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香 港 醫 訊

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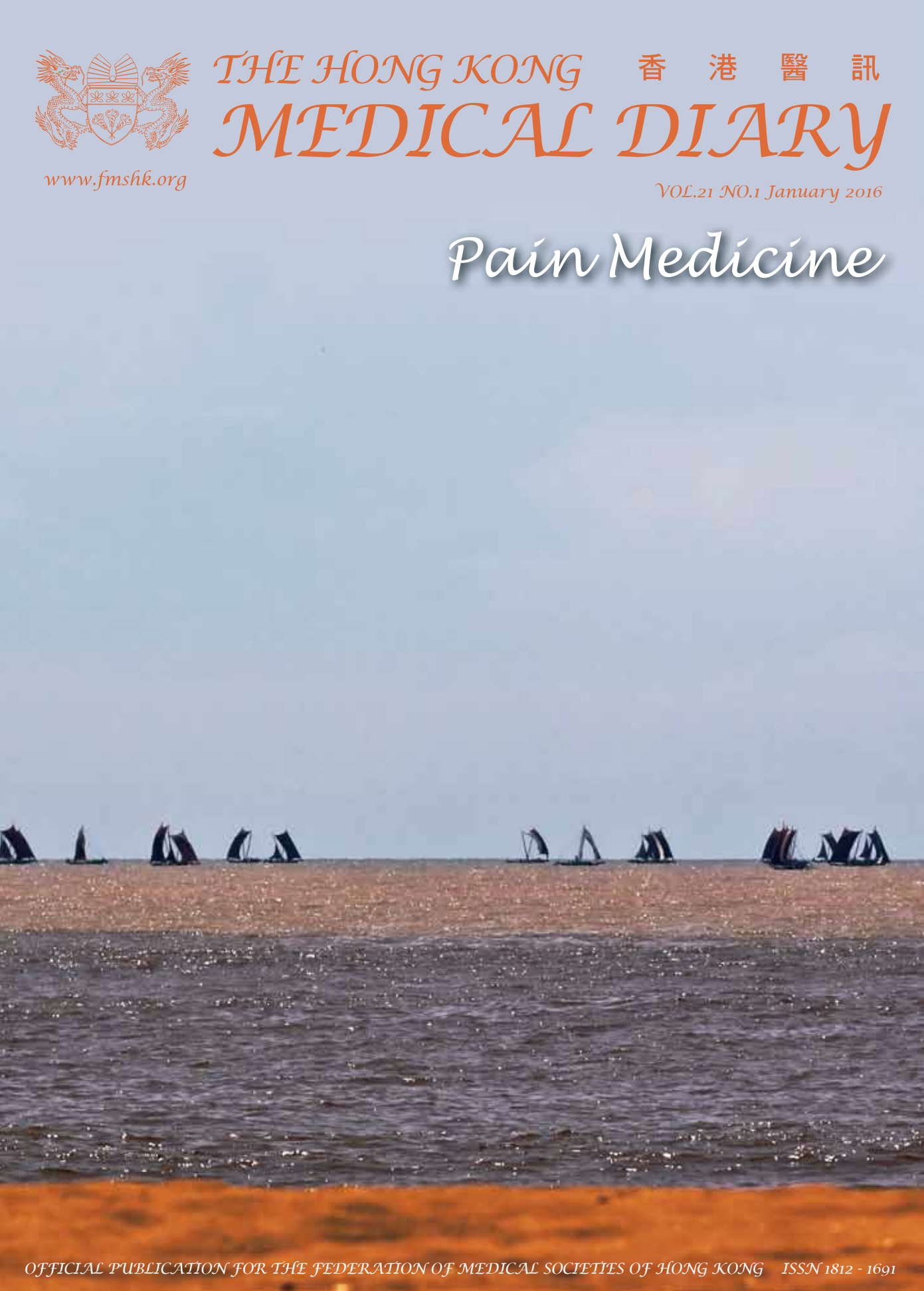
Pain Medicine



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- Brintellix is a new antidepressant with **Multimodal Activity**[1,4]
- Brintellix is efficacious in treating all the symptoms of depression (assessed by MADRS) across a range of patients[2-5]
- Brintellix also significantly improves cognitive performance in depressed patients and reduces the cognitive symptoms of depression[2,9] that affect most patients[6]
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- Brintellix is well tolerated[4,5,10-12]
- Patients (18-65 yrs) can start, stay and stop on Brintellix 10 mg once daily[4]

References:

1. Bang-Andersen B et al. J Med Chem. 2011; 54(9): 3206-3221. 2. Katona C et al. Int Clin Psychopharmacol. 2012; 27(4): 215-223. 3. Dragheim M, Nielsen R. A randomized, double-blind, study of vortioxetine versus agomelatine in adults with major depressive disorder (MDD) switched after inadequate response to SSRI or SNRI treatment. Poster presented at the 53rd NCDEU meeting, May 28-31, 2013, Hollywood, Florida, USA. 4. Brintellix. Summary of Product Characteristics. 2013. 5. Alvarez E et al. Int J Neuropsychopharmacol. 2012; 15(5): 589-600.. 6. Conradi HJ et al. Psychol Med. 2011; 41: 1165-1174. 7. Hammar A, Ardal G. Front Hum Neurosci. 2009; 3: 26. 8. Marazziti D et al. Eur J Pharmacol. 2010; 626(1): 83-86. 9. McIntyre R, et al. Randomized, double-blind, placebo-controlled study of the efficacy of vortioxetine on cognitive function in adult patients with major depressive disorder (MDD). Poster presented at the 52nd Annual Meeting of the American College of Neuropsychopharmacology (ACNP), December 8-12, 2013, Hollywood, Florida, USA.. 10. Baldwin DS et al. Eur Neuropsychopharmacol. 2012; 22(7): 482-491. 11. Boulenger JP et al. J Psychopharmacol. 2012; 26(11): 1408-1416. 12. Henigsberg N et al. J Clin Psychiatry. 2012; 73(7): 953-959.

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The Cover Shot

Fishing boats in Sri Lanka

Dr MENON Basi M.R.B.
Private Anaesthetist

New Year Message from the President

Dr Mario WK CHAK

President
The Federation of Medical Societies of Hong Kong

Dr Mario WK CHAK

New Year Greetings to all our friends and colleagues of the federation.

It is my great honour and privilege to serve the federation, especially following in the footsteps of our excellent past Presidents. To begin the New Year, I would like to share with you all a proverb from a famous ancient Chinese philosopher Guan Zhong.

《管子· 修權》一年之計，莫如樹穀；十年之計，莫如樹木；百年之計，莫如樹人 。一樹一獲者，穀也；一樹十獲者，樹也；一樹百獲者，人也。If you plan for one year, plant rice; if you plan for ten years, plant trees; if you plan for one hundred years, educate people. Planting rice brings a small reward; planting trees may provide a ten times larger reward; educating people may provide a one hundred times larger reward. This famous quote of Chinese wisdom advises that despite the time required to educate and train people, the rewards are great and longterm. Although written many years ago, this proverb continues to convey words of great wisdom and a moral message to us today. This traditional wisdom can be applied to our current medical and health care system. Today, there is much investment in new equipment and facilities. Nonetheless investment in medical and health professionals occurs over a much longer period of time, up to many decades with benefits that are tremendous and long- lasting. These benefits are not confined to a few individuals but extend to the whole medical system and all patients. Our challenge is to sustain this seemingly impossible mission, to invest in the education of medical professionals for the forseeable future and beyond. Throughout the last 50 years/half century, The Federation of the Medical Societies of Hong Kong and it's member societies have assumed the role of promoting advancement of knowledge and high quality medical and healthcare by providing a broad array of continuing educational activities and material. For example, the certificate courses held jointly with member societies have proved popular, and covered diverse topics and areas. Our publication, the Medical Diary, is of professional interest and provides different topic reviews and updates each month. Annual scientific meetings address important areas of medicine with presentations by a variety of local experts. Forums are held whenever necessary to discuss key health or policy issues. After half a century, The Federation has grown from an initial thirteen member societies to a current total of 138, encompassing medical, dental, and nursing specialities, subspecialties and allied health professionals.

In addition to the provision of continuing education, the Federation maintains fraternities and provides support to member societies. Our federation premises are a popular venue and available to rent by member societies for meetings, seminars, and conferences. A conference service is also available to help different member societies to organise local and international conferences, both in Hong Kong, Macau and the Mainland. Our secretariat can provide additional services that include handling minutes, accounts, and annual meetings. Such administrative support is available to members and member societies on a regular or project-related basis. Other member services include helping professionals to establish new societies, providing assistance with memorandum and articles, business registrations, and recruitment of members. The federation encourages colleagues to raise any issues for help and support, and we will try our best to help.

In the coming years, by working with our community partners through the multidisciplinary platform of the Federation and it's Foundation, we hope to focus more on five areas of need: the very young, the elderly, the sick, the disabled and teenagers, especially those being neglected or stigmatised by our community.

As an umbrella organisation for all medical, dental, nursing and allied health societies of Hong Kong, the Federation will continue to uphold its commitment to promote the common good of fellow health professionals. Thank you in anticipation of your support. The federation looks forward to working alongside you in the near future. Once again, on behalf of the federation, I extend to you and your family very best wishes and hope for a happy, healthy and prosperous year ahead.

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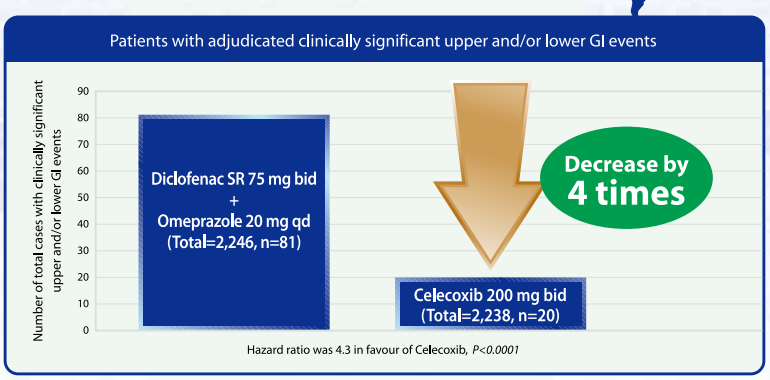
LYR150191P/DEC

CONDOR

Celecoxib versus **O**meprazole a**N**d **D**iclofenac in patients with **O**steoarthritis and **R**heumatoid arthritis



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MORE THAN 15 YRS OF CLINICAL EXPERIENCE[8,9]

