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Best Practice Statement ~ *November 2009*

**The management of pain in patients with cancer**

patients

NHS Quality Improvement Scotland is committed to equality and diversity. We have assessed this Best Practice Statement for likely impact on the six equality groups defined by age, disability, gender, race, religion/belief and sexual orientation. For a summary of the equality and diversity impact assessment, please see our website ([www.nhshealthquality.org](http://www.nhshealthquality.org)). The full report in electronic or paper form is available on request from the NHS QIS Equality and Diversity Officer.

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## Introduction

NHS Quality Improvement Scotland (NHS QIS) is a Special Health Board that provides support to NHSScotland.

NHS QIS supports NHS boards to improve the quality of patient care by:

- providing advice and guidance on effective clinical practice, including setting standards
- driving and supporting implementation of improvements in quality, and
- assessing the performance of the NHS, reporting and publishing our findings.

NHS QIS has central responsibility to support NHS boards to deliver patient safety and clinical governance across NHSScotland.

### Key principles of best practice statements

A series of best practice statements has been produced within the Practice Development Unit of NHS QIS, designed to offer guidance on best and achievable practice in a specific area of care. These statements reflect the current emphasis on delivering care that is patient-centred, cost-effective and fair. They reflect the commitment of NHS QIS to sharing local excellence at a national level.

Best practice statements are produced by a systematic process (see page 4), and underpinned by a number of key principles.

- They are intended to guide practice and promote a consistent, cohesive and achievable approach to care. Their aims are realistic but challenging.
- They are primarily intended for use by registered nurses, midwives, allied health professionals, and the staff who support them, but will also be relevant to medical professionals.
- They are developed where variation in practice exists and seek to establish an agreed approach for practitioners.

- Responsibility for implementation of these statements rests at local level.

Best practice statements are periodically reviewed, and, if necessary, updated in order to ensure the statements continue to reflect current thinking with regard to best practice.

This best practice statement is accessible electronically via the NHS QIS website ([www.nhshealthquality.org](http://www.nhshealthquality.org)).

### Supporting implementation

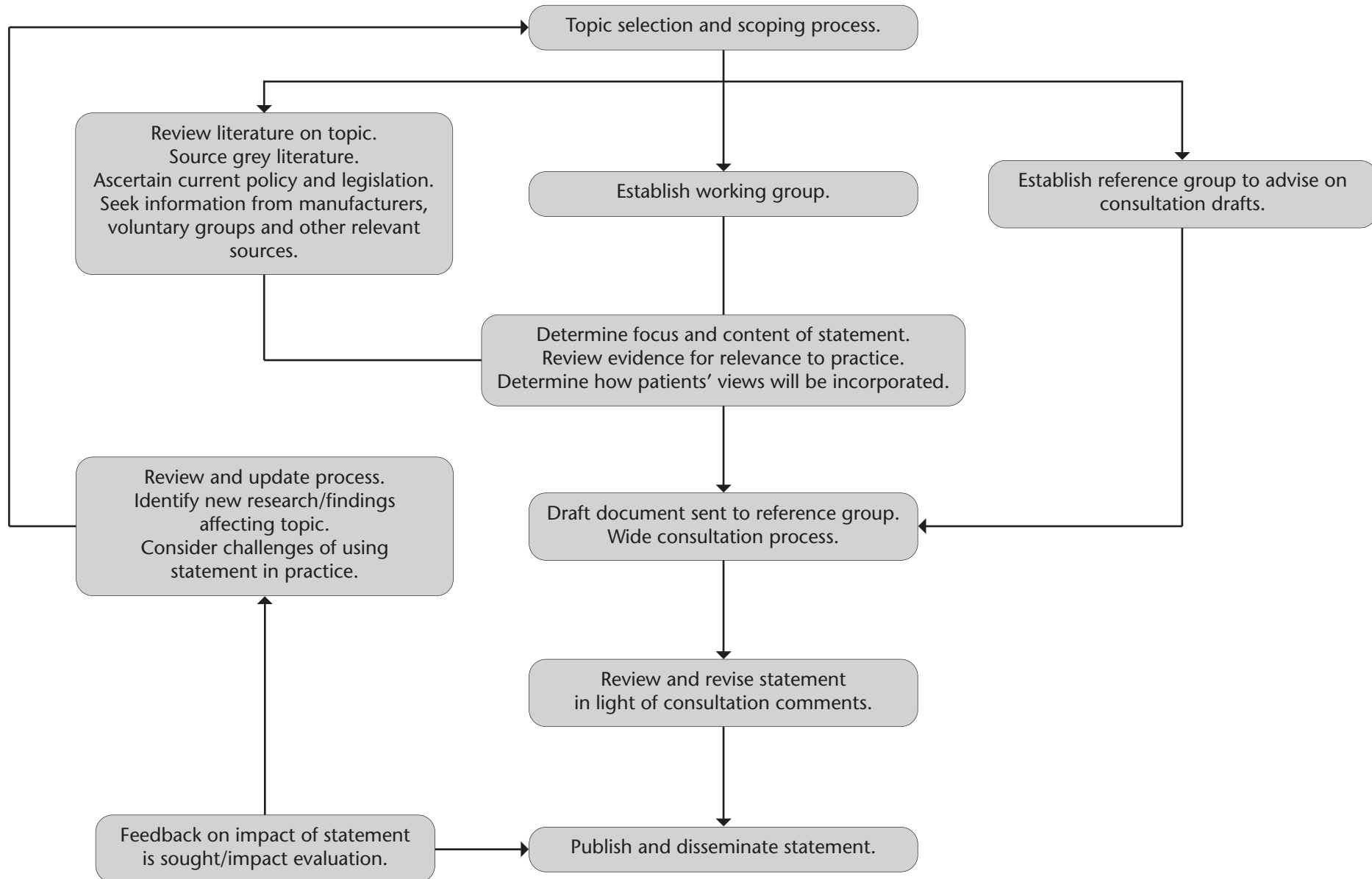
Comments on best practice statements are very much welcomed. We are always keen to hear from anyone who has been involved with using the statements in their own area of practice. In particular, we would like to hear about specific successes or challenges relating to implementation and impact on quality of care provision.

Any information provided will be used to inform the next review of the statement.

Please forward any comments to: [qis.bestpracticestatements@nhs.net](mailto:qis.bestpracticestatements@nhs.net)

**Privacy note:** We will only use your email details to reply to your comment. Your address will not be passed on to any third parties.

## Key stages in the development of best practice statements



## Best practice statement: The management of pain in patients with cancer

Approximately 50% of patients with cancer experience pain, with up to 80–90% of patients in the advanced stages of disease reporting this symptom<sup>1, 2</sup>.

Following a scoping exercise conducted by the Cancer Care Research Centre at the University of Stirling<sup>3</sup> to review the best practice statement on the management of pain in patients with cancer, NHS QIS commissioned the update of this document. It has been developed in collaboration with a network of nurses and allied health professionals involved in the management of pain in patients with cancer. A multidisciplinary reference group has advised the network.

The importance of patient involvement in the development of clinical guidelines has been highlighted<sup>4</sup>. Two patient advisory groups consisting of people who have experienced or are currently experiencing cancer-related pain contributed to the development of the best practice statement and this is evidenced throughout the document.

