Pain
Improving symptom management in cancer care through evidence based practice
Welcome to the Euro PEPs

The European Oncology Nursing Society is pleased to present its first set of “Putting Evidence into Practice” guidelines to improve the care of cancer patients in Europe.

Improvement in patient care is an ongoing process. There is a gap between the evidence that is available and what is actually implemented. This knowledge gap impacts on patient’s in poor or inappropriate care that is detrimental to cancer patients. Results from research studies reveal that nurses insufficiently put evidence into practice. The results indicate that there are multiple reasons for why nurses do not use the latest evidence. Firstly, that research is difficult to understand, overwhelming in the amount published and secondly that they feel they don’t have the expertise to interpret the quality of the evidence. If we could put even a little of what we know about symptom management into practice we would improve patient experience.

This Euro PEP has been developed as a partnership with the Oncology Nursing Society and funded by the European Commission as part of the European Action Against Cancer. Many people have contributed to the development and expert review of these documents, both in Europe and in the USA. EONS thanks their dedication and great efforts.

This documentation provides you with a concise summary of the evidence, a synthesis of patient assessments, a summary of evidence based interventions, and expert opinions to help guide you in the interpretation of European standards along with the references and source material. You may wish to adapt the guidance for your own work setting, but the PEPs gives you the confidence that these topics were reviewed in 2012 through a rigorous process by some of the leading experts and practitioners in the field.

On behalf of the review team we are confident that this information, coupled with your efforts and commitment to improve your practice, will help you achieve better, patient-centered outcomes based on scientific evidence.

We wish you great success!

Sara Faithfull  Chair EPAAC Project
Anita Marguelles  Chair PEPs
Putting Evidence into Practice (PEP) resources (evidence syntheses and weight of evidence categorization) are the work of the Oncology Nursing Society (ONS). Because translations from English may not always be accurate or precise, ONS disclaims any responsibility for inaccuracies in words or meaning that may occur as a result of the translation.

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This publication arises from the European Partnership for Action Against Cancer Joint Action, which has received funding from the European Union, in the framework of the Health Programme.
Introduction to the Sections

Quick view
The quick view provides very brief summary from the ONS PEP resources. A full copy of this is provided in the course documentation. ONS PEP information for this topic and description of the categories of evidence can be accessed at http://www.ons.org.

Expert opinion
Expert Opinion: low-risk interventions that are (1) consistent with sound clinical practice, (2) suggested by an expert in a peer-reviewed publication (journal or book chapter), and (3) for which limited evidence exists. An expert is an individual with peer-reviewed journal publications in the domain of interest.

Assessment tools
In general, no single tool measures all of the elements of a symptom. The choice of tool depends on the purpose of the assessment as well as the level of clinician and patient burden. Most symptoms are a subjective experience, thus self-report is the most reliable assessment method.

Definitions
Within the documentation various terms may need further explanation which through better understanding, could improve the outcomes of chosen interventions. The following definitions are tailored to the content of the respective PEP document.
How to use this guide

- Review the Euro-PEP resources and consider the applicability in your own practice and your patient situation.
- Do a thorough patient assessment of the relevant clinical problem(s). Examples of measurement tools are provided by the evidence-based measurement summaries, located on the individual PEP topic pages.
- Identify interventions with the highest category of evidence and integrate them into the plan of care. Consider the patient’s preferences, lifestyle, and the cost and availability of the interventions.
- Evaluate and document the patient’s response to the interventions. If indicated, consider implementing other interventions supported by a high level of evidence.
- Educate patients that their care is based on the best available evidence.
- The Weight of Evidence Table (traffic light) provides information about how the evidence was weighed.

Adapted for Euro PEP Resources from www.ons.org/Research/PEP

<table>
<thead>
<tr>
<th>Traffic Light</th>
<th>Description</th>
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<tbody>
<tr>
<td>Green = Go!</td>
<td>The evidence supports the consideration of these interventions in practice.</td>
</tr>
<tr>
<td>Yellow = Caution!</td>
<td>There is not sufficient evidence to say whether these interventions are effective or not.</td>
</tr>
<tr>
<td>Red = Stop!</td>
<td>The evidence indicates that these interventions are either ineffective or may cause harm.</td>
</tr>
</tbody>
</table>
**Recommended for practice**

Interventions for which effectiveness has been demonstrated by strong evidence from rigorously designed studies, meta-analysis, or systematic reviews, and for which expectation of harm is small compared to the benefits.

**Likely to be Effective**

Interventions for which effectiveness has been demonstrated from a single rigorously conducted controlled trial, consistent supportive evidence from well-designed controlled trials using small samples, or guidelines developed from evidence and supported by expert opinion.

**Benefits Balanced with Harm**

Interventions for which clinicians and patients should weigh the beneficial and harmful effects according to individual circumstances and priorities.

**Effectiveness Not Established**

Interventions for which insufficient or conflicting data or data of inadequate quality currently exist, with no clear indication of harm.

**Effectiveness Unlikely**

Interventions for which lack of effectiveness has been demonstrated by negative evidence from a single rigorously conducted controlled trial, consistent negative evidence from well-designed controlled trials using small samples, or guidelines developed from evidence and supported by expert opinion.

