



PAIN.

Pain Associates' International Network

Berlin Consensus

**“Wer bewahren will was er hat,
muss sich ständig ändern”.**

(Goethe)

"Berlin Consensus – Quality Improvement in Pain Management"

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"Pain is a more terrible lord of mankind than even death itself."

Albert Schweitzer (1875-1969)

Definition of pain

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

"Pain is always subjective."

(IASP – International Association for the Study of Pain, 1979)

Pain – A disease in its own right

"Pain is a major healthcare problem in Europe. Although acute pain may reasonably be considered a symptom of disease or injury, chronic and recurrent pain is a specific healthcare problem, a disease in its own right."

(EFIC's declaration on pain as a major health problem, a disease in its own right, 2001)

Prevalence of chronic pain

According to the EFIC's declaration chronic pain in the European Union is a widespread and common condition. Community based studies show, that 50% of adults suffer from one or more types of pain at any given point in time. The number of pain experiences increases in older age groups. The EFIC's declaration points out clearly, that although only very few people die of pain, many die in pain, and even more live in pain.

Acute pain is defined as a brief and self-limiting process. In contrast chronic pain is persistent or recurrent over a longer period of time. It dominates the life and concerns of the patient, his family and friends. Chronic pain is usually accompanied by a complex set of physical and psychosocial changes that are an integral part of the chronic pain problem adding significantly to the pain patient's burden. These include:

- immobility and consequent wasting of muscle, joints etc.,
- depression of the immune system and increased susceptibility to disease,
- disturbed sleep,
- poor appetite and nutrition,
- dependence on medication,
- over-dependence on family and other carers,
- and inappropriate use of professional health care systems,
- poor performance on the job or inability to work, disability,
- isolation from society and family, becoming introvert,
- anxiety, fear,
- bitterness, frustration, depression, suicide.

The quality of life of those affected directly or indirectly by chronic pain can be dramatically decreased. Pain patients and their relatives may also experience substantial psychosocial problems such as:

- costs of health care services and medication,
- job absenteeism and disruption in the workplace,
- loss of income,
- non-productivity in the economy and in the home,
- financial burden on family, friends and employers,
- worker compensation costs and welfare payments.

1 Introduction

Authoritative sources place the overall financial costs of chronic pain to society in the same range as cancer and cardiovascular disease. (EFIC's declaration on pain, 2001)

Pain management

The quality of pain management today is currently the subject of lively discussion on a national and international level. Pain control and its secondary aspects of palliative care of terminally ill and dying patients have long been neglected by a medicine set on curative approaches which consider this topic to be a thankless task resulting in broadly known sub-optimal results. In Germany, 1.3 million people live with pain, which should be treated with opioids (800,000 level 2, 500,000 level 3 on the WHO scale). However, 1 million of these people are not treated sufficiently or are not treated at all! (Dietrich Jungck at the German Pain Congress 2000). Patients are treated too long, unspecifically before they are transferred to specialists: migraine almost 20 years, phantom pain more than 14 years, neuropathic pain about 10 years. More than 50 % of the patients seeking help at an orthopaedist suffer from chronic pain (Michael Zenz at the German Pain Congress 2000). Patients in the U.K. have to wait far too long for diagnostic procedures and operations.

Chronic patient care is felt to be troublesome and in many cases frustrating. The prospects of gaining a medico-scientific reputation are considered to be too small in these frequently unfashionable diseases. Physically, and in many cases psychologically, weak patients often cannot muster the energy to demand their rights, nor do they have a strong lobby. Sub-optimal communication processes between the medical profession, patients and relatives, may be due to cultural and social factors.

They may lead to divergent expectations, which in the long run may be frustrating for patients and physicians. Doctor hopping is a consequence of this disrupted communication and is one of the main reasons for the malfunctioning of the systematical interactions between physicians and patients and the absence of a long-term basis of trust. The care of chronic pain patients should primarily be based on an interdisciplinary and multimodal approach, which is often hindered by structural conditions characterised by a lack of interdisciplinary interaction, apparent overtaxing of time, budgetary and educational resources.

Efficient relief of pain and the care of dying patients appears at most as a foot-note in the majority of medical colloquia. The resultant lack of knowledge of most physicians leads to sub-optimal pharmacological, psychosocial and supportive care of the chronic pain patient. As a result of intensive informative work, lobbying by groups concerned and the hard work of individual doctors and politicians a profound re-assessment of pain management has become a central task of patient-orientated medicine. Under pressure from public opinion and motivated by the considerable burden of patients and their relatives, the realisation of high-quality pain management in out-patient and in-patient care will become an important competitive advantage of committed health care organisations. Grünenthal has recognised this. We have therefore focussed our health management activities on practical pain management in out-patient care of chronic pain patients. The work of this P.A.I.N. workshop is based on this context. The aim of the workshop is to elaborate an initial practice and patient-orientated basic concept to continuously improve the quality of out-patient care of pain patients.

Successful working quality networks in diabetes mellitus care¹ and multiple sclerosis² provide a pattern for our approach.

2 Declaration

General Statements

- Basic and clinical scientific studies conclude that chronic or recurrent pain should be recognized as a disease in its own right and not as a mere symptom. Moreover, although there are no comprehensive epidemiological reports at European level, several regional studies have emphasised the high incidence and socio-economic impact of chronic pain. Therefore, chronic pain should be viewed as a major health care problem with a tremendous impact on patients' quality of life, with economical consequences equivalent to cancer or cardiovascular diseases.
- Significant advances have been made in recent years in the knowledge of the mechanisms and therapeutic options for patients in pain. However, appropriate pain management is still not available to the majority of the patients. It is our belief that concerted action by health authorities, health care communities, universities, professional and patient associations, pharmaceutical and other industries could lead to a significant improvement in the diagnosis, treatment, care and welfare of pain patients. These action plans have to be developed.

Basic goals

- To recognise chronic pain as a major health care problem.
- To improve the availability and quality of pain management services based on patients' needs.

Objectives

- To increase the human/technical/economical resources allocated to pain management.
- To significantly increase the number of health professionals specifically educated in pain management.
- To ensure the availability of good quality information about pain and its management for patients.
- To create a recognized postgraduate specialisation in pain medicine.
- To increase the availability of specialised pain services.
- To facilitate communication between GPs and pain specialists.
- To improve co-operation between independent patient organisations, government, health care communities, industry, and media.

Methods

- To make national and European authorities aware of the socio-economic impact of chronic pain.
- To improve the education of health care professionals as well as patients.
- To create a European accreditation system for health care professionals specifically involved in pain management.
- To increase the number of pain centres in Europe.
- To establish a network of health care professionals involved in the treatment of pain patients with the task of creating the necessary documentation for performance and outcome measurements.