The statement refers to the care of adult patients with cancer, in all care settings, who may experience pain. It therefore incorporates healthcare services in community, hospital and hospice settings. The importance of recognising that pain is multidimensional in nature and unique to the individual is essential in ensuring best practice for these patients and is reflected throughout the statement. The management of pain, in partnership with the patient and multidisciplinary team working are reinforced as being key elements in achieving adequate pain control.

The aim of the statement is to offer guidance to health professionals on the best practice in this area, aiming to provide a consistent approach to practice to enable seamless provision of care to be delivered between the hospital and the community.

### Format of statement

The statement is divided into four sections covering:

- Section 1: Pain management education
- Section 2: Pain assessment
- Section 3: The pharmacological management of pain
- Section 4: The non-pharmacological management of pain

Each section contains a table corresponding to the what, why and how of best practice, ie summarising the statement, the reason for the statement and how to achieve the statement or to demonstrate that it is being achieved and highlights the underpinning philosophy of the statement and/or explicit skill requirements to achieve best practice. Key challenges of the statement reflect existing examples of best practice and highlight areas that may require specific action or development.

### How can the statement be used?

This best practice statement can be used in a variety of ways, although primarily it is intended to serve as a guide to best practice and promote a consistent and cohesive approach to care. The statement is intended to be challenging but realistic and can be used:

- as a basis for developing and improving care directly and indirectly
- to stimulate learning among multidisciplinary teams
- to promote effective multiprofessional team working and enhance partnerships with patients, carer(s) and relevant others
- to stimulate ideas and priorities for research.

## Section 1: Pain management education

### Key points:

- 1 Patients and their carer(s) are provided with education and information regarding the management of pain.
- 2 Patients are informed of the cause of their pain, if known.
- 3 All health professionals, involved in the care of patients with cancer, should regularly attend education programmes on the principles of cancer pain management.

Statement 1	Reason for statement	How to demonstrate statement is being achieved
<p>Patients and carer(s) are provided with information/education regarding the management of pain.</p> <p>Patients with cancer are informed of the cause of their pain.</p> <p>All health professionals involved in the care of patients with cancer attend education programmes on the principles of cancer pain management.</p> <p>All health professionals involved in the care of patients with cancer are provided with continuing education on the principles of holistic cancer pain management.</p>	<p>The provision of both verbal and written information has been demonstrated to improve the patients' knowledge of pain and lower their pain intensity.</p> <p>Patients with cancer who experience pain can 'deal with it better' if they know the cause of their pain<sup>5</sup>.</p> <p>Inadequate knowledge of pain management by professionals has been identified as a barrier to cancer pain management<sup>6</sup>.</p>	<p>There is documented evidence that the patient and their carer(s) have been given appropriate information regarding the management of pain.</p> <p>There is documented evidence that the patient has been told of the cause of their pain.</p> <p>Education programmes on cancer pain management are available to all health professionals at both pre- and post-registration levels.</p> <p>There is a record of health professionals' attendance at education programmes related to the management of pain in patients with cancer.</p>

### Key challenges:

- Ensuring adequate resources are available to enable staff, patients and carer(s) to access education and training.
- Identifying ways to deliver and evaluate education and training that recognise local need.
- Ensuring all patients with cancer have access to a health professional who has specialist knowledge of pain management<sup>7</sup>.



## Section 2: Pain assessment

### Key points:

- 1 Enquiry into the presence of pain is included in the nursing assessment of all patients with cancer.
- 2 A comprehensive pain assessment should be carried out in all patients with cancer reporting pain.

Statement 2(a)	Reason for statement	How to demonstrate statement is being achieved
<p>Assessment of all patients with cancer includes a question regarding the presence of pain.</p> <p>If a patient reports pain, a comprehensive pain assessment is carried out (see Figure 1).</p> <p>Comprehensive pain assessment should include routine screening for psychological distress using a validated tool.</p>	<p>More than 50% of all patients diagnosed with cancer experience pain<sup>1, 2</sup>.</p> <p>Detailed history taking is vital to comprehensive pain assessment<sup>8</sup>.</p> <p>There is a strong association between psychological distress and cancer pain<sup>8</sup>.</p>	<p>There is documented evidence in the patient record that the presence of pain has been addressed.</p> <p>There is documented evidence that a comprehensive pain assessment has been conducted in patients with cancer reporting pain.</p> <p>There is documented evidence that comprehensive pain assessment has included routine screening for psychological distress.</p>

### Key challenges:

- Health professionals should be aware of the role of non-verbal communication in the assessment of pain in patients with cancer, eg body language, facial expression.
- Pain should be considered as a cause of change in behaviour in patients with cognitive impairment and should be assessed accordingly.
- Health professionals should be aware that there are specific pain assessment tools which should be used to assess pain in patients with cognitive impairment<sup>1</sup>.

### **Figure 1: Clinical history and physical examination**

Detailed history taking is vital to comprehensive assessment and should include:

- site and number of pains
- intensity/severity of pains
- radiation of pain
- timing of pain
- quality of pain
- aggravating and relieving factors
- aetiology of pain:
  - pain caused by cancer
  - pain caused by cancer treatment
  - pain associated with cancer related debility (eg decubitus ulcers)
  - pain unrelated to cancer or treatment
- type of pain:
  - nociceptive
  - visceral
  - neuropathic
  - complex regional pain syndrome
  - mixed
- analgesic drug history
- patient beliefs about the meaning of pain, effectiveness of its treatments and consequences of drug therapies
- presence of clinically significant psychological disorders, eg anxiety and/or depression.

(FROM SIGN 106, 2008<sup>8</sup>)

## Section 2: Pain assessment (continued)

### Key points:

- 1 The patient should be the prime assessor of their own pain.
- 2 Pain should be assessed in the context of the patient's life.
- 3 Poor communication between patients, carer(s) and health professionals can result in the under-reporting of pain by patients and carer(s).

Statement 2(b)	Reason for statement	How to demonstrate statement is being achieved
<p>The patient should be the prime assessor of their own pain.</p> <p>Pain should be assessed in the context of the patient's life.</p> <p>Health professionals should be given training to overcome specific challenges around communication with people with cancer, their carer(s) and other professionals.</p>	<p>The patients' perceptions of pain may vary from that of their carer(s) and health professionals<sup>8, 9, 10</sup>.</p> <p>The impact of pain in the patient's life is an important factor in the planning and development of pain control interventions<sup>5</sup>.</p> <p>Poor communication between patients and health professionals may result in the under-reporting of pain by patients<sup>8</sup> and clinical assessments that are not comprehensive.</p>	<p>There is documented evidence that, wherever possible, the patient is involved in their own pain assessment.</p> <p>There is documented evidence that pain assessment has included exploration of the context of pain in the patient's life.</p> <p>There is documented evidence that health professionals have received training on communication skills.</p>

## Section 2: Pain assessment (continued)

### Key points:

- 1 A formalised pain assessment tool should be used by health professionals in partnership with the patient and/or carer(s).
- 2 Pain is multidimensional comprising physical, psychological, social and spiritual elements.
- 3 Patients with cancer may experience pain in more than one site.

