TITLE PAGE

Title

Characteristics and outcomes of chronic pain patients referred to hospital pain clinics: a prospective observational study

Short title: Diagnosis and treatment of pain in pain clinics

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Conflict of interest disclosures

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ABSTRACT

BACKGROUND:

Understanding the patient referral patterns and medical profiles of patients attending hospital pain clinics, and the therapies offered to them, can provide a useful starting point for evaluating their effectiveness and identifying areas for improvement.

METHODS:

Prospective observational study. Sociodemographic and clinical data were gathered at 12 centres. The diagnoses and pain treatments provided by the referring doctors were compared with the ones provided by pain clinicians. Pain severity and patients' quality of life were measured prospectively. Descriptive statistics were compared.

RESULTS:

Two-hundred sixty-nine patients referred to 12 outpatient hospital pain clinics in Catalonia were followed for 3 months. Most were referred by orthopaedists (50.0%) or primary care physicians (20.2%). The mean age and time since pain onset were 59.4 and 4.1 years, respectively. Pain clinicians changed the diagnostic labels of 48.5% of the patients. Nearly all patients (89.2%) were receiving pain medications prior to referral. Treatment was modified in 94.8%. Pain clinicians used more interventional and/or alternative therapies (65.1% of patients), opioids (46.8%) and co-adjuvants (38.2%). Three months after referral, the 24-h worst and current pain severity had decreased by 30.9% and 27.8% on average, respectively. The mean (effect size) improvements in a quality of life (the EuroQol 5 Dimensions index) and pain (visual analogue scale) scores were, respectively, 0.16 (0.73) and 6.7 (0.31).

CONCLUSIONS:

Pain clinicians refined the diagnoses and treatments of patients referred to hospital pain clinics and improved outcomes. Relatively few patients are referred from primary care considering the prevalence of chronic pain in this setting.

Keywords: Observational Study, Outcome Assessment, Pain, Pain Clinics, Pharmacoepidemiology, Prevalence, Referral and Consultation.

INTRODUCTION

The current status of research, diagnosis and treatment in pain medicine is characterized by the paradox that important, recent advances are hindered and hard to translate into tangible clinical benefits because of the existence of considerable barriers to effective pain care.¹ Understanding pain pathophysiology entails knowledge of the causal and contributory interactions of physical, psychological, and social factors as well as the inherent plasticity of the nervous system in chronic pain states and diseases in which pain develops and propagates even with scarce or no evidence of a noxious stimulus.¹ Given the complex nature of pain, treatment should be mechanism-based and multimodal.²⁻⁴ Therefore, an integrated, multidisciplinary approach to management is advocated to optimize treatment outcomes.⁵

Pain clinics have been created over the past four decades with the purpose of providing interdisciplinary assessment and care for pain patients through a team of diverse medical specialists, chiefly from the fields of anaesthesiology, neurology, psychiatry, occupational, physical and rehabilitation medicine.⁶ Outcome data on the effectiveness of this multidisciplinary care is in general positive, yet scarce.⁶ Epidemiological data is an essential part of any chronic pain research strategy.⁷ To the knowledge of the authors, no study has simultaneously examined the characteristics of patients attending pain clinics, referral patterns, therapies prescribed, and outcomes to describe the state of current practice, so improvements can be planned and assessed. Previous studies in recent years have either focused on specific conditions or pain types or have been performed at single centres (to ~~cite but name~~ a few studies performed in our environment, see⁸⁻¹⁰), and they have seldom provided prospective data.

This report concerns a prospective observational study of hospital pain clinics in Catalonia. This region has a population of about 7 million.¹¹ Epidemiological studies have revealed that pain represents a major medical problem in this region, comparable to those reported in other Western countries.¹²⁻¹⁴ The objectives of the study, which was an initiative of the Catalan Pain Society, were descriptive. Among the goals of this Society are to inform and assist stakeholders involved in pain care in their decision-making processes. To accomplish it, the state of the current practice is evaluated periodically in descriptive studies like the one reported here. ~~The-Its~~ primary aim was to evaluate the characteristics of the patients referred for care to pain clinics. Secondary aims were to assess the

adequacy of diagnostic labels and treatments for pain provided by the referring physicians, the management strategies employed at pain clinics, and their effectiveness.