**Not Recommended for Practice**

Interventions for which lack of effectiveness or harmfulness has been demonstrated by strong evidence from rigorously conducted studies, meta-analyses, or systematic reviews, or interventions where the costs, burden, or harm associated with the intervention exceed anticipated benefit.
Definition:
The etiology of pain is classified as nociceptive, neuropathic, or both. Cancer-related pain rarely occurs in isolation of other symptoms. Individuals with cancer-related pain may experience fatigue, sleep disturbance, depression, and loss of appetite (Gaston-Johannson et al., 1999; Miaskowski & Lee, 1999; Fitzgibbon & Loeser, 2010). Pain, fatigue, and depression have been identified as a symptom cluster in individuals with cancer. To be classified as a cluster, symptoms must be related to one another and occur concurrently. This symptom cluster may be related through a common underlying pathophysiological mechanism such as systematic inflammation (Fallon et al, 2010). Cancer-related pain is highly subjective and unique to each individual experiencing it. It is a multidimensional phenomenon consisting of six dimensions – physiologic, sensory, affective, cognitive, behavioral, and sociocultural (McGuire, 1995). These dimensions are useful as a framework for assessment, management, and study of cancer-related pain. A multimodal approach to managing pain is critical to achieving optimal patient outcomes.

Incidence:
The prevalence of cancer-related pain has been estimated to be 44%–73% in patients receiving cancer treatment and 58%–69% in patients with advanced disease (van den Beuken-van Everdingen et al., 2007). Patients with all types of cancer experience pain. Patients with head and neck cancer tend to have the highest prevalence of pain. Breakthrough pain occurs frequently in patients with cancer and has been found to range from 19%–95% (Mercadante et al., 2002; Zeppetella & Ribeiro, 2003). The wide variability in prevalence is related to different definitions for breakthrough pain used by cancer pain researchers.
Recommended for practice

**ACUTE PAIN**
- Postoperative epidural anesthetics

**REFRACTORY AND INTRACTABLE PAIN**
- Intraspinal, epidural and intrathecal analgesia

**BREAKTHROUGH PAIN**
- Immediate Release Opioids at Proportional Doses to Basal Dose
- Oral and Transmucosal Opioids
- Fentanyl Nasal Spray (Fentanyl nasal spray is not registered in Switzerland)

**CHRONIC PAIN**
- Acetaminophen (Acetaminophen is called Paracetamol in Germany)
- Non steroidal anti-inflammatory drugs (NSAIDs)
- Opioids
- Sustained and Continuous Release Opioid Formulations
- Transdermal Opioids
- Methadone
- Tramadol
- Oxycodone/Naloxone
- Celiac Plexus Block
- Bone Modifying Agents
- Neuropathic Specific Interventions
- Anesthetic infusion
- Gabapentin combination co-analgesia
- Anti -convulsants
- Psycho-educational Interventions
No recommendations at present.

 Likely to be Effective

 **ACUTE PAIN**
- Continuous Release Tramadol
- Local Anesthetic Infusion
- Perioperative Gabapentin as a Co-Analgesic
- Hypnosis

 **CHRONIC PAIN**
- Early Administration of opioids
- Cannabis Oral Spray (not available in many EU countries)
- Music and Music Therapy

 Benefits Balanced with Harm

 No recommendations at present.

 Effectiveness Not Established

 **ACUTE PAIN**
- Lidocaine patch for incisional pain
- Perioperative drug regimens
- Paracetamol, Dexamethasone, Dextromethorphan, Celecoxib & Gabapentin
- Dexamethasone
- Morphine, Acetaminophen, Ketoprofen and Naproxen
- Pregabalin
- Foot Reflexology
- Acupuncture

 **REFRACTORY AND INTRACTABLE PAIN**
- Intravenous lidocaine
- Opioid switching
- DMSO (not available or used in all European countries)
- Ketamine (not always available in all European countries)

 **BREAKTHROUGH PAIN**
- Intranasal Sufentanil (not available in most of Europe)
CHRONIC PAIN

- Routine Use of Acetaminophen (Paracetamol)
- Antidepressants
- Institutional Initiatives
- Transcutaneous Electrical Nerve Stimulation (TENS)
- Massage
- Progressive Muscle Relaxation (PMR) and Imagery
- Therapeutic touch
- Exercise
- Herbal Formulations
- Acupuncture
- Emotional Disclosure

Effectiveness Unlikely

CHRONIC PAIN

- Calcitonin

Not Recommended for Practice

No items to date.
Expert Opinion

Low-risk interventions that are:

- consistent with sound clinical practice
- suggested by an expert in a peer-reviewed publication (journal or book chapter) and
- for which limited evidence exists.

An expert is an individual who has authored articles published in a peer-reviewed journal in the domain of interest.

The following agents have been previously identified as those which should not be used for cancer-related pain management based on evidence from expert opinion (Aiello-Laws & Ameringer, 2009; Miaskowski et al., 2005).