Statement 2(c)	Reason for statement	How to demonstrate statement is being achieved
<p>Pain in patients with cancer is assessed using a formalised, pain assessment tool which measures:</p> <ul style="list-style-type: none"> <li>• physical aspects/manifestations of pain</li> <li>• functional effects (interference with activities of daily living)</li> <li>• psychosocial factors (level of anxiety, mood, cultural influences, fears, effects on interpersonal relationships, factors affecting pain tolerance)</li> <li>• spiritual aspects.</li> </ul> <p>(See SIGN 106, 2008<sup>8</sup> for suggested pain assessment tools.)</p>	<p>Comprehensive pain assessment is directly linked to improved pain management<sup>11</sup>.</p> <p>Pain is multidimensional comprising physical, psychological, social and spiritual elements<sup>8, 11</sup>.</p> <p>Research suggests that a multi-dimensional approach to pain assessment is integral to a patient's reaction to their pain experience<sup>8</sup>.</p>	<p>Health professionals use a formalised pain assessment tool to assess pain in patients with cancer.</p> <p>Completed pain assessment tools are stored in patients' notes.</p>

### Key challenges:

- In the acute care setting, initial pain assessment should be undertaken and documented on admission. Re-assess frequently (at a minimum daily) or more regularly depending on the severity of pain or level of distress.
- In primary care, pain should be assessed at each visit, the timing dependent on each individual patient's circumstances. Patient-held records may be useful in involving patients in the assessment and management of their pain<sup>12</sup>.
- There should be consistency in the tools used in acute and community care settings to facilitate transitions between primary and secondary care services<sup>3</sup>.
- Following assessment, health professionals are accountable for ensuring that actions to maximise patients' pain control are taken promptly.
- Community health partnerships, NHS boards, independent and voluntary sectors should ensure that a formalised pain assessment tool is available and used in each care setting and for each patient population.

## Section 2: Pain assessment (continued)

### Key points:

- 1 Patients with complex and/or poorly controlled pain are urgently referred to an appropriate specialist.
- 2 Sudden, severe pain in patients with cancer must be assessed as soon as possible.

Statement 2(d)	Reason for statement	How to demonstrate statement is being achieved
<p>Patients with complex and/or poorly controlled pain are identified and referred to an appropriate specialist.</p>	<p>It is recommended that more complex treatment regimes receive specialist input.</p>	<p>Referral to a specialist service and action taken as a consequence of referral is documented.</p>

### Key challenges:

- Health professionals should be aware of the provision and referral pathway to specialist pain services within their local area, eg chronic pain service, palliative care team, hospice.

## Section 3: The pharmacological management of pain

### Key points:

- 1 Patients should be encouraged to take an active role in their pain management.
- 2 The World Health Organisation (WHO) analgesic stepladder should be used for the management of pain in patients with cancer.
- 3 A multidisciplinary approach to cancer pain management is essential.

Statement 3(a)	Reason for statement	How to demonstrate statement is being achieved
<p>Patients should be given information and instruction about pain and pain management and be encouraged to take an active role in their pain management<sup>8</sup>.</p> <p>The principles of treatment outlined in the WHO cancer pain relief programme should be followed when treating pain in patients with cancer.</p> <p>Optimum management of pain in patients with cancer requires a multidisciplinary approach<sup>8</sup>. (see Section 4).</p>	<p>Involvement of patients in their pain management improves pain control<sup>8</sup>.</p> <p>The WHO analgesic stepladder has been demonstrated to improve pain in approximately 85% of patients with cancer<sup>15</sup>.</p> <p>A multidisciplinary approach is necessary to ensure optimal pain management in patients with cancer<sup>8</sup>.</p>	<p>There is documented evidence in the patient records that the patient has been provided with instruction regarding their pain and pain management and encouraged to take an active role.</p> <p>There is documented evidence that the WHO analgesic stepladder has been used in the management of pain in patients with cancer.</p> <p>There is documented evidence of a multidisciplinary approach to the management of pain in patients with cancer.</p>

### Key challenges:

- Ensuring there are communication pathways to support effective multidisciplinary communication<sup>8</sup>.
- It can be difficult to differentiate between apparent adverse effects to opioids and similar symptoms related to other aspects of the patient's disease: an accurate history is important<sup>8</sup>.

## Section 3 continued: Mild pain

### Key points:

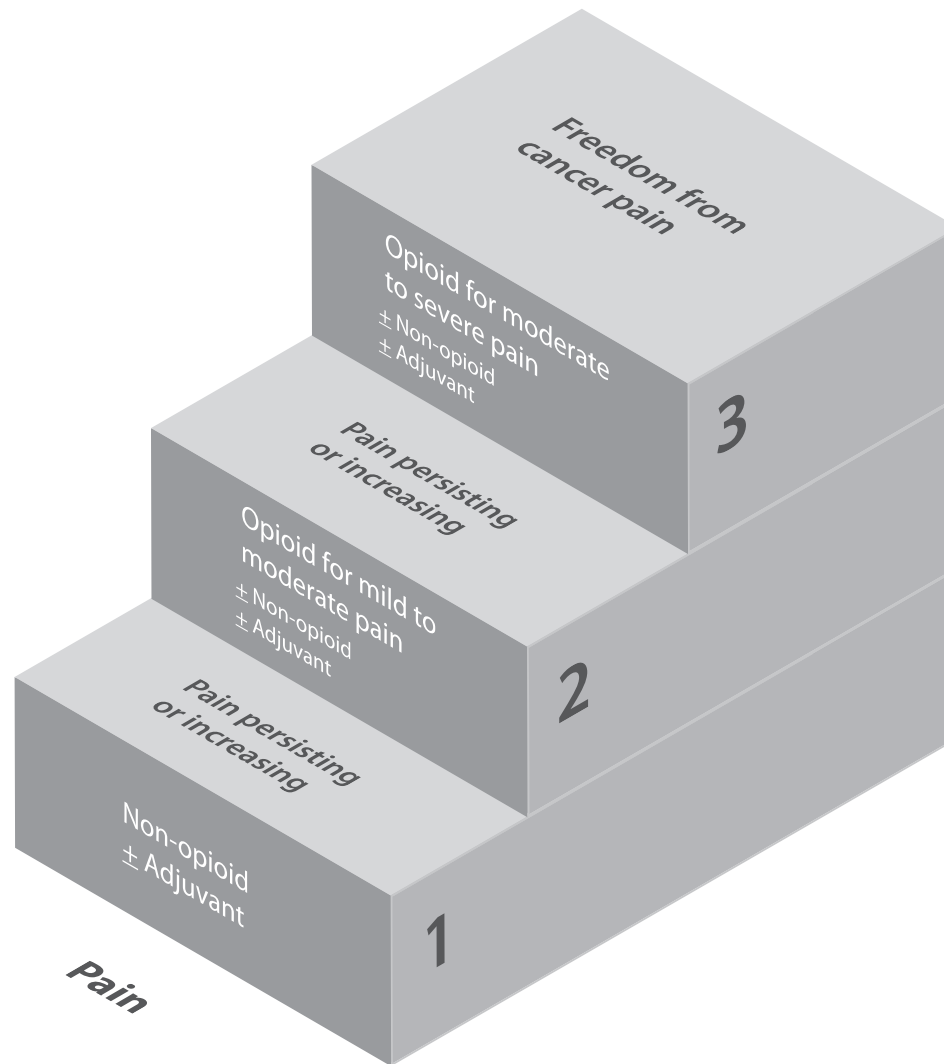
- 1 Patients should be encouraged to take an active part in their pain management.
- 2 Patients with cancer who have mild pain should receive analgesia according to Step 1 of the WHO analgesic stepladder.
- 3 If pain persists or increases, move up to Step 2 of the WHO stepladder; do not move across (ie to a different drug on the same step).

