

MyelomaAcademy™



NURSING BEST PRACTICE GUIDE

Pain

This document is one of the Myeloma Academy Nursing Best Practice Guides for the Management of Myeloma series. The purpose of this Guide is to enhance knowledge and inform nursing practice when caring for myeloma patients with pain.

After reading this, you should be able to:

- ★ Define pain
- ★ Understand the causes and consequences of pain in myeloma patients
- ★ Be aware of the clinical testing and assessment tools for pain
- ★ Understand the treatments for pain in myeloma patients
- ★ Understand the nurse's role in the assessment, intervention and management of pain and in the patient education of this symptom

The information contained within this Guide should be used in conjunction with local policies, protocols and best practice guidelines in oncology.

Background

Pain is a sensation which causes discomfort or distress and is often a signal that the body is dealing with an injury or illness. This signal is picked up by pain receptors (nociceptives) and transmitted to the brain. In response, the brain coordinates an appropriate response to protect the body from further damage^[1]. Pain is therefore part of a warning

system to minimise potential harm to the body.

In general, pain can be defined as acute or chronic depending on its temporal pattern and from a biological point of view, nociceptive or neuropathic^[1, 2]. Nociceptive pain, transmitted by nociceptors, is typically

KEY FACTS

- ★ Myeloma bone disease is a central feature of myeloma affecting up to 90% of patients
- ★ The consequences of myeloma bone disease involve skeletal-related complications which can greatly impact on quality of life
- ★ Proper assessment of myeloma bone disease is critical to ensure appropriate treatment and management, particularly in newly diagnosed patients

acute and usually resolves once the cause is removed. Neuropathic pain is caused as a direct consequence of injury to the nerves, is often chronic by nature and more difficult to resolve. Treatment may vary depending on the type of pain. Pain is one of the most common symptoms of myeloma which affects up to 80% of patients at some point during the course of their myeloma^[3].

It is often a presenting feature with some 60% of patients reporting pain at diagnosis^[4]. In this context, pain is either due to the myeloma itself, a plasmacytoma or paraprotein deposits directly affecting nervous tissue, or predominantly, its complications e.g. myeloma bone disease^[5].

Later in the course of myeloma, pain may arise as a side-effect of treatment-induced peripheral neuropathy^[6-8] and chemotherapy-induced mucositis^[9], or as a result of diagnostic or surgical procedures. Comorbid conditions such as diabetes, carpal tunnel syndrome and infection, especially herpes zoster, can also contribute to pain^[3, 10].

In addition, some patients are affected by 'breakthrough pain' or continuous pain that is interrupted by intermittent episodes of severe, acute pain^[11]. The cause of 'breakthrough pain' is not clear but it can be extremely distressing for the patient.

Effective pain management forms a crucial part of the overall care of myeloma patients. The consequences of untreated or uncontrolled pain can be devastating and may lead to fatigue, anxiety, depression, confusion, increased falls, impaired sleep and decreased physical function, resulting in deconditioning and muscle weakness.

Interventions for pain are aimed at providing continuous pain-relief whenever possible, with minimal side-effects. Several treatment options are available for myeloma patients

either to treat the cause of the pain (anti-myeloma treatment, radiotherapy) or as pain-relieving measures (analgesics, surgical interventions, complementary therapies)^[12-14].

Pain is subjective and is very individual. What is bearable in one patient may be intolerable in another even when the cause of pain is similar.

This difference in perception is partly influenced by background, gender and culture^[15, 16]. As such, the response to pain is very different from patient to patient. Therefore, to be effective, the treatment and management of pain should be tailored to the individual.

However, pain remains under-recognised by healthcare professionals who often fail to discuss the issue and consequences of pain with patients.

Pain is also frequently under-reported by patients who consider it an unavoidable symptom of myeloma, are worried it may be a sign that their myeloma is returning, are worried their treatment is not working, or that treatment will be stopped if they mention their pain.

