

Professor Michael Cousins – Head of the National Pain Management Research Institute, University of Sydney at the Royal North Shore Hospital, interviewed by Michael Pechard  
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“Pain is part of the human condition, but acute and chronic pain can make life unbearable.”

Interviewer: We're going to talk about the whole range of issues that pain brings up, what we can do about it, if any of us are feeling pain what we can do about it, what the government and the country can do. First - we know what pain is, we feel it, what actually is it?

Prof: Definition from The International Association for the Study of Pain:

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.

Every word counts in that definition.

You will notice at the start that says it is a sensory AND emotional experience. That's all pain – pain after surgery, pain after trauma, cancer pain and a very big group of conditions called chronic pain.

Interviewer: Do we all suffer the same pain?

Prof: No. It's one of the other very big hurdles that have got in the way of assessing and treating people effectively. The key there is there's an enormous variation in pain experience among individuals for exactly the same sort of noxious stimulus if you put it that way. And the reason for that is the wide array of factors that have a bearing on the pain experience in humans and they are very wide. They are physical, psychological and environmental. They're the three main categories.

Interviewer: Do some people feel pain worse than others?

Prof: Very much so and part of that is we now understand is genetically determined so there is a range of responses and there is quite a good bit of information now that indicates that that is due to not a single gene but to a small family of genes that determines this range of responses that can occur. Incidentally based upon the presence or absence of certain environmental factors the pain experience will differ for an individual from day to day but we also now have information about single gene abnormalities that cause chronic pain conditions. One example, there is a particular type of migraine called familial hiniplaegic migraine and that means - and this is an extraordinary

condition – when the person has the migraine headache and I hate that term 'headache' for migraine (migraine is a severe pain in the head) and to call it a headache really deprecates the condition, but these people, in addition to having the migraine also have a paralysis on one side of the body, so their arm and leg, for example are paralysed during the period of time that they have the migraine – a terrifying condition the first time the someone has it. Of course the paralysis goes with the migraine – it's not permanent. That is caused by a single gene abnormality. There are now about a dozen conditions that appear to have a strong genetic basis to them. That of courses raises a very real possibility we will find specific treatments for those conditions.

Superimposed upon that is – and that's why we assess and treat people with chronic pain, as a team, so we have to have team members that are very skilled in assessing the physical components of the pain. We have other team members who will assess the psychological and sometimes there are psychiatric implications and environmental factors and that's the one that a lot of people neglect. Environmental factors can play a very large part in the pain experience. And of course they will vary amongst individuals and they will also potentially vary for an individual at a particular time. So this is not a simple problem. It's a complex problem.

Why has this taken so long to get a focus on it? Well, because there are other things that also impinge on this problem and they are for eg cultural, political, religious and a number of other – even legal as well. In the developing world there is a big legal issue with the availability of opiates and it's also political. In some developing countries there are no strong opiate or morphine like drugs. You have to add those things too.

Interviewer: There are many, many layers. On a personal level, you must see people in extraordinary pain and I'm wondering what effect that has on you.

Prof: All people who have devoted their professional careers to trying to help patients with pain have to face up to the fact that they won't be able to treat a percentage of these people, just because we don't have the knowledge and tools to do the job for some people. With respect to pain after surgery we can now treat probably in excess of 95% of people effectively if we only use the tools that are available. The same is true for cancer pain but there is still that important percentage there that we just can't really do things effectively. In chronic pain which includes people with over 500 conditions have now been identified as causing chronic pain. When I got started in 1968/1969 we could actually help about 10% of people. Now we can help 80% of people with chronic pain but there is a 20% there we can't help. That's terrible. When you're faced – and I do this every week

I'm afraid to say, when you're faced with people that you just can't help at all it's a moral dilemma. It's an ethical dilemma. There must be something else you can do. Sometimes there's nothing else YOU can do but you can find other members of your team or if your team can't do the job then you ought to try to enlist the help of another team. It's always a team approach. We need much more research – that's the bottom line.

Int: Why can't you treat some pain? Surely some sort of morphine – doesn't that work?