2 Declaration

2.1 State of Consensus

State of Consensus

The acceptance of the Berlin Consensus basic version was:

- fully agreed by 11 participants (absolute 44 %)
- agreed by 10 participants (absolute 40 %)
- disagreed none
- missing votes 4 (16 %)

Result

- Sum of votes: 74
- Average: 3.52
- SD of threshold $\leq 0.52^*$

**Consensus at SD of threshold for consensus ≤ 0.7*

Conclusion

The first draft version of the "Berlin Consensus – Quality improvement in Pain Management" was agreed by the workshop participants.

3 Methodology

3.1 Quality management

Quality management

In the context of health care, quality of care can be defined as

- “Achievable benefits ➤ achieved.”
- “Unnecessary efforts ➤ avoided.”
- “Avoidable risks ➤ avoided.”

Regarding the markedly growing potential of current pain management, the remarks in the previous chapter indicate clearly that from the patients' point of view the achievable benefits have by far not yet been reached everywhere to the same extent. In quality terms: there is enough space for improvement!

Across the world of professional health care providers it is accepted that in the end the patients' subjective judgement determines whether pain management is successful or not. Of course, the patients' view should be added in a complementary way by the 'objective outcome measures' as given by clinical findings. Both aspects represent the first commandment: achievable benefits achieved!

Having agreed on the achievable benefits, the clinical pathways indicate the most promising treatment strategy. Translating the pathways' requirements into daily clinical work, health care management or workflow management, we can define the necessary effort for reaching our treatment targets.

If we are following these lines, – i.e. doing no more and no less, we automatically fulfil the second commandment of avoiding unnecessary efforts. In clinical health care provision unnecessary efforts are in most cases activities without clear medical indication and in this way superfluous risks. The third commandment is therefore only a translation of unnecessary efforts into medical decision-making.

Good clinical practice is decision orientated: the professional clarifies in any situation which decision is necessary in order to ensure treatment progress and to anticipate unfavourable developments.

Quality management is defined as the overall managerial leadership-task to reach the professional goals as laid down in the quality policy of the organisation – hospital or practice.

In everyday life it also means

“The continuous search for improvement by finding and solving problems.”

Quality management is therefore not simply a technique, but much more a principle of professional leadership.

A starting point is always the belief in ourselves that we can improve - even having already reached a high quality level. The first step is the identification of the current situation. These data are then compared to literature, to your own targets or to peer colleagues. Accepting that not everybody can be perfect in each respect, e.g. in each diagnostic procedure, in each treatment regimen, there is always room for improvement, if – (and this is the main critical success factor) we are committed to quality and we really want to improve.

3 Methodology

3.1 Quality management

Being open to learning, i.e. being a real professional, enables us to learn from what we are doing in order to gain new experience and even new perceptions - scientifically or managerially.

Ongoing reflection of efficiency, effectiveness and the individual outcome is the basic principle of quality management. This approach creates a learning environment, in which health care professionals use their daily practice to continually evaluate and improve care processes and hopefully also outcomes^{3,4}. All professional measures should focus on the patients, their social conditions and their needs. All measures should shift their focus from structure to process orientation and from disease to care orientation.

Learning is defined as the ability to make valid inferences between two or more alternatives. If random variation in practice is greater than the effect of most care processes, physicians nowadays seem to learn very little from their routine practice⁵.

A prerequisite for learning is availability, standardised analysis and easy exchange of structured information. To create structured information and a rapid evaluation process on defined outcome indicators, a routine and standardised documentation on electronic media is required. Medical documentation systems should therefore shift from time orientation to decision and problem-solving orientation.

The field of health care is wide and complex. Therefore we better start small for quality management using only a few indicators describing one or two aspects of achievable benefits. In Germany this may be pain reduction in cancer patients by 50 % within three years time. Other countries have demonstrated that this is feasible. Other countries could start with the chronicity rate: in headache, less than 10 % of patients with contact to the health care system should develop chronic pain.

To make the approach managerial and successful, the measures for the achievable benefits must be clearly defined.

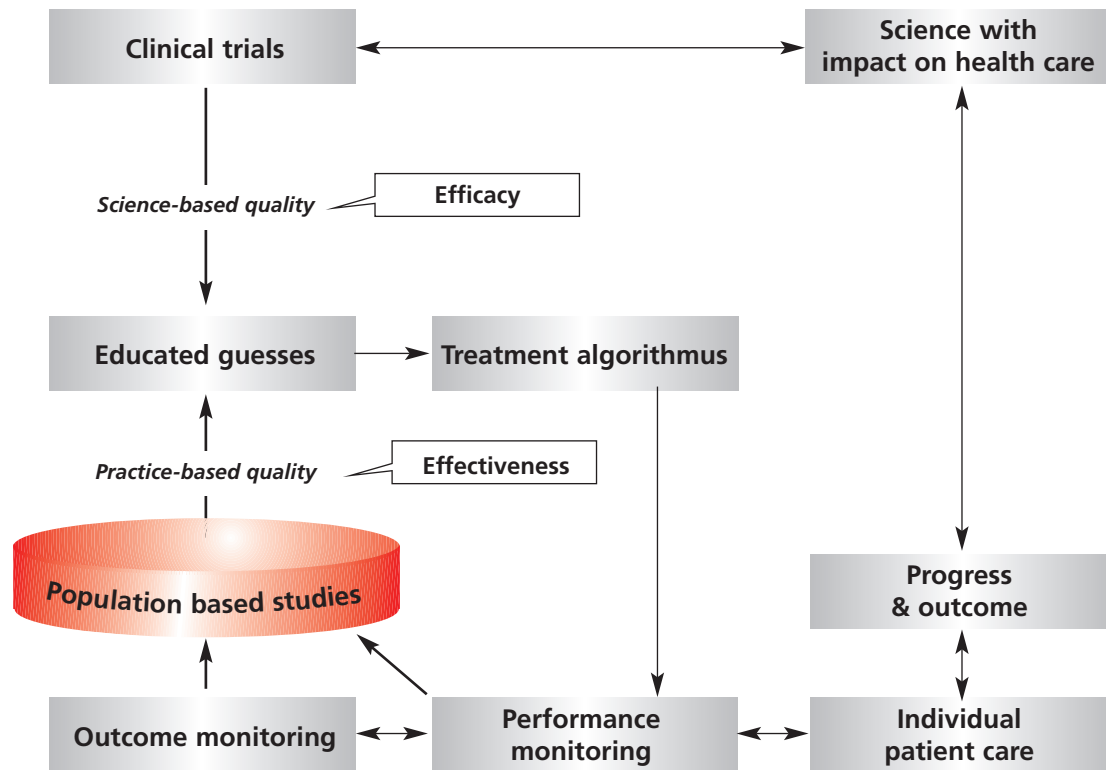
3 Methodology

3.2 Quality measures

Quality measures

Do clinical guidelines written by opinion leaders and the results from highly selective, randomised, double-blind and placebo-controlled studies really reflect what is happening in daily practice? Do they really reflect the patient-orientated quality and the effectiveness of medical measures in real life medicine?

