Pain in the aging patient

Professor Hans Georg Kress

Achievements of the international CHANGE PAIN® initiative since 2009

Dr Gerhard H.H. Müller-Schwefe

Implementation of the CHANGE PAIN® initiative in Southern Europe

Experience in Italy

Professor Flaminia Coluzzi

Experience in Spain

Dr César Margarit-Ferri

Experience in Portugal

Dr Ana Cristina Mangas

EDITORS

Professor Hans Georg Kress
Dr Gerhard H.H. Müller-Schwefe

Supported by an educational grant from Grünenthal
www.change-pain.com
It is now almost three years since the international initiative CHANGE PAIN® was introduced with the aim of enhancing our understanding of the needs of the chronic pain patient and developing solutions to improve pain therapy. In this issue of the CHANGE PAIN® News and Reviews we consider how much has thus far been achieved towards improving chronic pain management.

Through the use of the CHANGE PAIN® Physician and Patient Surveys we now have a better understanding of current pain treatment strategies and how successful these are perceived to be by pain sufferers. Solutions developed by the CHANGE PAIN® initiative such as the CHANGE PAIN Scale and the PAIN EDUCATION program are now being employed in an increasing number of European countries.

In this issue we have articles from Advisory Board members in Italy, Spain and Portugal, providing us with first-hand experience of how successful the initiative has been in their respective countries.

Recently the International Advisory Board discussed the special needs of elderly patients with chronic pain and the particular challenge management of pain represents in this group.

At congresses, meetings and thorough online activities the CHANGE PAIN® initiative will continue to support healthcare professionals contributing their expertise to improve better pain management outcomes in their countries.

Professor Hans Georg Kress
President of the European Federation of IASP Chapters (EFIC)
The treatment of pain in the elderly poses particular problems. Due to changes in metabolism and an increasing risk of adverse effects to drugs, treatment in this group may require a different approach. The prevalence of pain is known to increase with age. Whilst back pain is the common pain type in the population in general, a particularly increased rate of chronic pain due to joint pain or arthritis is common in older age groups. The incidence of neuropathic pain has also been shown to be especially high in the elderly patient¹. The results of the National Health and Wellness Survey (NHWS) indicated that older women seem to suffer more than their male counterparts. In the studied population, approximately 70% of females over 65 reported to have experienced pain in the last month compared to 35% of males in the same age group².

Under-treatment of pain in the elderly

It is commonly believed that if an older person does not complain, they do not have pain. However, there are many reasons why elderly may be reluctant to complain, despite the fact that pain significantly affects their functional status and mood. Due to dementia or communication problems and the difficulty of using pain assessment scales, many older people are unable to convey to health providers the true extent of their symptoms. Furthermore, the elderly frequently have atypical pain presentations and may also misinterpret the physical sensations they are experiencing. Many older people harbour false beliefs about pain and its management and may be reluctant to seek advice, believing that rest is the best method of pain relief. The resulting immobility can cause muscle atrophy and osteoporosis with an increased likelihood of injury resulting from falls. Untreated pain causes sleep deprivation, depression and mood disturbances, all of which have a negative effect on quality of life.

The challenges of the geriatric patient

Increasing age is associated with a physiological decline in the functioning of the renal, hepatic and immune system. Other age-related changes include a decreased volume of distribution as a result of a decrease in mean body weight, decreased activity of some drug-metabolizing enzymes, and reduced serum protein concentration. These factors, combined with the higher incidence of co-morbidities such as hypertension, raised cholesterol and diabetes requiring the use of multiple medication, increase the risk of adverse effects and problems with complex drug interactions. There is a delicate balance between the risk of under-treatment versus toxic side effects. Cognitive impairment, particularly memory loss, can affect compliance resulting in overdose, insufficient dosing and increased adverse effects, especially in poly-medicated patients. The NHWS indicated that pain sufferers in general tend to utilize healthcare resources at greater levels than non-sufferers and this increases with age. Elderly patients require more healthcare provider visits, especially specialist consultations. There are also social implications with an associated need for more provision of care and support in the home.