Prof: No. This again, well you see – thanks for that question – that's a really good question. Morphine is a very useful drug and there are lots of different variations of morphine now – short acting, long acting – different molecules that some people tolerate, some people don't. It's a very valuable drug for cancer pain. These are very valuable drugs for pain after surgery and trauma. But when you're faced with a patient sitting in front of you, 25 years of age in good health otherwise, going to live another 60 or 70 years, morphine becomes a problematic drug long term. Tolerance develops and when you get to very high doses it can actually make the pain worse because it sensitises the nervous system and we now understand that chronic pain is a disease in it's own right and the basis of the disease is sensitisation of the nervous system by some fairly complex mechanisms. That's the first thing – morphine is not the answer – more morphine won't solve the problem. What will solve the problem is good understanding of the disease process of the physical factors - sensitisation of the nervous system, the psychological and environmental contributors and we know a lot now about those three areas. Not enough yet to treat 100% of people but a switch from 10% when I got started to 80% now is pretty solid progress.

Int: It's huge progress. I'm curious because obviously any young doctor when they start out, they're going to be surrounded by a whole array of troubling images. That's the profession - it's both the beauty and the curse of the profession I suppose. Was there a particular moment, because there's all sorts specialities and all sorts of things you could have devoted your life to – was there something that just sparked, that made you think this going to be my life's work?

Prof: A couple of things really. When I was a resident at the St George Hospital in Sydney I did a rotation into anaesthesia. That's one of the things you'd still do of course – you rotate through various specialities. Up until then I was convinced I was going to be a surgeon and in fact I was all booked up to go and study surgery in the UK. I was rotated into anaesthesia and part of the jobs in anaesthesia was to do intensive care. There was no intensive care speciality in those days and we were informed that some kids were coming into the hospital – they were severely burned. So I

stood out on the driveway waiting for the ambulance to come in. Well, there was no ambulance – down the driveway were two parents and two little children. The children were walking, to my horror. They looked like charred charcoal. Their hair was all standing on end and black. Their faces were black and these little tiny voices wafted down the drive at me saying “save us, save us”. I'll never forget it.

Int: and what happened?

Prof: I was given the job of looking after them for the next 48 hours which was critical and of course a number of things had an enormous impact on me – how much pain they were suffering and how ineffective we were. I thought 'this is the sort of thing you ought to be able to really effectively treat' and I found it terribly hard to get effective treatment of the pain. Also, the tremendous impact on their bodies – the changes in their metabolism etc. So I decided then 'I want to do intensive care' and I found the only way I could do that was to train as a specialist anaesthetist and part of the job of being an anaesthetist was to train all over the world which seemed pretty good. That was the thing that got me started down this road.

Int: I can understand it but just putting yourself into the circumstances – you've got screaming children who are in enormous pain which really you are relatively powerless to do anything about. I can understand the attraction but I can also understand the desire to go to another room.

Prof: Yes, well that's very true. It's quite an incredible responsibility to be faced by that situation, particularly as a Resident. And this is still happening. Residents are still being faced by patients with very challenging pain problems. Probably the worst situation is in the emergency room still. Some of the people with severe chronic pain problems, for eg people with multiple sclerosis, quite a lot of them have very nasty nerve damage pain and we still don't have the tools to manage all of that effectively, sadly and when those people present in the emergency room a lot of people feel inadequate because they just don't know the mechanisms; they don't know what sort of options there are. There are lots of other examples and this is still going on all the time in emergency rooms. Also in the hospital wards.

Int: I can imagine it is and I'm wondering what you can say to the children or the children's parents, going back to that initial incident or what you can say to people confronting this unimaginable horror.

Prof: What I can say is that the situation has improved very markedly. There's no doubt about that. We have better understanding of the mechanisms involved and we do have quite a few extra tools that are a lot better. In the case of children, 95% of pain in that acute situation should be able to be managed effectively. There's just been a study published earlier this year about children at the end of life – children with cancer. 50% of those children did not have effective pain treatment. The study was done in Melbourne, Australia. What that means is that it could be because it's not simple. All the factors I was referring to earlier.

Int: So it's not wilful neglect.

Prof: No, it's definitely not wilful neglect. It's just that the focus has not been on the fact that this is a major health care problem but also, and I feel very strongly about this, I think it is a moral imperative. No member of the general community that I've ever talked to about this has failed to say 'good heavens, this is an ethical problem, it must be addressed as a matter of urgency'. It hasn't happened, it still hasn't happened, right up to this day.