- Meperidine (Pethidine)
- Propoxyphene (not available in Europe)
- Intramuscular route of administration
- Phenothiazines
- Carbamazepine
Assessment Tools

Clinical Measurement Tools for Pain

<table>
<thead>
<tr>
<th>Name of Tool</th>
<th>Number of Items</th>
<th>Domains</th>
<th>Clinical Utility</th>
<th>Where to Obtain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief Pain Inventory (short form)</td>
<td>9</td>
<td>Experience of pain, location, intensity, pain medications, pain relief, and interference with daily activity</td>
<td>Multidimensional</td>
<td>[Link to assessment](<a href="http://www.mdander">http://www.mdander</a> son.org/education-andresearch/departments-programs-and-labs/departments)</td>
</tr>
<tr>
<td>McGill Pain Questionnaire (short form)</td>
<td>18</td>
<td>Pain rating index, sensory, affective, present pain, intensity, location</td>
<td>Multidimensional</td>
<td><a href="http://www.mapi-trust.org/services/questionnaire/licensing/catalogue/questionnaires/137-mpq-sf">Link to assessment</a></td>
</tr>
<tr>
<td>Numeric Rating Scale</td>
<td>1</td>
<td>Intensity Also can be used to assess pain relief, frequency, duration, unpleasantness, or distress</td>
<td>Two-point or 33% decrease in score is clinically meaningful. Reference of Farrarr et al 4</td>
<td><a href="http://painconsortium.nih.gov/pain_scales/NumericRatingScale.pdf">Link to assessment</a></td>
</tr>
<tr>
<td>Visual Analog Scale</td>
<td>1</td>
<td>Intensity (also can be used to assess pain relief, frequency, duration, unpleasantness, or distress)</td>
<td>May be more difficult to understand and complete than other single-item painratings. (Expert opinion)</td>
<td><a href="http://www.cebp.nl/vault_public/filesystem/?ID=1478">Link to assessment</a></td>
</tr>
</tbody>
</table>

From: Putting Evidence into Practice Oncology Nursing Society Ed. L. Eaton, J. Tipton, 2010
<table>
<thead>
<tr>
<th>Assessment</th>
<th>Yes</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td><strong>Physical Symptoms</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset, location(s), quality, intensity, duration of pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggravating and relieving factors</td>
<td></td>
<td></td>
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<tr>
<td>Previous pain treatment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonverbal: writhing, moaning, guarding, grimacing, restlessness</td>
<td></td>
<td></td>
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<tr>
<td><strong>Psychosocial Symptoms</strong></td>
<td></td>
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<tr>
<td>Effect of pain on other aspects of the person's life</td>
<td></td>
<td></td>
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<tr>
<td>Significant past experience of pain and effect on patient</td>
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<tr>
<td>Meaning of pain to patient and family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typical coping responses to stress or pain</td>
<td></td>
<td></td>
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<tr>
<td>Knowledge about pain management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Changes in mood related to pain (i.e., depression, anxiety)</td>
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<tr>
<td><strong>Neurologic Symptoms</strong></td>
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<tr>
<td>Perform pertinent neurologic examination if head and neck pain or neck and back pain</td>
<td></td>
<td></td>
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<tr>
<td><strong>Risk and Contributing Factors</strong></td>
<td></td>
<td></td>
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<tr>
<td>Tumor location (i.e., bone cancer, central nervous system lesions)</td>
<td></td>
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<tr>
<td>Neuropathies secondary to primary or metastatic tumor, abdominal tumors related to visceral tumors, obstruction, and/or ascites</td>
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<tr>
<td>Cancer treatment</td>
<td></td>
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</tbody>
</table>

*Note. Based on information from Aiello-Laws, 2008; D’Arcy, 2007; Paice, 2004.*
Figure 14-1. Brief Pain Inventory (Short Form)

STUDY ID #: DO NOT WRITE ABOVE THIS LINE HOSPITAL #: 

Brief Pain Inventory (Short Form)

Date: ______/_____/______  Time: ______
Name: ____________________________ Last First Middle Initial

1. Throughout our lives, most of us have had pain from time to time (such as minor headaches, sprains, and toothaches). Have you had pain other than these everyday kinds of pain today?

   1. Yes
   2. No

2. On the diagram, shade in the areas where you feel pain. Put an X on the area that hurts the most.

   [Diagram of human body with shaded areas indicating pain]

3. Please rate your pain by circling the one number that best describes your pain at its worst in the last 24 hours.

   0 1 2 3 4 5 6 7 8 9 10
   No Pain
   Pain as bad as you can imagine

4. Please rate your pain by circling the one number that best describes your pain at its least in the last 24 hours.

   0 1 2 3 4 5 6 7 8 9 10
   No Pain
   Pain as bad as you can imagine

5. Please rate your pain by circling the one number that best describes your pain on the average.

   0 1 2 3 4 5 6 7 8 9 10
   No Pain
   Pain as bad as you can imagine

6. Please rate your pain by circling the one number that tells how much pain you have right now.

   0 1 2 3 4 5 6 7 8 9 10
   No Pain
   Pain as bad as you can imagine

(Continued on next page)
Figure 14-1. Brief Pain Inventory (Short Form) (Continued)

<table>
<thead>
<tr>
<th>STUDY ID #</th>
<th>DO NOT WRITE ABOVE THIS LINE</th>
<th>HOSPITAL #</th>
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<tbody>
<tr>
<td>Date: ___ / ___ / ____</td>
<td>Time: ______</td>
<td>Last</td>
</tr>
<tr>
<td>Name: ___________________________</td>
<td>First: ____</td>
<td>Middle Initial</td>
</tr>
</tbody>
</table>

7. What treatments or medications are you receiving for your pain?

8. In the last 24 hours, how much relief have pain treatments or medications provided? Please circle the one percentage that most shows how much relief you have received.