Pain is without doubt a debilitating symptom and a serious issue in myeloma, affecting all aspects of patients' lives not only physically but also psychologically. It is vital that patients and healthcare professionals, especially nurses, work together so that the pain can be managed effectively enabling patients to maintain the best possible quality of life and to avoid its potentially devastating consequences.

The following describes the medical approach to the treatment of pain, and provides guidance on nursing interventions and nursing management of myeloma patients with pain.

GENERAL RECOMMENDATIONS:

- ★ Successful treatment and management of myeloma-related pain requires accurate regular assessments using verbal and non-verbal tools
- ★ Treatment of myeloma-related pain should include a combination of pharmacological and non-pharmacological interventions and, where appropriate, non-medical/complementary treatments should be considered
- ★ Selection of analgesics should be based on the initial assessment and the doses titrated as the pain severity alters
- ★ Non-steroidal anti-inflammatory drugs should be avoided
- ★ Patients on opioids should be screened regularly for toxicity and provided with prophylactic measures

NURSING RECOMMENDATIONS:

- ★ Patients and their families should be educated about the potential causes and consequences of myeloma-related pain
- ★ Patients should be encouraged to talk openly and honestly about their pain and how it affects them, not only physically but also psychologically and socially, and to take an active role in their pain management
- ★ The families' perspective of how patients are coping with their pain is an important part of the overall assessment
- ★ Patients should be provided with information regarding their pain management and should understand the importance of compliance with treatment



Medical Approach

Myeloma-related pain is a recognised symptom of myeloma which relies on patients reporting the extent to which it affects their day-to-day living. It is however treatable and manageable. The following section describes the general medical approach to effectively treat and manage myeloma-related pain. In some cases, this may involve referral to surgeons, neurosurgeons and pain specialists.

Assessment

Assessment of pain is a critical component in providing effective pain management and should be conducted at the time of initial diagnosis and at follow-up visits.

For an accurate assessment to be made patients should be asked about the following:

- ★ Pain characteristics – onset, duration, location, quality, intensity, associated symptoms, exacerbating and relieving factors
- ★ Past and current pain treatments
- ★ Relevant medical, family and psychosocial history
- ★ Impact of pain on daily life

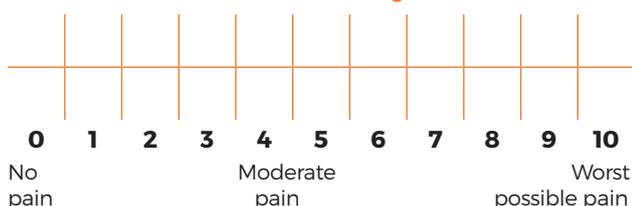
In some cases, imaging (X-ray, CT or MRI scan) and/or laboratory testing may be required to clarify the cause and extent of pain or to assess comorbidities.

To assist patients in articulating the nature and severity of their pain, several assessment tools are available. These include:

Pain scales

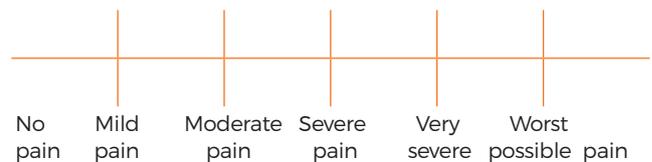
Patients may be asked to score their pain on a 0 – 10 numerical scale as illustrated below; 0 being no pain and 10 being the worst pain imaginable.

0-10 Numeric Pain Intensity Scale



Patients unable to assign a numerical score should rate pain verbally on a 6 point-scale from no pain to the worst possible pain. A numerical score of 5 or more is equivalent to moderate-severe pain. (See Simple Descriptive Pain Intensity Scale below).

Simple Descriptive Pain Intensity Scale



If patients have more than one site of pain these should be assessed and recorded separately, as they may have different causes and require different treatments.

Nurses should refer to local guidelines and protocol for use of pain assessment tools.

To discriminate between nociceptive and neuropathic pain the Leeds Assessment of Neuropathic Symptoms and Signs (LANSS) pain scale^[17,18], comprised of a 5 point verbal questionnaire and a 2 point sensory examination, should be used.