Statement 3(b)	Reason for statement	How to demonstrate statement is being achieved
<p>The patient with cancer experiencing mild pain receives pharmacological management according to Step 1 of the WHO analgesic stepladder:</p> <ul style="list-style-type: none"> <li>• non-opioids</li> <li>• +/- adjuvant drugs.</li> </ul> <p>(See Figures 2, 3 and 4.)</p>	<p>The WHO recommends a 3-step approach to the pharmacological management of pain in patients with cancer<sup>13</sup>.</p> <p>The WHO analgesic stepladder has been demonstrated to improve pain in approximately 85% of patients with cancer<sup>15</sup>.</p>	<p>Documentation reflects the correct use of Step 1 of the WHO analgesic stepladder.</p> <p>It is documented whether levels of pain relief and side-effects are acceptable to the patient, carer(s) and health professionals.</p>

### Key challenges:

- Health professionals should ensure that the patient is the prime assessor of their own pain, wherever possible.
- Health professionals should be aware that non-pharmacological interventions, as described in Section 4, may be useful in the management of pain in patients with cancer.
- The assessment and management of pain in patients with cancer is the responsibility of all health professionals irrespective of their grade or status.
- Nurses involved in prescribing drugs used for the management of pain in patients with cancer should adhere to the Nursing & Midwifery Council (NMC) standards of proficiency for nurse prescribing and midwifery prescribers<sup>16</sup> and the NMC standards for medicines management<sup>17</sup>.
- There should be consistency in the types of analgesia available in primary and secondary care to optimise pain control during transitions between services<sup>3</sup>.

Figure 2: The WHO analgesic stepladder<sup>13</sup>





### Figure 3: Principles of using the WHO analgesic stepladder<sup>13</sup>

- The general treatment strategy for cancer pain, developed by the WHO programme for cancer pain, is illustrated in Figure 2.
- The principles of treatment outlined in the WHO cancer relief programme should be followed when treating people with cancer experiencing pain.
- The WHO analgesic stepladder should be used as a recommendation of principles rather than a rigid framework. The ladder was never intended to be used in isolation and may have to be combined with other treatment modalities.

To obtain the optimum outcome when using the principles of the ladder, a multidisciplinary approach is recommended. Health professionals may include: nurses, anaesthetists, surgeons, allied health professionals, oncologists, pharmacists, palliative care specialists and clinical psychologists.

#### How to apply the WHO analgesic stepladder<sup>13</sup>

**'By mouth'**: if feasible, analgesics should be administered orally.

**'By the clock'**: analgesics should be administered 'by the clock', ie at fixed time intervals (based on the pharmacokinetics of the drug being used) in order to suppress pain continuously.

**'By the ladder'**: start at:

- **Step 1 if mild pain**
- **Step 2 if mild/moderate pain**
- **Step 3 if moderate/severe pain**

**'For the individual'**: there is no standard dose for opioid drugs. The correct dose of an opioid is one that relieves the patient's pain with few/acceptable side-effects.

**'Attention to detail'**: the need for regular administration of pain relief drugs should be emphasised. Good practice is to provide information on the patient's drug regime in full for the patient and family to work from.

- **If maximal drug therapy on one step does not control pain, re-assess and move up a step.**

**IN THE PRESENCE OF REDUCED KIDNEY FUNCTION ALL OPIOIDS SHOULD BE USED WITH CAUTION AND AT REDUCED DOSES AND/OR FREQUENCY<sup>8</sup>**

#### **Figure 4: Adjuvant analgesics**

Adjuvant analgesics are drugs with other primary indications that can be effective analgesics in specific circumstances<sup>8</sup>.

Adjuvant analgesics may be used to improve pain relief in combination with primary analgesics at any stage of the WHO analgesic stepladder<sup>14</sup>.

They are particularly effective for pains that are difficult to manage and/or are relatively unresponsive to morphine, eg nerve pain, bone pain.

**Frequent pain assessment is considered essential for patients who are taking adjuvant analgesics.**

## Section 3 continued: Mild to moderate pain

### Key points:

- 1 Patients should be encouraged to take an active part in their pain management.
- 2 Patients with cancer who have mild to moderate pain should receive analgesia according to Step 2 of the WHO analgesic stepladder.
- 3 If pain persists or increases move up to Step 3 of the WHO analgesic stepladder, do not move across (ie to a different drug on the same step).
- 4 Health professionals are aware of the predictable side-effects of opioids and how to control them.
- 5 Specialist palliative care advice should be sought for the appropriate choice, dosage and route of opioid in patients with reduced renal function.

Statement 3(c)	Reason for statement	How to demonstrate statement is being achieved
<p>The patient with cancer experiencing mild to moderate pain receives pharmacological management according to Step 2 of the WHO analgesic stepladder:</p> <ul style="list-style-type: none"> <li>• opioids for mild/moderate pain</li> <li>• +/- non-opioids</li> <li>• +/- adjuvant drugs.</li> </ul> <p>Specialist palliative care advice should be sought for the appropriate choice, dosage and route of opioid in patients with reduced kidney function<sup>8</sup>.</p> <p>Health professionals are aware of the predictable side-effects of opioids and how to control them (see Figure 5).</p>	<p>The WHO recommends a 3-step approach for the pharmacological management of pain in patients with cancer<sup>13</sup>.</p> <p>The WHO analgesic stepladder has been demonstrated to improve pain in approximately 85% of patients with cancer<sup>15</sup>.</p> <p>Dehydration and renal impairment increase the potential for opioid toxicity<sup>8</sup>.</p> <p>Inadequate management of the side-effects of opioids may limit titration of analgesia.</p>	<p>Documentation reflects the correct use of Step 2 of the WHO analgesic stepladder.</p> <p>It is documented whether levels of pain relief and side-effects are acceptable to the patient and health professionals.</p> <p>It is documented that the patient's renal function and hydration has been assessed and specialist palliative care advice has been sought.</p> <p>There is documented evidence that the side-effects of opioids have been monitored and managed accordingly.</p>

### Key challenges:

- Health professionals should ensure that the patient is the prime assessor of their own pain, wherever possible.
- Health professionals should be aware that non-pharmacological interventions, as described in Section 4, may be useful in the management of pain in patients with cancer.
- The assessment and management of pain in patients with cancer is the responsibility of all health professionals irrespective of their grade or status.
- Nurses involved in prescribing drugs used for the management of pain in patients with cancer should adhere to the NMC standards of proficiency for nurse prescribing and midwifery prescribers<sup>16</sup> and the NMC standards for medicines management<sup>17</sup>.
- There should be consistency in the types of analgesia available in primary and secondary care to ensure optimal pain control during transitions between services<sup>3</sup>.

### Figure 5: Management of possible side-effects of opioids

#### • Constipation

- almost all patients on opioids will get some degree of constipation
- this must be anticipated, treated prophylactically, and monitored with appropriate laxatives: peristaltic stimulant and stool softener (or combination laxative)
- if possible, the patient should be advised to increase activity as able and drink plenty of fluids. If constipation is untreated this can lead to urinary retention/hesitancy
- other causes of constipation should be considered.