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1. TRADE NAME: Celebrex **2. PRESENTATION:** Capsules contain either 100mg, 200mg or 400mg of celecoxib **INDICATIONS:** Adult: For relief of the signs and symptoms of osteoarthritis (OA), rheumatoid arthritis (RA), ankylosing spondylitis (AS); management of acute pain (AP) in adults; treatment of primary dysmenorrhea (PD); treatment of the signs and symptoms of low back pain (LBP). **3. DOSAGE:** OA: 200mg OD or 100mg BID. RA: 100 or 200mg BID. AS: 200mg OD or 100mg BID. 400mg OD if no response after 6 weeks; AP & PD: 400mg OD initially, an additional 200 mg if needed on the first day, subsequent days 200mg BID as needed. LBP: 100mg BID. **4. CONTRAINDICATIONS:** Hypersensitivity to celecoxib, aspirin, or other NSAIDs or demonstrated allergic-type reaction to sulfonamide or experienced asthma, urticaria, or allergy-type reaction after taking aspirin or other NSAIDs. Use as treatment for per-operative pain in the setting of CABG surgery. **5. WARNINGS & PRECAUTIONS:** Increased risk of serious adverse cardiovascular thrombotic events, myocardial infarction, and stroke, which can be fatal. Patients with known CV disease or risk factors for CV disease may be at greater risk; Caution in patients with hypertensions, fluid retention or heart failure; Can cause serious gastrointestinal events including bleeding, ulceration, and perforation of the stomach, small intestine or large intestine, which can be fatal. Extreme caution in patients with prior history of ulcer disease or gastrointestinal bleeding; special care should be taken as most spontaneous reports of fatal GI events are in elderly and debilitated patients; A patients with symptoms and/or sign suggesting liver dysfunction, or in whom an abnormal liver test has occurred, should be monitored carefully for evidence of the development of a more severe hepatic reaction. If clinical signs and symptoms consistent with liver disease develop, or if systemic manifestations occur, Celebrex should be discontinued; Long-term administration of NSAIDs has resulted in renal papillary necrosis and other renal injury. Renal toxicity has also been seen in patients in whom renal prostaglandins have a compensatory role in the maintenance of renal perfusion; Not recommended in these patients with advanced renal disease; Anaphylactoid reactions have occurred in patients without known prior exposure to Celebrex; Should not be given to patients with the aspirin triad. This symptom complex typically occurs in asthmatic patients who experience rhinitis with or without nasal polyps, or who exhibit severe, potentially fatal bronchospasm after taking aspirin other NSAIDs; Can cause serious skin adverse events such as exfoliative dermatitis, Stevens-Johnson syndrome (SJS), and toxic epidermal necrolysis (TEN), which can be fatal. These serious events can occur without warning and in patients without prior known sulfa allergy. Patients should be informed about the signs and symptoms of serious skin manifestations and use of drug should be discontinued at the first appearance of skin rash or any other sign of hypersensitivity; Cannot be expected to substitute for corticosteroids or to treat corticosteroid insufficiency; Should not be administered to patients with aspirin-sensitive asthma and should be used with caution in patients with preexisting asthma; The pharmacological activity in reducing inflammation, and possibly fever, may diminish the utility of these diagnostic signs in detecting infectious complications of presumed noninfectious, painful conditions; The concomitant use with any dose of a non-aspirin NSAID should be avoided due to the potential for increased risk of adverse reactions. **6. INTERACTIONS:** ACE inhibitors and angiotensin II antagonists, antacid, aspirin, dextromethorphan, fluconazole, fluvastatin, furosemide, lithium, NSAIDs, paroxetine, warfarin and drugs that inhibit cytochrome P450 2C9. Potential interaction with drugs that metabolized by P450 2D6. **7. PREGNANCY AND LACTATION:** Pregnancy Category C; Pregnancy category D from 30 weeks of gestation onward; Should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus; No studies have been conducted to evaluate the effect of celecoxib on the closure of the ductus arteriosus in humans, therefore should be avoided during the third trimester of pregnancy. **8. SIDE EFFECTS:** Abdominal pain; Diarrhea, Dyspepsia; Flatulence; Nausea; Back pain; Peripheral edema; Accidental injury; Dizziness; Headache; Insomnia; Pharyngitis; Rhinitis; Sinusitis; Upper respiratory infection; Rash **Reference:** HK PI (May 2012) **Date of preparation:** Jan 2014 **Identifier number:** CELE0114 **FULL PRESCRIBING INFORMATION IS AVAILABLE UPON REQUEST.**

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Editorial

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Editor

Dr Doris Wing-yan LEUNG

On behalf of Hong Kong Pain Society, it is my honor to be the Editor of this issue of Medical Diary. Pain is not new to the medical profession, yet it remains often ineffectively managed. Pain relief is a basic human right. It is unacceptable that over 50% of cancer pain, and post-operative wound and trauma pain are inadequately treated. Poor management of pain is not just a humanitarian issue. Unmanaged pain places an unnecessary burden on the family and the social environment in the form of frequent hospital admission and medical leave. According to the World Health Organization and International Association for the Study of Pain, pain is more than a symptom. It is recognized as a global disease entity that warrants appropriate proper management and increased public awareness of the problem.

Pain medicine concerns itself with acute pain and chronic pain. Pain is defined as "An unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage". The term "emotional experience" describes the psychological response to pain that commonly includes fear, anxiety and sadness. While the word "potential tissue damage" describes the nature of pain, its origin may not be easily identified and in some cases no underlying structural pathology can be identified. This issue of the diary focuses on chronic pain that is often more difficult to manage and requires an individualized approach.

Chronic pain is defined as pain that persists for longer than three months. Thorough history taking and physical examination forms the basis of patient assessment, with specific tests applied to differentiate nociceptive and neuropathic pain. Symptoms and signs can indicate complications such as involvement of the sympathetic system, as in complex regional pain syndrome, or a deconditioning functional state due to psychiatric problems such as depression and anxiety. A variety of methods can be used to enhance the overall assessment of chronic pain and include the Neuropathic Pain Questionnaire, Hospital Anxiety and Depression Score, and Patient Catastrophizing Score. Specific investigations include nerve conduction tests, electromyography, somatosensory evoked potential, and quantitative sensory testing. Neuroimaging may also be performed such as functional MRI and CT.

A multi-disciplinary approach to pain management is the most effective and efficient way to tackle chronic pain. Collaboration of a multitude of specialists and disciplines are of paramount importance in complicated cases and include a pain specialist, anaesthetist, orthopedics, neurosurgeon, clinical psychologist, psychiatrist, physiotherapist and occupational therapist. In addition to pharmacological treatment that involves the use of multimodal analgesics to attack different pain receptors in nociceptive and neuropathic pain, pain intervention under X ray, CT and ultrasound-guidance is becoming an essential procedure to combat pain. The contribution of a psychiatrist and clinical psychologist aims to manage the psychosocial component of chronic pain. Appropriate psychotherapy or teaching of coping strategies such as behavior-cognitive therapy can sometimes provide more powerful relief than pharmacological treatment alone. Physiotherapy and occupational therapy adopt a more active approach, for example

teaching of muscle strengthening exercises for rehabilitation and life style modification, to encourage patients to align their daily functioning with physical capacity and coping strategies.

Successful management of chronic pain depends on timely assessment and treatment that includes appropriate pharmacological intervention and input from allied healthcare providers. A multi-disciplinary approach is also adopted in this issue of the Medical Diary. The CME article from Psychiatrist Dr. PT Ho provides an update on the psychiatric management of chronic pain patients, complimented by a review by Pain Specialist Dr. Timmy Chan of an advanced pain intervention, spinal cord stimulation, to manage some difficult pain cases. Clinical Psychologist Ms. Vanessa Ng further elaborates on the normal psychological response to chronic pain, and offers us an insight into how to approach our pain patients. Finally, the article by Mr. Kwok-Fai Leung and Mr. Steven Siu describes the excellent outcomes of their pain rehabilitation program at the Department of Occupational Therapy of Queen Elizabeth Hospital, evidenced by improved patients' quality of life and return to work ratio.

I would like to thank all the authors for their contribution to this issue and for their excellent work in combating pain in Hong Kong. Sincere gratitude is due to The Federation of Medical Societies of Hong Kong and council members of The Hong Kong Pain Society for providing a platform in the form of this issue of Medical Diary from which to convey the concept of pain medicine. Ultimately, pain is the fifth vital sign. Successful pain relief depends on the awareness and initiative of all healthcare providers.

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Psychiatric Care for Chronic Pain Patients – An Update

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Dr Pui-tat HO

This article has been selected by the Editorial Board of the Hong Kong Medical Diary for participants in the CME programme of the Medical Council of Hong Kong (MCHK) to complete the following self-assessment questions in order to be awarded 1 CME credit under the programme upon returning the completed answer sheet to the Federation Secretariat on or before 31 January 2016.

The burden of chronic pain is enormous, with a 12-month prevalence estimated at 38% worldwide[1]. A local cross-sectional telephone survey reported a chronic pain prevalence of 10.8%[2]. Patients with chronic pain are also prone to suffer psychiatric disorders. A population survey of over 85,000 community-dwelling adults in 17 countries in Europe, the Americas, the Middle East, Africa, Asia and the South Pacific found that those with back or neck pain had a pooled odds ratio of 2.3 for comorbid mood disorders, 2.2 for anxiety disorders and 1.6 for alcohol abuse or dependence[3].

Pathophysiology of chronic pain

In 1994, the International Association for the Study of Pain (IASP) defined pain as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage". It is evident that an unpleasant emotional experience constitutes an integral part of the pain perception. There is no single designated "pain centre" in the brain. The pain circuits are represented by the spinal cord and regions of the brain that are not just involved in pain but also serve other higher mental functions and include the hippocampus (memory, spatial recognition, and fear conditioning), amygdala (emotions and addiction), cingulate cortex (concentration and focusing), hypothalamus and thalamus (stress responses, autonomic regulation, and motivation)[4]. The neuroanatomical and functional overlap between the pain and emotion circuits suggests integration and mutual modulation of these systems.

Pain evolves as a protective mechanism to flee environmental hazards and enhance survival of the species. Nevertheless, sustained pain in the absence of noxious stimuli serves no useful function. Chronic pain is commonly defined as pain persisting longer than 3 months that is beyond the usual expected time frame for healing. It exists as a disease state with dysfunctions in somatosensory and pain signaling in the nervous system[5], and needs not involve any structural pathology[6]. Chronic pain is characterized by sustained and amplified pain following acute events and may implicate mechanisms such as peripheral and central sensitization, alterations in descending modulation, and deafferentation[5,6]. Sensitization involves increased responsiveness and receptive field size to stimuli, and spontaneous discharges in nociceptive neurons in the peripheral and central nervous system. Stimuli that result in potential tissue damage cause signal transduction in nociceptors through the dorsal horn of spinal cord to the thalamus and cerebral cortex. This signal transmission is modulated by two descending inhibitory pain pathways from anti-nociceptive neurons under higher control of the brain[5]. One neural pathway runs from the periaqueductal gray to the raphe nucleus, and makes serotoninergic connections to the dorsal horn of the spinal cord. Another inhibitory system extends from the locus coeruleus to the dorsal horn and involves noradrenergic transmission. These pathways share common neurotransmitters of serotonin and noradrenaline with the emotion circuits[5]. Dysfunction in these monoamine pathways underlies disturbance in mood and pain modulation. This may explain why depression reduces the pain threshold and sensitizes pain perception, whereas chronic pain impairs emotional functioning[7].

Psychiatric morbidity in chronic pain patients

Psychiatric morbidity is highly prevalent in the chronic pain population. The reported prevalence rates of psychiatric disorders among chronic pain patients (CPPs) varied widely owing to sampling bias & dissimilar diagnostic methods[8]. More recent studies that used the standardized instrument of "Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders 4th edition (DSM-IV) Axis I Disorders" (SCID-I), widely accepted internationally as a gold standard for psychiatric diagnosis, reveal narrower prevalence rates that ranged from 35.5% to 66.7%[9-12]. A recent local study using SCID-I for diagnosis reported a 62.9% point prevalence rate of current psychiatric disorders in a pain clinic population, with depressive and anxiety disorders constituting 41.6 % and 18% respectively[13].

The latest classification of psychiatric disorders in the fifth edition of the DSM (DSM-V)[14] published in 2013 has incorporated the growing body of evidence of psychiatric morbidity in CPPs based on extensive research findings since its last revision in 2000. While the diagnostic criteria for depressive disorder are largely unchanged, there is major reorganization of the diagnostic blocks of anxiety and somatoform disorders that are highly co-prevalent with chronic pain. Post-traumatic stress disorder (PTSD) is no longer included in anxiety disorders but constitutes a separate category with expansion into four symptom clusters[8]. Pain

disorder, a somatoform disorder highly prevalent in CPPs in past studies but constructed under the empty concept of psychogenic pain, has been deleted due to paucity of evidence that organic and psychological factors can be distinguished with reliability and validity, while most patients attribute their pain to a combination of physical, psychological and environmental influences. The artificial distinction between organic and psychological aetiology would just confuse physicians and offer limited clinical utility, while reinforcing "mind-body dualism"[8]. New epidemiologic evidence supports an inclusive model of psychiatric diagnoses in the medical settings, allowing the presence of both medical and mental diseases instead of being mutually exclusive. Future epidemiologic findings based on the latest DSM-V diagnostic concepts have to be interpreted in the light of the changes introduced.