METHODS

Study design, setting and patients

The present research consisted in a prospective evaluation of a series of patients. All hospital pain clinics active in Catalonia in 2008 were invited to participate. One pain clinic specialist at each site (hereinafter referred to as pain clinicians) acted as coordinating investigator collecting information from all eligible patients referred for care at their premises. To enhance sample representativeness, recruitment was carried out strictly in accordance with the chronological order of patients' attendance. A recruitment target was set at 20 patients per clinic.

The study was performed in accordance with the Declaration of Helsinki. The ethics committees of the participating hospitals approved the study protocol prior to commencing recruitment. All patients provided written informed consent before enrolment.

Eligible participants were outpatients aged 18 years or older who attended the pain clinic for an initial call after referral by another physician. Only patients whose planned follow-up at the pain clinic was 3 months or longer were included. Patients were excluded if they were unable to provide reliable data or understand the study requirements.

Data sources and measurement

Sociodemographic and administrative data, including age, gender, marital status, living arrangement, level of education and work status were collected. Also recorded were: the specialty of the referring physician, the diagnostic label assigned to the painful condition when the patient was referred to the pain clinic, and previous pain treatments. The investigators were asked to indicate whether or not in their opinion these previous treatments for pain were appropriate. A complete medical history was taken, either by questioning the patients or by reviewing their medical records. Pain features gathered included topography, duration, maximum severity in the previous 24 hours and current severity scores on 10 cm visual analogue scales (VAS), temporal pattern, presence of breakthrough episodes, and pathophysiological type (nociceptive somatic, nociceptive visceral, neuropathic, or somatoform/dysfunctional).

At the initial visit, pain clinicians also had to independently provide diagnostic labels for the pain conditions of the patients. The correspondence between the referral diagnosis and the pain clinician's diagnosis was evaluated. Pain treatments prescribed at the pain clinic were recorded as well. Lastly, patients were asked to complete the generic EuroQol 5 Dimensions instrument (EQ-5D) validated for Spain,^{15,16} to obtain measures of health-related quality of life (HR-QoL). The EQ-5D provides two measures: a preference-based utility measure (herein termed the EQ-5D index score), and a holistic measure of wellbeing on a VAS (herein termed the EQ-5D VAS score).

Follow-up visits took place one and three months after the initial visit. Patients and investigators appraised the evolution of the patients' pain symptoms and functional status using a Likert-type scale (much better, better, no change, worse, much worse). Changes in pain features since the previous visit were also recorded. The pain clinicians had to record every change in diagnostic labels or pain treatments since the previous visit. They also recorded adverse reactions related to pain treatments (if any). Patients were asked to complete again the EQ-5D at both follow-up visits.

Data analysis

Observed data were used in all analyses. Missing data were not imputed. Descriptive statistics were used to summarize and analyse the data. Cross-tabulated or stratified descriptions were produced to evaluate the relationships between features of interest (for example, treatments vs. diagnostic labels). For some descriptions, patients were grouped according to the treatment prescribed at the pain clinic: opioids (when the therapy included one or more systemic opioid agents), non-opioids (when the therapy included any systemic drug, but no opioid agents) and interventional/alternative therapies (rehabilitative, physical, or psychological therapies, regional anaesthetic blocks or interventions without systemic pain medications). The English version 13.3 of the Medical Dictionary for Regulatory Activities (MedDRA)¹⁷ was used to code the medical history, diagnostic labels, and adverse reactions. The agreement between the diagnostic labels given by the referring physicians and the pain clinicians was quantified by calculating quadratically weighted kappa indices between the terms of the MedDRA hierarchical structure that led to the two codes assigned to each patient. Quadratic weighting can be used to evaluate the agreement between two ordinal measures because it provides penalties proportional to the magnitude of the discrepancies¹⁸ (for example, one discrepancy at the level of system organ classes reduced the value of weighted kappa

much more than one discrepancy at the level of preferred terms). Pharmacological treatments were coded with the 2013 version of the WHO's Anatomic Therapeutic Chemical Classification System.

As the objectives of the study were descriptive, no formal calculation of the sample size was made. Nevertheless, a recruitment target was initially set at 340 patients with a view to acquiring a precision of at least $\pm 5\%$ to estimate proportions of the source population.

RESULTS

Disposition of patients

Between September 2011 and January 2014, 291 patients were recruited at 12 of the 20 hospital pain clinics that were invited to participate. Although it took 3 months on average to recruit the assigned quota of 20 patients at each pain clinic, the study period was long because administrative issues delayed the incorporation of some sites. Twenty-two patients were not analysed for the reasons provided in Figure 1. Of the 269 patients remaining, 34 (12.6%) did not complete the study. The flow chart provided on Figure 1 presents the reasons for premature withdrawals and the number of patients who attended each of the study visits.