Body charts

A body chart may sometimes be used to record the sites and spread of the pain. This type of assessment is particularly useful for peripheral neuropathy.

For a full assessment of pain, the Brief Pain Inventory (short form), incorporating the 0 – 10 pain scale, body chart, and a more comprehensive assessment of pain at rest, on movement and other activities, as well as the impact pain has on sleep, should be used^[18-20] (see Appendix I).



Treatment

Interventions for pain should be tailored to the individual. For myeloma patients this usually requires a multidisciplinary approach involving the use of one or more of the following:

Pharmacological

Anti-myeloma treatment

Anti-myeloma treatment is a key component of pain management as it is aimed at treating the myeloma itself, which may be the underlying cause of the pain.

If patients respond well to anti-myeloma treatment, they may not require analgesics.

Analgesics

Analgesics remain the mainstay of pain treatment. The World Health Organization's three-step analgesic ladder (see Appendix II) can be helpful in guiding the most appropriate type of analgesic, based on the patient's reported severity of pain. NICE has published a clinical guideline on use of opioids in palliative care^[21].

In general, analgesics fall broadly into the following categories:

- ★ Simple non-opioids – for mild pain, over-the-counter pain-killers such as paracetamol can be used. Non-steroidal anti-inflammatory based analgesics are not recommended for use in myeloma as they can cause or worsen kidney damage
- ★ Weak opioids – for mild pain (<5/10 on the 0 – 10 scale) that is no longer controlled by paracetamol, low-dose tramadol, low-dose buprenorphine (BuTrans patches), co-codamol, or codeine should be used
- ★ Strong opioids – for moderate (5-6/10) to severe pain (>6/10), high-dose tramadol, morphine, oxycodone, fentanyl (as patches, tablets, lozenges or nasal spray), high-dose buprenorphine (Transtec patches) can be used with gradual dose titration

The choice of analgesic should be based on the severity of the pain, the patient's history of analgesic response and any associated side-effects. If the pain is not controlled or worsens with the given analgesic, then doses can be titrated up by 30 – 50% daily, a different analgesic can be considered and/or a referral to the palliative care team should be made.

The majority of analgesics are administered orally but where non-oral analgesia is necessary e.g. if the patient is vomiting, has reduced consciousness or where rapid pain control is a priority, then subcutaneous administration is recommended.

Analgesics should also be administered 'by the clock' i.e. at fixed time intervals in order for them to work effectively.

Analgesia for breakthrough pain should be in the form of an oral immediate release opioid preparation which is a sixth of the total daily dose of opioid.

All patients on opioid analgesics should be offered a laxative to prevent constipation, a common side-effect of opioid treatment.

For neuropathic pain, calcium channel blockers such as gabapentin or pregabalin and tricyclic antidepressants such as amitriptyline or duloxetine may be helpful.

Patients requiring analgesia to prevent or limit procedural pain, for example those with severe bone pain who are unable to lie down for MRI scanning or for radiotherapy, may be given ketamine or propofol.

Bisphosphonate treatment

Pain arising in bone as a result of myeloma bone disease may be alleviated, to some degree, by bisphosphonate treatment (**see Myeloma UK Nursing Best Practice Guide on Myeloma Bone Disease**).

Bisphosphonate treatment is recommended for myeloma patients requiring treatment whether or not myeloma bone disease is evident.

Non-pharmacological

Radiotherapy

Pain arising from both bone and soft tissue can be effectively treated by targeted low-dose radiotherapy with minimal side-effects. This may be given either as a single fraction (8 Gy) or as multiple fractions (up to 40 Gy).

For patients who find positioning for radiotherapy administration painful, analgesia should be offered before and for the necessary period following radiotherapy treatment.

Surgery

Two minimally invasive surgical procedures referred to as Balloon Kyphoplasty and Percutaneous Vertebroplasty offer considerable pain relief associated with vertebral collapse.