Int: I wonder if we can go right back to the early days. After that dreadful instance with the children at the hospital I can understand that changed your life. Now I understand also that you read an article because at that time nobody was really worrying about pain.

Prof: No, there was no focus on it. Pain after surgery was largely felt to be inevitable and part of the “healing process”.

Int: yes, and also the culture of the time, pain was something with which you put up.

Prof: Only a symptom. Not really a great problem, not worthy of much attention. So the job was relegated to the most junior member of staff.

Int: Yes, it's extraordinary because, maybe it's just me, you almost felt guilty saying to the doctor that you were in pain because that was a given.

Prof: That's still the situation. Studies in more than one country have documented that cancer patients are loathe to speak to their Oncologists about pain because they don't want to distract their attention from the treatment of the cancer. Now that's very understandable. They want to focus the limited time available to saving their life basically; to treating the cancer. So in their eyes there

won't be enough time to talk about the pain. So they don't. The melody lingers on there.

Int: and that presumably is very damaging? If you keep quiet about the pain then you're not helping anybody. Or is there some logic to that?

Prof: There is no logic to it. It increases the burden for the person and for their carers and family. So they have to continue to carry the burden themselves instead of having health care professionals to help them to do that. No, that's not positive at all and this is now being addressed by some of my Oncology colleagues in a very strong way.

Int: As I say, progress is being made. You have that incident, you then hear, as I understand it or you read an article that changes your life, and we're talking the late 60's aren't we? This is the year in which it happened?

Prof: Yes

Int: Tell us exactly what happened in the late 60's. What was the big change to that culture I was talking about?

Prof: By this time I was an Anaesthetic Registrar at Royal North Shore Hospital – I have had an over 50 year relationship with that Hospital, on and off – and I did work quite a bit with the then Professor of Surgery, Tom Reeve and I can remember he used to shake his head a lot if patients were in pain and severe pain after vascular surgery because he was quite convinced that contributed to a poor outcome for the vascular graft that he'd worked very hard to establish. So I was impressed by this – it really got home to me. So I was thinking a lot about improving the treatment of pain after surgery and I read an article by a man called Phillip Bromich, who was Professor of Anaesthesia at McGill University in Montreal – a very famous University – William Mosler, one the greats in medicine was a McGill man. Bromich's article wasn't about pain after surgery but pain after trauma – a very similar situation, particularly for people with crushed chests and epidural analgesia for childbirth started to come in – it wasn't yet at my hospital at that stage – it was turning out to be a wonderful thing for people with long, painful labours. So he assisted for patients with crushed chests and this impressed me. Why hadn't anybody thought about that before? So I wanted to go and work with him to learn about this and by a stroke of luck another Professor from McGill was in Sydney at the time and I met up with him and he said 'oh I know Bromich very well, I'll speak to him and we'll probably get you a job'. Well he did – I went to McGill University at the end

of 1969, really with the purpose only of learning more about acute pain. While I was there I heard a lecture by a man called Patrick Waugh who got together with McGill – Patrick Waugh was from the University College London – he got together with a man called Ronald Melzack, who was a Professor at McGill and they had proposed a revolutionary new theory of pain called the Gate Control Theory. And all the Gate Control Theory said was that pain can be modulated. A radio station is a very good example – like the old fine tuning knob that we don't have any more. The fine tuning knob they likened to a gate in the spinal cord. The gate could either be open which would mean the person would experience more pain or closed. Well, it's turned out that they were absolutely right. There are now more citations for their article in the Science Journal than the double helix citations. A complete change.

Prof: It's changed fundamentally for the view of pain – pain was thought before that before that it was just a sensation, like hearing or vision. So it was a straight through pathway to the brain. The bigger the stimulus the more the bell in the brain was rung. That's how it was thought of – like a telephone cable system. What they were saying is 'no, it's not like that at all, it's much more complicated'. That signal can be tuned down or tuned up on it's way to the brain by a mechanism in the spinal cord itself, but also by a very powerful pathway that comes down from the brain and impinges upon this gating system in the spinal cord. In short, it said the brain and the spinal cord can play a very major role in fine tuning pain.

Int: Extraordinary. You go to Canada, become equipped with that knowledge. What do you do with that knowledge?

Prof: I attended meetings

Int: You're quite a maverick in Australian medicine at this stage because nobody else is taking quite so much interest?