<table>
<thead>
<tr>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
<th>90%</th>
<th>100%</th>
</tr>
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<tbody>
<tr>
<td>No Relief</td>
<td>Complete Relief</td>
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9. Circle the one number that describes how, during the past 24 hours, pain has interfered with your:

**A. General Activity**

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<tr>
<th>0</th>
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<th>2</th>
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<tbody>
<tr>
<td>Does not Interfere</td>
<td>Completely Interferes</td>
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**B. Mood**

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<tr>
<th>0</th>
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<th>7</th>
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<tr>
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<td>Completely Interferes</td>
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**C. Walking Ability**

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<td>Does not Interfere</td>
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**D. Normal Work (includes both work outside the home and housework)**

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<tr>
<td>Does not Interfere</td>
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**E. Relations with other people**

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<tbody>
<tr>
<td>Does not Interfere</td>
<td>Completely Interferes</td>
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**F. Sleep**

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<td>Does not Interfere</td>
<td>Completely Interferes</td>
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**G. Enjoyment of life**

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<tbody>
<tr>
<td>Does not Interfere</td>
<td>Completely Interferes</td>
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*Note. Copyright 1991 by Charles S. Cleeland, PhD, Pain Research Group. Used with permission.*
Figure 14-2. Numeric Pain Intensity Scale

<table>
<thead>
<tr>
<th></th>
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<th>1</th>
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<th>3</th>
<th>4</th>
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<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pain</td>
<td>Moderate Pain</td>
<td>Worst Possible Pain</td>
<td></td>
<td></td>
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</table>


Figure 14-3. Visual Analog Scale

No Pain ____________________________ Pain as bad as it could possibly be

Pain Definition List

**Acute Pain**
Pain that has a sudden onset and commonly decreases over a short time (i.e., days, hours, minutes). Follows injury to the body and generally disappears when the bodily injury heals. It is often, but not always, associated with objective physical signs of autonomic nervous system activity such as tachycardia, hypertension, diaphoresis, mydriasis, and pallor. (American Pain Society)

Some of the most common types of acute pain related to treatment are postoperative pain and oral mucositis. (Miaskowski et al, 2005)

**Adjuvant Analgesic Drug/ Co-analgesic**
A medication that is not a primary analgesic but rather is a medication that research has shown to have independent or additive analgesic properties (e.g., antidepressant, anticonvulsant). (American Pain Society, 2005)

**Breakthrough Pain**
A transient increase in pain intensity over background pain, is typically of rapid onset and severe in intensity, and generally self-limiting with an average duration of 30 minutes (Zepetella & Ribeiro, 2006) It is a transient exacerbation of pain that occurs spontaneously or in relation to a specific predictable or unpredictable trigger, despite relatively stable and adequately controlled background pain. (Davies et al. 2009)

**Cancer Pain**
May be acute, chronic, or intermittent and often has a definable etiology, usually related to tumor recurrence or treatment. Chronic cancer pain rarely is accompanied by signs of sympathetic nervous system arousal. (American Pain Society, 2005)

**Chronic Pain**
Pain lasting longer than three months (Mersky & Bogduk, 1994). The most frequent cause of cancer-related chronic pain is thought to be bone metastasis. (Miaskowski, 2010)

**Epidural**
Situated within the spinal canal, on or outside the dura mater (the tough membrane surrounding the spinal cord). (American Pain Society)

**Equianalgesic**
Having equal analgesic effect; morphine sulfate 10 mg parenterally generally is used for opioid analgesic comparisons. (American Pain Society, 2005)

**Intractable pain or refractory pain**
Occurs when pain cannot be adequately controlled despite aggressive measures. (Fitzgibbon & Loeser, 2010)
Intrathecal
The area that lies between the arachnoid membrane and pia mater and contains the cerebral spinal fluid. This subarachnoid space is commonly known as the space where “spinal taps” are performed. (American Pain Society, 2005)

Neuroaxial Analgesics
Epidural and spinal analgesics. (Taber’s, 2001)

Neuropathic Pain
Pain resulting from damage to the peripheral or central nervous system28(Challapalli, Tremont-Lukats, McNicol, Lau, & Carr, 2005) Pain characterized by dysesthesia, hyperesthesia, shooting or lancinating pain, resulting from nerve injury or compression (Ross, Goller, Hardy, Riley, Broadley, A’hern & Williams, 2005) results from damage to the peripheral or central nervous system. (Challapallie et al, 2005)

Nociceptive Pain
Pain caused by an injury to body tissues. The injury may be a cut, bruise, bone fracture, crush injury, burn, or anything that damages tissues. This type of pain is typically aching, sharp, or throbbing. Most pain is nociceptive pain. Pain receptors for tissue injury (nociceptors) are located mostly in the skin or in the internal organs. (Pfizer, 2007, Fitzgibbon & Loeser, 2010)

Neuropathic pain
Pain resulting from damage to the peripheral or central nervous system. (Challapallie et al, 2005)

NSAIDs
Nonsteroidal anti-inflammatory drug. Aspirin-like medication that reduces inflammation (and hence pain) arising from injured tissue.