Both procedures involve injection of bone cement to the vertebral bodies and are best performed soon after a vertebral collapse. Their use should be considered in patients whose pain has not been alleviated by conventional pain-relief.

Pain from fractures and severely weakened bones may require orthopaedic fixation with plate or rod insertions to support the bones.

The effect of any form of pain relief should be evaluated on a regular basis using the same assessment as prior to the start of treatment. If pain is not alleviated effectively, patients should be referred to the pain specialists.

Nursing interventions and management

Nurses are key members of the multidisciplinary team and play a central role in the management of pain in myeloma patients.

The following provides best practice recommendations for nursing interventions related to the assessment, treatment and monitoring of myeloma patients with pain and for nursing management related to the provision of knowledge, education and a more holistic approach to caring for myeloma patients with pain.

Interventions

- ★ Ensure a baseline assessment of pain is performed for all newly diagnosed myeloma patients
- ★ Assess patients for their psychological state, particularly with regard to depression, as it may complicate pain management if not treated
- ★ Identify patients who may require pain relief for a procedure and ensure it is prescribed and administered in advance
- ★ Anticipate and monitor patients, especially those taking opioids, for side-effects e.g. vomiting, nausea, constipation and institute prophylactic measures
- ★ Alert haematologist or pain specialist if patients report or present with side-effects characteristic of opioid toxicity e.g. pinpoint pupils, subtle agitation, persistent drowsiness, vivid dreams/nightmares, myoclonus (muscle jerks) etc.
- ★ Screen all patients at each consultation for pain, ache or discomfort even on an informal basis. Make sure that each assessment is documented and accessible to the medical team
- ★ Report situations of unrelieved pain to the multidisciplinary team and advocate on behalf of the patient for a change in treatment if pain relief is inadequate.

Support these recommendations with documented evidence of patient assessment

Management

- ★ Inform patients to avoid activities that increase the risk of exposure to infection such as damp environments, gardening, handling pet litter etc.
- ★ Spend time talking to patients about their pain. Encourage them to be open and honest about the level of pain they have and how much it is affecting them so that the most appropriate pain management plan can be made
- ★ Encourage and help patients to describe their pain as accurately as possible by asking relevant questions and using scales and body charts to make a full assessment. Ensure patients understand how to describe their pain and know why it is important to do so
- ★ Provide written information to help patients understand myeloma-related pain
- ★ Speak to carers and families to find out about how the pain is affecting the patient and how they are coping with it
- ★ Be sensitive to factors such as culture, language, work/life situations when assessing and treating pain

- ★ Teach patients and their families to self-assess and document their pain, using for example a diary, so that any temporal patterns and contributing factors can be identified more easily
- ★ Stress to patients and their families the importance of complying with analgesics and to take them as prescribed and not when they are already in pain
- ★ Educate patients on the possible side-effects associated with the different types of pain-relief and what to expect to ensure compliance with treatment
- ★ Explain to patients wary of using opioid-based analgesics the difference between addiction, tolerance and physical dependence to help dispel misapprehensions about opioid treatments
- ★ Encourage patients to report as soon as possible any new pain or sudden increase in the intensity of pain. Provide patients with the relevant contact details
- ★ Coordinate referral to other members of the multidisciplinary team where necessary e.g. occupational therapist, dietician, palliative care team, counsellor
- ★ Discuss with patients the potential benefits of non-medical treatments that may help relieve pain including:
 - ★ Acupuncture
 - ★ Transcutaneous electrical nerve stimulation (TENS)
 - ★ Gentle massage
 - ★ Hold and cold packs
 - ★ Relaxation techniques
 - ★ Gentle exercises
- ★ Discuss the importance of rest and help patients devise plans that achieve a balance between regular rest and activity
- ★ Have good knowledge of myeloma-related pain and a clear understanding of the principles of pain assessment and management

Summary

.....

Pain affects approximately 80% of myeloma patients at some point during the course of their myeloma and if left untreated or poorly managed, it can have a devastating impact on their quality of life.