Choices for analgesic treatment in the elderly

It has been reported that 18% of elderly people take analgesic medications on a regular basis³. Of these, 71% take prescription analgesics and 72% OTC preparations. The use of non-selective NSAIDs in elderly patients is associated with a risk of gastrointestinal impairment, renal impairment, hypertension, and platelet dysfunction. Selective COX-2 inhibitors maybe considered in preference for use in this age group, although there is concern for their use in patients with increased cardiovascular risk. The use of opioids is problematic due the sensitivity of older persons to their analgesic properties and also the side effects (especially constipation). Age-related changes in metabolism may lead to problems with prolonged half-life and also changes in pharmacokinetics of opioids. Despite these factors, due to the association of incidence of
malignant disease increasing with age, the majority of patients receiving opioid treatment are between 50 and 90 years of age.

**Drug interactions**

Most elderly persons are taking some form of prescription medication and many are taking a considerable number of different drugs. A study in Germany revealed the extent of this problem. An exponential relationship exists between the probability of drug interactions and the number of drugs prescribed. Prescribing fewer drugs could have the benefit of reducing the risk of suffering from sickness due to secondary drug interaction.

**Improving pain treatment in the elderly**

Since most pain treatment studies have been conducted in young adult populations, the degree to which standardised treatments need to be modified to meet the specific needs of the older patient has not been well studied. However, there are a number of different approaches that may prove beneficial. For diagnosis, Verbal Pain Scales (e.g. none, weak etc.) seem to be preferred by older people rather than Visual Analogue Scales. A Painvision computer system is being developed in Belgium which recognises facial expressions that are indicative of pain, which would be of particular benefit in cases where communication skills are limited.

A “start low go slow” approach to therapeutic treatment may be of benefit in elderly patients, allowing the patient’s body systems time to gradually adapt to the medication and giving physicians time to monitor the development of any adverse drug effects. The Plan-Do-Study-Act model of quality improvement which encourages careful evaluation of treatment outcome followed by modification of initial treatment as necessary has been shown to raise the standard of pain management in nursing homes.

Aimed at reducing dispensing and drug administration errors, techniques such as computerised prescribing and point-of-care systems may provide safety benefits along with the adoption of anonymous error-reporting systems.

In order to capitalise on the potential benefits of improved treatment there needs to be better teaching of pain medicine, particularly with regard to the use of opioids, both at the undergraduate and postgraduate level.

**Conclusions**

Successful treatment of pain in older persons requires a multidisciplinary approach that encompasses medicines, physical and complementary therapies combined with psychological and social interventions adapted to specific needs. A number of different approaches to pain care in the elderly have been identified which take into account the declining physiological and psychological function associated with increasing age. Put into practice by better trained physicians, it is expected that these approaches should bring about improved pain management in the older patient.

**Drug prescription to elderly medical patients in two German University Hospitals, 1997-98**

![Graph showing drug prescription to elderly medical patients in two German University Hospitals, 1997-98](image)

**References**

7. www.painvision.be
Since the convening of the first CHANGE PAIN® advisory board meeting in 2009, the CHANGE PAIN® initiative expanded step by step across Europe. Originally conceived to enhance the understanding of chronic pain patients’ needs and improve pain management strategies, CHANGE PAIN® has done much to raise the awareness of the problems encountered by chronic pain sufferers and demonstrate the need for a change of attitude towards treatment at both the physician and policy making level.

Currently there are about 160 members engaged in CHANGE PAIN® advisory boards across Europe, all intent on improving the lives of chronic pain sufferers. The CHANGE PAIN® initiative has been represented at almost 100 congresses at international or national level, making physicians more aware of the need for a greater understanding of the mechanisms associated with pain and the need for a more consistent approach to treatment. To date there have been more than 60 publication projects on CHANGE PAIN® topics. These have included research results, special interest topics and consensus publications. Until 2011, the international CHANGE PAIN® advisory board alone initiated 13 publications, providing providing a valuable knowledge resource for healthcare professionals treating chronic pain.

