mid cingulate cortex. Both the areas are involved with emotional response to nociceptive stimuli and their coactivation alters pain perception.⁸

Hatha or Iyengar Yoga concentrates on relaxation techniques and gentle postures. One session may last for 60–90 minutes, with the focus on correct postures and breathing. The protocols are tailored to specific patient populations and use props (blocks, belts, chairs and blankets) to create awareness of body regions and breath control techniques.⁹ Iyengar Yoga has shown efficacy in chronic pain when done on an outpatient basis for 3–6 months. Other concepts within Yoga practice include meditation, stretching exercises, yogic hymns, lectures, deep relaxation techniques, yogic breathing practices,

Mindfulness movements for management of pain

cyclic meditation, counselling and mind sound resonance technique. Meditation involves repeating a syllable in a comfortable position and focusing on it to achieve single thought in mind for a few minutes.¹⁰ Stretching exercises include practices to relax spinal muscles, by traction techniques and by strengthening back muscles along with abdominal muscles.¹¹

A study focusing on these asanas (postures) found that a short-term course of 8 hours per day for 7 days showed significant changes in pain and improved spinal flexibility.¹² A similar study has shown Iyengar Yoga to have beneficial effects in low back pain at 12 weeks but recommended a 24-week period for full benefit.⁹ A Cochrane database of systematic reviews has shown Yoga to provide up to moderate improvements in low back pain at 3 and 6 months.¹³ A systematic review¹⁴ of 10 randomised clinical trials has found Yoga to reduce pain significantly as compared to no intervention or self-care. However, a systematic review has shown Yoga to be no more beneficial than Tai Chi¹⁵ or conventional stretching.

Yoga has also been found useful for knee osteoarthritis.¹⁶ It works by stimulation of pressure receptors increasing vagal activity and serotonin in addition to slowing the production of cortisol and substance P. Hatha Yoga has been shown to be effective in functional pain in children, especially between the ages of 8–11 years.¹⁷ Prior use of Yoga has been seen to reduce subsequent pain in labour and improve adequacy of childbirth. The postural training improves spine flexibility as well as circulation of cerebrospinal fluid (CSF) around the brain and spinal cord, and it is postulated that the increased CSF circulation results in increased availability of endorphins and serotonin, which raises the threshold for pain.¹⁸ Yoga also causes strengthening and flexibility of the perineum and vaginal muscles which may facilitate labour and

delivery and may contribute to decrease in the phases of labour by increasing the pelvic diameters.¹⁹ Yoga has been found to be effective in headaches, especially in children and adolescents, as it reduces headache severity and frequency.²⁰

Tai Chi

Tai Chi is a mind–body exercise therapy which allows slow, controlled sequential movements combined with deep diaphragmatic breathing that is meant to improve musculoskeletal strength and joint stability. It has its origins in China and is used throughout Asia for general health and wellbeing and has been adopted in the western world for the same. It has four main styles – Chen, Wu, Yang and Sun – and all four styles have been seen to effect mood, immune system functioning and the autonomic nervous system. Tai Chi involves at least seven components (musculoskeletal strength, flexibility, efficiency, breathing, concentration, attention and mindfulness) and has a beneficial effect on pain symptoms, pain intensity, function and disability. It has been shown to improve gait ability and muscle strength.²¹ Development of body awareness induces pain reduction and dysfunction through improved cognitive appraisal.²² The benefit of Tai Chi in lower back pain is related to stretching along with improving gait ability, flexibility and muscle strength.²³ Psychological stress has been shown to be a contributing factor for low back pain²⁴ and Tai Chi has a proven effect in reducing the symptoms of depression.²²

In knee osteoarthritis, Tai Chi has been shown to produce an improvement in balance and posture, increased musculoskeletal strength, flexibility and improved strength of knee extensors and flexors.²⁵ A 12-week programme is effective at decreasing pain and stiffness and improving physical function in knee osteoarthritis. Tai Chi encourages

patients to move with less strain, increasing joint stability and resulting in decreased pain in osteoarthritis.²⁶

Tai Chi is said to be very effective in fibromyalgia and a single clinical session has been shown to relieve acute pain with long-term beneficial effects. A prospective study has shown that 12 weeks of low-intensity Tai Chi (three sessions/week) reduces the level of acute pain in fibromyalgia patients.²⁷