COX-2 selective NSAID – An NSAID that inhibits COX-2 isoform of cyclooxygenase, but not the COX-1 form.

Nonselective NSAID – An NSAID that inhibits both COX-1 and COX-2 isoforms of cyclooxygenase. (American Pain Society, 2005)

Opioid
A morphine-like medication that produces pain relief. The term opioid is preferred to the term narcotic; it refers to natural, semisynthetic and synthetic medications that relieve pain by binding to opioid receptors in the nervous system. Opioid also is preferred to the term opiate because it includes all agonists and antagonists with morphine-like activity, as well as naturally occurring and synthetic opioid peptides. (American Pain Society, 2005)

Opioid agonist
Any morphine-like compound that produces bodily effects including pain relief, sedation, constipation, and respiratory depression. (American Pain Society, 2005)

Opioid agonist-antagonist
A medication that acts as an agonist at one type of opioid receptor and as an antagonist at another receptor. (American Pain Society)

Pain
Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or is described in terms of such damage. (Merskey & Bogduk, 1994)

Palliative Care
Provides relief of pain and other distressing symptoms without curing the underlying disease (World Health Organization 2012). Its goal is to improve the quality of life of patients and families who face an incurable disease. A team approach is used to provide support from diagnosis to end of life. Adequate pain assessment and treatment is fundamental to the delivery of effective palliative care.
References


Cheville, A.L., Sloan, J.A., Northfelt, D.W., Jillella, A.P., & Wong,


Pain


Source
2010-Cancer Pain Management.
Website: www.britishpainsociety.org

Summary
A perspective from the British Pain Society, supported by the Association for Palliative Medicine and the Royal College of General Practitioners

Clinical guideline for the management of cancer pain.

Conclusions and Implications
• It is recognised that the World Health Organisation (WHO) analgesic ladder, whilst providing relief of cancer pain towards the end of life for many sufferers worldwide, may have limitations in the context of long-term survival and increasing disease complexity. In order to address these weaknesses, it is suggested that a more comprehensive model of cancer pain management is needed that is mechanism-based and multimodal, using combination therapies including interventions where appropriate, which is tailored to the needs of an individual, with the aim of optimising pain relief while minimising adverse effects.

• The neurophysiology of cancer pain is complex: it involves inflammatory, neuropathic, ischaemic and compression mechanisms at multiple sites. A knowledge of these mechanisms and the ability to decide whether a pain is nociceptive, neuropathic, visceral or a combination of all three will lead to best practice in pain management.

• People with cancer can report the presence of several different anatomical sites of pain, which may be caused by the cancer, by treatment of cancer, by general debility or by concurrent disorders. Accurate and meaningful assessment and reassessment of pain is essential and optimises pain relief. History, examination, psychosocial assessment and accurate record keeping should be routine, with pain and quality of life measurement tools used where appropriate.

• Radiotherapy, chemotherapy, hormones, bisphosphonates and surgery are all used to treat and palliate cancers. Combining these treatments with pharmacological and non-pharmacological methods of pain control can optimise pain relief, but the limitations of these treatments must also be acknowledged.

• Opioids remain the mainstay of cancer pain management, but the long-term consequences of tolerance, dependency, hyperalgesia and the suppression of the hypothalamic/pituitary axis should be acknowledged and managed in both non-cancer and cancer pain, in addition to the well-known side effects such as constipation. NSAIDs, antiepileptic drugs, tricyclic antidepressants, NMDA antagonists, sodium channel blockers, topical agents and the neuraxial route of drug administration all have their place in the management of complex cancer pain.

• Psychological distress increases with the intensity of cancer pain. Cancer pain is often under-reported and under-treated for a variety of complex reasons, partly due to a number of beliefs held by patients, families and healthcare professionals. There is evidence that cognitive behavioural techniques that address catastrophising and promote self-efficacy lead to improved pain management. Group format pain management programmes could contribute to the care of cancer survivors with persistent pain.

• Physiotherapists and Occupational Therapists have an important role in the management of cancer pain and have specific skills which enable them to be both patient-focused and holistic. Therapists utilize strategies which aim to improve patient functioning and quality of life, but the challenge remains for them to practice in an evidence-based way and more research is urgently needed in this field.

• Patient selection for an interventional procedure requires knowledge of the disease process, the prognosis, the expectations of patient and family, careful assessment and discussion with the referring physicians. There is good evidence

Added references/guidance from the European Expert Group

Source
2010-Cancer Pain Management.
Website: www.britishpainsociety.org

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• Patient selection for an interventional procedure requires knowledge of the disease process, the prognosis, the expectations of patient and family, careful assessment and discussion with the referring physicians. There is good evidence
for the effectiveness of coeliac plexus neurolysis and intrathecal drug delivery. Despite the limitations of running randomised controlled trials for interventional procedures in patients with limited life expectancy and severe pain, there is a body of evidence of data built up over many years that supports an important role for some procedures, such as cordotomy. Safety, aftercare and the management of possible complications have to be considered in the decision making process. Where applied appropriately and carefully at the right time, these procedures can contribute enhanced pain relief, reduction of medication use and markedly improved quality of life.