Prof: Not really, no. There was not much interest at all but it opened my eyes to the fact that we had previously known nothing useful about pain – very little useful about pain. This new framework provided the wherewithall to really approach pain in a totally different way. I saw immediately, well obviously psychological factors are going to be able to have an influence on pain because there's this pathway coming from the brain to the spinal cord and I started to feel that this was going to become an area of medicine where something major could really be done. I started to get sucked into this area. I had no intention of going past acute pain. None whatsoever. That got

me started and then I went down to Stanford University, again I was going straight back to Australia, but I was offered a job at Stanford and I met some people down there who were very much involved in the science of pain and I started to realise that if a major University can be interested, such as McGill and Stanford, this must be going somewhere.

Int: I'm still getting my head around the idea because you would think that pain is the most basic symptom of illness?

Prof: Yes it is but it is also, when it becomes chronic, things change. Then it becomes a disease because the nervous system changes, becomes sensitised in the spinal cord, in the brain, and as we now know, sadly in some circumstances, even at the body surface, the nerve cells that are involved in sensing a noxious stimulus right at the body surface, things can change there too and that change can remain. That can be part of the disease process. Acute pain is a symptom – chronic pain becomes a disease.

Int: You spend some time overseas and then you come back to Australia. Were you welcomed with open arms when you arrived full of this knowledge?

Prof: I don't think anyone's ever welcomed with open arms when they come back from doing different things overseas. I was very fortunate – I initially got a job at my old hospital – Royal North Shore Hospital and they were very supportive in getting some pain treatment going at the Hospital but I wasn't there very long before a Chair came up in Adelaide at Flinders University and I had the opportunity down there to say what I wanted to do and I said there were several things I want to do. I want to have a good Intensive Care Unit and I want to set up a multidisciplinary group for research and treatment into management of pain.

Int: You were talking about some of the influences on your life. I wonder, before we go on to talk about other aspects of pain I'm always very interested to find out what exactly shaped the person that then became the person that shaped the world in some way or another. You were brought up in Sydney in a fairly comfortable North Shore existence. Tell us about your background.

Prof: I was born at the outbreak of World War II – it wasn't a great time I have to say. My father was in the advertising industry. Interestingly enough, my mother and father both came from Western Australia and they met on a boat going from Perth to Sydney. My father's first wife died very sadly at a very young age. They met and they fell in love and my grandfather in Western



Australia wasn't very impressed by my father because he was a bit older than my mother, so my father had to go over to Perth to seek special permission to keep seeing my mother. He could see he was a good bloke so they got married and of course they then moved to live permanently in Sydney. About 1944 when the Japanese phase of the War was going on I was sent with my very young brother, I was only 5, my brother was 2, across to Perth by boat across the Great Australian Bight and that's very firmly imprinted on my mind. It was a pretty impressive journey – blackouts every night, lifeboat drills almost daily and for two little kids of our age that was a pretty big adventure.

Int: I hadn't realised there had been an evacuation. Were many people – young children – evacuated?

Prof: It was largely a matter of individual decision – obviously my parents decided that things were going to happen and they sent us over there. My mother went with the two kids and my father stayed at work in Sydney.

Int: After the war, you lived on the North Shore of Sydney. I'm just curious as to what that world was like in those days?

Prof: Things were pretty battened down. I can remember there were these great big concrete structures on the beaches to prevent landings occurring. There were gun mounts in various positions in Pittwater. There was a torpedo base there for sending torpedoes across the water. The evidence of the war was there. There was rationing for everything. Things were pretty tight.

Int: Things were pretty tight. You went to school, did extraordinarily well there, went to University and got a very good medical degree. One of the things that seems to be a constant theme in your life is that you've had patrons – patrons isn't the right word – mentors I suppose is a better word.

Prof: Role models – and there's no doubt my father was a role model. He believed that you should work hard and you should try to make a difference and he was involved in a special program for the War effort. During the War he was just marginally too old to be enrolled and he had a health problem which prevented him from going, so he got stuck into the War effort. When I was at Shore School the Headmaster was a remarkable man, L C Robson, and I've seen this happen to many of my colleagues – he really engendered pupils with the idea that you had to work out what you were going to do in life and try to make a difference in some way and that certainly influenced me. I remember going to my father at about age 13 saying 'look I'm very worried I haven't worked out

what I'm going to do in life and if I get to University what I'm going to do there and I should have figured that out by now” and his head went back and he laughed very loudly and he said “look it's much too early – you'll work it out after a while – you'll see different things and you'll decide.”