The highly selected, intensively investigated and monitored cohorts under highly controlled and artificial conditions in phase IV studies show efficacy, but not necessarily effectiveness. To measure quality in reality-based medicine, population-based information about effectiveness is also necessary. Initial information about effectiveness can be gained by using the clinical experience of health care providers and patients. These experiences are not clinically validated indicators, therefore they can be entitled "educated guesses"⁶. Educated guesses reflect the performance and the outcome of clinical decision-making processes. The validation will be carried out by using the data of standardised evaluation (Figure 1)².



3 Methodology

3.3 Quality assessment

Quality assessment

Caring for an individual patient must be measured by quality instruments. Quality measures must have an impact on the decision-making process to achieve an optimal course for the disease of each individual patient. The decision process has four main elements:

- Determine and compare the patient's condition relative to the natural course of the disease.
- Risk assessment for relapse, progression or chronicity of pain.
- Sustained interventions to improve patient's condition, to stop or to ease pain, to prevent progression and relapse of pain.
- Evaluation of the results.

This workshop's task force groups have developed educated guesses to measure the quality of pain management performance and outcome. To assure that these guesses really reflect the decision-making process, the following algorithm has to be considered (Figure 2)²:

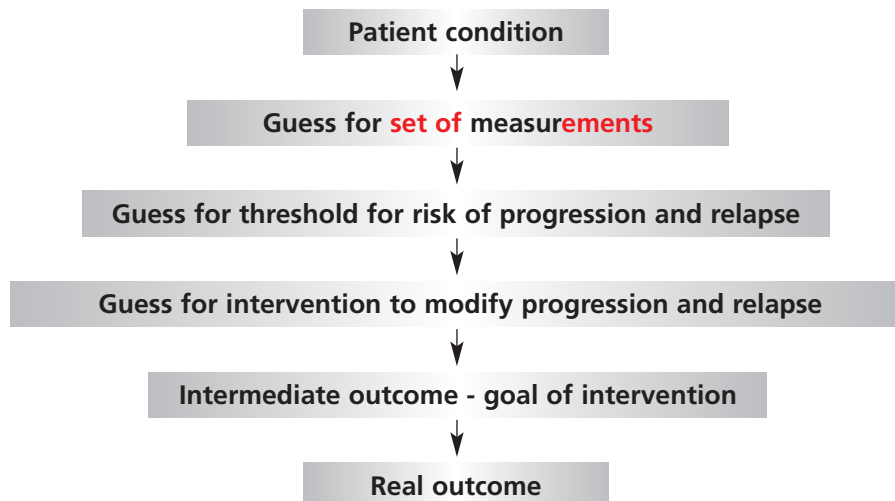


Figure 2: Measures for quality assessment

3 Methodology

3.3 Quality assessment

Main topics

The task force groups have developed a set of seven concepts and algorithms to measure the performance and the outcome of relevant pain management quality indicators for:

- Back pain
- Cancer pain
- Migraine
- Musculoskeletal pain
- Neuropathic pain
- Psychosomatic pain
- Political framework

Decision process

The decision-making process was formulated as follows:

- Subject of quality indicator
- Measure of quality indicator
- Threshold value for intervention
- Intervention to improve quality indicator
- Related outcome of quality indicator

Decision matrix for the management of chronic pain

Combining the main topic and decision process leads to a 3-dimensional quality assessment matrix, used in the workshop (Figure 3):

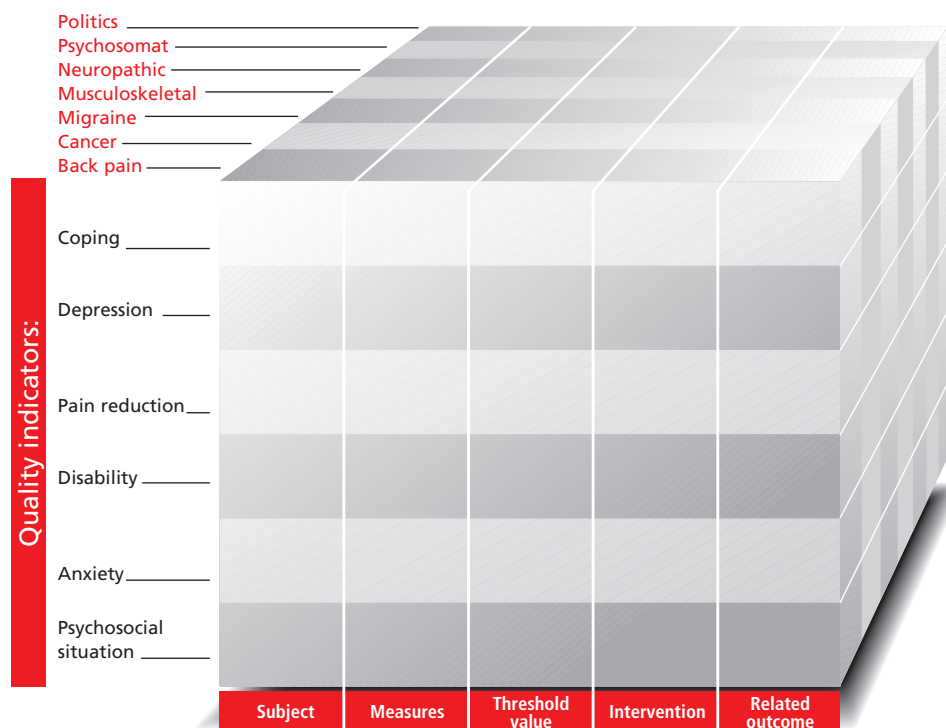


Figure 3: 3-D-decision matrix for the management of chronic pain

4 Results

4.1 Back pain

4 Results

“Pain is perfect misery, the worst of evils”

John Milton (1608-1674)

4.1 Back pain

Back pain is among the most common disabilities of the modern Western world, leading to large amounts of sick leave, impairing the individual's functionality and the economic outcome of society.

While acute back pain episodes settle spontaneously in the majority of patients, two thirds of back pain sufferers experience at least one recurrent episode per year. Once back pain has lasted for over one year, and it has become chronic*, there is seldom a cure for it, and most rehabilitation programmes focus on returning the patients' functionality and helping them to cope with their pain.