Depressive disorders have consistently been shown to be highly prevalent among CPPs, with recent studies reporting rates that range from 12.7% to 50%[9-13] by using SCID-I for diagnosis. A cross sectional study of around 150,000 participants in the United Kingdom showed an elevated relative risk ratio of 2.13 for major depressive disorder and 2.39 for bipolar disorder in those who suffered from chronic pain at 4-7 sites[15].

In addition to diagnostic method issues and selection bias in samples recruited from dissimilar settings, estimation of the prevalence of depression has been fraught with difficulties from "diagnostic overshadowing" in which somatic symptoms of sleep disturbance, appetite or weight change, and fatigue can be attributed to pain or depression or both[16]. It has been argued that an inclusive approach in diagnosis should be adopted since the risks of a false positive diagnosis are outweighed by the risks of missing a diagnosis of depression that can be treated.

A substantial proportion of patients with major depressive disorder suffer chronic pain, and the intensity is parallel with severity of depression[17]. The co-prevalence of chronic pain and depression increases with age and lower education level[13]. Depression in CPPs is associated with increasing pain intensity, frequency, duration, number of pain conditions, disability, and interference with activities. CPPs with depression exhibit impaired efficacy, greater functional disability, impaired quality of life, higher utilization of medical services[13,18], and more premature retirement[19]. CPPs with depression have shown poorer treatment outcomes in pain, while depressed patients with chronic pain suffer from more residual depressive symptoms[20] and recurrences of depressive disorders[21]. A significantly greater risk of suicidal ideation, attempts and completion has also been reported in depressed CPPs[22].

The experience of pain is intrinsically anxiety provoking. The reported prevalence of anxiety disorders in CPPs ranged from 18% to 35.8% based on recent studies using SCID-I for diagnosis[9-13]. Generalized anxiety disorder is the most common, manifested as tenacious excessive worries that are difficult to control and with somatic symptoms like muscle pain. Panic disorder is associated with multiple medically unexplained symptoms and high service utilization[8]. Among CPPs, it may present with recurrent episodes of chest pain, headaches or abdominal pain, accompanied by fear of undiagnosed, life threatening illnesses. The syndrome of PTSD is now represented by four symptom clusters: re-experiencing the traumatic events, avoidance of clues associated with the events, persistent hyperarousal, and negative alterations in cognitions and mood[14]. PTSD and pain may both be consequential to the same traumatic events. This may explain the high co-prevalence of chronic pain with PTSD. Anxiety disorders in CPPs are often comorbid with each other and with depression.

The distinction between diagnosis of substance abuse and that of dependence was abandoned in the DSM-V, and the two were combined into one single diagnosis of Substance Use Disorder (SUD)[8,14]. SUD is characterized by a maladaptive pattern of continuous substance use with impaired control, tolerance, and withdrawal despite biopsychosocial adverse consequences[14]. The diagnosis of opioid use disorder in CPPs treated with chronic opioid therapy for pain control is controversial, since physical dependence is iatrogenic, while drug seeking behaviour can be a manifestation of "pseudo-addiction" secondary to inadequate pain control. Recent studies estimated that the prevalence of SUDs diagnosed by SCID-I ranged from 7.3% to 18%[9,11-13], showing that SUDs were relatively uncommon among CPPs.

Psychiatric assessment and care for chronic pain patients

Psychiatric assessment should be conducted as an integral component of the comprehensive chronic pain evaluation, and can serve the purpose of establishing psychiatric diagnoses, determining underlying aetiology, identifying potential risks, guiding pain treatment and informing prognosis. It should start with empathetic listening to the experience of CPPs who have often been subject to many years of futile treatment, and have lost faith in and may even be angry with medical practitioners. Establishment of therapeutic alliance is essential to regain the trust of patients and encourage their treatment compliance. Collection of corroborative history from significant others is helpful in obtaining an objective account of the real situation, especially in the elicitation of substance use problems when under-reporting is the norm rather than exception. Accurate recognition of psychiatric syndromes, and their temporal relationship with chronic pain symptoms and psychosocial stressors, is indispensable in diagnosing psychiatric disorders and making sense of the interwoven symptoms. Exploration of more serious psychopathology such as psychotic symptoms and suicidal ideation is imperative in distinguishing severe psychiatric illnesses that necessitate urgent psychiatric attention.

Identification of risk factors like childhood adversity and abuse, past traumatic events, personality difficulties, personal or family history of mood or substance use problems can shed light on predisposition to current psychiatric disorders. Maladaptive cognitions and coping, encompassing catastrophization, fear-avoidance and distorted pain cognitions with negative appraisal of the severity, controllability, predictability and treatability of pain[13], should be looked for as they impair self-efficacy in controlling pain and life, and lead to poorer responses to treatment, deconditioning, and greater disability[8].

Assessment of suicide risk should not be overlooked, especially in CPPs with more disabling pain and concomitant psychiatric disorders[22]. Suicidal tendency may manifest as mere protest against life hardship, passive death wish, or more active suicidal plans and action. There is a delicate balance between the risk factors[22-25] (Table 1) and protective factors[25], and suicide attempts may take the form of overdosing analgesic prescriptions or by more lethal means. Asking about suicidality does not increase the suicidality of an individual[22]. It is of paramount importance to balance the pain control needs and suicide risks in patients younger than 25 years of age before prescribing antidepressants, and in all patients before prescribing anticonvulsants, for any indications because of the association of these drugs with increased suicidal ideation and behaviour that resulted in warnings by the FDA. Suicide risks have to be alerted to these patients and their families and caregivers and monitored appropriately, especially during the initial few months of the course of therapy and at times of dose adjustment.

Table 1. Risk factors for suicide in chronic pain patients

General risk factors	Pain-specific risk factors
Younger age, unmarried/divorced, lower education Unemployed/disabled, lower income Insomnia	Pain location (low back, abdominal, migraine, generalized) High pain intensity
History of illicit drug use Childhood adversity, sexual & physical abuse	Prolonged pain duration Pre-pain history of depression
Previous suicide attempt Concomitant mental problems (especially depression)	Pain aetiology (CRPS*, fibromyalgia) Catastrophizing
Social isolation, adverse life events Family history of depression and suicide	Pain-related helplessness Compensation & litigation
Hopelessness	Burdensomeness

*CRPS = Complex Regional Pain Syndrome

Conventionally, psychological care for CPPs is often delivered by psychologists, nurses or other allied health professionals through more structured psychotherapeutic approaches that focus on maladaptive cognitions and behaviour in patients who need not be suffering from formal psychiatric disorders. On the other hand, psychiatric care for CPPs adopts medical approaches including pharmacotherapy or other physical treatment such as repetitive transcranial magnetic stimulation provided by psychiatrists or pain physicians that target at high risk patients with syndromal psychiatric disorders. Although discussion about treatment of individual psychiatric disorders in CPPs is not possible in this short article, it should follow the same general management guidelines of these disorders. Special considerations in CPPs, particularly the use of drugs with dual actions on pain and mood, will be highlighted in the following discussions. Management of psychiatric morbidity in CPPs begins with formulation of a treatment plan, based on the psychiatric diagnoses, aetiological factors and risks involved. Psycho-education with an emphasis on mind-body relationship can guide understanding of patients about the influence of emotions and cognitions on pain perception. Psychological interventions targeting at maladaptive beliefs and behaviour and occupational rehabilitations for functional restoration are essential components of multidisciplinary care. Complex and high risk cases should be referred to psychiatrists for more intensive management.

Use of psychotropic drugs in chronic pain patients

Given the neuroanatomical and functional overlap between the pain and emotion pathways with shared neurotransmitters, it is not surprising that some psychotropic drugs used in the treatment of psychiatric disorders can also provide effective pain relief. Most research has focused on the treatment of neuropathic pain with psychotropic drugs that include antidepressants, anticonvulsants, antipsychotics, and sedative-hypnotics. Results of a recent meta-analysis on pharmacotherapy for neuropathic pain funded by the IASP[26] are shown in Table 2.

Table 2. Meta-analyses of comparisons with placebo on reduction of neuropathic pain intensity

	No. of Comparisons	No. of Participants	Number need to treat (NNT)
Tricyclic antidepressants	15	948	3.6
Serotonin-noradrenaline reuptake inhibitors	10	2541	6.4
Pregabalin	25	5940	7.7
Gabapentin	14	3503	7.2
Tramadol	6	741	4.7
Strong opioids	7	838	4.3

Antidepressants are widely used to treat anxiety and depressive disorders. Moreover antidepressants like imipramine and amitriptyline have long been known to alleviate neuropathic pain since their availability half a century ago[27]. Tricyclic antidepressants (TCAs) exert analgesic activity through the primary mechanism of inhibiting reuptake of noradrenaline and serotonin, and increasing the availability of these neurotransmitters to augment activation of the descending inhibitory pain pathways in the midbrain and spinal cord[7,27]. Other mechanisms entail blocking membrane ion channels, influencing the opioidergic, glutamatergic and adenosinergic pathways, pro-inflammatory cytokines, prostaglandins and neuro-immune actions[7,27,28]. TCAs have been shown to be effective in treating painful diabetic peripheral neuropathy (DPN), post-herpetic neuralgia (PHN), painful polyneuropathy, post-mastectomy pain, and central post-stroke pain[27]. Secondary amines (nortriptyline and desipramine) are preferred to tertiary amines (amitriptyline and imipramine) because they are less sedating. The side effects of TCAs are attributed to their interactions with cholinergic receptors (dry eyes and mouth, constipation, blurring of vision, urinary retention), histaminergic receptors (sedation, weight gain), and adrenergic receptors (postural hypotension, cardiac conduction abnormality)[29].

Serotonin and noradrenergic reuptake inhibitors (SNRIs) are newer antidepressants with a more balanced action on both the serotoninergic and noradrenergic pathways[28]. Duloxetine is a potent balanced inhibitor of serotonin and noradrenaline reuptake with no significant post-synaptic actions[27-29]. It is approved by the FDA for the treatment of painful DPN, fibromyalgia and chronic musculoskeletal pain[27-30]. Venlafaxine inhibits serotonin reuptake at low doses, and noradrenaline reuptake at higher doses[27-29]. It exhibits similar efficacy for neuropathic pain, but raises blood pressure especially at high doses. Side effects of SNRIs mainly include dizziness, somnolence, nausea and constipation, although these are usually better

tolerated. Milnacipran has equal affinity for the serotonin and noradrenaline uptake sites and is considered a second line treatment for fibromyalgia[28]. Selective serotonin reuptake inhibitors demonstrate poor efficacy in alleviating neuropathic pain[28]. The analgesic action of antidepressants occurs with more rapid onset and at a lower dose than the antidepressant actions, and is independent of mood improvement[27].

Anticonvulsants played a fundamental role in managing epilepsies as well as bipolar disorders. Carbamazepine, valproate and lamotrigine are useful in treating manic episodes and bipolar depression, while carbamazepine is effective as a prophylactic agent in bipolar affective disorders. Gabapentin can be used as adjunct in treating mania and bipolar depression, while pregabalin works for generalized anxiety disorder. Carbamazepine is mainly indicated for trigeminal neuralgia[27,31-33] and works by stabilizing the inactivated state of voltage-gated sodium channels, thus decreasing the excitability of frequency-dependent neuronal activity of A-δ and C-fibres and suppressing spontaneous discharge[27,31-33]. It also potentiates GABA receptors. Common side effects include sedation, dizziness, diplopia and ataxia. Rare adverse reactions include blood dyscrasias, Steven-Johnson Syndrome (SJS) and Toxic Epidermal Necrolysis (TEN)[27,31]. It is mandatory to test for the HLA allele B*15:02 as a marker for SJS and TEN in Han Chinese before prescription of carbamazepine.