Characteristics of patients referred to pain clinics

Table I provides a summary of patients' characteristics at baseline. Most patients (134 out of 268, 50.0%) were referred by orthopaedists, followed by primary care physicians (54, 20.1%), neurosurgeons (18, 6.7%), neurologists (11, 4.1%) and rheumatologists (10, 3.7%). Other specialists referred less than 3% of patients each. The time since pain onset was shorter than 6 months in 82 out of 259 patients (31.7%); the positive asymmetry of the distribution is indicated by the considerably lower value of medians compared to means (Table I). Nearly one-half had pure nociceptive pain, and one-fifth had pure neuropathic pain. Pain location was reported for 265 patients. More than two thirds (182 out 265, 68.7%) had only one pain location. Seventy-one (26.8%) had two locations. The most common location was the lower back (127 out of 265 patients, 47.9%), followed by lower limbs (46 patients, 17.4%) and the cervical spine (19 patients, 7.2%). The pain clinicians identified an underlying disease to which pain symptoms could be attributed in 179 out of 269 (66.5%) patients, and nearly all patients (246 out of 269 patients, 91.5%) had comorbid medical conditions. Only 20 patients (7.4%) had cancer. A number of patients suffered mobility issues (157 out of 269 patients, 58.4%), anxiety

(114 patients, 42.4%), or sleep disturbances (111 patients, 41.3%). Depression was less frequent (78 patients, 29.0%). The mean (SD) EQ-5D index and VAS scores were, respectively, 0.47 (0.22) and 53.4 (21.6).

Adequacy of diagnostic labels for pain conditions

Figure 2 compares the diagnostic labels assigned by referring physicians and pain clinicians. Pain clinicians provided more labels (84 patients received more than one, compared to 35 before referral). Most labels related to spinal or neuraxial conditions (Figure 2). The labels from both groups of physicians differed in 99 out of 204 patients (48.5%). The divergence reached even the level of system organ classes in 43 patients (20.1%). The kappa statistic (0.40) suggests poor-to-moderate agreement between the referring physicians and pain clinicians. The most common changes were from backache to either intervertebral disc protrusion (9 patients), facet joint syndrome (7 patients), spinal osteoarthritis (5 patients), sciatica (4 patients) or lumbar spinal stenosis (3 patients). Other common changes were from sciatica to either intervertebral disc protrusion (3 patients) or facet joint syndrome (3 patients). Other changes occurred in two or fewer patients.

Treatments for pain at pain clinics

Consumption of drugs had already begun when patients were referred to pain clinics in 240 out of 269 (89.2%); interventional and/or alternative therapies had been started in 69 (25.7%). Pain clinicians considered that treatments were appropriate in only 39.7% of patients. Treatment was modified in 94.8% of patients at the pain clinics. As a result, 221 out of 269 (82.2%) continued on drugs, and 175 (65.1%) started or continued on interventional or alternative therapies. Most patients received more than one treatment (67.0% more than one drug and 17.7% more than one interventional/alternative therapy). Figure 3 compares treatments prescribed by referring physicians and pain clinicians. Pain clinicians prescribed more opioids and co-adjuvants (anticonvulsants, antidepressants) and extended the use of interventional/alternative therapies; but prescribed less plain analgesics (metamizole, paracetamol) and nonsteroidal antiinflammatory drugs (NSAIDs). Prescribing varied from one family of diagnoses to another (Figure 4). Also, pain clinicians made a more balanced use of opioids across pain conditions than the referring physicians did (Figure 2).

Follow-up: effectiveness and safety of treatments for pain

At the end of the study, 146 (62.1%) and 141 (60.0%) patients considered that their pain symptoms and functional status were better or much better. The investigators' similarly appraised that pain outcomes were positive in 158 patients (67.5%) and functional status improved in 142 (60.7%).