As for all chronic pain diseases, back pain also leads to well-known health problems such as sleeplessness, posture disorders; even simple household activities are limited by pain, not to mention the impact of pain on the patient's psychological state (depression, memory difficulties, feelings of hopelessness and even serious consideration of suicide) leading to an impairment of their social activities and in extreme cases to social isolation.⁷

* Pain is may be called chronic after six months duration

4 Results

4.1 Back pain

Subject	Measures	Threshold values	Intervention	Related Outcome
Pain reduction	Numerical rating scale <ul style="list-style-type: none"> ■ Brief Pain Inventory ■ Verbal Rating Scale from SF-36 	Not to be identified (no strict correlation between pain intensity and functionality)	<ul style="list-style-type: none"> ■ Therapy ■ Education ■ Existing coping skills programmes ■ Pharmacotherapy for some patients <ul style="list-style-type: none"> ➤ objective: to identify some patients ■ Physiotherapy for some patients <ul style="list-style-type: none"> ➤ to identify ■ Prevention of chronic back pain 	
Disability	PDI (Pain disability Index)	Age related	<ul style="list-style-type: none"> ■ Training ■ Physiotherapy ■ Pharmacotherapy 	Reduced by 30 %
	Number of days on sick leave	Average 15 days	Prevention of chronicity <ul style="list-style-type: none"> ■ Educate GPs ■ Change working environment (stress) 	
	Unemployment (no. of patients)	Yes	Comprehensive education programmes	-30 % of patients back to work
Quality of Life	SF-36 <ul style="list-style-type: none"> ■ Mental ■ Physical health 	< 40	<ul style="list-style-type: none"> ■ Raise social competence ■ Educate partner 	30 % patients back into normal range of QoL (>- 40)
Politics	No. of patients ➤ chronic pain	Increase 5 %	<ul style="list-style-type: none"> ■ GP education ■ Patient education 	Reduce by 50 %
	Time until patients are referred to pain specialists	2-3 months	<ul style="list-style-type: none"> ■ Definition of referral pathway 	Reduce no. of patients by 50 %
	Red flag identification	>> 90 %		>> 75 % of unidentified red flags ➤ identified

4 Results

4.1 Back pain

4.1.1 Annotations

- Method questioned:
"Difficult approach for this indication (back pain)"
- Pain reduction is not the least important factor
- The most important level is "politics".
(The working group members (back pain) came from Italy and Germany, if members from the USA had been involved, results may be different.)

Standard examination

To be found: questions on pain for a GP to ask each patient:

- "Maximum pain during last 24 h?"
- "How do you feel today?"
- "Do you have any other pain than day-to-day pain?" (toothache)
- "Does it trouble you?"
- "Was there anything you could not do because of your pain?"
- "What was the best thing you did today?"
- "Are you depressed?"

Procedure

Valid criteria should be defined, how and when the doctor should induce the following measures:

1. Monitor the patient
2. Identify risk patients
3. Refer the patient to a centre

4.1.2 Goals

1. Construction of assessment tool

- Pain reduction
- Disability
- Quality of life
- Structure

Possibilities

- a) 1 question on each - for GPs
- b) BPI, SF-36 - for research
- c) Short monitoring instrument, based on a)

2. Definition of threshold values

- Model project
- Regional project

3. Produce intervention

- First relevance: GP education
- Second relevance: patient education

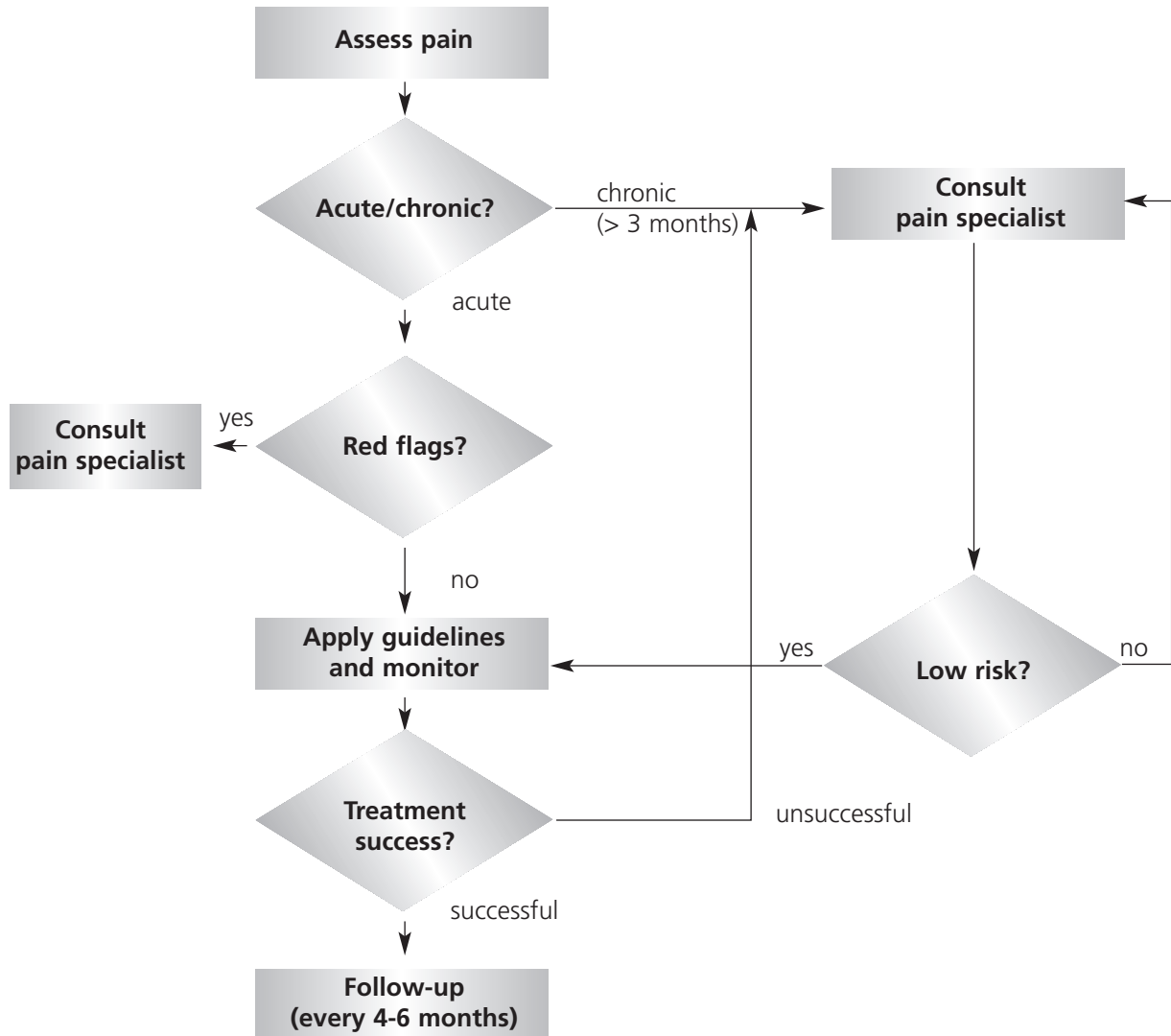
4. Outcome

- Quality assurance in networking

4 Results

4.1 Back pain

4.1.3 Algorithm – TQM in Pain Management



4 Results

4.2 Cancer pain

Cancer pain

Pain is the most prevalent symptom in cancer patients. Moderate or severe pain occurs in 30 - 40 % of patients at the time of diagnosis and in more than two-thirds of patients (60-100 %) with advanced cancer; most patients suffer more than one source of pain.