**CHANGE PAIN® Physician Survey**
Initiated at the 2009 EFIC Congress, the CHANGE PAIN® Physician Survey has explored physicians’ views on chronic non-cancer pain. In the meantime (December 2012), there have been 4,188 respondents from the survey (79% from Europe), including pain specialists (38%), primary care physicians (27%), and other specialists. The survey has demonstrated huge variations in the use of analgesics in different European countries both in terms of quantity and specific agents being prescribed. Current therapy, particularly the use of opioids, is dependent on geographical location and the effect of individual legislative and cultural practices. The survey has also shown a lack of understanding of the difference between nociceptive and neuropathic pain. The differences in opinions and approaches adopted by the various groups of healthcare professional have also been emphasised. (The results on a total of 2,919 participants who responded between September 2009 and December 2011 have been published in Varrassi & Müller-Schwefe, 2012)

**CHANGE PAIN® Patient Survey**
The CHANGE PAIN® Patient Survey has allowed us to study, not only the prevalence of chronic pain in the population, but also the profound impact it has on the quality of life for individual sufferers. We have analysed more than 6,500 responses from patients in Germany and these results have been published in 2011. In Spain over 8,500 patients have now completed the survey and the publication of the results has been submitted for publication. Other countries are now participating in the survey including Belgium and the Netherlands. Overall analysis of the results of this survey has indicated that approximately 30% of chronic pain sufferers are dissatisfied with current treatment, the worse the pain the lower the level of satisfaction.

**ACHIEVEMENTS OF THE INTERNATIONAL CHANGE PAIN INITIATIVE SINCE 2009**

**Dr Gerhard H.H. Müller-Schwefe**

President of the German Association for Pain Therapy (DGS), Germany
CHANGE PAIN® Scale

One of the reasons for inadequate pain control is due to the lack of communication between physicians and patients. In many cases, chronic pain patients are unable, or reluctant, to report the level of pain they are experiencing. As a consequence, physicians can have a poor understanding of the patients’ condition. To aid this situation, the CHANGE PAIN® initiative developed the CHANGE PAIN® Scale to allow assessment of pain through a more holistic approach taking into account patients’ expectations.

More than 250,000 scales and documentation forms have already been distributed in 12 European countries. These allow the present pain level to be assessed using an 11-point Numerical Rating Scale and also assess the effect of pain on everyday living. This information allows patients and physicians to jointly agree on the need for improvement and be able to set realistic expectations and individualized treatment targets.

PAIN EDUCATION Workshops

With regard to pain relief, it has been shown that medical training both at the undergraduate and postgraduate level is insufficient, with over a third of students receiving less than 10 hours of tuition. Educating healthcare professionals on the adequate use of analgesics based on underlying pain mechanisms has become an important part of the CHANGE PAIN® initiative. A wide range of complementary learning programmes are now offered. These include Workshops and eCME certified online courses (accessible via www.pain-cme.net) which have involved so far around 25,000 physicians overall in Europe.

References

IMPLEMENTATION OF THE CHANGE PAIN® INITIATIVE IN SOUTHERN EUROPE

ITALY, SPAIN, PORTUGAL
The prevalence of chronic pain in Italy is approximately 26%¹, a level indicative of a need for improvement in its treatment. When compared with other European countries the use of opioids in Italy is considerably lower.

**Use of opioids in Italy in comparison to main European Countries**

In an attempt to improve the situation, legislation was introduced in March 2010 with the aim of improving the education of physicians and simplifying the prescription of opioids. Under Law 38/2010² pain assessment is now a required duty of clinicians along with a differentiation between pain therapy and palliative care. With the aim of improving access to pain therapies, drug prescription was simplified and the prescription of opioids no longer requires special forms. This law was the first in the occidental world to recognise the citizen’s right to pain therapy. However, one year later an audit showed that this new legislation had produced only a partial improvement; only 63% of hospitals had a Pain Therapy and Palliative Care Unit, the response being particularly poor in the south of the country.

Under the CHANGE PAIN® umbrella a PAIN EDUCATION program has been launched in Italy with the following key objectives:

- To reduce the gap between Italy and other European countries in terms of pain treatment and educate on opioids and their appropriate prescription
- To drive the simplification of opioid prescription for GPs and specialists according to Law 38/2010

The first part of his national program was aimed at training the trainers, benefits to Italy through the improved education of healthcare professionals involved in pain management. We anticipate that this improvement will soon be reflected in the more effective treatment of chronic pain patients throughout the country.