#### • Nausea and vomiting

- occurs in half to two thirds of patients taking oral morphine
- usually only a transient side-effect; resolves in 5–10 days
- an antiemetic should be prescribed for all patients on opioids, to be taken if required. Once nausea stops, this should be discontinued. If nausea severe, consider other routes for the administration of medication or change opioids
- consider and treat accordingly aggravating factors such as constipation, hypercalcaemia.

#### • Sedation

- commonly occurs at the start of treatment with opioids
- usually decreases within 7–14 days once dose is stabilised
- in cases of prolonged drowsiness, all medication that may cause drowsiness should be reviewed and modified as appropriate
- consider other causes
- change opioids if sedation persists
- inform patient not to drive or operate machinery if experiencing drowsiness.

#### • Dry mouth

- this is common with the use of opioids
- may also be due to concurrent medication
- good oral hygiene is essential
- patients should be advised to take regular sips of cool water.

#### • Pseudo-hallucinations

- may occur at any stage
- ensure adequate hydration
- investigate other causes
- if persists, reduce dose of opioid or consider changing opioid.

#### • Respiratory depression

- rare in patients with cancer taking opioids for pain relief
- exercise caution in patients with renal failure and malignant/non-malignant lung disease
- ensure that starting dose is tailored to each individual patient. Caution is advised in opioid-naive patients.
- reduction in dose or temporary withdrawal of opioid is all that is usually required, however for opioid overdose, specialist advice should be sought.

#### • Pruritus (itching)

- occurs only in a small number of patients
- usually decreases with time
- if itching persists, consider changing opioids.

#### • Myoclonus (muscle jerking)

- can occur if opioid dose is too high for the individual patient or with renal dysfunction. **Be aware of using drugs that induce renal toxicity.**
- try lowering dose of opioids without affecting pain control
- if persists, change opioids.

## Section 3 continued: Moderate to severe pain

### Key points:

- 1 Patients should be encouraged to take an active part in their pain management.
- 2 Patients with cancer who have moderate to severe pain receive analgesia according to Step 3 of the WHO analgesic stepladder.
- 3 Health professionals understand the basic principles of initiating and establishing opioids for the management of moderate to severe pain in patients with cancer.
- 4 Health professionals are aware of the predictable side-effects of opioids and how to control them.
- 5 Specialist palliative care advice should be sought for the appropriate choice, dosage and route of opioid in patients with reduced renal function.

Statement 3(d)	Reason for statement	How to demonstrate statement is being achieved
<p>The patient with cancer experiencing moderate to severe pain receives pharmacological management according to Step 3 of the WHO analgesic stepladder:</p> <ul style="list-style-type: none"> <li>• opioids for moderate to severe pain</li> <li>• +/- non-opioids</li> <li>• +/- adjuvant drugs.</li> </ul> <p>Health professionals are aware of and understand the underlying principles of initiating and establishing opioids (see Figure 6).</p> <p>Health professionals are aware of and understand the underlying principles of converting doses between different routes of administration of opioid drugs (see Figures 7 and 8).</p>	<p>The WHO recommends a 3-step approach for the pharmacological management of pain in patients with cancer<sup>13</sup>.</p> <p>The WHO analgesic stepladder has been demonstrated to improve pain in approximately 85% of patients with cancer<sup>15</sup>.</p> <p>To reduce the risk of potentially serious medication errors<sup>19</sup>.</p> <p>For patients with inadequate pain relief and persistent intolerable opioid related toxicity/adverse effects, a switch to an alternative opioid may be considered in an attempt to achieve a better balance between pain relief and side-effects<sup>8</sup>.</p>	<p>Documentation reflects the correct use of Step 3 of the WHO analgesic stepladder in the management of moderate to severe pain in patients with cancer.</p> <p>Documentation reflects whether levels of pain relief and side-effects are acceptable to the patient.</p> <p>The NMC standards for medicines management<sup>17</sup> have been adhered to.</p> <p>There is documented evidence, in patients with inadequate pain relief and/or persistent intolerable opioid related toxicity/adverse effects, that a switch to an alternative opioid has been considered.</p>

### Key challenges:

- Health professionals need to be aware of the difference between immediate and modified release morphine preparations for the management of moderate to severe pain in patients with cancer.
- Health professionals should be aware of the various opioid preparations that are available and be proficient in their administration.
- Health professionals should assess and anticipate when the oral route for prescribed opioids is no longer appropriate.
- When the oral route is no longer appropriate, the health professional should ensure that the equivalent dose of opioid is prescribed via an alternative route, eg subcutaneous or transdermal.

### Figure 6: Titrating opioids

A careful individual assessment of pain control, degree of side-effects and total amount of opioid required including breakthrough doses, in the previous 24 hours, must be made daily prior to prescribing. Starting doses of oral morphine in opioid-naive patients are generally of the order of 5mg to 10mg 4-hourly in young and middle aged people and 2.5mg to 5mg 4-hourly in the elderly. Conventional practice is to commence an immediate release formulation of opioid which allows pain to be controlled more rapidly. This allows earlier assessment and titration up or down if necessary. An example of opioid titration is shown below.

#### Example of dose titration (from SIGN 106, 200<sup>8</sup>)

Regular opioid dose	Frequency of dose	Breakthrough dose	Frequency of breakthrough episodes	Total opioid in 24-hours	New titrated dose
10mg morphine sulphate (immediate release)	4-hourly	10mg morphine (immediate release)	Three times daily	$(10 \times 6) + (10 \times 3) = 90\text{mg}$	15mg morphine sulphate, 4-hourly (1/6th of the total 24-hour dose)

Once pain has been controlled, the 4-hourly dose may be converted to a 12-hourly modified release dose by dividing the effective 24-hour dose by 2. In the example above, the new modified release morphine dose would be 45mg 12-hourly with 15mg of immediate release morphine for breakthrough pain.

*Extra care should be taken when initiating and titrating opioids in patients with renal failure. Specialist advice should be sought.*

**Figure 7: Suggested dose conversion ratios in the direction specified (from SIGN 106, 200<sup>8</sup>)**

These are initial suggested conversion ratios only. The patient's clinical condition should be taken into account and breakthrough analgesia prescribed as necessary. Following opioid conversion, monitoring and dose adjustment up or down according to efficacy and side-effects is required.

(Converting from) current opioid	(Converting to) new opioid and/or new route of administration	Divide 24-hour dose* of current opioid (column 1) by relevant figure below to calculate initial 24-hour dose of new opioid and/or new route (column 2)
<i>Example</i> 120mg oral morphine in 24 hours	Subcutaneous diamorphine	Divide by 3 (120mg/3 = 40mg subcutaneous diamorphine in 24 hours)
<b>ORAL TO ORAL ROUTE CONVERSIONS</b>		
oral codeine	oral morphine	divide by 10
oral tramadol	oral morphine	divide by 5
oral morphine	oral oxycodone	divide by 2
oral morphine	oral hydromorphone	divide 7.5
<b>ORAL TO TRANSDERMAL ROUTE CONVERSIONS</b>		
oral morphine	transdermal fentanyl	refer to manufacturer's information
oral morphine	transdermal buprenorphine	seek specialist palliative care advice
<b>ORAL TO SUBCUTANEOUS ROUTE CONVERSIONS</b>		
oral morphine	subcutaneous morphine	divide by 2
oral morphine	subcutaneous diamorphine	divide by 3
oral oxycodone	subcutaneous morphine	no change
oral oxycodone	subcutaneous oxycodone	divide by 2
oral oxycodone	subcutaneous diamorphine	divide 1.5
oral hydromorphone	subcutaneous hydromorphone	seek specialist palliative care advice
<b>OTHER ROUTE CONVERSIONS RARELY USED IN PALLIATIVE MEDICINE</b>		
subcutaneous or intramuscular morphine	intravenous morphine	no change
intravenous morphine	oral morphine	multiply by 2
oral morphine	intramuscular morphine	divide by 2
* The same units must be used for both opioids and routes, eg mg morphine to mg oxycodone <sup>8</sup> .		