Though major improvements have occurred in pain therapy associated with cancer, there is an increased awareness that adequate pain control is the prerequisite for less suffering and an improved quality of life. However, there are still serious gaps in pain control predominantly in the palliative care setting.

Palliative care is a multidisciplinary task including pain control, but also the psychosocial care of the patient, his family members and friends. Pain control therefore has to be part of an overall plan to assess and handle the cancer patient's pain and it must take into account the other important aspects of the patient's suffering.

The following statements are intended to improve the management of cancer pain, show solutions and reflect on some of the problems in today's cancer pain control.

Subject	Measures	Threshold values	Intervention	Related Outcome
Pain level 1st priority	VAS ESAS Any other validated scale	Every patient's pain has to be measured daily	Providing the patients with VAS or other scales and pain diary and teach them how to measure appropriately	Better pain control for 80 % of the chronic pain patients)
Pain level	VAS ESAS Any other validated scale	Ex. VAS value ≥ 5	Patient has to see a doctor and has to receive appropriate treatment: <ul style="list-style-type: none"> ■ pharmacological (WHO ladder) ■ non-pharmacological based on a global approach	Reduction of pain (Increase opioid consumption with 20 %?)

4 Results

4.2 Cancer pain

Subject	Measures	Threshold values	Intervention	Related Outcome
Referral	VAS ESAS Any other validated scale	Patient has unrelieved pain for more than 2 weeks	<ul style="list-style-type: none"> ▪ GP has to call a specialist for advice ▪ Build a communication network (can be computerised) 	<ul style="list-style-type: none"> ▪ Less referrals (decrease by 20 % within 2 years) ▪ Decrease the number of hospital admissions (decrease by 20 % within 2 years)
Functionality 2nd priority	FFb.hp Performance score	> 75 % functionality	<p>Establish inter-disciplinary home-care teams to provide global support to patient and family, including:</p> <ul style="list-style-type: none"> ▪ Pain relief ▪ Comfortable care ▪ Home help ▪ Rehabilitation ▪ Occupational therapy ▪ Psycho-social support 	<ul style="list-style-type: none"> ▪ Increase functionality ▪ Improve quality of life ▪ Decrease the number of hospital admissions (decrease by 20 % within 2 years) ▪ Increase the number of patients with pain control staying at home (by 30 % within 2 years)

4.2.1 Goals

- 1 Patients do not have, but should have appropriate measurements of their pain.
- 2 Patients with pain do not, but should receive appropriate medication.
- 3 Reduce the number of admissions because of unrelieved pain.
- 4 Increase the number of patients who are able to care for themselves.

4 Results

4.3 Migraine

Migraine

Headache is pain occurring in the head from any cause, which presents physicians with challenges in diagnosis and treatment. Only in around 10 % a tumour is the underlying cause, while tension and migraine headaches account for 90 % of the headache. Migraine is a complex of symptoms presenting in episodes of severe headache with associated features, such as phonophobia, photophobia, nausea, and emesis. As many as 78% of the population suffer from tension headaches, and more women than men are affected . Migraine is estimated to affect between 11-16 % of the population with approximately 63 million sufferers in the advanced industrialised nations worldwide. Some estimates suggest that 12 million people suffer from migraine in Western industrialised countries. This is not only related to gender (more female sufferers), but also to age. Migraine usually begins between the ages of 5 and 35, occurring with a hereditary influence in 70-80 % of affected people .

As no common guidelines exist, doctors predominantly in an emergency environment very often set up their own treatment procedures for treating headaches independent of an accurate diagnosis. They can neglect the assumption that every individual headache case is different, and often these treatments exacerbate the vicious circles of inadequately treated pain, accounting for lost work and productivity. As in most cases the reason for the headache is unknown, huge amounts of different medications are prescribed which may give rise to drug-related headache. Clearly, improvements in assessment and diagnosis as well as in treatment strategies for this type of pain are urgently needed.

Subject	Measures	Threshold values	Intervention	Related Outcome
Pain	Frequency, duration (Pain diary)	According to existing guidelines	Drug- and non-drug-related therapy	Reduction by 50% in patient number within next 3 years
Chronicity	Frequency of migraine attack	From 2 attacks per month	Individual drug- and non-drug-related therapy	Reduction of self-medication, reduction of migraine days by 80 %
Referral	Number of referrals	Frequency of changing therapist (> 2)	Train-the-trainer concept: specialists train GPs ("snowball-effect")	Higher competence of GPs, reducing referrals by 20 % (doctor hopping)

4 Results

4.3 Migraine

Subject	Measures	Threshold values	Intervention	Related Outcome
Functionality	SF-36	According to SF-36	Re-evaluate current and previous therapy, non-drug related therapies (relaxation for preventing stress, e.g. wellness, sport, biofeed-back etc.)	Change of individual behaviour, increase of QoL.
Indication for early treatment	Frequency of attack	> 2 attacks per month	Train-the-trainer concept for paediatrics	Lowering of the chronicity rate or prevention of migraine itself
Decrease of side effects	Prevalence of drug-induced headache; number of gastrointestinal side effects; multimедication	Further studies are needed to define threshold values	Prevention of multimедication and prescription of medication with a high rate of side effects	Decrease of prescription of medication with a high rate of side effects such as gastric ulcers and bleeding

4.3.1 Goals

Most important outcome for migraine patients

- Reduction by 50 % of migraine days within 3 years could be achieved by parallel information of patients and "First-line-doctors" (GPs, paediatrics, gynaecologists, neurologists, depending on health care system) about the chances of a rational (guideline-based) migraine therapy.