Key to the effective management of pain is accurate regular assessment and monitoring, using a combination of pharmacological and non-pharmacological approaches, and open communication between patients, families and healthcare professionals. Nurses play a crucial role in helping and supporting patients to control their pain and in doing so can make a huge difference in compliance to treatment, patients' quality of life and overall patient outcomes.

Abbreviations

- | | | | |
|----------------|--|----------------|---|
| ★ CTCAE | Common terminology criteria for adverse events | ★ NSAID | Non-steroidal anti-inflammatory drug |
| ★ CT | Computerised tomography | ★ TENS | Transcutaneous electrical nerve stimulation |
| ★ Gy | Grey | ★ WHO | World Health Organisation |
| ★ MRI | Magnetic resonance imaging | | |

References

.....

1. Kuner, R., *Central mechanisms of pathological pain*. Nat Med, 2010. **16**(11): p. 1258-66.
2. Schmidt, B.L., et al., *Mechanism of cancer pain*. Mol Interv, 2010. **10**(3): p. 164-78.
3. Niscola, P., et al., *Pain management in multiple myeloma*. Expert Rev Anticancer Ther, 2010. **10**(3): p. 415-25.
4. Kyle, R.A., et al., *Review of 1027 patients with newly diagnosed multiple myeloma*. Mayo Clin Proc, 2003. **78**(1): p. 21-33.
5. Terpos, E., et al., *Management of bone disease in multiple myeloma*. Expert Rev Hematol, 2014. **7**(1): p. 113-25.
6. Pachman, D.R., et al., *Management options for established chemotherapy-induced peripheral neuropathy*. Support Care Cancer, 2014. **22**(8): p. 2281-95
7. Richardson, P.G., et al., *Management of treatment-emergent peripheral neuropathy in multiple myeloma*. Leukemia, 2012. **26**(4): p. 595-608.
8. Gilron, I., R. Baron, and T. Jensen, *Neuropathic pain: principles of diagnosis and treatment*. Mayo Clin Proc, 2015. **90**(4): p. 532-45.
9. Fleming, S., et al., *The Choice of Multiple Myeloma Induction Therapy Affects the Frequency and Severity of Oral Mucositis After Melphalan-Based Autologous Stem Cell Transplantation*. Clin Lymphoma Myeloma Leuk, 2014. **14**(4): p. 291-6.
10. Coleman, E.A., et al., *Fatigue, sleep, pain, mood, and performance status in patients with multiple myeloma*. Cancer Nurs, 2011. **34**(3): p. 219-27.
11. Haugen, D.F., et al., *Assessment and classification of cancer breakthrough pain: a systematic literature review*. Pain, 2010. **149**(3): p. 476-82.
12. Snowden, J.A., et al., *Guidelines for supportive care in multiple myeloma 2011*. Br J Haematol, 2011. **154**(1): p. 76-103.
13. Palumbo, A., et al., *International Myeloma Working Group consensus statement for the management, treatment, and supportive care of patients with myeloma not eligible for standard autologous stem-cell transplantation*. J Clin Oncol, 2014. **32**(6): p. 587-600.
14. Afsharimani, B., et al., *Pharmacological options for the management of refractory cancer pain-what is the evidence?* Support Care Cancer, 2015. **23**(5): p. 1473-81.
15. Green, C.R., T. Hart-Johnson, and D.R. Loeffler, *Cancer-related chronic pain: examining quality of life in diverse cancer survivors*. Cancer, 2011. **117**(9): p. 1994-2003.
16. Tracey, I., *Getting the pain you expect: mechanisms of placebo, nocebo and reappraisal effects in humans*. Nat Med, 2010. **16**(11): p. 1277-83.
17. Bennett, M., *The LANSS Pain Scale: the Leeds assessment of neuropathic symptoms and signs*. Pain, 2001. **92**(1-2): p. 147-57.
18. Burton, A.W., T. Chai, and L.S. Smith, *Cancer pain assessment*. Curr Opin Support Palliat Care, 2014. **8**(2): p. 112-6.
19. Mulvey, M.R., et al., *Confirming neuropathic pain in cancer patients: applying the NeuPSIG grading system in clinical practice and clinical research*. Pain, 2014. **155**(5): p. 859-63.
20. Cleeland, C.S. and K.M. Ryan, *Pain assessment: global use of the Brief Pain Inventory*. Ann Acad Med Singapore, 1994. **23**(2): p. 129-38.
21. National Institute for Health and Care Excellence, *Opioids in palliative care: safe and effective prescribing of strong opioids for pain in palliative care of adults*. 2012, NICE: London.