**COMMENTARY**

**Professor Flaminia Coluzzi**  
Medicine and Pharmacy Faculty, SAPIENZA University, Rome, Italy

Although the need for improved therapy for pain has been recognised by the Italian authorities for some time, legislative changes have been only slowly implemented. The instigation of the CHANGE PAIN® program is now bringing benefits to Italy through the improved education of healthcare professionals involved in pain management. We anticipate that this improvement will soon be reflected in the more effective treatment of chronic pain patients throughout the country.
The results of several research projects have been published in 2011 detailing the prevalence of chronic pain in the Spanish population and the effect it has on patients’ lives, healthcare resource utilization, and workplace productivity. An epidemiological study of chronic non-malignant pain in Spain which analysed the results of 112 studies was published on the CHANGE PAIN® website. This study indicated the prevalence of general chronic pain in the general population to be 12%. Many of these patients had been suffering from chronic pain for a considerable time with the mean duration of 6-14.3 years in the case of OA and RA and 9-13 years for cases of fibromyalgia. Chronic pain was shown to affect all areas of quality of life (QOL), with chronic pain sufferers reporting a lower QOL than acute pain patients. Data from the 2011 National Health and Wellness Survey (NHWS) showed that 17.25% of adults in Spain reported experiencing pain in the past month. Daily pain was experienced by 6.95% of the population. The major conditions causing pain were back pain (60.53%) followed by joint pain (40.21%). Sleep difficulties (42.24%) and anxiety (40.62%) were the most commonly cited comorbidities. Over 70% of patients in Spain reported they were satisfied with treatment, and adherence to pain medication was high.

Pain was associated with substantial health-related quality of life deficits as measured on by the physical and mental score components of the SF-12. In the case of severe daily pain, there was a
benefits, not only for the quality of life of patients, but for society in general and employers. The CHANGE PAIN® education program in Spain has initially focused on training Advisory Board Members in public presentations, press conferences and interviews etc. This training has included subjects such as the importance of physician/patient communication, the pathophysiology of pain, and mechanism orientated therapy. Face-to-face pain courses are now being held targeting physicians with an interest in pain. Endorsed by the Spanish Pain Society, these courses look at various pain concepts in terms of physiology and treatments. Clinical cases are considered along with current topics in the CHANGE PAIN® initiative. So far 40 meetings have been convened and over 2000 physicians have attended. Positive feedback from these meetings has praised the benefits of the interactive format with well-prepared speakers. The regional nature and very high level of scientific content of the meetings are further positive points. We have also co-operated with regional Health Authorities in 6 areas within Spain to train more than 1,900 physicians.

References

PAIN POPULATION, PAIN SEVERITY DISTRIBUTION BY MAJOR HEALTH CONDITIONS EXPERIENCED AND POPULATION HEALTH CONDITION PREVALENCE IN PAST 12 MONTHS, NHWS 2010, SPAIN

<table>
<thead>
<tr>
<th>Health condition experienced in past 12 months</th>
<th>Persons experiencing severe pain (%)</th>
<th>Persons experiencing moderate pain (%)</th>
<th>Persons experiencing mild pain (%)</th>
<th>Health condition prevalence in pain population (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep difficulties</td>
<td>16.47</td>
<td>65.40</td>
<td>18.41</td>
<td>42.24</td>
</tr>
<tr>
<td>Headache</td>
<td>13.41</td>
<td>64.31</td>
<td>22.27</td>
<td>40.62</td>
</tr>
<tr>
<td>Anxiety</td>
<td>18.31</td>
<td>62.36</td>
<td>19.33</td>
<td>40.62</td>
</tr>
<tr>
<td>Insomnia</td>
<td>19.88</td>
<td>62.70</td>
<td>17.41</td>
<td>29.87</td>
</tr>
<tr>
<td>Migraine</td>
<td>17.33</td>
<td>61.21</td>
<td>21.46</td>
<td>24.28</td>
</tr>
<tr>
<td>Depression</td>
<td>23.65</td>
<td>63.01</td>
<td>13.34</td>
<td>24.43</td>
</tr>
<tr>
<td>Abdominal pain</td>
<td>—</td>
<td>64.91</td>
<td>—</td>
<td>16.24</td>
</tr>
</tbody>
</table>