Gabapentin and pregabalin bind to the $\alpha 2\delta$ subunit of the voltage-dependent calcium channels and modulate influx of calcium with a reduction in the release of excitatory neurotransmitters glutamate and substance P and a decrease in pain signaling[27,33-35]. They are effective in painful DPN, PHN, painful neuropathy, neuropathic cancer pain, central post-stroke pain, and spinal cord injury pain[27,33-36]. Pregabalin is also approved by the FDA in treating fibromyalgia. They are recommended by the IASP Neuropathic Pain Special Interest Group as first line therapy in treating neuropathic pain based on their effectiveness and safety profile[27]. The most common side effects of the gabapentinoids include dizziness, somnolence, incoordination, weight gain and peripheral edema[27,33-36]. The potential of the gabapentinoids to be abused because of their dissociative and psychedelic effects has received much attention recently[37]. Evidence for efficacy of valproate and lamotrigine in chronic pain is lacking[38,39].

Benzodiazepines are usually prescribed to patients with anxiety and sleep problems for durations longer than indicated. They can be used on a short term basis to bridge over the period before onset of the action of SSRIs, or on an as-needed basis as salvage medications for breakthrough panic attacks[40]. Nonetheless, benzodiazepines have no lasting analgesic effect and run the risk of dependence and withdrawal hyperalgesia, and thereby are not recommended for long term use in CPPs[41]. Benzodiazepines, methadone and buprenorphine are utilized in specialist addiction services for detoxification of CPPs who suffer from comorbid addictions, including those on chronic opioid therapy. Management of substance use disorders will be explicated in a coming issue of the Hong Kong Medical Diary shortly. Antipsychotic drugs are seldom used for the purpose of pain relief, although there is evidence that those such as haloperidol, pimozide, flupenthixol and sulpiride can achieve significant pain reduction in a number of chronic pain conditions[42].

Prescribing psychotropic drugs for CPPs poses special challenges to clinicians because of intricate considerations in the therapeutic and side effects affecting both the pain and mood conditions. Special precautions have to be taken when prescribing antidepressants and anticonvulsants to CPPs in view of the increased suicidal ideation and behaviour associated with these drugs. Several antidepressants including TCAs and venlafaxine can be fatal in overdose. Prescription of these drugs is particularly risky for patients with undetected depression or suicidality. Assessment of mood and suicidal tendency is obligatory before prescription, and whenever possible a reliable family member should be enlisted to monitor patients' mental condition and ensure secure drug storage. Antidepressants prescribed to patients with bipolar disorder for pain control may trigger manic switch and cycle acceleration that can be difficult to control[43]. The sedative side effect of psychotropic drugs impairs concentration, memory and motivation for physical activity, and hinders recovery of depression and rehabilitation for chronic pain. Polypharmacy among CPPs is common and inadvertent drug interactions can result in serious adverse events. Hepatic enzyme induction by anticonvulsants such as carbamazepine and inhibition by antidepressants such as fluoxetine can lead to significant pharmacokinetic interactions. A combination of antidepressants and carbamazepine can act synergistically to cause the Syndrome of Inappropriate Antidiuretic Hormone secretion. SSRIs inhibit platelet aggregation and increase the risk of bleeding in CPPs prescribed aspirins and NSAIDs. Co-administration of tramadol and serotoninergic antidepressants is particularly hazardous as it can precipitate potentially fatal Serotonin Syndrome.

Conclusion

Psychiatric morbidity is highly co-prevalent with chronic pain and each adversely influences the clinical presentations, treatment responses and long term prognosis of the other. Psychiatric care for CPPs counts on clinicians' awareness of the mental health needs of patients, competence in diagnosing mental disorders, expertise in psychopharmacology, as well as a capacity for formulating individualized treatment plan. Stronger liaison between pain physicians and psychiatrists is advocated to provide comprehensive, timely and seamless care for CPPs with psychiatric morbidity. Psychiatric care constitutes an integral part of chronic pain services and contributes to improvement in long term prognosis and quality of life of patients with chronic pain.

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MCHK CME Programme Self-assessment Questions

Please read the article entitled "Psychiatric Care for Chronic Pain Patients – An Update" by Dr Pui-tat HO and complete the following self-assessment questions. Participants in the MCHK CME Programme will be awarded CME credit under the Programme for returning completed answer sheets via fax (2865 0345) or by mail to the Federation Secretariat on or before 31 January 2016. Answers to questions will be provided in the next issue of The Hong Kong Medical Diary.

Questions 1-10: Please answer T (true) or F (false)

1. Chronic pain is rarely associated with psychiatric illness.
2. There must a physical cause of pain in chronic pain conditions.
3. Depression and anxiety disorders are the major psychiatric illnesses diagnosed in chronic pain patients.
4. Substance abuse and Dependence are two separate diagnoses in the DSM-V.
5. Childhood adversity is one of the risk factors for suicide in chronic pain patients.
6. Tricyclic antidepressant is commonly used in patients with neuropathic pain.
7. Carbamazepine relieves pain of trigeminal neuralgia by stabilizing the inactivated voltage-gated calcium channels.
8. Side effects of gabapentinoids include weight loss and insomnia.
9. Antidepressant and anticonvulsant use is associated with increased suicidal ideation and behavior in people under 25 years of age.
10. Prescription of tramadol to patients taking serotoninergic antidepressants is safe.

ANSWER SHEET FOR JANUARY 2016

Please return the completed answer sheet to the Federation Secretariat on or before 31 January 2016 for documentation. 1 CME point will be awarded for answering the MCHK CME programme (for non-specialists) self-assessment questions.

Psychiatric Care for Chronic Pain Patients – An Update

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Answers to December 2015 Issue

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Spinal Cord Stimulation - Neuromodulation Technique for Chronic Pain Conditions

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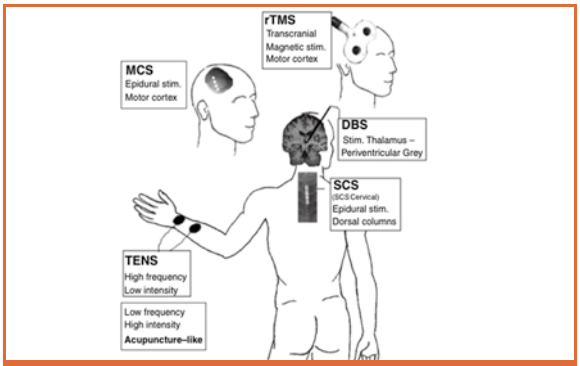
Introduction

According to the International Neuromodulation Society (INS), neuromodulation employs advanced medical device technologies to enhance or suppress activity of the nervous system for the treatment of disease. These technologies include implantable and non-implantable devices that deliver electrical, chemical, or other agents to reversibly modify brain and nerve cell activity.
Neuromodulation works by either:

- stimulating nervous tissue with an electrical current to produce a biological response (Neurostimulation)
- applying pharmacological agents directly to site of action in neural tissue

Site of Neurostimulation

It can be from the central nervous system to the peripheral nervous system and can be classified as intra-cranial or extra-cranial neurostimulation.



Picture showing different sites of neuromodulation

Intracranial neurostimulation

1. Deep Brain Stimulation (DBS)

Electrical devices are inserted intra-cranially and are focused on subcortical targets e.g. thalamic nucleus, subthalamic nuclei, periventricular and periaqueductal gray matter. DBS has been used to treat chronic painful conditions such as those arising from amputation, brachial plexus injury, stroke, and headache.

2. Motor Cortex Stimulation (MCS)

MRI or functional MRI (fMRI) is performed to precisely localize the anatomic or functional site of the motor cortex for the particular area of the body that is targeted for treatment. The cortex is then stimulated. MCS has been shown to be useful in the treatment of atypical facial pain syndromes, trigeminal neuropathic pain and central pain syndromes[1,2].

Extra-cranial neurostimulation

1. Peripheral Nerve Stimulation (PNS)

PNS targets the peripheral nervous system for the control of pain by placing electrodes directly over or near a peripheral nerve[3,4]. Examples of peripheral nerves for neurostimulation include:

a. Supraorbital and infraorbital nerves
Stimulation of these nerves has been used to treat intractable facial pain and headaches, including migraine[5-8]. Nonetheless all are case reports and case series, and no RCTs have been performed[5-8].

b. Occipital Nerve
Stimulation of this nerve has been shown to treat both greater and lesser occipital neuralgias and headache, including cluster, tension, migraine, and trigeminal neuralgia[9,10].

2. Spinal Cord Stimulation (SCS)

Spinal cord stimulation involves electrical stimulation of the dorsal column of the spinal cord via electrical leads. Electrical leads are placed in the dorsal column of spinal cord either percutaneously or surgically. Electrical currents are applied via the electrodes so as to modulate pain processing. The electrodes must be carefully positioned so that the area of paresthesia overlaps that in which pain is experienced. The electrodes are connected to and powered by a neurostimulator device that is surgically implanted under the skin.

SCS usually induces parathesia that is more tolerable and less unpleasant than the usual burning and shooting pain. The patient can turn the stimulator on and off as required, and can adjust the stimulation parameters within limits set by the treating physician.

The first SCS system was implanted in 1967 by Shealy, Mortimer and Reswick[11]. Since then, rapid advances have been made in SCS technology and there is an increasing amount of robust evidence to support its use in chronic pain conditions.

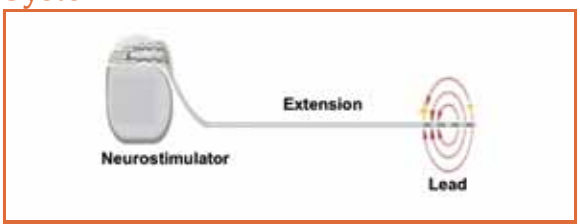
Mechanism of action

The mechanism of action of SCS is illustrated by the "Gate Control Theory of Pain", proposed by Melzack and Wall[12].

The "Gate Control Theory of Pain" asserts that a non-painful input closes the "gates" to painful input, and prevents the pain sensation from traveling to the central nervous system. Stimulation by a non-noxious input suppresses the pain.

Picture showing different sites of neuromodulation

Components of Spinal Cord Stimulator System



The SCS mainly consists of implantable pulse generators and electrical leads.

Implantable Pulse Generators (IPGs)

IPGs deliver power with electrical stimulation in a programmable pattern. They are battery-powered and may be non-rechargeable or rechargeable. Non-rechargeable IPGs have a life of two to eight years, depending on the energy consumption. Rechargeable IPGs are now more popular as they have a longer battery life. Currently, most IPGs are rechargeable and of smaller size than non-rechargeable IPGs.

Leads

Most of the leads comprise longitudinal wires. These wires transmit energy and current to targeted tissues. Most of the leads have 4-20 contacts (electrodes) that are arranged longitudinally in a small cylindrical form that can be passed through a needle into the epidural space. These electrodes can be arranged longitudinally and laterally in a paddle orientation that is placed either via a sheath or surgically into the epidural space.