Int: That was good advice then and very good advice now I'm thinking.

Prof: It happened fairly soon after that because I was a keen rugby player and I was playing in a rugby match at age 14. I went down on the ball with a charging bunch of forwards coming in my direction and I got a kick right in the centre of the face on my nose which was badly broken. There was a lot of blood, in fact it was pouring out like blood from a hose and I finished up in Royal North Shore Hospital where I had to go to theatre to have a blood vessel tied off and I spent about four days in hospital. When I came home from hospital I said to my father 'well, that's it, I've got it, I'm going to be a doctor'. He said 'you'd better think about it a bit more'. I said 'no, I'm going straight off to study Chemistry because if I'm no good at Chemistry and I'll have to do that.' I got Honours in Chemistry – I was terrible at Chemistry before then.

Int: It was a very luck injury then, wasn't it?

Prof: Yes, I have to thank that fellow who put his boot in the middle of my face.

Int: There's other people that you have to thank as I understand it. John J Beneeka.

Prof: Yes, when I was at Stanford. I'd done some research at McGill on vascular surgery patients as my old Professor Tom Reeve had interested me and this particular study had posed some interesting questions and I went up to see Beneeka in Seattle. He'd been charged after World War II with looking after injured soldiers who had pain and he was quite a humble man but a man with enormous presence. He figured out pretty quickly that he didn't know anything about chronic pain. He put a team together – a psychiatrist, a psychologist, some specialised physiotherapists who knew a lot about what you need to know about these people and they worked as a team and this was the first really good multidisciplinary pain management team. That's not why I went up there – I went up there to discuss my work on post-operative pain with him. He said 'well, that's all fine' and we had a bit of a chat about it and he took me along to one of his multidisciplinary team meetings where they were discussing a number of patients and identifying the problems - not the diagnosis - the problems that these patients had and what would be done for each and every one of these problems to get them back to some reasonable life, as well as helping their pain. I was very

impressed by this; I'd never seen this sort of thing before. In essence, he became my godfather. As soon as I got back to Sydney he called me up and said 'I want you to be a Council member of a new Organisation called the International Association for the Study of Pain. In this Organisation we're going to get the Clinicians together with the basic scientists. So the science is really going to focus on the problems'. He had a very forceful manner. He'd put his hand on your shoulder and he would say 'listen', - he was a professional wrestler all the way through medical school. He had to wear a black mask and he was called the Black Masked Marvel because medical students were not allowed to be professionals. He was a square shape, his shoulders were about as broad as his height, so when he put his hand on your shoulder, it felt like a steel claw and you paid very close attention. So when he invited me to be on this Council I said at first I should probably think about this and he said 'do you want to do this or not?' So I said 'yes!' I had a lot to do with him from then on, on the Council. We had Clinicians from neurosurgeons to neurologists to rheumatologists to anaesthetists – it was wonderful.

Int: In every way it seems to be you made the right choice. We were talking earlier – we just touched on it – there are so many aspects to this whole issue and I wonder if we can explore the ethical and religious and moral part of all of this problem – that dimension? You've got somebody with enormous pain that you can't do anything about. What do we do then?

Prof: The starting point is once again to realise the incredible range of factors that can impinge on any individual. That individual will bring to their experience of pain all of those factors that operate in their life – their culture - a wonderful book written by a man, David Morris – The Cultural of Pain.....

Int intersperses: Can you give some examples – so that I can imagine the dilemma

Prof: In some cultures and I won't be specific because I'll offend people, it's expected that you'll be very stoical about pain and that can have positive and negative connotations. In other cultures it is expected that you'll express the pain in a very vocal and obvious manner but there are other aspects of culture. In some cultures pain is always seen as very bad. In some, it's sometimes perceived as having a good connotation. If we take the culture of the military the very first appreciation that there must be something else going on with pain apart from just a straight through system from the brain was a study carried out by a Professor of Anaesthesia at Harvard University, Henry Beecher, who again was involved in caring for soldiers during World War II. Instead of just giving them an injection of morphine, he went around and asked them 'do you have any pain' and to his great

surprise he found that quite a lot of them with major injuries reported no pain. This really puzzled him and he thought about it – 'well, they're going to be decorated, they're going to be removed from the battlefield and cared for very well medically, and some of them will never be sent back to the Front – this injury and pain had been obtained in a valorous situation. So for them most of the connotation for the meaning of the pain is positive'. He wrote a series of articles which led to some studies and he said it's not only the injury per say, but the meaning of the pain. That was a very profound statement. That was the culture in that particular time and aspect of that military operation. The same thing happens in major sporting events where people continue to compete despite even having fractured a bone or torn a major ligament.

