Evidence-based interventions to improve the palliative care of pain, dyspnea, and depression at the end of life: a clinical practice guideline from the American College of Physicians.

Qaseem A, Snow V, Shekelle P, Casey DE Jr, Cross JT Jr, Owens DK; Clinical Efficacy Assessment Subcommittee of the American College of Physicians, Dallas P, Dolan NC, Forciea MA, Halasyamani L, Hopkins RH Jr, Shekelle P.

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**RECOMMENDATION 1: In patients with serious** illness at the end of life, clinicians should regularly assess patients for pain, dyspnea, and depression. (Grade: strong recommendation, moderate quality of evidence.) RECOMMENDATION 2: In patients with serious illness at the end of life, clinicians should use therapies of proven effectiveness to manage pain. For patients with cancer, this includes nonsteroidal anti-inflammatory drugs, opioids, and bisphosphonates. (Grade: strong recommendation, moderate quality of evidence.) RECOMMENDATION 3: In patients with serious illness at the end of life, clinicians should use therapies of proven effectiveness to manage dyspnea, which include opioids in patients with unrelieved dyspnea and oxygen for short-term relief of hypoxemia. (Grade: strong recommendation, moderate quality of evidence.) RECOM-MENDATION 4: In patients with serious illness at the end of life, clinicians should use therapies of proven effectiveness to manage depression. For patients with cancer, this includes tricyclic antidepressants, selective serotonin reuptake inhibitors, or psychosocial intervention. (Grade: strong recommendation, moderate quality of evidence.) RECOMMENDATION 5: Clinicians should ensure that advance care planning, including completion of advance directives, occurs for all patients with serious illness. (Grade: strong recommendation, low quality of evidence.).

# Age-related prevalence of facet-joint involvement in chronic neck and low back pain.

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BACKGROUND: Spinal pain is common in all age groups. While the research has focused primarily on incidence and prevalence in younger working adults, there is evidence that spinal pain is one of the most frequent complaints in older persons and is responsible for functional limitations. While facet arthrosis is a common radiographic finding, which has been suggested to be a potential cause of spinal pain, nearly 10% of all adults show signs of degeneration by the time they reach age 30. Radiographic changes of osteoarthritis have been shown to be equally common in patients with and without low back or neck pain. The studies of low back pain have shown the prevalence of facet joint involvement to be approximately 15% to 45%. However, age related prevalence of facet joint neck pain has

not been studied. OBJECTIVE: To assess age-related prevalence and false-positive rates of facetjoint involvement in chronic spinal pain using controlled comparative local anesthetic blocks. DESIGN: Retrospective analysis of 424 patients, divided into 6 groups based upon age (Group I: aged 18 - 30 years, Group II: aged 31 - 40 years, Group III: aged 41 - 50 years, Group IV: aged 51 - 60, Group V: 61 - 70 years, and Group VI: greater than 70 years of age). RESULTS: The prevalence of cervical facet joint-related pain was the lowest (33%) in Group VI and highest (42%) in Group I. False-positive rates for cervical facet joint blocks ranged from 39% (Group III) to 58% (Group V) with an overall false-positive rate of 45%. The prevalence of facet joint involvement in lumbar spinal pain ranged from 18% (in Group II) to 44% (in Group IV), with significant differences noted when Group II and Group III were compared to other groups and with higher rates in Group V. CONCLUSION: This study demonstrated a variable age-related prevalence of facet joint pain in chronic low back pain, whereas in the cervical spine it was similar among all the age groups.

## Accepting low back pain: is it related to a good quality of life?

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OBJECTIVES: Whether individuals with chronic low back pain (CLBP) are willing to accept their pain, is of interest to pain management, but how far is the acceptance of pain related to a good quality of life (QoL)? Recently available measures now enable this question to be investigated; these are (1) the Chronic Pain Acceptance Questionnaire (CPAQ) and a revised version, here described as a short-form (SF-CPAQ), and (2) the World Health Organization Quality of Life Assessment (WHOQOL)-Pain, which is composed of the generic WHOQOL-100 profile (25 facets in 6 domains), and 4 additional facets within a speci-

fic pain and discomfort module (PDM). MET-HOD: Eighty-six CLBP outpatients (62.8% female, mean age 54.3 y, mean pain duration 69.4 mo) completed the CPAQ and WHOQOL-Pain, mailed 2 weeks before a pain clinic appointment. RESULTS: General QoL was positively associated with overall acceptance of pain (CPAQ: r=0.376, P=0.003; SF-CPAQ: r=0.582, P<0.001), and with activity engagement (r=0.455, P<0.001) and pain willingness (r=0.493, P<0.001) specifically. Lower reports of pain were also associated with a better QoL (r=-0.349, P=0.002). Pain level was important in explaining QoL relating to the physical and social domains and pain-related facets assessed by the PDM. Overall, acceptance contributed to explain QoL in the level of independence and environment domains and for pain-related QoL assessed by the PDM. However, pain and acceptance only made a modest contribution to explaining psychologic and social dimensions of QoL. DISCUSSION: The results indicate that present pain level and whether or not pain is accepted play an important role in the QoL of patients with chronic pain. Additionally, the results provide construct validity for the WHOQOL-Pain and SF-CPAQ measures, especially dimensions of pain willingness and activities engagement. The findings have implications for the way health care is delivered, particularly for the role of acceptancebased treatments for individuals with CLBP.