Longitudinal leads and paddle leads

Indications for Spinal Cord Stimulation

According to The Faculty of Pain Medicine, The Australian and New Zealand College of Anaesthetists (FFPMANZCA),

Conditions likely to respond:

Failed back surgical syndrome (FBSS)
Refractory angina pectoris
Complex regional pain syndrome
Neuropathic pain secondary to peripheral nerve damage

Conditions that may respond:

Pain associated with peripheral vascular disease
Brachial plexopathy: traumatic (partial, not avulsion), post irradiation
Axial pain following surgery
Intercostal neuralgia, such as post-thoracotomy
Other peripheral neuropathic pain syndromes, such as those following trauma

Conditions that rarely respond:

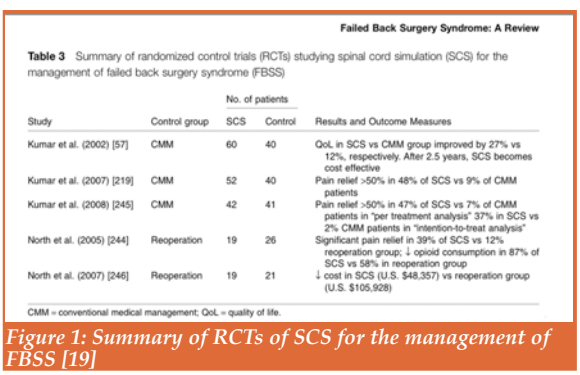
Pain associated with spinal cord damage
Central pain of non-spinal cord origin
Spinal cord injury with clinically complete loss of posterior column function, perineal or anorectal pain

For refractory angina pectoris, SCS has been shown to cause a significant reduction in myocardial ischemia. The anti-ischemic effect of SCS is the consequence of a combination of recruitment of collaterals and a preconditioning-like effect, making the myocyte more resistant to ischemic challenges[13,14]. SCS for angina treatment is accepted in both the European (European Society of Cardiology) and US (American Heart Association/ American College of Cardiology) guidelines.

Spinal cord stimulation for Failed Back Surgery Syndrome (FBSS)

Evidence

There is a large body of evidence to show that SCS is useful in relieving pain for patients with FBSS. The PROCESS study that compared SCS with conventional medical therapy (CMM) in a randomized and controlled manner suggested that SCS is superior to CMM[15]. North and colleagues randomized 60 FBSS patients to either SCS or repeated lumbosacral spine surgery with an average follow-up of three years. They concluded that SCS was more effective than reoperation as a treatment for persistent radicular pain following lumbosacral spine surgery[16]. Recently, Chen et al published a review paper of SCS and revealed strong evidence from various studies that SCS is associated with improvement in pain, quality of life (QOL), function, general health and opioid consumption[17].



Failed Back Surgery Syndrome: A Review

Table 3 Summary of randomized control trials (RCTs) studying spinal cord simulation (SCS) for the management of failed back surgery syndrome (FBSS)

Study	Control group	No. of patients: SCS	No. of patients: Control	Results and Outcome Measures
Kumar et al. (2002) [57]	CMM	60	40	QoL in SCS vs CMM group improved by 27% vs 12%, respectively. After 2.5 years, SCS becomes cost effective
Kumar et al. (2007) [219]	CMM	52	40	Pain relief >50% in 48% of SCS vs 9% of CMM patients
Kumar et al. (2008) [245]	CMM	42	41	Pain relief >50% in 47% of SCS vs 7% of CMM patients in "per treatment analysis" 37% in SCS vs 2% CMM patients in "intention-to-treat analysis"
North et al. (2005) [244]	Reoperation	19	26	Significant pain relief in 39% of SCS vs 12% reoperation group; ↓ opioid consumption in 87% of SCS vs 58% in reoperation group
North et al. (2007) [246]	Reoperation	19	21	↓ cost in SCS (U.S. $48,357) vs reoperation group (U.S. $105,928)

CMM = conventional medical management; QoL = quality of life.

Figure 1: Summary of RCTs of SCS for the management of FBSS [19]

Cost-effectiveness

SCS is a cost effective treatment for FBSS. In 2002, Kumar et al. followed up 104 patients with FBSS to determine total cost of care, QOL and ability to return to employment[18]. The total cost of care and drug intake was lower in patients treated with SCS of whom 15% returned to work compared with none of the CMM patients. In addition, SCS became cost-neutral at 2.25 years and was less costly than CMM later on (Fig. 2).

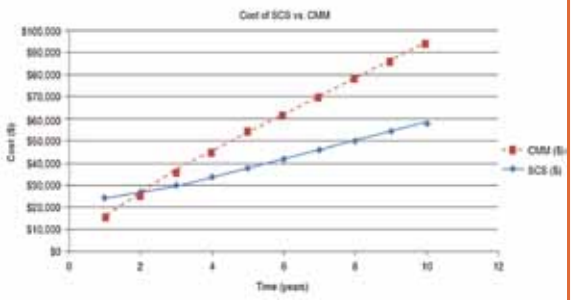


Figure 2

Bala et al. performed a systematic review of the cost-effectiveness of SCS for patients with FBSS[19]. They confirmed that SCS is more effective and less costly than other options in the long term. SCS was also associated with decreased utilization of healthcare resources and cost savings[20].

	Per Patient Per Year					
	Before*	After†	Change	Professional Fee, US $	Facility Fee, US $	Total Cost Savings, US $
Physician office visit	20.6	12.1	−8.5	50	207	2,185
ED visit	3.2	0.7	−2.5	736	828	3,910
Hospitalization	2.9	0.7	−2.3	840	2,484	7,645
Injection (nerve block)	15.7	2.5	−13.2	214	849	14,032
Surgery	3.1	0.9	−0.4	669	3,458	1,651
MRI scan	1.8	0.2	−0.4	677	797	590
CT scan	1.5	0.5	−0.2	316	797	223

Calculation of these numbers was based on the total number of events reported before implant divided by years between first medical visit for pain problem to implant minus total number of events after implant divided by time since implant.
*Before refers to the time interval between the first medical visit for pain problem and device implantation.
†After refers to the time interval since device implantation to the date questionnaire was returned.
ED, emergency department; MRI, magnetic resonance imaging; CT, computed tomography.

Figure 3: SCS is associated with decreased utilization of health care resources[20]

Selection criteria and goal of treatment

All patients being considered for SCS should undergo multidisciplinary assessment of their physical, psychological and social functioning. In general, SCS may be considered in patients with indicated pain conditions in which conventional multidisciplinary management has failed.

The goals of SCS treatment are reduction of pain and analgesic use and improvement in function. These goals should be discussed with and accepted by the patient. The patient should also be committed to ongoing physical therapy or rehabilitation.

The NACC recommends the following selection criteria for implantation of SCS:

1. A well-defined, non-cancer, physiologic (non-psychiatric) cause of pain.
2. Failure of CMM in patients with mixed or neuropathic pain for at least three to six months, but before consideration of long-acting opioid maintenance therapy.
3. Psychological clearance.
   This is to exclude psycho-emotional factors that may impair outcomes. These factors include untreated and severe depression, anxiety, or untreated substance abuse.
4. Discussion of therapy expectations.
5. Elimination of inappropriate drug use before implantation.
6. Absence of unresolved issues of secondary gain or litigation that could potentially be central to the propagation of the pain complaint.
7. Capacity to give informed consent for the procedure.
8. Possession of the cognitive ability to operate SCS equipment.
9. Preoperative MRI or CT myelogram of the spine (within 12 months) to exclude pathology that might confound diagnosis and/or compromise the outcome of SCS.
10. Life expectancy greater than 12 months.
11. Patient willingness and agreement to follow institutional protocol for follow-up visits.

Contraindications

In general, these include uncontrolled bleeding disorder, systemic or local sepsis etc.

Relative contraindications

These include ongoing anticoagulation therapy, immune suppression and the presence of a cardiac pacemaker or implanted defibrillator. Cognitive impairment may preclude SCS if the patient is unable to understand the treatment.

Complications

- Patient-related complications are associated with inappropriate diagnosis or anatomic targeting, unstable psychological status, or inability to comply with device use and continuing maintenance.
- Lead-related complications e.g. lead migration or fracture, extension-related complications, disconnection or misconnection.
- Implantable pulse generator-related complications e.g. battery depletion, “flipping,” and recharging difficulties.
- Technique or therapy-related complications including loss of paresthesia or unpleasant paresthesia.
- Other more common biological-related complications including deep and superficial infections, the development of hematoma or seroma over the device. Less frequent complications include post-dural puncture headache and nerve damage, including spinal cord injury and paralysis.

Factors that affect success and failure of SCS

According to NACC, multiple indicators can help to determine the effectiveness of neuromodulation with SCS; these include the experience of the implanter, the etiology of the patient’s pain, early treatment, the existence of comorbidities that may cause failure or lead to complications, and a well-performed psychologic evaluation to exclude a psychologic cause for pain, and underlying psychoemotional distress, or schizophrenia.

A recent cohort study by Turner et al. utilized inexperienced implanters and consequently reported higher complication rates, as well as the occurrence of rare life-threatening complications[21].

Appropriate Implanter Training and Mentorship

The NACC supports the appropriate training of physicians who perform SCS implantation. This helps to prevent overuse, underuse and misuse of SCS. Appropriate training should include patient selection, contraindications, techniques necessary to achieve appropriate stimulation, the recognition and management of hardware-related and biologic complications, and how and when to collaborate with colleagues from the multidisciplinary team. During formal training, the NACC believes that the implanter should ideally perform a minimum of 10 cases as the primary implanter, while under supervision.

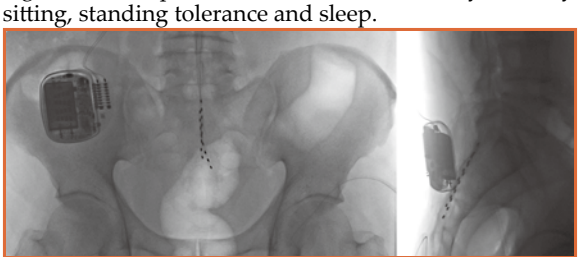
Local Experience of SCS at Queen Mary Hospital, Hong Kong

Patient with Coccydynia

Mr. S is a middle age gentleman with a long history of coccydynia. He was assessed and managed by different disciplines. Nonetheless his pain persisted and was refractory to conventional treatment. He was severely affected by the pain. He suffered from severe pain after 15 minutes of sitting and standing. He was prescribed high dose gabapentin and another non-opioid analgesic. Methadone was started after maximizing the non-opioid analgesic dose and physical therapy. Multiple ganglion impar block and caudal epidural injection were performed, but provided pain relief of only short duration.

Spinal cord stimulator implantation was considered but is technically difficult as the leads must be inserted in a retrograde manner so as to capture the sacral nerves, instead of via a conventional antegrade approach. Trial spinal cord stimulation was arranged and good placement of leads was achieved. Permanent implantation was subsequently performed with good position of leads and good coverage of pain.

Currently, his coccydynia is under good control with minimal pain and he has been successfully weaned off the high dose of gabapentin and methadone. There is good coverage of pain with neurostimulation and significant improvement in terms of daily activity, sitting, standing tolerance and sleep.



Retrograde placement of electrical leads. The leads are in the posterior epidural space.

CONCLUSIONS

Neurostimulation technology has been evolving. It has become an important tool in the medical algorithm to resolve symptoms from disease processes that involve the central or peripheral nervous system.

There is robust evidence that spinal cord stimulation (SCS) is useful in different chronic pain conditions, of which persistent pain following spinal surgery or failed back surgery syndrome are typical examples. It is also well proven to be cost effective in the long term with significant reduction in pain and analgesic consumption, and improved quality of life and daily activity. In view of the above, SCS should be considered as one of the treatment options for those with refractory chronic pain conditions.

Although SCS is a popular treatment in other countries, it is not commonly performed in Hong Kong. There are multifactorial underlying reasons that need to be addressed. Recently, Neuromodulation Appropriateness Consensus Committee (NACC) of the The International Neuromodulation Society (INS) has defined the appropriateness of the use of SCS and offered recommendations regarding SCS use e.g. careful patient selection, maximization of multidisciplinary management, perioperative and long term care, proper training of SCS implanters, accreditation of implanters. It is essential for us to follow these recommendations so as to ensure safety and efficacy of SCS, especially since we are at an early stage in the development of SCS use.

