

(although that is still possible with different versions of the pill). Treating when benefit outweighs harm is accepted, but treating risk rather than risk factor thresholds is new. This strategy was proposed a decade ago,⁷ and guidelines have developed that cross disciplines,⁹ but traditional paradigms such as treatment of hypertension still predominate.

A wider debate is needed across society about extensive use of preventive medications, especially among people without symptomatic disease. Widespread uptake would require overcoming perceptions that cardiovascular disease is a “natural” cause of death, or one that does not lead to substantial disability. One must also bear in mind that a third or more of adults in many countries already take natural supplement pills regularly (mostly multivitamins with uncertain benefits, or antioxidants, now known to have no important benefits for major diseases). The strategy should be integrated with population wide approaches that address the root causes of cardiovascular disease, including reshaping societies so that smoking and development of life threatening levels of body fat, cholesterol, and blood pressure are not the norm.

Finally, the most important challenge is ensuring such interventions reach the many people at high risk in developing countries who currently receive little or no preventive care. Compared with developed countries many times more lives could be saved, mostly among middle aged people, if combination medications were made affordable and accessible. It would clearly have major equity implications if the decades of research in developed countries showing how to control cardiovascular disease were not translated into practicable solutions for developing countries, which are now facing an epidemic of cardiovascular disease.⁸ Cost will be the key. The strategy requires many fewer measurements, and the pill need not be expensive—off patent components could cost very little.⁵ It is more cost effective than threshold based strategies (for example, the treatment of hypertension)⁹ and,

combined with population wide initiatives such as reduced salt in manufactured foods, could halve population levels of cardiovascular disease.⁵

So is Wald and Law’s bold claim justified? Quite possibly. Only large reductions in smoking or a few other leading health risks could achieve so much health gain.¹¹ Realising this enormous potential should be a major goal especially for developing countries.

Anthony Rodgers *co-director*

Clinical Trials Research Unit, University of Auckland, PO Box 92019, Auckland, New Zealand (a.rodgers@auckland.ac.nz)

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Managing chronic pain in children and adolescents

We need to address the embarrassing lack of data for this common problem

Recent epidemiological data have made nonsense of the prejudice that chronic pain is a uniquely adult problem. Chronic and recurrent pain in children and adolescents is now known to have a point prevalence of at least 15%.¹ Girls report more pain than boys, and the incidence peaks at an average age of 14 years. The most common complaint is headache, followed by recurrent abdominal pain and musculoskeletal pain.²

Many of the children and adolescents with chronic and recurrent pain will be managed effectively by the family doctor or may simply never come to professional attention. However, a noteworthy number of children and their families are severely affected by pain. Doctors concerned about missing a serious

underlying disease invest time and energy in investigating the child and referring to specialists for further evaluation. During the time spent in this “diagnostic vacuum,” the child often receives little appropriate pain management. If, as is usually the case, no specific cause can be found the child, family, and doctor often become frustrated, sometimes antagonistic towards each other, and the management of the pain goes wanting. It is this time spent in the search for meaning and cure that is thought to be crucial to how the patient and family adjust to pain. Fear and frustration are often fuelled by unhelpful or inaccurate diagnoses such as “functional” or “psychosomatic” pain. Families often interpret these labels as blaming them for the child’s pain, and the labels tend to reinforce

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their need to move from doctor to doctor in search of a different diagnosis and cure.

The path to chronicity of pain is characterised by failed attempts to adjust and cope with an uncontrollable, frightening, and adverse experience. Over time it is the weight of this experience that leads the patient to develop concomitant symptoms of chronic physical disability, anxiety, sleep disturbance, school absence, and social withdrawal.³⁻⁴ Parents report severe parenting stress and dysfunctional family roles. The malignant effects of chronic pain in children are multifactorial and relatively unyielding without treatment.

Despite the impact of chronic pain in children and adolescents there is a paucity of evidence to guide clinical practice in this complex area. Pharmacological treatments are used, based usually on data extrapolated from adults. The evidence for effectiveness is limited. In children with migraine there is some evidence for the value of acetaminophen, ibuprofen, and sumatriptan nasal spray in acute attacks.⁵⁻⁶ A systematic review of treatment in recurrent abdominal pain found some evidence for the efficacy of famotidine, pizotifen, and peppermint oil enteric coated capsules.⁷ For children with localised idiopathic pain syndromes such as complex regional pain syndrome (type 1) or with diffuse idiopathic pain syndromes such as fibromyalgia a wide number of drugs including tricyclic antidepressants and anticonvulsants have been used, but there are no controlled studies showing benefit for any of these. Controlled trials with a focus on safety as well as efficacy are urgently needed for all conditions of childhood and adolescence that are characterised by chronic or recurrent pain.

Progress has been made on psychologically based treatments. A recent Cochrane systematic review identified 18 randomised controlled trials, of which 13 (12 trials of headache and one on the management of abdominal pain in children) provided data suitable for meta-analysis.⁸ The main finding of this review was that the number of patients needing to be treated to show benefit for psychological therapies producing more than 50% pain relief compared with control treatments was 2.32. This compares favourably with numbers needed to treat for other published treatments in chronic pain.⁹ A striking finding is the evidence that psychological therapy for headache can be delivered with good effect at low cost, in community settings, and by trained non-psychologists. Unfortunately these trials reported only analysable data for pain relief. It remains unclear whether these treatments are also effective for other outcomes, such as disability and family or school functioning. An important caveat is that these studies addressed only a population of young people who were not severely disabled by pain. Whether these findings can be generalised to a more disabled group of patients is unknown.

Effective approaches to managing the most severely affected individuals remain relatively un researched. It is not clear which of the many factors that modulate chronic pain should be the focus of treatment strategies. Candidate related factors are temperament, parenting style, individual and familial coping strategies, previous pain experiences, fitness and activity levels, and socioeconomic environment. What is becoming clear,

however, is that a child with chronic pain who does not respond to simple first line treatment requires the input of an interdisciplinary team of therapists trained in the management of pain. In a recent evaluation of an intensive interdisciplinary programme of cognitive behaviour therapy in adolescents with chronic pain, improvement was reported on physical, psychological, and social indices, with a return to full time school in 40%.¹⁰ A striking feature of this study was the severity of pain in the population served. The average duration of pain in the sample, for example, was 4 years.

Chronic pain in children is an important problem. For some conditions such as headache the success of both pharmacological and non-pharmacological strategies is remarkable. Even for children and adolescents with the most severe pain and disability early evidence shows that it may be possible to reduce the impact of pain on the lives of the patients and their families. More action is necessary. Firstly, more paediatric centres are needed, to develop chronic pain programmes. Secondly, we must address the embarrassing lack of data. Collaboration between centres will be necessary to provide large enough samples of patients with the various pain conditions. Finally, we must remain mindful that the incidence of chronic pain in children and adolescents is similar to that of adults but that our knowledge of how to help children cope with chronic pain is underdeveloped. Given the probability that many children with untreated chronic pain will grow into adults disabled by chronic pain, this lack of knowledge potentially has a high societal cost.

Christopher Eccleston *director*

Pain Management Unit, University of Bath and Royal National Hospital for Rheumatic Diseases NHS Trust, Bath BA2 7AY (c.eccleston@bath.ac.uk)

Peter Malleon *professor of paediatrics*

Division of Paediatric Rheumatology, University of British Columbia V6H 3V4, Canada

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