Appendix I

Brief Pain Inventory

Brief Pain Inventory (Short Form)

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

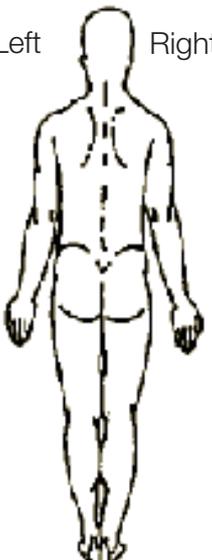
Yes No

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

Right Left



Left Right



3. Please rate your pain by marking the box beside the 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 marking the box beside the 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 marking the box beside the number that best describes your pain on **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 marking the box beside the 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



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 mark the box below the percentage that most shows how much relief you have received.

0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
<input type="checkbox"/>										
No Relief										Complete Relief

9. Mark the box beside the number that describes how, during the past 24 hours, pain has interfered with your:

A. General Activity

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does Not Interfere										Completely Interferes

B. Mood

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere										Completely Interferes

C. Walking ability

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere										Completely Interferes

D. Normal Work (includes both work outside the home and housework)

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere										Completely Interferes

E. Relations with other people

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere										Completely Interferes

F. Sleep

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere										Completely Interferes

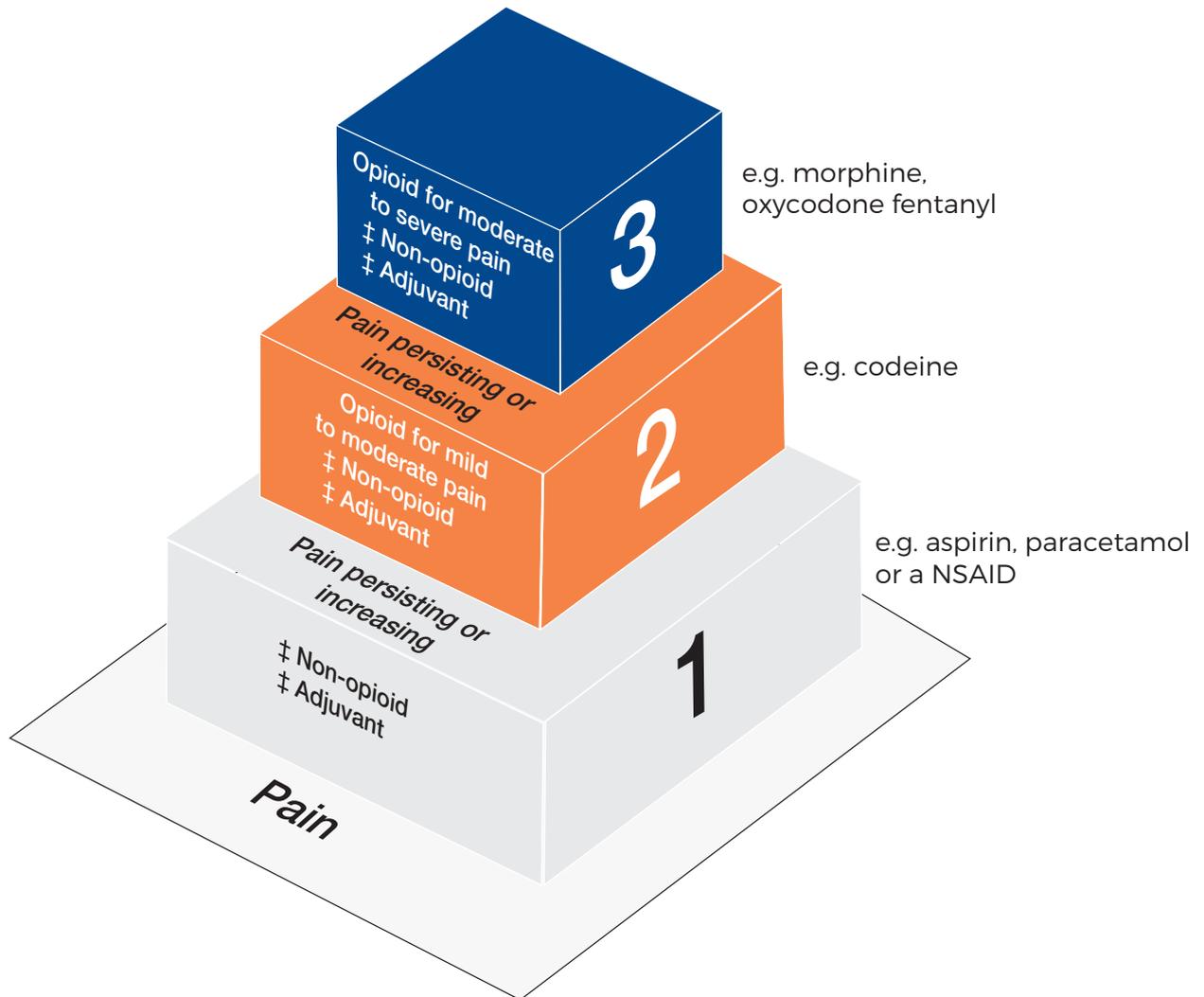
G. Enjoyment of life

<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
Does not Interfere										Completely Interferes



Appendix II

WHO Pain Relief Ladder



ABOUT THE NURSING BEST PRACTICE GUIDES