SCS is life-changing therapy. We look forward to the further development of this service in Hong Kong, not only for the benefit of patients, but also for their families and our society.

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Normal Psychological Responses to Chronic Pain

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Ms Vanessa Ngan-chi NG

Patients who present to the clinical psychologist with persistent pain are often in considerable psychological distress, have a long history of pain and report multiple functioning impairments. They are referred to the clinical psychologist by other medical professionals who consider the patient's distress, level of impairment and illness behaviour to be inappropriate or exceed that which might be expected.

It is well established that some psychological factors, or "yellow flags" are related to poor adjustment to chronic pain, such as pain catastrophizing beliefs, low pain self-efficacy, fear-avoidance behaviour, helplessness, pain related anxiety, pain preoccupation, cognitive inflexibility and poor acceptance.

It is tempting for the medical professionals to label patients with these "yellow flags" rather than seeking an explanation for a patient's behaviour from normal psychology. It may be easier to understand patient's "maladaptive" or "problematic" behaviour if one envisages a normal reaction to continuous, unavoidable and intractable pain after repeated failure to resolve it.

This article will attempt to promote an understanding of patients with chronic pain from the perspective of the normal psychological response to a persistent, unwanted experience, that is, PAIN .

Patients' understanding of pain and its management

In the face of an unwelcome event, a normal reaction is to draw upon existing knowledge, coping skills and resources that have previously helped to make sense of and cope with adversity.

For the majority of individuals, pain is a biomedical problem, a warning signal that something wrong. It is not something to be tolerated. Hence, pain itself and the underlying medical problem should be solved from a medical and techno-fix perspective. More intense or long-lasting pain equates to a more severe potential threat to health. Understandably, the individual will go to great lengths to remove the threat, with the hope of restoring premorbid health and functioning that is being disturbed by pain and its underlying pathology. This approach to problem solving has been called "assimilative coping". People may persist with attempts to cure the medical problem that they believe to be the source of their pain. They may 'shop around', visiting numerous doctors with subsequent multiple medical interventions and a consequent increasing risk of iatrogenic complications. When patients fail to resolve their pain, they may become obsessed with their pain at the expense of other important aspects of their life. This process will continue until they are exhausted or are able to make a significant shift in orientation towards acceptance of their problem of intractable pain.

In addition, since a sensation of pain is associated with harm and danger, any action that gives rise to pain will trigger fear. Such actions will then be avoided. It is thought that this fear-avoidance behaviour leads to physical deconditioning that serves to maintain the vicious cycle of disability and impairment.

Pain as a threat to self

In addition to the threat to an individual's physical integrity, pain also threatens sense of identity. Pain interferes with simple everyday tasks, and those tasks that are essential for an individual to achieve valued goals in life. The physical limitations prevent an individual from living their current and future life as planned. Tasks that previously required little effort become a challenge. Tasks previously considered a challenge are now deemed insurmountable. It is common for patients in chronic pain to feel entrapped by that pain with a subsequent inability to actualize the self they hope to become. This kind of forced or unwanted disengagement from the valued self and life goals fuels depression.

Patients logically attribute interruption of their goal attainment to onset of pain, and use their premorbid functioning as a reference for recovery. They believe that once pain is removed, the negative consequences of pain will be mitigated. They can then return to their premorbid status and resume normal valued activities. In this way, if no other alternatives are perceived, striving for pain resolution may become a salient goal, and seemingly the most straightforward way to restore their life.

This assimilative coping is informed by beliefs about the origins and the controllability of pain. It is equally possible that attempts to resolve pain are fuelled by the value of goals that contribute to a patient's sense of self that are too painful to compromise or to give up. It is hard for them to disengage from the assimilative coping strategy, although to the outsider, alternative coping strategies are clearly needed. This may explain why those who catastrophize about chronic pain persevere in their search for a pain cure, despite the associated frustration, as well as profound emotional and personal consequences.

The role of medical professionals

Treatment is guided by formulation of the problem. As a medical professional, a non-pathological formulation of chronic pain will affect perception of the patient and choice of treatment; response to the patient, and expression of sympathy or indifference will likewise create patient's experience of pain, and influence one's pain perception and reactive behaviour. A belief that a patient's psychological reaction is appropriate or excessive will also direct choice of intervention.

Being able to listen in a non-judgmental way to a patient's story of pain is the first step to establish the non-pathological formulation of that patient's problems. Patient experience of pain, belief about the cause, meaning and consequences of pain, can provide valuable information about what causes distress and prevents adjustment. Encouraging patients to share their pain experience enables the medical professional to correct their negative view of pain and its management, and to foster adaptive pain appraisal. Patients need to be fully informed about the reasons for their pain before they can move towards understanding and acceptance. It also offers professionals the chance to help them see the alternatives in life despite pain. If a patient's pain is acknowledged and understood, the strength can be found to accept and live with what was initially considered threatening and aversive, and re-engage and devise new valuable and realistic goals that are less affected by pain.

It is well known that the problem of chronic pain can be increasingly complicated by various psychosocial sequelae that emerge gradually as pain is prolonged. These psychosocial sequelae such as low self-worth, helplessness, financial stress, change in family relationships, or stress from litigation issues, will further challenge a patient's mental resources to cope with pain adaptively. Nonetheless early intervention may help prevent many complications. For medical professionals who are not a psychologist but nonetheless often confronted by patients early on in their chronic pain, the ability to understand the normal psychological response to pain, and to practice simple psychological coping techniques early on may prevent increasing disability.

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Dermatological Quiz

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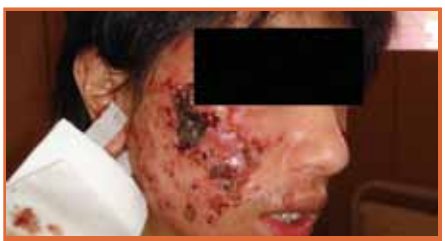

Fig.1: Haemorrhagic crust and seropurulent discharge on the face

Fig.2: Multiple pustules and comedones

This 20-year-old man had had pimples since he was a teenager. He had been treated with oral tetracycline for a few weeks before the skin lesions suddenly deteriorated. He had multiple pustules, sinuses with sero-purulent discharge and haemorrhagic crusts on his face (Fig.1 & 2), and multiple comedones over his upper trunk. He reported no systemic symptoms such as fever or arthralgia. Laboratory tests revealed a normal ESR and white cell count. His past health was otherwise good.

Questions:

1. What is your diagnosis of his skin lesions?
2. What are the differential diagnoses?
3. What are the possible associations with other skin diseases?
4. How do you treat this disfiguring skin disease?

(See P.28 for answers)

Stage Specific Occupational Therapy Services for Chronic Pain Adaptation

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Introduction

When all treatments for chronic pain have been exhausted, patients will often be advised to just live with their pain: easy to say, less so to achieve.

The Pain Clinic of the Queen Elizabeth Hospital (QEH) was set up in early 1990. Pain services were initially provided by a multi-disciplinary team comprised of doctors, nurses, a physiotherapist, and clinical psychologists. In 2009, occupational therapists were invited to join the team to provide services that focused on pain adaptation, i.e. helping the patient to adapt to their chronic pain and to "live with pain".

Over the years, we have experimented and developed the service by integrating lifestyle and coaching approaches in occupational therapy. These services are designed under the umbrella concept of "Acceptance and Adaption". We explore new forms of occupational therapy that can help patients to live with pain and develop new life roles and lifestyle. We also identify the optimal care path and level of therapy that are both clinical and cost effective.

In this paper, we describe the pathway of pain adaptation observed in many patients, our latest model of occupational therapy service delivery, and the spectrum of services at different stages of pain adaptation for patients referred to us from the pain clinic.

Stages of Pain Adaptation

We have witnessed many patients who accept the chronic nature of their condition, adapt to the pain, and develop new lifestyles that are compatible with their functional limitations and residual capacity. Many of them follow a similar path but at a different pace. We operationally divide the process of pain adaptation into several stages to guide occupational therapy. We have identified four major stages in pain adaptation: pre-adaptation stage, active learning stage, new role emerging stage, life role consolidation stage. Some patients may take several months to progress through the stages, others several years.

Occupational therapists provide stage specific services to help patients consolidate one stage and advance to the next. The chart below summarises the occupational therapy aims and programs applicable to each stage of the pain adaptation process.

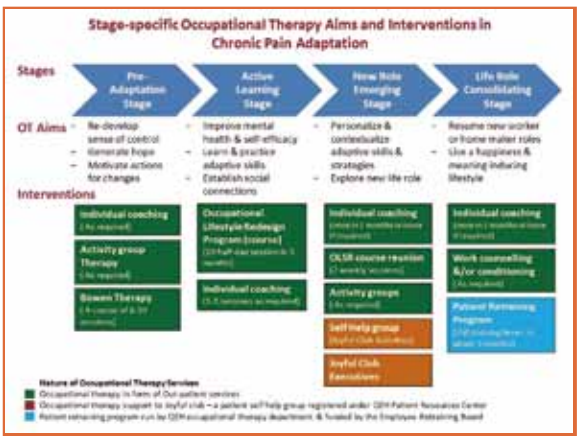

Figure 1. Stage specific occupational therapy aims and intervention for patients with chronic pain.

Occupational Lifestyle Redesign Process

Since 2006, occupational therapists at Queen Elizabeth Hospital have devised programs for out-patients who have "occupational lifestyle dysfunction" secondary to functional limitations or chronic illness, e.g. stroke, depression, HIV, Parkinsonism, psychosis, and chronic pain. Such dysfunctions hinder their process of adaptation.

The meaning of the term "lifestyle" differs by context. We use the term "occupational lifestyle" to differentiate an aspect of lifestyle that refers to what, when, where, how, why, and with whom one habitually does in the area of home, family, social, work, leisure and spiritual life; and how these activities are arranged, prioritized, and balanced temporally. The key word "does" is a core element of the definition that implies active participation in everyday life, the core concern of occupational therapy practice. In most healthy people, their occupational lifestyle supports, to various extents, their physical and mental health, fosters personal growth and development, and leads to a generally happy and purposeful life.

Most clients who are recovering from illness or injury experience a period of functional decline. The decline leads to disruption in lifestyle. Another term "occupational lifestyle dysfunction" is used to refer to the failure to maintain the customized occupational lifestyle for a variety of reasons, e.g. illness, disabilities, aging; or failure to establish a new occupational lifestyle compatible with an individual's physical and

mental health, available resources, personal goals, and environmental or social demands. Occupational lifestyle dysfunction is manifested as lack of activity (happiness, flow and meaningful activities) and/or imbalance in activities of everyday life. For example, in an individual who suffers chronic pain, daily life may center on medical treatment and treatment related activities, or doing nothing for a prolonged period of time. The consequences of lifestyle dysfunction include dissatisfaction with life, lack of interest in everyday activities, lack of psychological strength to meet the challenges of everyday life, and deterioration in overall physical and mental health. A vicious cycle of an imbalanced and unsatisfactory life is thus established.

Occupational lifestyle redesign is a process that requires active and conscious effort to explore, experiment and develop new habits, and internalizing of old and/or new daily activities, including self-care, home maintenance, work, leisure, social and spiritual activities. These can be prioritized and incorporated into a new lifestyle in which physical and mental health can be maintained, spirit nurtured, personal growth facilitated, and meaning and happiness fostered. Occupational therapists see the ultimate goal of pain adaptation as the re-establishment of a new life role and lifestyle that is compatible with the functional limitations and residual capacity. Pain adaptation is thus viewed in the same way as the occupational lifestyle redesign process.