Qigong

Qigong is another Chinese ancient healing art that is based on focused exercises for mind and body to regulate the flow of Qi (pronounced ‘Chi’) energy to accelerate the healing process. There is a progression from an overt large to a small, subtle motion, which is the most effective way of moving Qi (life energy). It uses mechanisms similar to motor imagery, moving one’s attention through the body to create a sensation of a flowing current of energy, known as *moving the Qi*.²⁸ There are two types of Qigong described: external and internal, the former for the beginner and the latter for the more advanced practitioner. Internal qigong is self-directed and involves use of movements and meditation. External qigong is performed by a practitioner using hands and another part of the body.²⁹ It has some similarities with therapeutic touch, Reiki and healing touch. Qigong has not shown to be of any benefit in pain over breathing exercise alone or exercise alone.³⁰

Feldenkrais therapy

The theory behind Feldenkrais therapy is that by achieving better awareness of how one’s body interacts with its surroundings and increasing the sense of surroundings, habitual movements that contribute to chronic pain can be relinquished. This is achieved by reducing ‘the background noise’ of muscular effort and hence pain utilising

slow, small movements.³¹ It was developed by Moshe Feldenkrais and is purely an educational approach. It is said to stimulate the plastic properties of the nervous system and focus on the complex relationship between body parts. The method works through two modes of instruction: first, awareness through movement (ATM) and second, functional integration (FI). Sessions last for 35–45 minutes.³² ATM is usually done in groups and based on verbally directed, structured movement exploration sequences. The central principal is maximal efficiency with minimal effort.³³ FI is more individually tailored, and pupils will work at their own pace.³⁴ The benefits obtained were seen to remain over time.³¹ It has been shown to reduce neck pain and disability and improve neck flexion after a single treatment.³⁵ The benefit obtained in osteoarthritis of the spine is said to be because of the corrected posture and decrease in pelvic tilt. The reduction in anterior pelvic tilt reduces the probability of falls, thus decreasing further pain.³⁶ Feldenkrais therapy has been shown to improve balance and muscular strength in fibromyalgia, but with little benefit in symptoms of pain or fatigue. However, the benefits did not persist at 6-month follow-up.³⁷ Bearman and Shafarman also examined the 1-year cost effectiveness and efficacy of ATM in a small sample of patients with chronic musculoskeletal neck or back pain, post injury pain or headache, who had limited response to conventional therapy. They showed that all patients had functional improvements and pain reduction within a year, but that the size of the effect was diminished, due to reasons not elaborated.³⁸ There is emerging evidence that the Feldenkrais method is comparable to a Back School in a single-blind randomised control trial in the management of chronic low back pain in improving interoceptive awareness, that is, the perception of internal bodily sensations.³⁹

Biodanza

Biodanza has mainly been studied as an alternative therapy in managing pain in fibromyalgia. Biodanza uses music, movement and positive feelings to deepen self-awareness. It combines motor, sensory and affective exercises performed at low intensity and has been shown to provide some benefit to women with fibromyalgia. It has been shown to decrease tender points and to decrease the threshold to pain in remaining tender points.⁴⁰ It has also been shown to have some positive effect on perceived stress, depression and sleep quality in a subgroup of young adults.⁴¹ Evidence of its effect on other chronic pain patients is still lacking.

Ki Aikido

'Ki' in Japanese Eastern Medicine is considered a healing energy and is heavily influenced by Buddhist teachings. 'Ki' has been used for healing in Japan for over 1,500 years. It is based on the concept that the head and various inner organs are interconnected with specific points by meridians, which are broadly divided into yin and yang. 'Ki' is an energy that flows through them normally. However, 'Ki' becomes stagnant when one becomes unwell. 'Ki' is thought to have a healing effect.⁴² Ki Aikido is a form of martial art that originated in Japan and incorporates meditation and breathing techniques. It requires mindful concentration and physical exertion. The training includes ways to defend oneself from physical and verbal attacks. It has proved to be of benefit to veterans suffering from post-traumatic stress disorder.⁴³ It has been found to help with depression, which may in turn help with pain, although there are no documented studies to confirm this.