### Figure 8: Routes of administration of opioids

The oral route should be used for administration of opioids if practical and feasible as it is effective and simple. However, if the oral route is not practical and feasible, for example due to vomiting or where the patient is not able to swallow, alternative routes of opioid administration should be considered:

- subcutaneous route
- transdermal route
- or very occasionally, intravenous routes.

Continuous subcutaneous infusion of opioids is simpler to administer and equally as effective as continuous intravenous infusion and should be considered for patients unable to take opioids orally.

In patients with **stable** pain who are unable to swallow oral medication, transdermal administration of opioids should be considered<sup>8</sup>.

#### Similarly –

If the oral route has been the route for opioid administration and ceases to be practical and feasible, for example, due to vomiting or where the patient is not able to swallow or has difficulty swallowing tablet preparations, continuity of pain management should be ensured. Converting to a liquid preparation or a new opioid and/or new route of administration should be considered.

Tables of dose conversions should be used only as an initial approximate guide. Particular attention to monitoring and dose titration up or down is needed when:

- switching between opioids at high doses
- there has been a recent rapid escalation of the first opioid<sup>18</sup>.

When converting from one opioid to another, regular assessment and reassessment of efficacy and side-effects is essential. Dose titration up or down according to pain control and/or adverse effects may be required. The patient's clinical condition should be taken into account and breakthrough analgesia prescribed as necessary<sup>8</sup>.



## Section 3 continued: Breakthrough and incident pain

### Key points:

- 1 Patients should be encouraged to take an active part in their pain management.
- 2 Breakthrough analgesia is available for every patient requiring opioids. Breakthrough analgesia is not a replacement for regular analgesia.
- 3 Breakthrough analgesia should be an oral immediate release opioid preparation and should be one sixth of the total regular daily dose of opioid.
- 4 Health professionals are aware of the differences between breakthrough pain and incident pain and their management.

Statement 3(e)	Reason for statement	How to demonstrate statement is being achieved
<p>Health professionals are aware of and understand the underlying principles of:</p> <ul style="list-style-type: none"> <li>• management of breakthrough pain</li> <li>• management of incident pain.</li> </ul> <p>(See Figures 9 and 10.)</p>	<p>Breakthrough pain occurs in over 50% of people with cancer<sup>20</sup>.</p>	<p>Documentation reflects the correct use of analgesia for breakthrough/incident pain.</p> <p>Levels of pain relief and side-effects are achieved that are acceptable to the patient, carer(s) and health professional.</p>

### Key challenges:

- Health professionals should seek advice from physiotherapists and occupational therapists regarding strategies to modify activities of daily living to minimise the risk of incident pain.

### Figure 9: The management of breakthrough pain

- Breakthrough pain is defined as 'a transitory flare of more severe pain over relatively well controlled baseline pain'<sup>20</sup>.
- Patients and carer(s) should fully understand how and when to administer breakthrough analgesia.
- Breakthrough pain is characteristically:
  - rapid onset (peaks within 1–3 minutes)
  - of moderate to severe intensity
  - of short duration (median 30 minutes, range 1–240 minutes)
  - associated with worse psychological outcomes
  - associated with poor functional outcome
  - associated with poor response to regular opioids
  - associated with negative social and economic consequences.
- Breakthrough analgesia should be available for every patient with cancer requiring opioids for moderate to severe pain<sup>8</sup>.
- Breakthrough analgesia is not a replacement for regular analgesia.
- Breakthrough analgesia should be an immediate release preparation and should be one sixth of the **total** regular daily dose of morphine<sup>8</sup> or, where advised by a specialist, a different opioid preparation may be utilised.
- Assess the effectiveness of break through analgesia 30 minutes following administration. If pain continues, repeat breakthrough analgesia and re-assess in a further 30 minutes. If pain is not controlled at this stage, a full re-assessment of the patient is required and titration of opioids accordingly.

Differentiation between breakthrough pain and 'end of dose failure' of regular around the clock (ATC) analgesia is important. End of dose failure occurs at a similar time each day, usually shortly before the next dose of regular analgesia, and is caused by an inadequate dose of ATC analgesia. An increase in the ATC dose will address end of dose failure<sup>8</sup>.

### **Figure 10: The management of incident pain**

Incident pain is associated with activities of daily living and can be anticipated. This distinction is important for therapeutic management. For example, medication may be taken in advance of an episode that is likely to precipitate incident pain, such as walking, having a wound dressing changed and undergoing medical investigations<sup>8</sup>.

Care should be taken when calculating a new regular dose for patients who are pain free at rest but have, eg pain on movement (incident pain). If all the analgesia taken for pain on movement is incorporated in the new regular morphine dose, such patients could be rendered opioid toxic. In such cases, optimum analgesia is achieved by:

- maximising background analgesia
- pre-emptive analgesia for movement related pain
- maximising non-opioid and adjuvant analgesics
- consideration of other treatment modalities such as radiotherapy, anaesthetic nerve blocks, and stabilising surgery<sup>8</sup>.

## Section 3 continued: Opioid toxicity

### Key points:

- 1 Patients with signs and/or symptoms of opioid toxicity are referred to an appropriate specialist.
- 2 Opioid toxicity can occur with small doses of opioids and is not uncommon.

Statement 3(f)	Reason for statement	How to demonstrate statement is being achieved
<p>Patients receiving opioids for moderate to severe pain are closely observed for signs and symptoms of opioid toxicity<sup>8</sup>.</p> <p>Health professionals should consider renal function and/or hydrations status as contributory factors in patients identified with opioid toxicity (see Figure 11).</p>	<p>To minimise the risk of exposure to opioid toxicity.</p> <p>Dehydration and renal impairment increase the potential for opioid toxicity<sup>8</sup>.</p>	<p>Documentation reflects that signs/symptoms of opioid toxicity have been monitored and managed as appropriate.</p> <p>There is documented evidence that renal function and hydration status has been considered as a cause of opioid toxicity and managed accordingly.</p>

### Key challenges:

- Ensuring that patients, carer(s) and health professionals are informed and educated in the principles and management of opioid toxicity.

## Figure 11: Opioid toxicity

### Opioid toxicity can occur with small doses and is not uncommon:

- patients, carer(s) and health professionals should be alert to and educated in the signs of opioid toxicity
- health professionals should seek specialist advice if concerned about opioid toxicity.

### The ability to tolerate a specific dose depends on:

- the degree of opioid responsiveness to pain
- prior exposure to opioids
- rate of titration of the dose of opioids
- concomitant medication
- renal and hepatic function (dehydration may increase potential for opioid toxicity).