Stage Specific Occupational Therapy for Chronic Pain

Pre-adaptation stage

In the pre-adaption stage, patients are unable to accept their chronic condition symptoms. They tend to look for a "proper" diagnosis for the source of pain in order to receive medical or alternative treatment. Disappointment, helplessness and loss of hope are common features in these patients. Active learning for adaptation has not yet begun.

We develop occupational therapy services for patients with chronic pain under the umbrella concept of "Acceptance and Adaption". We understand that people need to accept their current chronic condition of pain before they can learn to adapt. We also see that a small step in learning to adapt can facilitate acceptance. Therefore, we see acceptance and adaptation as a gradual process: acceptance does not need to be complete before the adaptation process can begin. Rather, we see acceptance and adaption as spiraling cycles that are mutually facilitative.

Acceptance cannot be achieved solely through persuasion, counseling, and cognitive therapy. Experiencing and being aware of small successes in everyday life can energise and facilitate acceptance. This is achieved through the mechanism of positive emotions and self-efficacy. The main aim of occupational therapy interventions at this stage is to facilitate acceptance. We create an environment that enables the patient to experience some successes. We aim to help patients re-develop a sense of self-control (of their body and behavior), generate hope, and motivate actions for small changes. We encourage patients to go out of their home, meet their friends, or attend group activity therapy sessions organized by the therapists, e.g. cooking, badujin, and handicrafts, and build friendships with fellow patients. Through these activities, we engage patients with the therapists and other patients and take small steps towards change.

Figure 2. Badujin exercise

Figure 3. Art and craft class

A short course of Bowen Therapy may be provided to those who are experiencing severe pain even when they are receiving various types of pharmaceutical and interventional therapy. Bowen Therapy is a gentle and relaxing cross-fiber movement approach that aims to release tension in the fascia and musculoskeletal system to promote the flow of blood and lymph, and thereby assist the body in restoring structural integrity and optimal function. Bowen Therapy works through muscle reflexes to alert the central nervous system to release tension in areas that are holding more tension and tone in order to restore normal resting muscle tone. A cascade of responses is triggered by such a simple process that results in an interruption of the pain and tension cycle and a return to more optimal function.

Occupational therapists who are a certified Bowen Therapy practitioner will provide a short course of 6-10 sessions of Bowen therapy to patients who are unable to participate in any form of "Active" therapy, for example activity group therapy or occupational lifestyle redesign program. In many of these patients, a short period of time when pain is reduced can encourage participation in the above therapies in the pre-adaptation stage or enable progress to the active learning stage.

Active learning stage

In the active learning stage, therapists aim to help patients interrupt the vicious cycle of occupational lifestyle dysfunction and develop a benign cycle of learning and adaptation so that they can advance to the

next stage of adaptation. Specifically, we help patients to improve their mental health and self-efficacy, learn and practice adaptive skills, and establish social connections. Patients are invited to participate in a program of 10 weekly sessions of occupational lifestyle redesign (OLSR). A further two booster sessions (re-union session) are offered at 3 months after the 10 sessions have been completed.

The OLSR program is presented as a training course (生活重整課程) with the emphasis on the patient as an active learning participant, not a passive recipient of treatment. The two core elements of the OLSR program are: (1) the practice of weekly goal setting and implementation in various life domains within the functional capacity of the participants, and (2) the learning, personalization and contextualization of adaptive strategies and skills in important life domains through the implementation of weekly action plans.

The OLSR program is organized in three phases. In the first phase, subjects are encouraged to pursue enjoyable activities to boost their mood. In the second phase, they are helped to learn and practice adaptive strategies and skills to meet the demands of everyday life activities. In the third and final phase, they are encouraged to plan a lifestyle that is compatible with their residual capacity and resources.

OLSR programs play an important role in helping those patients who need extra help to overcome obstacles to acceptance and adaptation. The traditional concern of occupational therapy in training everyday life functional skills transcends to another level of lifestyle development. Repeated successful participation in a range of occupations that are meaningful, challenging but achievable, and allow personalization of adaptive strategies generate huge energy that enables the patient to achieve a higher level of awareness and self-efficacy. Many patients report experiencing a miraculous occupational experience that strengthens their willpower to accept and adapt to their painful condition and re-establish a compatible lifestyle.

New Role Emerging Stage

From experience, about 10-15% of patients who complete the OLSR program do not achieve the goals and need to complete another OLSR program. Successful patients will advance to the next stage of adaptation.

In our experience, the majority of patients who complete the OLSR program are energized and motivated to change and explore a new way to live with pain. In the new role emerging stage, occupational therapy aims to help patients further personalize and contextualize adaptive skills and strategies, in essential life domains. Therapists will also encourage patients to explore new life roles that are compatible with their condition and available resources. In this stage, therapists provide an individual coaching session once every 3 months to further energise and encourage self-practice in the patient's real life environment.

Occupational therapists have helped patients who have "graduated" from the OLSR program to form an "alumni association". It takes the form of a patient self-help group, with the name Joyful Club (樂德會), and is registered under the Patient Resource Center (PRC) of the QEH. Joyful Club established a motto of "營樂尚德". All activities of the Club revolve around the active process of cultivating happiness, and pursuing virtue through services and contribution. PRC social workers and occupational therapists join hands to support the running of the Club. In the new role emerging stage, patients are encouraged to participate in various Club activities, including educational seminars, interest classes, social gatherings and picnics. These activities are regarded as "laboratories" for the patients to personalize and contextualize adaptive skills and strategies in a non-treatment environment to establish a new role in their social life. These opportunities are especially essential for those who cannot organize activities for themselves. Some patients are encouraged to take on an executive role in the Joyful Club as a member of the executive committee. They are required to plan and organize activities for other members. Occupational therapists act as advisors and guide members to stay on track as stipulated in their motto. Since many of these members are affected by their pain, there may be tasks that cannot always be accomplished. In such cases, occupational therapy staff will provide temporary support. Individual coaching will also be provided to help individual members overcome any obstacles that hinder their role as an executive committee member. A common challenge faced by committee members is the need to control their mood and emotions in the process of working and collaborating with fellow members. Influenced by their pain, some members are prone to emotional outbursts. Therapists will intervene from time to time to help the group stay together, and to help individual members to overcome and work through their emotional and social barriers towards adaptation.

Figure 4. Joyful Club Committee

Patients need to re-develop their lifestyle and life role in various important life domains if they are to complete the pain adaptation process. In the new role emerging stage, therapists will coach the patient to start by resuming a social life and leisure activities, followed by family life. Patients are encouraged to perform voluntary work to determine their work capacity and cultivate a desire to return to gainful employment. Successful participation in activities in these life domains can generate massive positive emotions and hope for further adaptation. When a life role in these domains emerges, the patient can proceed to another stage of pain adaptation.

Life Role Consolidation Stage

Work is an important element of human life. It provides the individual with a full identify and sense of value.

This applies to people of working age and those who are retired. Re-establishment of the role of worker or home-maker is the final stage of pain adaptation. When patients have successfully adapted to their home, social and leisure life, many feel a need to return to work. Occupational therapists provide vocational counseling and coaching to foster this process. Many patients are able to resume work part-time and then progress to a full time job of their choice.

Those who need more intensive return-to-work training are invited to join the patient retraining and vocational resettlement services provided by the department of occupational therapy. The training program is funded by the Employee Retraining Board and organized by occupational therapists and placement officers. The 8 week full time training includes teaching about the current labor market, self awareness of work capacity and vocational interest, and learning elementary work-related computer, job hunting and interviewing skills, communication and social skills in the work place and finally assisted job hunting and post-placement support. For housewives, retirees and people who decide to retire following the injury, developing a new role of home-maker is important so the individual can feel valued. This is an important element in life that supports health, especially the mental health of a person. Therapists provide individual coaching in the process of life role consolidation.

Conclusion

Over the last few years, we have been referred an increasing number of patients from the pain clinic. We have helped the majority of these patients commence their journey of pain adaptation. Each year we organize a "graduation" ceremony for all those who complete the occupational lifestyle redesign program. In the course of these ceremonies, we are able to hear many patients share their successful stories of how they broke the vicious cycle of pain and lifestyle dysfunction and embarked on their journey of adaptation.

The results of our work show that the lifestyle approach of occupational therapy complements the work of the multidisciplinary pain clinic for people with chronic pain. We also recognize that coaching is the right approach to help our patients complete the process of pain adaptation. We receive very encouraging feedback from pain clinic doctors, nurses, patients and their family members. In the future, we will further refine our existing services, explore new interventions and optimize our care model for our patients.

Figure 5. Graduation Ceremony of OLSR classes, 2014

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Humanity and the Silent Brave Humans!!

Dr MENON Basi M.R.B.

Private Anaesthetist

For want of some distraction from our daily involvement in medical care, I thought I would take the liberty of highlighting the immense suffering of some brave individuals who nonetheless find a way to cope with life.

I am aware of the large contribution of medical professionals and others to reduce suffering, and the relentless desire of most to find a way to contribute meaningfully to the disadvantaged and destitute. It is in this context that I relate a story that brought me close to tears, and allows me to expand on my efforts to assist those most in need.

I have been involved with several organizations that perform a range of humanitarian work, and are connected to the Catholic Church in different countries. Please understand this is not an attempt to promote the Catholic Church or Catholicism. Rather I had the good fortune to meet well-meaning people, mostly nuns, who ensured that every last cent donated reached the most needy.

The past years have been very fulfilling. I have been able to be close to the very people I am helping, without their knowing my role. My most recent experience was a family in which the only wage-earner became a quadriplegic following an accident. Most of the workforce in the Middle East is recruited from India, Pakistan, Sri Lanka or Bangladesh. I witnessed the bravery and commitment of a family and a wife who has stayed and cared for her husband for 30 years (with no organizational support), while struggling to raise her sons. They moved into the hospital attached to the convent and the group with whom I am connected because she can no longer cope alone. This picture of the family and the expression on their faces shows how bravely they have survived despite the many difficulties.

Today, the nuns and nursing staff provide free care for him, along with many others.

Over the years, hundreds of destitute people with every conceivable illness as well as those who are terminally ill have found a loving group of people in this 25 bed hospital. They have passed their last days in peace and dignity, with the joy of knowing that they have a family to care for them.

As I write after my last visit and stay two weeks ago, there are terminally ill and grossly brain damaged, near comatose patients being cared for by this group. This person has evident physical limitations yet she is smiling, even though she also has an inoperable breast carcinoma. Hers is not the perfect environment but the touch and care of fellow human beings has made the difference. This is nothing new to many of you.

What would warm your heart is the knowledge that within a 20 mile radius of this location in India there are several other groups who do very similar work, with maybe slightly different characteristics, but essentially providing comfort for some of those most in need.

I am constantly humbled by the extended contact I have here compared with other countries where the same situation may be totally unnoticed by the largest majority.