Ways to reach the outcome (homework for advisory board):

- Evaluation of all European nationally used guidelines; is a new European guideline necessary?
- Analysis of the indicated drugs for migraine-therapy, mainly triptanes (looking for possible generics).
- Evaluation of indicated drugs (beta-blockers, Ca-antagonist, anti-epileptics, botulinum toxin)
- Data collection for indication of opioids in headache therapy (registration and indication)
- Study and single case results (evidence and experience-based, e.g. from associated pain societies in Europe)

Establish contact with doctors from professional organisations for training and looking for co-operation with powerful national patients' organisations.

4 Results

4.4 Neurothpic Pain

Neuropathic Pain

There is an enormous variability in the estimated prevalence of neuropathic pain in Europe and world-wide. Estimative studies for the USA show, however, that as many as 1.5 % of the whole population suffer from neuropathic pain . About 20 % of patients referred to pain clinics have neuropathic pain. Other studies suggest that 34 % of cancer patients have neuropathic pain, and also patients with AIDS commonly develop neuropathic-type pain during the course of their illness. Common neuropathic pain conditions include among others post-herpetic neuralgia, peripheral neuropathy, complex regional pain syn-drome (CRPS), trigeminal neuralgia or phantom-limb pain. As it is estimated that approximately 10 % of all cases of back pain include a neuropathic component. Formal, population-based numbers of the prevalence especially for these diseases are uncertain or do not exist. The same is true for the prevalence of neuropathic pain among patients with low-back pain. Neuropathic pain is different from nociceptive pain and is thought to be partially resistant to commonly prescribed analgesics, such as opioids or NSAIDs, but may be relieved by adjuvant drugs e.g. antidepressants. Further deficits in this pain condition include non-existing or poorly accepted assessment tools to evaluate the patient's pain properly.

Subject	Measures	Threshold values	Intervention	Related Outcome
1. Decrease pain level	NRS (max)	≥ 4: treatment < 4: ask the patient	<ul style="list-style-type: none"> ▪ Local ▪ Systemic ▪ After 3 months referral to centre 	< 4 within 3 months
2. Prevention of chronicity	<ul style="list-style-type: none"> ▪ Sleep ▪ Lying down without sleep ▪ (Sitting at rest) ▪ Sitting with activity ▪ Walking and standing activity (all in hours) 	Sleep < 4 h Activity < 4 h	Pain centre with psychological evaluation	Sleep > 4 h Activities > 4 h
3. Improvement of functionality	Short BPI (Question 9)	SUM > 20 or ONE > 5	1. Diagnostic 2. Pain centre	SUM < 21 Δ > 10
4. Indication for referral from GP to specialist	Δ referral time in weeks	12 weeks if normal or less if increases in 2 or 3	Algorithm of 1., 2. and 3.	Reduction of Δ referral time
5. Decrease of treatment side effects	<ul style="list-style-type: none"> ▪ Number and severity of side-effects ▪ 3 point scale 	<ul style="list-style-type: none"> ▪ Patient wishes to stop medication ▪ Balance pain relief to side effects 	<ul style="list-style-type: none"> ▪ Start low, go slow ▪ Medication guideline 	Reduction of number and severity of side effects (improved patient compliance)

4 Results

4.4 Neurophthc Pain

4.4.1 Framework

Target group: GPs



KISS (Keep it short & simple)

- realistic
- pragmatic
- simple (e.g. not SF-36)

4.4.2 Goals

1. Increase of early referrals (within 12 weeks)
2. Decrease of late referrals
 - Chronicity ↓
 - Pain level ↓
 - Side effects ↓
 - Functionality ↑
3. Quality of life ↑

4 Results

4.5 Musculoskeletal pain

Musculoskeletal pain

A survey conducted for the WHO reported that one adult in five suffers from chronic non-malignant pain, which mostly occurs in the back, head, joints and limbs (Gureje et al., 1998). Musculoskeletal pain often in the form of arthritis, non-articular rheumatism (for instance fibromyalgia), peripheral neuropathies and low-back disorders, represents the most common cause of chronic non-malignant pain. More than 15 % of the world-wide population suffer for instance from some form of osteoarthritis, and this incidence is even higher in the elderly. As the world population grows older, this incidence will continue to rise. The other large incidence column is represented by low back pain; 10 % of the entire population are thought to suffer from this form of disability which leads to huge losses in socio-economic welfare. As pain is the most common reason why patients consult a doctor, the assessment, diagnosis and treatment of this type of disorder would need special training predominantly for the GPs, and here there is a gap between theory and practice.

Subject	Measures values	Threshold	Intervention	Related Outcome	Outcome
Pain level reduction ■ Acute	■ VRS ■ NRS (11)	Severe pain (6)	■ Direct access to esponsible doctors (e.g. rheumatologist) ■ Medication: Analgesics, physical rehabilitation; psychological support At maximum mild-moderate	■ Mood improvement increased physic. activity better QoL. ■ Fast access to treatment ➤ less chronicity; reduction of misuse inadequate medication	■ Reduction of duration of acute pain
Pain level reduction ■ Chronic	Average intensity over 6 months ■ NRS ■ BPI Early detection of psychosocial problems Close monitoring documentation	3 (mild-moderate)	■ Multi-dimensional approach: Patient information & education, pain diary; ■ Medication: Analgesics, adjuvant therapeutics, specific interventions for specific disease, physical rehabilitation	■ Patient empowerment ■ Less doctor hopping ■ Increased ability for social life ■ Better use of community resources	

4 Results

4.5 Musculoskeletal pain

Subject	Measures values	Threshold	Intervention	Related Outcome	Outcome
Pain level reduction ▪ Chronic	Average intensity over 6 months ▪ NRS ▪ BPI Early detection of psychosocial problems Close monitoring documentation	3 (mild-moderate)	<ul style="list-style-type: none"> ▪ Psychological intervention in close co-operation with psychologist <p>Direct outcome: At maximum mild to moderate pain</p>	<ul style="list-style-type: none"> ▪ Patient empowerment ▪ Less doctor hopping ▪ Increased ability for social life <p>Better use of community resources</p>	
Prevention of chronicity	Prevent central sensitisation	Pain persisting after normal healing	Re-evaluation of therapeutic regimen diagnosis, assessment of risk factors	<ul style="list-style-type: none"> ▪ Better QoL. ▪ Less sick leave days ▪ Decrease of consumption of medical services ▪ Decrease of social cost 	
Functionality improvement	Multi-dimensional scales	Full functionality x 1.5 as max. score	Patient information and education	<ul style="list-style-type: none"> ▪ Increased self-confidence ▪ Less hospitalisation ▪ Less sick leaves ▪ Better social integration 	
Functionality improvement	Multi-dimensional scales	Full functionality x 1.5 as max. score	<ul style="list-style-type: none"> ▪ Agreement on realistic objectives, medication, professional & psychological support, physical rehabilitation ▪ Patient empowerment; partnership between patient & doctor ▪ Occupational therapy 	<ul style="list-style-type: none"> ▪ Increased self-confidence ▪ Less hospitalisation ▪ Less sick leaves ▪ Better social integration 	