- There is a weak evidence base for the effectiveness of complementary therapies in terms of pain control, but they may improve wellbeing. Safety issues are also a consideration in this area.

- Patients with cancer pain spend most of their time in the community until their last month of life. Older patients and those in care homes in particular may have under-treated pain. Primary care teams supported by palliative care teams are best placed to initiate and manage cancer pain therapy, but education of patients, carers and healthcare professionals is essential to improve outcomes.

- Surgery, chemotherapy and radiotherapy are cancer treatments that can cause persistent pain in cancer survivors, up to 50% of whom may experience persistent pain that adversely affects their quality of life. Awareness of this problem may lead to preventative strategies, but treatment is currently symptom based and often inadequate.

- Management of acute pain, especially post-operative pain, in patients on high dose opioids is a challenge that requires in-depth knowledge of pharmacokinetics and the formulation of a careful management plan to avoid withdrawal symptoms and inadequate pain management.

- Chronic pain after cancer surgery may occur in up to 50% of patients. Risk factors for the development of chronic pain after breast cancer surgery include: young age, chemotherapeutic and radiotherapy, poor post-operative pain control and certain surgical factors. Radiotherapy induced neuropathic pain has become less prevalent, but can cause long-standing pain and disability.

- Patient education is an effective strategy to reduce pain intensity.

- Cancer pain is often very complex, but the most intractable pain is often neuropathic in origin, arising from tumour invasion of the meninges, spinal cord and dura, nerve roots, plexuses and peripheral nerves. Multimodal therapies are necessary.

- The management of cancer pain can and should be improved by better collaboration between the disciplines of oncology, pain medicine and palliative medicine. This must start in the training programmes of doctors and nurses, but is also needed in established teams in terms of funding, time for joint working and the education of all healthcare professionals involved in the treatment of cancer pain.

- The principles of pain management and palliative care for adult practice are relevant to paediatrics, but the adult model cannot be applied directly to children.

Source
2008- Intrathecal drug delivery for the management of pain and spasticity in adults: Recommendations for best clinical practice. Website: www.britishpainsociety.org

Summary
British Pain Society in consultation with the Association of Palliative Medicine and the Society of British Neurological Surgeons, clinical practice guideline for the use of intrathecal analgesia.

Conclusions and Implications
- Intrathecal drug delivery can be an effective method of pain control; it has a supportive evidence base.
- There are three major categories of application namely, chronic non-malignant pain (CNMP), cancer pain and spasticity.
- For CNMP there is presently no randomised controlled trial evidence but supportive prospective open studies.
- For cancer pain there is randomised controlled trial evidence.
- For spasticity there are well designed open studies for effectiveness.
- Patient selection is important, particularly when used for CNMP. It must be carried out by a multiprofessional team with a comprehensive understanding of the physical, psychological and rehabilitation aspects of the patient’s condition.
- A multiprofessional, relevant infrastructure must be provided for continuing care.
- A range of alternative treatments with appropriate support for their delivery should be available and considered.
- Adherence to best practice is essential. Uniformity of best practice should be encouraged; this does not stifle development in the use of the technique.
- Safety is paramount. The working group strongly support research and ongoing work into design safety.
- In the opinion of the working group ITDD is an underused technique in all three categories of CNMP, cancer pain and spasticity and should be made more widely available.

Source

Summary
www.sign.ac.uk
Clinical guideline for managing cancer pain in adults.
Conclusions and Implications

Overall objectives
This guideline provides recommendations based on current evidence for best practice in the management of pain in adult patients who have cancer. The guideline includes advice mainly concerning pain secondary to the cancer, but many of the principles outlined are applicable to coexisting painful conditions and pain secondary to treatment of the cancer. It excludes the treatment of pain in children under the age of 12.

Target users of the guideline
This guideline will be of interest to any health professional likely to encounter a patient with cancer-related pain of any severity, including palliative care staff, physicians, surgeons, anaesthetists, nurses, physiotherapists, occupational therapists, interventional radiologists, oncologists, nurses, pharmacists, clinical psychologists, general practitioners and spiritual and religious care providers. It will also be of interest to patients with cancer pain and their carers.

Provides a concise and evidence base reference for pharmacological and non-pharmacological interventions for the management of cancer pain and other invasive interventions.

Source
National Institute for Health and Clinical Excellence (NICE) 2010- Neuropathic pain- pharmacological management.

Summary
www.nice.org.uk
Clinical guideline for managing neuropathic pain

Conclusions and Implications
Neuropathic pain develops as a result of damage to, or dysfunction of, the system that normally signals pain. It may arise from a heterogeneous group of disorders that affect the peripheral and central nervous systems. Common examples include painful diabetic neuropathy, post-herpetic neuralgia and trigeminal neuralgia.

Neuropathic pain can have a significant impact on a person’s quality of life. It is often difficult to treat, because it is resistant to many medications and because of the adverse effects associated with effective medications. Drugs used in the management of neuropathic pain include antidepressants, anti-epileptic (anticonvulsant) drugs and opioids.