Would I have to make a disclosure ? Working in this environment has been the most fulfilling for me. I am not a Catholic by faith. I would argue that my faith is merely humanity.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2
3	4	★ HKMA Council Meeting 5	6	7	8	★ CME Lecture - Refresher Course for Health Care Providers 2015/2016 9
10	11	★ HKMA Yau Tsim Mong Community Network - Advances in Management of Sudden Hearing Loss (1) Management of Sudden Hearing Loss (2) New Horizons for Better Hearing ★ HKMA Kowloon West Community Network - New Horizons for Managing Type 2 Diabetes with High CV Risk ★ Inter-hospital Rheumatology Meeting 2015 1)Management of Refractory Cataneous Lesions of Systemic Lupus Erythematosus 2) Case Presenatation 12	★ Hong Kong Neurosurgical Society Monthly Academic Meeting – Neuromodulation in Epilepsy ★ HKMA Central, Western & Southern Community Network - Seminar on Management of Common Breastfeeding Problems: What Primary Care Doctors Need to Know and Practice? 13	★ HKMA Hong Kong East Community Network - New Horizons for Managing Type 2 Diabetes with High CV Risk ★ HKMA Kowloon East Community Network - Hypertension Review and Update ★ HKMA Structured CME Programme with HKS&H Session 1: Minimally Invasive Surgery in Spine 14	15	16
17	18	19	20	21	22	★ 11th HKMA Sports Night 23
24	25	★ HKMA Kowloon West Community Network - How to Avoid being Brought to the PIC? 26	★ HKMA Central, Western & Southern Community Network - Management of CKD Patients before and while on Dialysis 27	★ HKMA Kowloon East Community Network - OA Knee Handling in Elderly ★ HKMA New Territories West Community Network - New Horizons for Managing Type 2 Diabetes with High CV Risk ★ HKMA Hong Kong East Community Network - Unicompartmental Knee Arthroplasty – Joint Replacement for The Active Patients 28	★ Joint Surgical Symposium Liposuction - Another Option of Reconstruction ★ HKMA Yau Tsim Mong Community Network - Getting to the Heart of Cardiovascular Risk in People with Type 2 Diabetes 29	30
31						

Date / Time	Function	Enquiry / Remarks
5 TUE 8:00 PM	**HKMA Council Meeting** Organiser: The Hong Kong Medical Association; Chairman: Dr. SHIH Tai Cho, Louis; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong	Ms. Christine WONG Tel: 2527 8285
9 SAT 2:15 PM	**CME Lecture - Refresher Course for Health Care Providers 2015/2016** Organiser: The Hong Kong Medical Association; Speaker: Dr. Cheng Tin Sik; Venue: Training Room II, 1/F, OPD Block, Our Lady of Maryknoll Hospital, 118 Shatin Pass Road, Wong Tai Sin, Kowloon	Ms. Clara Tsang Tel: 2354 2440 2 CME Point
12 TUE 1:00 PM	**HKMA Yau Tsim Mong Community Network - Advances in Management of Sudden Hearing Loss (1) Management of Sudden Hearing Loss (2) New Horizons for Better Hearing** Organiser: HKMA Yau Tsim Mong Community Network; Chairman: Dr. CHAN Wai Keung, Ricky; Speaker: Dr. CHOW Shun Kit & Mr. Saga KEUNG; Venue: Jade Ballroom, Level 2, Eaton, Hong Kong, 380 Nathan Road, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA Kowloon West Community Network - New Horizons for Managing Type 2 Diabetes with High CV Risk** Organiser: HKMA Kowloon West Community Network; Speaker: Dr. TONG Chun Yip, Peter; Venue: Crystal Room IV-V, 3/F., Panda Hotel, 3 Tsuen Wah Street, Tsuen Wan, N.T.	Miss Hana YEUNG Tel: 2527 8285
6:00 PM	**Inter-hospital Rheumatology Meeting 2015** **1) Management of Refractory Cataneous Lesions of Systemic Lupus Erythematosus** **2) Case Presenatation** Organiser: The Hong Kong Society of Rheumatology; Speaker: Dr. TSE Yin Fung; Venue: Hospital Authority Headquarters, Room 205S	Miss LEE Ka Lai 9229 4616
13 WED 7:30 AM	**Hong Kong Neurosurgical Society Monthly Academic Meeting – Neuromodulation in Epilepsy** Organiser: Hong Kong Neurosurgical Society; Chairman: Dr Danny CHAN; Speaker: Dr HO Lok Yan, Faith; Venue: M Block Ground Floor Lecture Theatre, Queen Elizabeth Hospital	Dr. LEE Wing Yan, Michael Tel: 2595 6456 1.5 CME Point
1:00 PM	**HKMA Central, Western & Southern Community Network - Seminar on Management of Common Breastfeeding Problems: What Primary Care Doctors Need to Know and Practice?** Organiser: HKMA Central, Western & Southern Community Network and Primary Care Office of the Department of Health; Chairman: Dr. TSANG Chun Au; Speaker: Dr. FUNG Wai Han, Amy; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F., Chinese Club Building, 21-22 Connaught Road Central, Hong Kong	Miss Hana YEUNG Tel: 2527 8285 1 CME Point
14 THU 1:00 PM	**HKMA Hong Kong East Community Network - New Horizons for Managing Type 2 Diabetes with High CV Risk** Organiser: HKMA Hong Kong East Community Network; Chairman: Dr. CHAN Nim Tak, Douglas; Speaker: Dr. TONG Chun Yip, Peter;Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong	Ms. Candice TONG Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA Kowloon East Community Network - Hypertension Review and Update** Organiser: HKMA Kowloon East Community Network; Chairman: Dr. AU Ka Kui, Gary; Speaker: Dr. TSE Kai Fat; Venue: Lei Garden Restaurant (利苑酒家), Shop no. L5-8, apm, Kwun Tong, No. 418 Kwun Tong Road, Kwun Tong, Kowloon	Miss Hana YEUNG Tel: 2527 8285 1 CME Point
2:00 PM	**HKMA Structured CME Programme with HKS&H Session 1: Minimally Invasive Surgery in Spine** Organiser: The Hong Kong Medical Association & Hong Kong Sanatorium & Hospital; Speaker: Dr. KO, Joshua; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F., Chinese Club Building, 21-22 Connaught Road Central, Hong Kong	HKMA CME Dept. Tel: 2527 8452 1 CME Point
23 SAT 7:00 PM	**11th HKMA Sports Night** Organiser: The Hong Kong Medical Association; Chairman: Dr. CHAN Hau Ngai, Kingsley & Dr. IP Wing Yuk; Venue: The Grand Hall, 28 Harbour Road, Wanchai, Hong Kong	Mr. Ian KWA Tel: 2527 8285
26 TUE 1:00 PM	**HKMA Kowloon West Community Network - How to Avoid being Brought to the PIC?** Organiser: HKMA Kowloon West Community Network; Chairman: Dr. TONG Kai Sing; Speaker: Dr. CHOI Kin; Venue: Crystal Room IV-V, 3/F., Panda Hotel, 3 Tsuen Wah Street, Tsuen Wan, N.T.	Miss Hana YEUNG Tel: 2527 8285 1 CME Point
27 WED 1:00 PM	**HKMA Central, Western & Southern Community Network - Management of CKD Patients before and while on Dialysis** Organiser: HKMA Central, Western & Southern Community Network; Chairman: Dr. LAW Yim Kwai; Speaker: Dr. HO Chung Ping, MH, JP; Venue: HKMA Central Premises, Dr. Li Shu Pui Professional Education Centre, 2/F., Chinese Club Building, 21-22 Connaught Road Central, Hong Kong	Miss Hana YEUNG Tel: 2527 8285 1 CME Point
28 THU 1:00 PM	**HKMA Kowloon East Community Network - OA Knee Handling in Elderly** Organiser: HKMA Kowloon East Community Network; Chairman: Dr. LEE Fook Kay, Aaron; Speaker: Dr. LIE Wai Hung, Chester; Venue: Pier 88 (稻香超級漁港), Shop 203, 2-3/F., Fung Tak Shopping Centre, Fung Tak Estate, Diamond Hill	Miss Hana YEUNG Tel: 2527 8285
1:00 PM	**HKMA New Territories West Community Network - New Horizons for Managing Type 2 Diabetes with High CV Risk** Organiser: HKMA New Territories West Community Network; Speaker: Dr TING Zhao Wei, Rose; Venue: Gold Coast Yacht and Country Club (黃金海岸鄉村俱樂部 - 遊艇會), 1 Castle Peak Road, Castle Peak Bay, Hong Kong	Miss Hana YEUNG Tel: 2527 8285 1 CME Point
1:00 PM	**HKMA Hong Kong East Community Network - Unicompartmental Knee Arthroplasty – Joint Replacement for The Active Patients** Organiser: HKMA Hong Kong East Community Network; Speaker: Dr. LEUNG Kaa Kei; Venue: HKMA Wanchai Premises, 5/F, Duke of Windsor Social Service Building, 15 Hennessy Road, Hong Kong	Ms. Candice TONG Tel: 2527 8285 1 CME Point
29 FRI 8:00 AM	**Joint Surgical Symposium** **Liposuction - Another Option of Reconstruction** Organiser: Department of Surgery, The University of Hong Kong & Hong Kong Sanatorium & Hospital; Chairman: Dr. Gordon MA; Speakers: Dr. NG Wai-Man; Dr. LIU Hin-Lun; Venue: Hong Kong Sanatorium & Hospital	Tel: 2835 8698 1 CME Point
1:00 PM	**HKMA Yau Tsim Mong Community Network - Getting to the Heart of Cardiovascular Risk in People with Type 2 Diabetes** Organiser: HKMA Yau Tsim Mong Community Network; Chairman: Dr. CHAN Ka Wing, Joseph; Speaker: Dr. CHAN Wing Bun; Venue: Pearl Ballroom, Level 2, Eaton, Hong Kong, 380 Nathan Road, Kowloon	Ms. Candice TONG Tel: 2527 8285 1 CME Point

Answers to Dermatological Quiz

Answer:

1. Acne conglobata
   Acne conglobata is a severe form of nodulocystic acne, and characterized by draining sinus tracts with interconnecting abscesses, foul-smelling seropurulent discharge and extensive scars, often resulting in pronounced disfigurement. Trunkal involvement with multiple comedones is common. Onset is usually acute with a sudden deterioration of existing acne.

2. Acne fulminans and gram-negative folliculitis
   Clinically, acne conglobata may mimic acne fulminans. The latter is usually associated with systemic symptoms such as fever and polyarthritis, painful ulcers, absence of comedones and non-inflammatory cysts, an elevated ESR and leukocytosis. Typically gram-negative folliculitis also occurs suddenly during treatment with oral antibiotic for acne. Clinically it presents with multiple inflamed pustules but is seldom as severe as acne conglobata.

3. Hidradenitis suppurativa and pyoderma gangrenosum are the known associations.
   Acne conglobata is also one the four components of the follicular occlusion tetrad, together with dissecting cellulitis of the scalp, hidradenitis suppurativa and pilonidal cysts.

4. The therapy of choice for acne conglobata includes oral isotretinoin 0.5-1 mg/kg/day and simultaneous use of oral prednisone 0.5-1 mg/kg/day. Oral steroid should be started as soon as possible to minimize permanent scarring. Oral antibiotic is often used as well. Nonetheless oral tetracycline should not be combined with oral isotretinoin. Though extremely rare, benign intracranial hypertension (pseudotumour cerebri) has been reported with the use of both drugs.

Dr Lai-yin CHONG
MBBS(HK), FRCP(Lond, Edin, Glasg), FHKCP, FHKAM(Med)
Specialist in Dermatology & Venereology

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FEBURIC® 80mg Abridged Prescribing Information
Indication: Treatment of chronic hyperuricaemia in conditions where urate deposition has already occurred (including a history, or presence of, tophus and/or gouty arthritis). **Dosage and administration:** The recommended oral dose of FEBURIC is 80 mg once daily without regard to food. Gout flare prophylaxis of at least 6 months is recommended **Contraindications:** Hypersensitivity to the active substance or to any of the excipients. **Warnings and precautions:** Patients with cardio-vascular disorders, acute gouty attacks, xanthine deposition, thyroid disorder, galactose intolerance, Lapp lactase deficiency, glucose-galactose malabsorption and who are concomitantly treated with mercaptopurine/azathioprine and theophylline. Liver function test is recommended prior to the initiation of therapy with febuxostat and periodically thereafter based on clinical judgement. **Undesirable effects:** The most commonly reported ADRs are liver function abnormalities (3.5%), diarrhoea (2.7%), headache (1.8%), nausea (1.7%), rash (1.5%).
Full prescribing information is available upon request

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