Major is defined as where 100 or more respondents indicated the health condition.
—, Sample size too small to project to total population (n<30).
Source: NHWS 2010.
CHANGE PAIN® was launched in Portugal in October 2011. Since the launch much has been done to raise awareness of the impact of pain in the medical press. National initiatives are in place aimed at encouraging epidemiological studies and recognition of the societal impact of pain. A number of national societies are supporting the pain education workshops including the Associação Portuguesa dos Médicos de Clínica-Geral, Clube de Anestesia Regional, Sociedade Portuguesa de Neurologia and the Sociedade Portuguesa de Radioterapia Oncológica. Although there is no eCME certification in Portugal, via the CHANGE PAIN® website 200 respondents are now registered as able to take the three available modules. Forty-two opinion leaders have now been trained and 12 PAIN EDUCATION workshops held with a total of 407 participants. At a local level, the CHANGE PAIN® program has been implemented at UNIDOR, HSA, Leiria. This conceptual project is focused on total quality pain management, based on the recommendations of the National Program for Pain Control and the principles of the Joint Commission International (JCI). Under this project, the “HOSPITAL SEM DOR”, PAIN FREE HOSPITAL is now functioning under strategic cores aimed at improving pain management through improvements in quality and patient safety, efficient management, and modernization of infrastructure. Goals include the incorporation of an integral pain strategy, integral care procedures, patient safety policies and best prescribing practice. A training program has been put in place at the primary care level for professionals within the hospital, and also for patients and caregivers. A Multidisciplinary Pain Committee is now in place and each ward has health professionals trained in pain management. CHANGE PAIN® tools are now in routine use.

The 1st meeting of the Pain Unit, UNIDOR, Leiria has now taken place. This multidisciplinary meeting discussed pain management issues and was designed to raise awareness between health professionals. With 130 people attending, themes discussed included pain management in primary care, benchmarking in low back pain, acute pain units, chronic post-surgical pain and breakthrough pain. This meeting was also the first opportunity to present the PAIN EDUCATION Workshop. This represents a good example of a project for the improvement of pain management at the hospital level. Other local projects supported CHANGE PAIN® include the partnership of UNIDOR with a local Primary Care Unit and also collaboration with the Health Research Unit at the Polytechnic Institute of Leiria to instigate an epidemiological study into pain prevalence in the local primary care population.

**COMMENTARY**

Dr Ana Cristina Mangas
Anesthesiology and Pain Unit
Centro Hospitalar Leiria-Pombal, Portugal

Although the CHANGE PAIN® initiative is a comparatively new introduction in Portugal we are already seeing benefits. The success of the “HOSPITAL SEM DOR” at Leiria is excellent role model for other other clinical facilities in Portugal. Raising the profile of CHANGE PAIN® through participation at meetings and congresses and increasing the available number of workshops and training modules will improve the understanding of pain treatment throughout our medical community.

**“HOSPITAL SEM DOR”, PAIN FREE HOSPITAL AT HSA, LEIRIA**

<table>
<thead>
<tr>
<th>Strategic Cores</th>
<th>Strategic Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality and Patient Safety</td>
<td>Integral Pain Strategy</td>
</tr>
<tr>
<td>Patient’s Health and demands</td>
<td>Integral Care Procedures</td>
</tr>
<tr>
<td>Rigorous and efficient management</td>
<td>Quality and Patient Safety Policies</td>
</tr>
<tr>
<td>Modernization of infrastructures</td>
<td>Best Practices in Drug Prescription</td>
</tr>
<tr>
<td>Rigorous and efficient management</td>
<td>Guarantee of care in time</td>
</tr>
</tbody>
</table>
Join the webcast of the UEMS accredited Symposium at the IASP 2012 congress in Milan:

“How can mechanism can guide your approach to chronic low back pain”

Speakers:
- Prof. Hans Georg Kress
- Prof. Bart Morlion
- Prof. Anthony Dickenson
- Dr. Reinhard Sittl

on [http://www.pain-cme.net](http://www.pain-cme.net) and get 1 UEMS point!