This guideline is for the pharmacological management of neuropathic pain in non-specialist settings only. There are other pharmacological and non-pharmacological treatments for neuropathic pain, within different care pathways in different settings, but these are not covered here.

Currently being revised but should consider referencing this version and then updating once once the revised version available. There is ongoing concern that first line recommendation to use Pregabalin has cost implications and this is why it is currently being reviewed. However, this version is currently to be followed until this review is complete.

Source
International Association for the Study of Pain (IASP)
Pharmacological Management of Neuropathic Pain.

Summary
www.iasp-pain.org/AM/AMTemplate.cfm
Clinical guideline for managing neuropathic pain.

Conclusions and Implications
Evidence based guideline for the assessment and treatment of neuropathic pain. The management of patients with chronic neuropathic pain is challenging, despite several attempts to develop a more rational therapeutic approach. Most studies have been performed in postherpetic neuralgia (PHN) and painful diabetic neuropathy (PDN). These trials mainly studied the effects of monotherapy and were placebo controlled. Outcome measures were generally restricted to a global assessment of pain by the patient and the quality of pain was seldom taken into account. However, newer studies have appeared that may allow us to revise this statement. Thus, studies have recently been performed in indications that were previously neglected, such as central pain and painful radiculopathies; combination studies and head-to-head comparative studies have appeared; and finally, a comprehensive assessment of patients, including the quality of their pain, is increasingly being performed in clinical trials. This issue of Pain: Clinical Updates will address new developments in the therapeutic management of neuropathic pain.

Source
Caraceni, Hanks, Kaasa et al.
European Association for Palliative Care (EAPC)

Summary
These guidelines were developed by the EAPC following the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system.

The 19 reviews on which this guideline is based, have been published in Palliative Medicine. (25, 2011)

Conclusions and Implications
EAPC recommendations;
WHO step II opioids
Weak recommendation to start Step II opioids in patients with mild/moderate pain or whose pain is not adequately controlled
WHO step III opioid of first choice
Weak recommendation that morphine, oxycodone, and hydromorphone given orally can be used as the first choice step III opioid for moderate to severe pain.

Opioid titration
Weak recommendation that IR and SR oral formulations of morphine, oxycodone, and hydromorphone can be used for dose titration.

Transdermal opioids
Weak recommendation that transdermal fentanyl and buprenorphine may be the preferred step III opioid for some patients. For patients unable to swallow, they are an effective, non-invasive means of opioid delivery.

Methadone
Weak recommendation that methadone can be used as a step III opioid of first or later choice for moderate to severe cancer pain. Because methadone has a complex pharmacokinetic profile with an unpredictably long half-life, it should be used only by experienced professionals.

Opioid switching
Weak recommendation that patients receiving step III opioids who do not achieve adequate analgesia and have side-effects that are severe, unmanageable might benefit from switching to an alternative opioid. Alternative systematic routes of opioid administration.

Strong recommendations:
• Subcutaneous route should be the first choice alternative route for patients unable to receive opioids by oral or transdermal routes, because it is simple and effective for administration of morphine, diamorphine, and hydromorphone.
• Intravenous infusion should be considered when subcutaneous administration is contraindicated.
• Intravenous administration should be used for opioid titration when rapid pain control is needed.

Weak recommendations:
• IV / SC infusions can be used in patients unable to achieve pain control with oral / transdermal administration.
• Patient-controlled analgesia can be adopted for IV / SC infusions in patients who are able and willing to be in control of rescue doses.
• Switching from oral to IV / SC morphine administration, the relative analgesic potency is the same for both routes.
• The rectal route of administration should be used only as a second choice.

Breakthrough pain
Strong recommendation that breakthrough pain can be effectively managed with oral, IR opioids or with bucal or intranasal fentanyl preparations.

Weak recommendation that IR formulations of opioids with short half-lives should be used to treat pre-emptively episodes of breakthrough pain in the 20-30 min preceding the provoking manoeuvre.

Opioid-related emesis
Weak recommendation that some antidopaminergic drugs (eg haloperidol) and other drugs with antidopaminergic and additional modes of action (eg. metoclopramide) should be used in patients with opioid-induced emesis.

Opioid-related constipation
Strong recommendation to routinely prescribe laxatives for the management or prophylaxis of opioid-induced constipation. No evidence suggests that one laxative agent should be recommended over others.

Opioid-related CNS symptoms
Weak recommendation that methylphenidate can be used to improve opioid-induced sedation.

Weak recommendation that in patients with opioid-related neurotoxic effects dose reduction or opioid switching should be considered.

Renal failure
Weak recommendation that in patients with severe impairments of renal function (<30 mL/min) opioids should be used with caution. The opioid of first choice should be fentanyl or buprenorphine.

Paracetamol and NSAIDs in addition to step III opioids
Weak recommendation to add NSAIDs to step III opioids to improve analgesia or reduce the opioid dose.

Weak recommendation that paracetamol should be preferred to NSAIDs in combination with step III opioids.

Adjuvant drugs for neuropathic pain
Strong recommendation that amitriptyline or gabapentin should be considered for patients with neuropathic cancer pain that is only partially responsive to opioid analgesia.

Spinal route of opioid administration
Weak recommendation that spinal (epidural or intrathecal) administration of opioid analgesics in combination with local anaesthetics or clonidine should be considered.