## Peripheral nerve stimulation for neuropathic pain.

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Peripheral nerve stimulation (PNS) has been used for treatment of neuropathic pain for more than 40 years. Recent resurgence of interest to this elegant surgical modality came from the introduction of less invasive implantation techniques and the wider acceptance of neuromodulation as a treatment of medically refractory cases. This article reviews the literature on the use of PNS for neuropathic pain and describes current indications and hardware choices in frequent use. Published experience indicates that neuropathic pain responds to PNS in many patients. PNS works well in both established indications, such as post-traumatic and postsurgical neuropathy, occipital neuralgia, and complex regional pain syndromes, and in relatively new indications for neuromodulation, such as migraines and daily headaches, cluster headaches, and fibromyalgia. Future research and growing clinical experience will help in identifying the best candidates for PNS, choosing the best procedure and best hardware for each individual patient, and defining adequate expectations for patients and pain specialists.

### Atypical odontalgia pathophysiology and clinical management.

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J Oral Rebabil. 2008 Jan;35(1):1-11.

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Atypical odontalgia (AO) is a chronic form of dental pain without signs of pathology. Several hypotheses have been put forward regarding the pathophysiology. AO has been proposed to be psychogenic, vascular, neuropathic or idiopathic. The scientific evidence supporting or rejecting these hypotheses are reviewed in this paper. At this time, the best supported hypothesis is that AO is a neuropathic pain condition. Relevant differential diagnoses, such as odontogenic pain, sinusitis, trigeminal neuralgia among others, are presented and the evidence regarding possible management strategies is reviewed. A treatment algorithm for AO is proposed based on the rather scarce scientific evidence available and inspired by a similar treatment algorithm for peripheral neuropathic pain. The proposed strategy involves an interdisciplinary approach including patient education, psychological counselling, topical and systemic medication and, importantly, avoidance of invasive treatments like surgery and endodontics. Two illustrative cases are presented.

### Treatment of Complex Regional Pain Syndrome Type I With Oral Phenoxybenzamine: Rationale and Case Reports.

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The nonselective alpha-adrenergic antagonist, phenoxybenzamine, has been used in the treatment of neuropathic pain syndromes, specifically, complex regional pain syndrome (CRPS) types I and II. This agent has also previously been used in intravenous regional peripheral blocks for treatment of CRPS I; however, an intravenous preparation of phenoxybenzamine is not currently available in the U.S.A. In this case series, systemic administration was more appropriate for three of the four patients, as their syndromes had spread beyond the initial area of surgery or trauma. We report an apparent clinical benefit in three of the four patients following oral administration. We postulate that this may be due to the noncompetitive (irreversible) blockade of alpha(1)- and alpha(2)-adrenergic receptors. We further hypothesize that this blockade could reduce stimulation of an increased population of adrenergic receptors in hyperalgesic skin, blunt the stimulation by norepinephrine of alpha(2)adrenergic receptors on macrophages, and ultimately reduce the release of proinflammatory cytokines from cellular elements.

# Genetic and environmental determinants of postthoracotomy pain syndrome.

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PURPOSE OF REVIEW: Pain after thoracic surgery may persist for up to a year or longer in as many as 50% of patients undergoing lung resection. There is currently no specific therapy, and our ability to predict who will develop a persistent pain syndrome is poor at best. Persistent pain after thoracotomy is not an acute somatic pain, rather it is a complex syndrome with many of the characteristics of neuropathic, dysesthetic pain. RECENT FINDINGS: The pain genetics field has been dominated by reports of single variants leading to severe phenotypes. These (Mendelian) diseases are not representative of the more common, complex phenotype that is characterized by the lay term 'pain threshold'. Recently, work describing the association of genetic variants with idiopathic pain disorders has appeared in the literature, and here the authors suggest that these concepts are applicable to postthoracotomy pain syndrome. SUMMARY: Postthoracotomy pain syndrome likely arises as a direct result of an environmental stress (surgery) occurring on a landscape of susceptibility that is determined by an individual's behavioral, clinical and genetic characteristics.

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