### Signs of opioid toxicity:

- persistent drowsiness
- subtle agitation
- pinpoint pupils
- shadows appearing at the edge of the visual field/pseudo-hallucinations
- vivid dreams
- nightmares
- confusion
- myoclonus (muscle jerks).

### Opioid toxicity should be managed by:

- frequent clinical monitoring and review involving the patient, carer(s) and health professional from the multidisciplinary team.

### In the patient with controlled pain:

- consider dose reduction (reducing dose by a third is a reasonable suggestion **but if unsure always seek medical advice**,
- consider reversible factors and address where appropriate, eg hydration.

### In patients with uncontrolled pain:

- consider a switch-rotation of opioids
- consider adding an adjuvant in addition to slight opioid reduction
- consider reversible factors and address where appropriate, eg hydration, hypercalcaemia
- are there topical alternatives/options?

## Section 3 continued: Barriers to effective pain control

### Key points:

- 1 The main barrier to effective pain control is poor pain assessment (see Section 2).
- 2 The prescribing and administration of opioid analgesia in patients with cancer experiencing pain should not be delayed due to fear and misconceptions of its use.
- 3 Education of patients, carer(s) and health professionals includes issues such as addiction and physical dependence.

Statement 3(g)	Reason for statement	How to demonstrate statement is being achieved
The prescribing and administration of opioid analgesia in patients with cancer experiencing pain should not be delayed due to fears and misconceptions about its use <sup>21</sup> (see Figures 12 and 13).	Misunderstandings regarding the side-effects of opioids serve as an obstacle to effective pain control <sup>22, 23</sup> .	Documentation reflects the correct use of the WHO analgesic step ladder in the management of pain in patients with cancer.

### Key challenges:

- Education of patients, carer(s) and health professionals includes issues such as addiction and physical dependence.

### **Figure 12: Opioids and addiction**

Addiction is a primary, chronic, neurobiological disease with genetic, psychological, and environmental factors influencing its development and manifestation characterized by behaviours that include one or more of the following:

- impaired control over drug use
- compulsive use
- continued use despite harm and craving<sup>23</sup>.

#### **Clinical relevance:**

- This is **rare** in patients with cancer receiving opioids for pain relief.
- Opioids should never be withheld due to fears that a patient may become addicted.
- If a patient requests a strong analgesic, it is probable that their pain control is inadequate.

### **Figure 13: Opioids and physical dependence**

Physiologic dependence is a state of adaptation that is manifested by a drug class specific withdrawal symptom that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug and or administration of an antagonist<sup>23</sup>.

#### **Clinical relevance:**

- It is normal for physical dependence to occur with continuous opioid use.
- The occurrence of physical dependence varies among individual patients.
- Physical dependence (in the presence of withdrawal symptoms) does not indicate that the patient is addicted to opioids.
- Health professionals should inform patients to take their analgesia as prescribed and that withdrawal symptoms may occur if they abruptly reduce or discontinue their medication.
- Symptoms of withdrawal are agitation, sleeplessness, diarrhoea, sweating, a rapid heartbeat, abdominal cramps, shivers and return of pain.
- In cases where the source of pain is effectively removed, physical dependence may be managed by gradually decreasing the dose of opioid according to regulated local guidelines.
- Physical dependence should not limit opioid therapy.



## Section 3 continued: The use of syringe pumps/drivers (education)

### Key points:

- 1 All health professionals involved in the use of syringe pumps/drivers should have formal education and competency training.
- 2 All staff using a syringe pump/driver must be personally competent and accountable in the use and operation of such devices.
- 3 Health professionals without formalised education and training on syringe pump/driver use, should seek specialist advice when caring for patients using syringe pumps/drivers.
- 4 Patients and their carer(s) should be told of the purpose of the syringe pump/driver use and know who to contact for further advice.

Statement 3(h)	Reason for statement	How to demonstrate statement is being achieved
<p>All health professionals involved in the use of syringe pumps/drivers receive formalised education and competency training.</p> <p>Patients and carer(s) are aware of the purpose of syringe pumps/drivers and know who to contact for further advice (see Figure 14).</p>	<p>Parenteral administration of medicines carries a number of risks that have been well documented. Syringe pumps/drivers may be used infrequently and competency can be difficult to maintain where use is infrequent<sup>24, 25</sup>.</p> <p>People with cancer experiencing pain want to know what treatment options are available to them<sup>26</sup>.</p> <p>Patients who have the opportunity to ask questions of importance to them have been reported to experience reduced anxiety, be more satisfied with healthcare consultations and have better health-related outcomes<sup>26</sup>.</p>	<p>There is documented evidence of a locally agreed training strategy.</p> <p>Records of attendance at training sessions are maintained.</p> <p>Ongoing audit and review of related education packages.</p> <p>There is documented evidence that patients and carer(s) are aware of the purpose for syringe pump/driver use and know who to contact for further advice.</p>

### Key challenges:

- All health professionals involved in the use of syringe pumps/drivers should have access to the manufacturer's instructions and local guidelines.
- Resources should be available to allow health professionals to regularly update knowledge via education and training sessions.

**Figure 14: When to use a syringe pump/driver**

- The patient is unable to take medication by mouth
- Persistent nausea and vomiting
- Dysphagia
- Persistent fits
- Profound weakness
- Poor absorption
- Uncontrolled pain (rare indication).

## Section 3 continued: The use of syringe pumps/drivers (guidelines)

### Key point:

- 1 There are locally agreed guidelines on the use and management of syringe pumps/drivers.

Statement 3(i)	Reason for statement	How to demonstrate statement is being achieved
<p>There are locally agreed guidelines on the use of syringe pumps/drivers in the management of pain in patients with cancer including:</p> <ul style="list-style-type: none"> <li>• initial set up, preparation of infusion and reason for use</li> <li>• drug compatibility and stability</li> <li>• a list of commonly used drugs</li> <li>• incident reporting</li> <li>• documentation and labelling for syringe pump/driver use</li> <li>• the provision of one single type of syringe pump/driver</li> <li>• 24-hour access</li> <li>• maintenance and repair of equipment.</li> </ul>	<p>To provide clinical guidance and ensure safe practice within the local area.</p> <p>All operational aspects of infusion systems must be documented<sup>27</sup>.</p>	<p>Guidelines on syringe pump/driver use are audited and reviewed in line with local procedures.</p>

### Key challenges:

- Health professionals should be aware of how to access syringe pumps/drivers and relevant drugs at all times.
- It is strongly recommended that guidelines on the use and servicing of syringe pumps/drivers be reviewed and updated in line with local guidelines.
- Each NHS board should aim to provide one type of syringe pump/driver for use in the management of pain in patients with cancer, as confusion between different models may occur.

## Section 3 continued: The role of radiotherapy and bisphosphonates (bone pain)

### Key points:

- 1 Radiotherapy may be used in the management of bone pain in patients with cancer.
- 2 Bisphosphonates may be used in the management of metastatic bone disease<sup>8</sup>.