The 24-hour worst and current pain severity decreased on average 2.1 cm (30.9% decrease, 95% confidence interval, CI: 1.7 to 2.5 cm) and 1.5 cm (27.8% decrease, 95% CI: 1.1 to 1.9 cm), respectively. The 24-hour worst pain severity decreased more in patients treated with drugs than in those treated only with interventional/alternative therapies. The opposite was true for the current pain severity. These differences did not reach statistical significance. Patients treated with opioids attained on average slightly lower reductions in the 24-hour worst pain severity (2.1 cm, 95% CI: 1.5 to 2.7 cm) than patients treated with non-opioids (2.3 cm, 95% CI: 1.7 to 2.9 cm). Pain severity reductions were also calculated for the subgroups of patients who shared a diagnostic label that represented at least 3% of the sample (Figure 2). Patients with myofascial pain syndrome, spinal stenosis, facet joint syndrome, and osteoarthritis experienced smaller pain reductions than those with sciatica, procedural pain or backache. The temporal pattern of pain changed in 23 out of 254 (9.1%) patients during the first month and in 13 patients out of 235 (5.5%) during months 2 and 3. In most cases, the pain was still continuous, yet had shifted from constant to variable in severity or from variable to constant. Thirteen patients went from continuous to intermittent pain.

Pain clinicians changed the diagnostic label for 10 out of 254 patients (3.9%) and for 11 out of 235 patients (4.7%) during the first month and during months 2 and 3, respectively. Treatments were modified in 73 out of 254 patients (28.7%) during the first month and in 65 out of 235 patients (27.7%) during months 2 and 3. Most of these changes concerned the group treated with opioids.

The measures of HR-QoL also improved. The mean (95% CI, effect size) changes (improvements) from baseline of the EQ-5D index and VAS scores were, respectively, 0.16 (0.13 to 0.19, 0.73) and 6.7 (2.8 to 10.6, 0.31).

A total of 8 serious adverse reactions related to pain medications occurred in 7 patients during the study. Six of these reactions were related to opioids. They led to either treatment discontinuation (4 cases) or dose reduction (2 cases).

DISCUSSION

The refinement of diagnoses and diversification of treatments by hospital pain clinicians in Catalonia resulted in a net improvement in pain features, particularly severity, and of HR-QoL. Such improvements are consistent with systematic reviews of the reported effectiveness of multidisciplinary pain therapy measured in terms of lower pain severity and improved HR-QoL and functioning.^{19,20}

The profile of patients described in prior population studies of chronic pain in Spain and other European countries,^{21,22} resembled partially the aged population with low academic degrees and mostly composed of women living in urban areas that was observed in this study. Notwithstanding, there were noteworthy differences. The women-to-men ratio, the mean age and the proportion of patients on pain medications on referral were higher in this study, whilst the level of employment and the proportion of patients treated and referred by primary care physicians were lower and the time since pain onset shorter than in the cited studies. The higher proportion of patients on pain medications and the shorter time since pain onset despite the older ages in this series suggest that the pain conditions were more severe or challenging than in the total of patients with chronic pain. Short referral times might relate to the perceived need for advice on pain management of referring physicians facing challenging patients. The fact that most patients were referred by orthopaedists instead of primary care physicians, who deal with most patients with chronic pain in Spain,²³ may be because the orthopaedists see patients with more serious conditions than primary care physicians. However, it may also be a consequence of the difficulties primary care physicians have in prioritizing treatment options in patients with multiple chronic conditions and in deciding when to refer them to pain clinics.²⁴ Thus, our data support the rationale behind the promotion of greater collaboration between hospital pain clinicians and primary care physicians, including the adoption of appropriate referral practices.⁶ It is worth noting that similar patterns, including the low referral rate from primary care, were observed in other series of patients recruited from Spanish pain clinics.^{8,10,25,26}

The agreement between referring doctors and pain clinicians' diagnoses was moderate at best. An accurate diagnosis is important for achieving good pain control, and the fact that the pain clinicians were able to provide more specific diagnostic labels than referring doctors supports the usefulness of the hospital pain clinics. In consonance with diagnoses, pain clinicians also varied patients' treatments. The use of antidepressants, antiepileptic agents, opioids and interventional/alternative therapies increased at the expense of plain analgesics and NSAIDs. The former medicines are more

specific or potent, but also more likely to produce side effects and other complications. Their tailored use by pain clinicians is expected from their expertise. Prescription varied according to diagnoses, but was also influenced by other factors. For example, the prescription of opioids augmented with patients' education level. Pain clinicians may have felt more confident in assessing the risks associated with prescribing opioids to patients with higher levels of education. The substantial use of opioids in this series supports the notion that the concerns about their use in non-cancer patients that have arisen in US may not be fully exportable to Europe.²⁷