The Nursing Best Practice Guides have been developed by Myeloma UK and an expert nursing advisory group, with input from relevant specialist healthcare professionals. They have been developed to enhance nurse knowledge, inform nursing practice and support nurses in the delivery of high quality treatment and care to myeloma patients and families.

Nursing Best Practice Guide series:

- ★ Complementary therapies
- ★ Fatigue
- ★ Gastrointestinal toxicities
- ★ End of life care
- ★ Myeloma bone disease
- ★ Myeloma kidney disease
- ★ Myelosuppression
- ★ Oral mucositis
- ★ Pain
- ★ Palliative care
- ★ Peripheral neuropathy
- ★ Psychological support
- ★ Steroids
- ★ Venous thromboembolic events

ABOUT THE MYELOMA ACADEMY

The Myeloma Academy provides healthcare professionals involved in the treatment and care of myeloma patients with access to comprehensive accredited learning resources and tools in an innovative online environment and through educational events.

It supports the education and continual professional development of myeloma healthcare professionals so they can provide optimum patient-centred treatment and care within the current UK health and policy environment.

For more information visit:

www.myeloma-academy.org.uk or by email **academy@myeloma.org.uk**

ABOUT MYELOMA UK

Myeloma UK is the only organisation in the UK dealing exclusively with myeloma.

Our mission is to provide information and support to people affected by myeloma and to improve standards of treatment and care through research, education, campaigning and raising awareness.

For more information about Myeloma UK and what we do, please visit **www.myeloma.org.uk** or contact us at **myelomauk@myeloma.org.uk** or **+44 (0)131 557 3332**.

Published by: Myeloma UK

Publication date: October 2012

Last updated: December 2017

Notes



Notes



MyelomaAcademy™



www.myeloma-academy.org.uk



Myeloma UK 22 Logie Mill,
Beaverbank Business Park, Edinburgh EH7 4HG
Myeloma Infoline: 0800 980 3332
www.myeloma.org.uk Charity No: SC 026116