Int: I always thought that was just the adrenaline of the moment.

Prof: The adrenaline system is strongly activated – it's actually nor-adrenaline it's turned out to be, a derivate of adrenalin. We're back again to that powerful system – it comes down from the brain and has an influence on the gate in the spinal cord. The gate, incidentally is composed of probably more than forty transmitters interacting with each other. It's incredible fine tuning. That system can come down and if it's activated in the right way, in the situation we've just described, the gate will be closed. It can also be activated in the wrong way so the gate opens, so the situation is facilitated. How can that occur? It can occur if the person is currently in a high state of anxiety. It can occur if the person is depressed. There's about a 30% overlap between chronic pain and depression. Not a complete overlap but about a 30% overlap. So depression has a major influence on the experience of pain. So does anxiety. There are other things that can play a part. The clinical psychologists have made a major contribution to the diagnosis and management of pain and one of the things they have identified is that people with chronic pain develop a behaviour called 'fear avoidance behaviour'. That means for example you make a movement it hurts and immediately comes to your mind 'if I keep on doing this I'll suffer more injury'. They develop a fear of re-injury. Now fear of re-injury is one of the main things that determines whether you go from an acute episode of lower back pain to chronic lower back pain. Not a physical factor. When you think about that a little longer you realise that because of that fear of bending of your back you stop doing a lot of things, then you start to have disuse of muscles, adoption of bad postures and you get into a vicious cycle where that generates more pain and that also activates this descending system in a negative way this time. The pain experience becomes greater and greater. There are also environmental factors that I mentioned. We've said a little about physical and psychological factors. How could environmental factors possibly play a part. Well again, if we look at back pain, an acute episode there, the other factor, apart from fear, avoidance behaviour that's been found to play a very key role is the

relationship of the person with their superior at work. If you think about how much pressure that can place a person in if they have a really poor relationship – they don't ever get any positive feedback about their work – in fact they get a lot of negative feedback, there may even be bullying involved, they're going to become anxious, quite likely they'll become depressed and it's also quite likely they're going to become what we call hyper-vigilant – they're always waiting to see what's going to happen next. Hyper-vigilance means that you are much more sensitive to what's going on in your environment and that is one of the problems in chronic pain. Sensitisation of the nervous system. Be that as it may, those two things are the major things that determine depression from acute lower back pain to chronic pain. Now all of that points to the fact that if you are going to help people with chronic pain you've got to assess all of the factors that are contributing. Otherwise you're going to do a very partial and ineffective job. That's why you need a team.

Int: You've mentioned, it's obvious really that the mental state of somebody is going to have an impact on how they feel pain.

Prof: It's the same as pain after surgery. If you identify those factors before surgery you'll know for sure that that patient is going to experience more pain after surgery or trauma. At the moment not a lot is being done to identify those risk factors before surgery - quite important, because we know the severity of pain after surgery is a risk factor for chronic pain.

Int: As a patient if you're somebody who is frightened of surgery, frightened of needles, is there something the patient themselves can do then well in advance?

Prof: Yes. If you're very frightened that patient should receive psychological help before the surgery because that is going to have an impact not only on their experience of pain but potentially on the outcome of surgery. This is a subject all in its own right and one of my colleagues in Copenhagen has made this his lifelong study. Improving the treatment of acute pain after surgery to improve outcome and to improve progression to chronic pain.

Int: I'm guessing now we're talking about psychological health before surgery that's another layer of expertise, another layer of care and service, which is a great thing but there's also another layer of cost.