The improvements attained during the 3-month follow-up were considerable. The mean decrease in pain severity of about 30% corresponds to a moderately significant improvement according to the Initiative on Methods, Measurement, and Pain Assessment in Clinical Trials²⁸. Patients' baseline EQ-5D index scores were well below the normative data for Spain²⁹ and other countries.³⁰ At the end of the study, they continued to be under normative data, although the improvements observed (0.16 points, or 16% of the full breadth of the scale) are twice the minimum important difference for a HR-QoL measure and correspond to a moderate-to-large effect size (0.73) that was mapped to a moderate improvement in an anchor-based method for interpreting HR-QoL changes.³¹

A limitation of this research is the absence of information about patients who were not referred to pain clinics, as knowing more about such patients would possibly have revealed differences between those who are and are not referred. The time since pain onset was shorter than six months in almost one third of the sample. The findings might not be fully applicable to chronic pain patients. In particular, changes from baseline might have been up-biased as the conditions underlying acute pain could have improved or even resolved within the three-month time frame of this study. Administrative delays prevented the simultaneous participation of all sites. Biases might have come up from variations of environmental and other factors throughout the study period.

In conclusion, the current model of care provided at hospital pain clinics in Catalonia effectively improves outcomes of challenging cases referred by various medical specialists. The refinement of diagnoses and the diversification and tailoring of therapies are factors that contribute to this accomplishment. The quota of patients referred from primary care is low compared with the prevalence of chronic pain in this setting. It seems appropriate to foster communication, referral and

collaboration between primary care physicians and pain clinicians to make these gains accessible to more patients.

KEY MESSAGES

- There is little empirical data on the utilization of pain clinics and the outcomes attained. This study evaluated the referral of patients with chronic pain to hospital pain clinics and their outcomes.
- Patients referred to pain clinics appear to have more severe or challenging clinical conditions than the total of patients with chronic pain.
- Pain clinicians provided more specific diagnostic labels than referring physicians. In consonance with diagnoses, pain clinicians also made substantial changes in patients' treatments.
- Many patients improved after referral. Referral was not homogeneous across medical specialties. Fostering referral from primary care might serve to improve outcomes in numerous patients.

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Authors' contributions

S. Videla, E. Català, MV. Ribera, C. Busquets, MD Ferrer, V. Mayoral, M. Rull, and E. Planas designed and wrote the study protocol;

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E. Ortiz and S. Videla monitored the study. R. Jerez and J. Villoria were responsible for data management and statistical analysis.

J. Villoria, S. Videla, A. Montes, and M. Casals wrote the manuscript. All authors have read and approved the final manuscript.

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Figure legends

Figure 1: Disposition of patients.

Figure 2: Frequencies of diagnostic labels for pain conditions provided by the referring doctors (left panel) and pain clinicians (right panel). Included in the list are labels assigned to at least 5 patients by physicians in either group. The box to the right shows the mean reduction in pain severity between baseline (initial visit) and the 3-month follow-up visit within some subgroups of patients.

- ^a The negative sign denotes that pain severity increased from baseline.
- ^b The change from baseline was significant (the 95% confidence interval did not include zero).
- ^c The change from baseline was non-significant (the 95% confidence interval included zero).

Figure 3: Frequencies of pain treatments prescribed by the referring doctors (left panel) and pain clinicians (right panel). Included in the list are treatments prescribed for at least 5 patients by physicians in either group. TENS refers to transcutaneous electrical nerve stimulation.

Figure 4: Drugs prescribed, according to system organ classes (SOCs) assigned to reflect the diagnostic labels of physicians in the two groups. Shown are the three SOC with at least 5 patients. NSAIDs refers to nonsteroidal antiinflammatory drugs.

- ^a Plain analgesics.
- ^b NSAIDs.
- ^c Weak opioids.
- ^d Strong opioids.
- ^e Antiepileptic agents.
- ^f Antidepressants.
- ^g Hypnotics/anxiolytics.
- ^h Local anaesthetics.
- ⁱ Other.

Table I: Patients' sociodemographic and clinical features by treatment prescribed at hospital pain clinics.