Source

Summary
An interdisciplinary panel of experts in cancer pain management prepared these guidelines. They also were peer reviewed. These guidelines were based on the best available scientific evidence; however, research is not always available.
When unavailable, recommendations were made on the recommendation of experts in that area.

Type of Evidence
A1 Meta-analysis or systematic review of at least 2 independent studies of A2 level
A2 Well-designed experimental studies
B Well-designed quasi-experimental studies, such as nonrandomized controlled, single-group pre-post, cohort, time series or matched case controlled studies
C Non-experimental studies
D Expert opinion

Conclusions based on:
• Studies of A1 level or at least two independent A2 studies with consistent results
• One study of A2 level of at least two independent studies of level B
• One study of level B or C
• Expert opinion

Conclusions and Implications
Assessment
• Use one-dimensional pain assessment tools to screen patients and to evaluate the pain management plan.
• Use multidimensional pain assessment tools in patients with a difficult pain problem.
• Include in the comprehensive pain assessment a detailed history; a psychosocial assessment; a physical examination. and a diagnostic evaluation of signs and symptoms associated with common cancer pain presentations and syndromes.
• Pain assessment is a shared responsibility of physicians, nurses and patients.
• The aim of the cancer pain treatment is a clinical relevant reduction of pain (2 points of 0-10 scale or 30% reduction), and preferably < 5.
• In the assessment and treatment of cancer-related pain a multidimensional approach is essential.

Cancer pain management
• Chemotherapy and hormonal therapy should be considered in tumours that are potentially sensitive.
• Radiation therapy should be considered in the treatment of cancer-related pain caused by the primary tumour.
• In patients with multifocal pain based on extensive osteoblastic bone metastases due to primary tumours, treatment with a radionuclide may be considered.
• Bisphosphonates should be prescribed standard in patients with multiple myeloma or with osteolytic bone metastases due to breast cancer.
• In the treatment of moderate to severe pain paracetamol can be used as a first step.
• When paracetamol is insufficient an opioid could be added
• Non-selective NSAIDs, whether or not in combination with paracetamol and/or opioids, should be considered.
• Oral cannabinoids is not recommended.
• WHO step II opioids are not recommended.
• WHO step III opioids (morphine, fentanyl, oxycodon or hydromorphone) are the opioids of choice for patients with moderate to severe pain. Methadone should only be used by experienced professionals.
• For background pain, oral formulations should be prescribed slow-release.
• In patients receiving step III opioids who do not achieve adequate analgesia and have side-effects that are severe, unmanageable might benefit from switching to an alternative opioid.
• WHO step III opioids should be given orally or transdermally.
• Intravenous / subcutaneous administration should be used for opioid titration when rapid pain control is needed.
• The rectal route of administration should be used only as a second choice.
• The opioid treatment can be assessed in reaching the equilibrium situation after four to five times the half-life of the opioid. For oral opioids is mostly after 24 hrs, and transdermal fentanyl after 48hrs.
• For breakthrough pain OTFC could be used or an IR formulation of the opioid which is used around-the-clock.
• For opioid-related nausea and vomiting metoclopramide and domperidon are the first choice drugs.
• Laxatives should be routinely prescribed for the management or prophylaxis op opioid-induced constipation.
• In patients with CNS symptoms an opioid rotation should be considered.
• In patients with neuropathic cancer-related pain gabapentin, pregabalin and tricyclic antidepressants are the drugs of choice.
• In patients with mixed pain syndrome WHO step III opioids are the first choice analgesics.
• Spinal (epidural or intrathecal) administration of opioid analgesics in combination with local anaesthetics or clonidine should be considered when oral or transdermal opioid have insufficient analgesics effect.

Non-pharmacological interventions
• It is plausible that classical massage will reduce pain.
• Relaxation whether or not in combination with specialized psycho-social support could be considered in addition to other pain reducing therapies.
• Patients and their relatives should be adequately educated and instructed according to pain and analgesics.

Elderly
• In elderly who have cancer should, in addition to pain assessment, also Mini Mental Status Examination performed.
• In elderly with serious cognitive problems the Facial Action Coding System (FACS) could be used for pain assessment.
• For WHO step I paracetamol is the first choice, NSAIDs should be avoided.

Source
Kurzanleitung zur Tumorschmerztherapie
http://dgss.org/neu/aktumorschmerz.asp
www.dgss.org/uploads/media/kurzanleitung
tumorschmerz2.pdf

Summary
• Basic principles
• WHO-Pain ladder and pharmacologic therapy
• Provision of narcotic substances, legal aspects in German context (Versorgung mit Betäubungsmitteln / Aspekte der BtMVV)
• Symptom control
• Invasive und further methods
• Antineoplastic and interventional-supportive therapy to treat pain
• Palliative care and Hospice
• Psychooncology

Source

Summary
National expert pain management guidelines which were developed via consensus conferences. Include: assessment and documentation; nurses contribution to pain treatment; application of analgesic medication, assessment, prophylaxis and treatment of side effects; application of alternative methods; patient education and self-management support.

Conclusions and Implications
Definitions in the Glossar do not match with definitions in the ONS papers Chapter 1.