4 Results

4.5 Musculoskeletal pain

Subject	Measures values	Threshold	Intervention	Related Outcome	Outcome
Appropriate referral to specialist	<ul style="list-style-type: none"> Appropriate diagnosis Measurement of symptoms Documentation 	<p>No improvement of clinical symptoms</p> <p>> 2 weeks or uncertain diagnosis or diagnosis outside field of competence</p>	<ul style="list-style-type: none"> Rational sequence of specialists Role of psychologist & psychiatrist & psychosomatic doctors Role of multidisciplinary teams 	<ul style="list-style-type: none"> Appropriately treated patient; Increased patient satisfaction 	
Indication for early treatment	<ul style="list-style-type: none"> Adequate diagnosis Multidisciplinary assessment 		<ul style="list-style-type: none"> Referrals Multidisciplinary approaches Psychopharmacology Social interventions 	<ul style="list-style-type: none"> Compliance rise Decrease of doctor hopping Patients & doctor satisfaction Costs Patients' self responsibility 	
Decrease of side effects of medication	<ul style="list-style-type: none"> Monitoring on a regular base Unnecessary intervention Self-medication Careful evaluation of psychotropic drugs 		<p>Prevent and/ or treat by</p> <ul style="list-style-type: none"> Guidelines Education Information <p>Define objectives with each individual patient</p>	<ul style="list-style-type: none"> Decrease of complication of treatment (iatrogenicity) Decrease of costs QoL. (fewer suicides) 	

4 Results

4.6 Psychosomatic pain

Psychosomatic pain

It is accepted that pain is subjective, and is felt differently by individual people. Pain also acts as constant physiological stress contributing to the severity of chronic pain and affects patient's daily life activities, their social contacts and even behaviours. Persistent pain can give the patient the feeling of sickness, helplessness and fear. This emotional side of pain has huge impact on the disease process, often slowing down healing or exacerbating the symptoms. For these reasons, a specialist approach to predisposed patients would be needed which differentiates somatic causes from psychological factors and focussed the care appropriately for psychological disorders within a network of physicians, psychologists and social workers.

Subject	Measures	Threshold values	Intervention	Related Outcome
Pain level	Pain level reduction	<ul style="list-style-type: none"> ▪ Mild to moderate ▪ Decrease time about 1 month ▪ Identify as a biopsychosocial model 	<ul style="list-style-type: none"> ▪ Adequate information ▪ Psycho support + treatment ▪ Social support ▪ +/- pharmacological (antidepressant, +/- analgesics) 	<ul style="list-style-type: none"> ▪ Socialisation ▪ Ability to participate in social life
Chronicity	Prevention for chronicity	<ul style="list-style-type: none"> ▪ Central sensitisation ▪ Doctor hopping ▪ Previous inadequate treatment ▪ Secondary gains ▪ Environment 	<ul style="list-style-type: none"> ▪ Psychological + pharmacological measures ▪ Education (patients, doctors, family) ▪ Systematic guidelines ▪ Social measures ▪ Education 	<ul style="list-style-type: none"> ▪ Rehabilitation ▪ Reduce medical services ▪ Reduce social costs
Function	Increasing function	<ul style="list-style-type: none"> ▪ Inactivity ▪ Loss of social life ▪ Quality of life ▪ cf. supra 	<ul style="list-style-type: none"> ▪ Monitor the impact of pain: social, psychological – use of adequate questionnaire ▪ cf. supra 	<ul style="list-style-type: none"> ▪ Systematic monitoring of biopsychosocial aspects of pain ▪ Rehabilitation measures ▪ Psychosocial measures

4 Results

4.6 Psychosomatic pain

Subject	Measures	Threshold values	Intervention	Related Outcome
Referrals	Referrals effectiveness	<ul style="list-style-type: none"> Excluding pure somatic pathology Adequate diagnosis 	<ul style="list-style-type: none"> Rational sequences of specialists Role of psychologist + psychiatrist Role of multi-disciplinary teams 	<ul style="list-style-type: none"> Compliance rise Decrease of doctor hopping Patients, doctor satisfaction Cost (diagnosis, treatment)
Indication	Indication for early treatment	<ul style="list-style-type: none"> Adequate diagnosis Bio-psychosocial model Multidisciplinary assessment 	<ul style="list-style-type: none"> Referrals Multidisciplinary approaches Psychological, pharmacological, social measures 	<ul style="list-style-type: none"> cf. Supra
Side effects	Decrease of therapeutic side effects	<ul style="list-style-type: none"> Monitoring on a regular base Unnecessary intervention Self-medication 	<ul style="list-style-type: none"> Prevent and / or treat by: guidelines, education, information 	<ul style="list-style-type: none"> Decrease of complication of treatment (iatrogenicity) Decrease of cost Quality of life (decrease in suicide)

4.6.1 Situation

Current

- Large number of patients
- Large amount of suffering
- Often inadequate treatment

Future

- To be considered according to the bio-psychosocial model.
- Diagnosis to be revisited regularly.
- Reduce unnecessary referrals and number of treatments.
- Major role for information and education.
- Major role for psychologists and social workers who have to be included as full members of a network.

4 Results

4.7 Political aspects in Pain Management

Political aspects in Pain Management

4.7.1 Medical Education

Undergraduates

Goal:

- Compulsory component of at least 20 hours in pain management (theoretical and practical instructions) for undergraduates within three years.

How to achieve:

- Offer special services to universities.
- Provide capacity for undergraduates in pain centres.
- Local strategies depending on national regulations.

Postgraduates

Goal:

- Pan-European accreditation system in pain competence (pain specialist)

How to achieve:

- Define a curriculum (theoretical and practical) including competence in invasive techniques, such as the IASP Core Curriculum.

Postgraduates (GPs)

Goal:

- To ensure GPs continuously educate themselves in pain management.

How to achieve:

- Local strategies depending on national regulations.

Nurses

Goal:

- Ensure that the undergraduate curriculum for nurses contains at least 4-20 hours of theoretical instructions in pain management.

How to achieve:

- Offer special services to universities.
- Provide capacity for undergraduates in pain centres.
- Develop local strategies depending on national regulations.
- Offer expertise.

Patients / media

Goal:

- To create a patient-orientated information platform under supervision of the national pain societies to provide reliable information and a forum for patients seeking further information regarding their pain conditions:

How to achieve:

- Contact national pain societies.
- Encourage societies to form advisory boards for patients.
- To create standardised patient information sheets to provide all relevant information about specific procedures.
- To provide a listing of pain centres including pain specialists working there to the patients.