Prof: Hardly exists at the moment. If you look at it in terms of cost effectiveness say you have a patient who doesn't get any of that help has severe pain after surgery, that progresses to chronic

pain, which becomes a lifelong expense, the area under the curve for the lifelong expense is enormous, compared with a small intervention before surgery. This whole area - we got together with Access Economics recently and did a major study of the costs of chronic pain - \$34billion a year. That's the TOTAL cost – medical costs, what we call the burden of disease which was largely born by the individual, lost opportunities in the workplace etc. - the whole cost - \$34billion. We have through the National Pain Strategy developed a national pain strategy which has provided a very detailed description – all the things that need to be done. If all of those things were to be done, we don't have a precise costing yet, but it will certainly cost less than a billion dollars. I think that's a pretty good cost effective government initiative to move ahead with this and save billions of dollars for the economy.

Int: When it's presented like that it seems like sense but I know that's not really happening, is it?

Prof: Well it's never happened yet and there are a number of reasons for that. Firstly, we haven't had the data. Secondly, it hasn't been recognised that chronic pain is a disease. My colleague Phillip Sidler and I wrote an article in 2004. That was the first article ever written assembling the evidence that chronic pain is a disease. So that wasn't there. Throughout the world now many many countries are starting to move towards an initiative of the sort that we've just kicked off here in March this year in Australia. Perhaps the time is right but it won't happen unless the general community becomes strongly behind this and lets our politicians know that this is not only a health care priority it's also an economic priority. As I've written in a number of articles over the last few years it's a human rights issue, it's a moral imperative.

Int: Talking about human rights let's get right down to the most important questions of life and death. We've talked about the impact the medical state of a patient can have on their perception of pain. We're in this circumstance where we have a terminal patient and there is nothing you can do to ease their pain. Is that the case? There are some terminal patients that you can't ease their pain.

Prof: I practice both in pain medicine (which has been a speciality since 2005), and palliative medicine also became a speciality in 2005.

The short answer to your question is if the focus is on effective treatment of all of the symptoms the patient has at the end of life and making sure those symptoms are relieved and also an acceptance by the patient and their family (and that's very important that that's the priority) then it is possible to treat those symptoms – the pain and other things (like being very breathless, being very

nauseated). There are lots of things that are very distressing at the end of life. It may mean that in order to relieve those symptoms you are going to have to make that patient somewhat sedated and sometimes quite a lot sedated. That, of course, is appropriate if that's what's required because the alternative is to stand back and say it's too hard, I can't do anything, we can't treat these symptoms. Let that person die in agony. That's not acceptable. That is not the same as in intentionally killing the person and it's very interesting often if those measures are applied the patient will rally 24 hours after having the symptoms effectively relieved. They'll rally for a while – they'll be able to spend a little more time with their loved ones, communicate things they wanted to communicate. Sometimes that won't happen – they'll just remain sedated. There is a lot of expertise required to do that. It's very easy just to push the plunger and make the patient become unconscious and die – that's not morally acceptable in our society at the present time. Treading the very fine path between relieving the symptoms and not getting into that situation requires great skill and unfortunately not many people are being trained to do that. That's what's required at the present time.

Int: Obviously it's central to the huge and dreadfully difficult debate about euthanasia and about right to life.

Prof: We should still have the debate about euthanasia. I think it's a very important debate – we haven't yet reached any firm conclusions in our society, but we should. It's been done in other parts of the world. For example, in the state of Oregon in the USA they have a very tightly controlled method for allowing people (that's not saying allowing other people) to end their own life under very very well controlled circumstances. They've made that decision that there are situations where the person finds life intolerable and they want to die and we will provide them with the means to do that under medical supervision. They go away and they do it themselves having been counselled etc. Whether we get to that stage in Australia I don't know but I think it is an important debate to have.

Int: How do you keep your sense of proportion or your sense of wonder of life surrounded by all of that?

Prof: I think life is wonderful. Sadly we lost a little boy when he was 8 years of age and that made me realise just how fragile life is. Seeing the people I see every day reminds me of that. How do I keep going and keep sane? I think physical exercise is important – I surf, I ride a surf ski, I like to frighten myself by catching big waves. Having a bit of adrenaline every now and again does tend to refresh you and the exercise is good for you – particularly good for your brain – it keeps you

thinking well. My wife and I love music – mostly classical music. I like jazz – don't often get a chance to play that these days. We both love symphony and chamber music – we like the opera and ballet so we try to do that as much as we can and I read every night, pretty broadly. I like biographies, historical novels and a lot of other literature.

End of interview