Tables

Table I: Patients' socio-demographic and clinical features by treatment prescribed at pain clinics

	All patients (N=269)	Treatment prescribed at the pain clinic ^a		
		Opioids (N=126) ^b	Non-opioids (N=95) ^c	Altern. therap. (N=44) ^d
Female gender [n (%)]	161 (62.9)	72 (57.1)	59 (62.1)	27 (64.3)
Age, years (mean [SD])	59.4 (15.4)	59.2 (15.7)	59.5 (15.2)	59.8 (15.7)
BMI, kg/m ² (mean [SD])	27.7 (5.0)	27.5 (4.6)	27.6 (4.6)	28.3 (6.9)
Patients living alone [n (%)]	60 (24.8)	27 (24.1)	23 (25.8)	9 (24.3)
Marital status [n (%]):				
Married/partnered	180 (67.2)	83 (65.9)	67 (71.2)	27 (61.4)
Widowed	37 (13.8)	20 (15.9)	12 (12.8)	5 (11.4)
Single	30 (11.1)	13 (10.3)	10 (10.6)	7 (15.9)
Divorced/separated	21 (7.8)	10 (7.9)	5 (5.3)	5 (11.4)
Educational status [n (%]):				
Illiterate	36 (13.7)	14 (11.5)	14 (15.1)	7 (15.9)
Primary	148 (56.5)	70 (57.4)	51 (54.8)	25 (56.8)
Secondary	54 (20.6)	28 (23.0)	19 (20.7)	7 (15.9)
Superior	24 (9.2)	10 (8.2)	9 (9.7)	5 (11.4)
Working status [n (%]):				
Employed	79 (33.3)	40 (36.0)	27 (31.4)	12 (32.4)
Unemployed	30 (12.7)	12 (10.8)	10 (11.6)	7 (18.9)
Retired	94 (39.7)	45 (40.5)	31 (36.0)	17 (46.0)
Housewife/husband	32 (13.5)	13 (11.7)	17 (19.8)	1 (2.7)
Receiving disability benefits	2 (0.8)	1 (0.9)	1 (1.2)	0 (0.0)
Time since pain onset, years:				
mean (SD)	4.1 (7.2)	4.0 (6.7)	4.5 (8.2)	3.6 (6.7)
median (inter-quartile range)	1.4 (3.8)	1.1 (4.7)	1.5 (4.0)	1.6 (3.0)
Worst pain severity last 24 h, cm [mean (SD)]	6.7 (2.3)	6.9 (2.2)	6.6 (2.5)	6.1 (2.2)
Current pain severity, cm [mean (SD)]	5.3 (2.6)	5.3 (2.5)	5.2 (2.7)	5.4 (2.5)
Pain background diseases [n (%)] ^{e,f} :				
Intervertebral disc protrusion	32 (11.9)	18 (14.3)	11 (11.6)	3 (6.8)
Spinal osteoarthritis	26 (9.7)	13 (10.3)	8 (8.4)	5 (11.4)
Osteoarthritis	22 (8.2)	17 (13.5)	2 (2.1)	3 (6.8)
Spinal column stenosis	20 (7.4)	9 (7.1)	7 (7.4)	4 (9.1)
Intervertebral disc disorder	11 (4.1)	5 (4.0)	3 (3.2)	3 (6.8)
Pain pathophysiological type [n (%)]:				
Pure nociceptive	122 (47.5)	62 (51.7)	37 (39.8)	23 (54.8)
Pure neuropathic	51 (19.8)	18 (15.0)	25 (26.9)	7 (16.7)
Mixed (nociceptive + neuropathic)	79 (30.7)	37 (30.8)	29 (31.2)	12 (28.6)
Somatoform/dysfunctional	5 (1.9)	3 (2.5)	2 (2.2)	0 (0.0)
Pain temporal pattern [n (%)]:				
Continuous, constant	103 (39.5)	54 (44.3)	30 (31.9)	17 (41.5)
Continuous, variable	133 (51.0)	62 (50.8)	50 (53.2)	20 (48.8)

Intermittent/paroxysmal	20 (7.7)	5 (4.1)	10 (10.6)	4 (9.8)
Evoked/abnormal sensations	2 (0.8)	0 (0.0)	2 (2.1)	0 (0.0)
Evoked + continuous or intermittent	3 (1.1)	1 (0.8)	2 (2.1)	0 (0.0)

^a Treatment was unknown in 4 patients.

^b Patients treated with any regimen that contained opioid drugs (might include non-opioid drugs or interventional/alternative therapies as well).

^c Patients treated with any regimen that contained non-opioid drugs (might include interventional/alternative therapies as well).

^d Patients treated only with interventional/alternative therapies (rehabilitative/physical/psychological therapy or regional anaesthetic interventions).

^e Reported are conditions present in at least 5% of patients.

^f Background diseases to which pain specialists attributed the pain symptoms.

Some percentages used a lower denominator than the subgroup size because of missing data. BMI: body mass index, COPD: chronic obstructive pulmonary disease, SD: standard deviation.