4 Results

4.7 Political aspects in Pain Management

Governments

Goal:

- To reconsider prescription regulations to reduce bureaucracy for doctors for the prescribing of scheduled drugs on a European level.

How to achieve:

- To be defined.

4.7.2 Structures

Pain centres

Goal:

- To increase numbers of pain centres by 10 % in three years on European level.
- To have a psychologist/psychiatrist specifically trained in pain management in at least 25 % of all pain centres within three years.
- To increase availability of non conventional therapy options.

4.7.3 Outcomes

Quality of life

Goal:

- Validate country-specific QoL questionnaires within European countries within 3 years.

Psychosocial Situation

Goal:

- Validate country specific questionnaires for psychosocial suffering within European countries within 3 years.

5 Perspectives

Perspectives

P.A.I.N. was a first endeavour to create a sustainable quality improvement concept in out-patients with pain. The agreement we achieved provides the opportunity for further action in this direction. First of all we will formulate a plan for a pilot project to evaluate and realise the suggestions and recommendations worked out in the Berlin Consensus. The practical measures that can be derived from P.A.I.N. will be evaluated in their practical relevance for the patients' situation. In a second step subsequent workshops should revise and modify these measures to improve their effectiveness. Furthermore, special clinical topics with great relevance in pain management should be specified in more detailed concepts. This will be the main task of future workshops.

6 Acknowledgement

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List of participants

Name and institution	City / Country
Prof. Dr. Telmo Mourinho Baptista Faculdade de Psicologia e de Ciências da Educação Da Universidade de Lisboa	Lisbon / Portugal
Mr. Luc Baert Pijnklinik Algemeen Ziekenhuis St. Jan	Brugge / Belgium
Univ. Prof. Dr. Günther Bernatzky Naturwissenschaftliche Fakultät der Universität Salzburg	Salzburg / Austria
Dr. Louis Brasseur Hôpital Ambroise Paré	Boulogne Billancourt / France
Dr. Volker Espenkott, FA f. Allgemeinmedizin	Aachen / Germany
Ms. Paula Folgado ANDAI – Associação Nacional de Doentes com Artrite Infantil	Lisbon / Portugal
Ms. Carolina Fuentes Equipa de Cuidados Continuos Centro de saude de Odivelas	Odivelas / Portugal
Dr. Charles Gauci, Whipps Cross Hospital	London / United Kingdom
Dr. Hans-Helmut Gockel Krankenhaus Tutzing	Tutzingen / Germany
Dr. med. Jan-Peter Jansen Prakt. Arzt	Berlin / Germany
Univ.-Prof. Dr. med. Dr. rer. nat. Klaus Lehmann President German Pain Society Klinik f. Anästhesiologie und operative Intensivmedizin Universität zu Köln	Cologne / Germany
Dr. med. Jochen Leifeld Arzt f. Chirurgie, Schmerztherapie	Rendsburg / Germany
Univ. Doz. Dr. Rudolf Likar, Abt. f. Anästhesiologie u. allgem. Intensivmedizin Allgem. Örtl. Landeskrankenhaus Klagenfurt	Klagenfurt / Austria

6 Acknowledgement

Name and institution	City / Country
Prof. Dr. José Manuel Castro-Lopes Instituto de Histologia e Embriologia Faculdade de Medicina da Universidade da Porto	Porto / Portugal
Univ.Prof. Dr. Michael Micksche Leiter der Abteilung f. Angewandte u. Experimentelle Onkologie Institut Krebsforschung Universität Wien President Cancer Aid Vienna	Vienna / Austria
Dr. Bart Morlion Director of the Multidisciplinary Pain Center (MPC) UZ Gasthuisberg University Hospitals, Catholic University of Leuven	Leuven / Belgium
Dra. Isabel Maria Galriça Neto Medical Doctor Palliative Care, Palliative Care Team Odivelas Health Center	Odivelas / Portugal
Dr. Lukas G. Radbruch Klinik und Poliklinik für Anästhesiologie und Operative Intensivmedizin, Schmerzambulanz Universität zu Köln	Cologne / Germany
Dr. Reinhard Sittl Schmerzambulanz, Klinik f. Anästhesiologie Friedrich-Alexander-Universität Erlangen-Nürnberg	Erlangen / Germany
Ms. Renate C. Sörensen Dipl.-Psychologin, Rheumaklinik Berlin; Rheumaliga Berlin e. V.	Berlin / Germany
Dr. med. Wolfgang Sohn Arzt f. Allgemeinmedizin, Diabetologe DDG u. Schmerztherapie	Kempen / Germany
Ms. Ella van Raders Pain Research Group, St. Bartholomew's Hospital	London / United Kingdom
Prof. Giustino Varrassi Dipartimento di Scienze Chirurgiche Cattedra die Anestesia e Rianimazione	Coppito (L'Aquila) / Italy
Dr. Ans Vielvoye-Kerkmeer Leiden University Medical Centre	Leiden / Netherlands
Dr. Dr. Klaus Piwernetz Q4 Qualitätsmanagement im Gesundheitswesen GmbH	Munich / Germany
Dr. Dirk Vermeij Vermeij MD & Associates Quality	TM Wijk bij Duurstede / Netherlands

We would like to thank the participants for their professional support, the scientific input and for the great conceptual job in organising this workshop. The European contact persons for the Grünenthal health care management arranged this workshop, and they deserve our special thanks for their great commitment. P.A.I.N. was sponsored by Grünenthal.

7 Abbreviations

7 Abbreviations

BPI	Brief Pain Inventory, a brief, simple, and easy to use questionnaire for the assessment of pain in both clinical and research settings.
CRPS	Complex Regional Pain Syndrome
EFIC	European Federation of IASP Chapters
ESAS	Edmonton Symptom Assessment Scale; assessment of nine symptoms common in cancer patients: pain, tiredness, nausea, depression, anxiety, drowsiness, appetite, wellbeing and shortness of breath
FFb-H-R Performance Score	Questionnaire for functionality in daily living
GP	General Practitioner
IASP	International Association for the Study of Pain
NSAID	Non Steroidal Antiinflammatory Drugs
NRS	Numerical Rating Scale (algesimetric rating scale, pain level is rated by numbers)
PDI	Pain Disability Index
QoL	Quality of Life
SF-36® Health Survey	Very widely used patient-based health status survey
TQM	Total Quality Management
VAS	Visual Analog Scale (algesimetric rating scale, pain level is rated by visuals)
WHO	World Health Organisation
WIP	World Institute of Pain

8 References

"For all happiness mankind can gain is not in pleasure, but in rest from pain."

John Dryden (1631-1700)

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