Conclusion

Mindfulness movements encompass a variety of related techniques which share

similar aims to enhance one's self-awareness and may play an important part in the rehabilitation of patients with chronic pain. Many of these techniques, for example, Yoga, Tai Chi and Ki Aikido, have been widely practised in India, China and Japan, respectively, for hundreds or thousands of years as low-intensity exercise or practice. These techniques do not involve any pharmacological interventions and consequently are often better accepted in different cultures as a means of therapy.

There is some reported evidence of improvement in the symptoms of chronic pain and improvement in function using mindful movements by a reduction of fear avoidance.⁴⁴ The applicability of these studies may not easily extrapolate to the wider pain population, as they have only studied the effectiveness of mindful movements in a subgroup of patients who are highly motivated. Patients who experience chronic pain reduction following mindfulness movement therapy report feeling empowered by a sense of control of their pain condition and enhanced confidence in their ability to move and improve their functionality. Mindfulness movements are currently worth considering as therapy in a selected group of patients suffering with chronic pain.

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Letter: Lidocaine plasters

As Editor of Pain News, I wish to encourage open conversation between the professional members of The British Pain Society. Succinct letters of relevant interest to our members will be considered for publication (with accompanying illustrations if necessary). Please make sure you have permission of all signatories to submit. Letters will be edited for style and content. Please send your submissions to rajeshmunglani@gmail.com

Dr Rajesh Munglani
Editor, Pain News.

Sir/Madam,

We are concerned about current narrowing of the therapeutic options for a very-difficult-to-treat group of patients presenting with a variety of localised chronic pain conditions. It is recognised that neuropathic pain leads to significant suffering, loss of function and work incapacity. It is also accepted that neuropathic pain is very difficult to manage and often persists for the whole of the patient's life.

The options to treat this type of localised pain are very limited. Many of the orally administered medicines used for this type of pain have unacceptable side effects, for example, sedation, impaired reaction time, gut problems, endocrine/immune compromise and the potential for addiction. Patients are referred to see pain specialists when the local guidance in a primary care setting fails to relieve symptoms or the side effects of treatment are intolerable.

Lidocaine plasters are a safe, non-toxic alternative to treat localised neuropathic pain without the hazardous side effects of oral medications, such as opioids.¹ The problems with the latter are now apparent

and these include addiction and premature death. Lidocaine plasters have been used safely for over a decade by pain specialists for a variety of localised neuropathic pains such as post-mastectomy and post-thoracotomy pain, as well as for local scar, nerve injury and diabetic pain.^{2,3,4} This is in addition to their (only current) marketing authorisation for persistent pain after shingles.⁵ Neuropathic pain is commoner in the elderly and this group is particularly at risk of side effects from oral drugs, for example, falls with catastrophic consequences such as hospital admission with prolonged hospital stay and consequent pressure on social care.

As health care professionals, we are aware of the importance of evidence-based guidance. However, despite the prevalence of this type of pain, the heterogeneity of the population and the lack of incentive for the pharmaceutical industry to undertake trials in this group make it difficult to generate robust large trial evidence for these pain conditions. Absence of evidence is not the same as evidence of inefficacy. Consensus clinical experience suggests that lidocaine plasters can be life transforming in some of our patients.

Unfortunately, we are limited in our therapeutic options. We are concerned about the overuse of opioids to treat chronic pain, and we have been vociferous in our opposition of uncontrolled and unmonitored prescribing leading to dependence and addiction to prescription painkillers. We are also concerned that a useful group of medicines to treat neuropathic pain, for example, gabapentinoids are being indiscriminately prescribed by non-specialists for mechanical back and neck pain.

As pain specialists, we are aware of the pitfalls of unmonitored prescribing and will generally share care with patients' general practitioner (GP) prior to requesting continuation of a medicine. We are extremely concerned about current feedback from our primary care colleagues. Although each patient coming through a pain clinic has a therapeutic (n = 1) trial to determine effectiveness, we have been informed that lidocaine plasters (at a cost to the National Health Service (NHS) of £52 for 30 plasters) are considered too expensive and patients cannot be allowed to receive them from their own GPs, even after a successful response to lidocaine treatment initiated by a specialist pain clinic.⁶

The National Institute for Health and Care Clinical Excellence (NICE) states that patients who suffer from chronic neuropathic pain should not have effective treatment discontinued. It seems that Medicines Management Committees, often without any patient consultation, local clinical commissioning groups (CCGs) and community pharmacists are effectively limiting the access of patients with chronic lifelong, disabling pain to lidocaine plasters that is a safe effective treatment. The decision to withdraw this treatment will cause patients further unnecessary suffering and will force doctors and patients to utilise other potentially addictive and ineffective treatments. As a clinical group, we are aware of many instances where patients with intractable pain have been successfully treated with lidocaine plasters. They have been able to recommence and sustain work, family and caring roles and to re-engage in education. By limiting access to this safe,

Letter: Lidocaine plasters

inexpensive and useful treatment, the patient with localised pain is forced to suffer a life of pain and will often engage in an expensive merry-go-round of treatment seeking.

As pain specialists with recognised training, we are few in number, with a limited capacity to see and treat patients. However, it is against all our training, our inclination and our humanity to see our patients suffer needlessly. We suggest that if a patient is referred to a specialist pain team, then the advice of that team is accepted and treatments are funded. The specialist pain team will do their utmost to find a tolerable, safe and effective treatment, given that most strategies will already have been tried by the patient's own primary care team. If the advice from that specialist pain team is subsequently ignored, then NHS resources will often be squandered on alternative ineffective treatments.

We demand an end to this illogical postcode prescribing lottery and we call for an end to the needless suffering of this unfortunate group of people.

Yours sincerely,

The views expressed in this letter are personally held, we do not represent any employer, associated health care provider or professional organisation and we have no COI.

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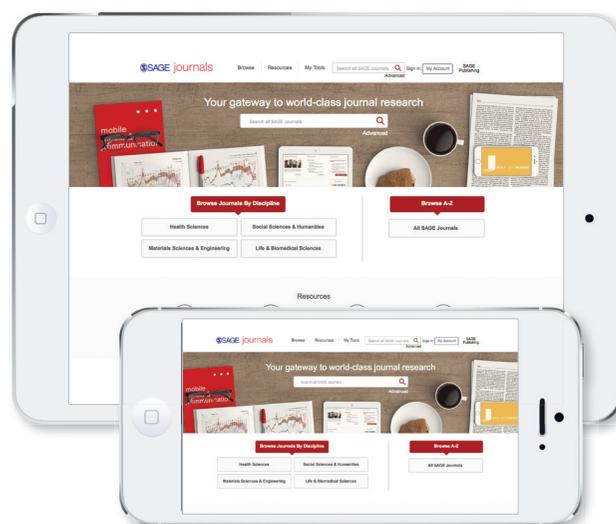
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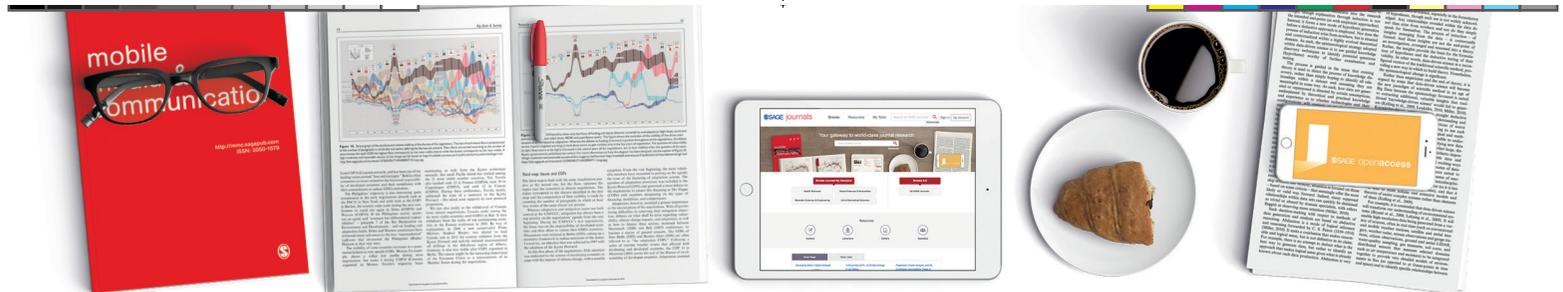
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