Statement 3(j)	Reason for statement	How to demonstrate statement is being achieved
<p>Health professionals are aware that:</p> <ul style="list-style-type: none"><li>• radiotherapy</li><li>• bisphosphonates</li></ul> <p>may be useful in the management of bone pain in patients with cancer.</p>	<p>Radiotherapy has been demonstrated to be effective in relieving pain from bone metastases<sup>8</sup>.</p> <p>Bisphosphonates should be considered as part of the therapeutic regime for the treatment of pain in patients with metastatic bone disease<sup>8</sup>.</p>	<p>Health professionals have knowledge of these treatment options in the management of pain in patients with cancer.</p>

### Key challenges:

- Health professionals should be aware that other techniques may be used in the management of pain in patients with cancer.
- All patients with pain from bone metastases, which is proving difficult to control by pharmacological means, should be referred to a clinical oncologist for consideration of external beam radiotherapy or radioisotope treatment<sup>8</sup>.

## Section 4: The non-pharmacological management of pain; Multidisciplinary teamwork

### Key points:

- 1 Health professionals should work in partnership with the patient and carer(s) in the management of pain.
- 2 Total pain is a highly complex phenomenon with physical, psychological behavioural, cognitive, emotional, spiritual and interpersonal aspects.
- 3 Effective multidisciplinary teamwork is essential for effective cancer pain management.

Statement 4(a)	Reason for statement	How to demonstrate statement is being achieved
<p>Health professionals should work in partnership with patients and carer(s) in the management of pain.</p> <p>Health professionals should be educated on the concept of total pain to promote the multidisciplinary management of pain in patients with cancer.</p> <p>Health professionals should be educated on and be aware of the core elements of effective multidisciplinary working to promote optimal pain management.</p>	<p>Involvement of patients in their treatment improves pain control<sup>8</sup>.</p> <p>The experience of cancer pain is a highly complex phenomenon with physical, behavioural, cognitive, emotional, spiritual and interpersonal aspects<sup>11</sup>.</p> <p>A multidisciplinary approach to cancer pain management is advocated<sup>8</sup>.</p>	<p>There is evidence of partnership working between the patient, carer(s) and health professional in the management of pain.</p> <p>There is documented evidence of a holistic, multidisciplinary approach to the management of pain in patients with cancer.</p> <p>There is evidence of education on effective multidisciplinary working.</p> <p>There is documented evidence of a multidisciplinary approach to cancer pain management.</p>

### Key challenges:

- Health professionals should ensure robust co-ordination of care when working as part of the multidisciplinary team.

## Section 4 continued: Nursing

### Key point:

- 1 Good clinical nursing practice has a significant role in the management of pain in patients with cancer.

Statement 4(b)	Reason for statement	How to demonstrate statement is being achieved
All grades of nursing staff must recognise their role in the management of pain in patients with cancer.	<p>The practitioner uses professional judgement and knowledge of the potential impact of cancer and its treatment to assess the holistic needs of the individual with cancer, their families and carer(s) to provide and evaluate evidence-based care.</p> <p>Effective nursing care is therapeutic and may have a beneficial impact on physical, psychological, social and spiritual wellbeing<sup>28</sup>.</p>	<p>Documentation demonstrates:</p> <ul style="list-style-type: none"><li>• a process of assessment and review of the patient's pain experience</li><li>• awareness of factors that may contribute to the patient's experience of pain, eg ability to communicate, fear, positioning, bowel and bladder function, mouth care, etc</li><li>• correct use of prescribed analgesia</li><li>• an understanding of when to refer to other specialists for support in better managing their patient's pain.</li></ul>

### Key challenge:

- To ensure all grades of nursing staff realise they have a significant role in recognising and managing pain in patients living with cancer.

## Section 4 continued: Physiotherapy

### Key point:

- 1 As part of the multidisciplinary approach, physiotherapy interventions may be used to improve function and quality of life in patients with cancer pain.

Statement 4(c)	Reason for statement	How to demonstrate statement is being achieved
<p>All health professionals are aware of the role that physiotherapeutic interventions can play in the management of pain in patients with cancer.</p> <p>Health professionals involved in the management of pain in patients with cancer are aware of referral pathways and procedures to access physiotherapy services (see Figure 15).</p>	<p>Physiotherapeutic interventions have been reported to improve the management of pain in patients with cancer<sup>29</sup>.</p>	<p>There is documented evidence that physiotherapeutic interventions have been explored as an option in pain management and accessed accordingly.</p>

## Section 4 continued: Occupational therapy

### Key point:

- 1 All health professionals should be aware of the role of occupational therapy in the multidisciplinary management of pain in patients with cancer.

Statement 4(d)	Reason for statement	How to demonstrate statement is being achieved
<p>All health professionals are aware that occupational therapy interventions can assist in the management of pain in patients with cancer as part of a holistic multidisciplinary approach.</p> <p>All health professionals should be aware of the wide variety of interventions occupational therapy can offer to patients with cancer pain.</p> <p>All health professionals should be aware of the benefits of therapeutic activity in patients with cancer pain to promote psychological, social and physical wellbeing (see Figure 16).</p>	<p>Occupational therapy is vital to the pain management service and can help modify perceptions of pain and individuals' lifestyles<sup>30, 31</sup>.</p> <p>In many cases, a multidisciplinary approach is required to give the optimum outcome for the patient<sup>8</sup>.</p> <p>Occupational therapy intervention assesses the presenting problems and explores the meaning of the symptoms to the individual and the impact on that individual and the family<sup>30, 31</sup>.</p> <p>Cancer can destabilise patients' lives in terms of their self identity, belief systems and place in the world<sup>8</sup>.</p>	<p>There is documented evidence that occupational therapy interventions have been explored as an option in pain management and accessed accordingly.</p>

### Key challenges:

- All health professionals should be aware of the local referral pathways to access occupational therapy.
- Often, occupational therapy is not considered an intervention in the treatment of pain.



**Figure 15: Services offered by physiotherapists**

- Therapeutic exercise
- Advice on heat/cold applications
- Transcutaneous electrical neuromuscular stimulation (TENS)
- Connective tissue mobilisation techniques
- Relaxation techniques
- Provision of walking aids and gait re-education
- Provision of splints
- Acupuncture
- Advice on functional ability.

**Figure 16: Services offered by occupational therapists**

- Assessment of activities of daily living
- Energy (fatigue) conservation
- Anxiety management
- Relaxation techniques
- Lifestyle (impact) management
- Creative and purposeful activity
- Provision of splints
- Role support
- Advice on functional ability
- Positional and seating assessment and advice
- Wheelchair provision
- Assistive equipment
- Advice.

## Section 4 continued: **Complementary therapies**

### Key point:

1 Complementary therapies can have a role to play in the individual management of pain in patients with cancer.

Statement 4(e)	Reason for statement	How to demonstrate statement is being achieved
<p>All health professionals are aware that complementary therapies may have a role to play in the individual management of pain in patients with cancer.</p> <p>All health professionals are aware of the local referral pathways to access complementary therapies.</p>	<p>Complementary therapies may be of benefit in the management of pain in patients with cancer<sup>5, 32</sup>.</p>	<p>Records demonstrate that complementary therapies have been considered as a management option, if appropriate and locally available.</p> <p>Health professionals are aware of access to complementary therapies and refer as appropriate.</p>

### Key challenges:

- There is conflicting research on the use of complementary therapies in the management of pain in patients with cancer. They should be used only after further consultation and agreement with patients and key medical personnel.
- Only professionals accredited in the use of complementary therapies should be used.
- Further research is required to evaluate the role of complementary therapies in the management of pain in patients with cancer.

## Appendix 1: Audit tool

This audit tool has been developed from the Best Practice Statement on the Management of Pain in Patients with Cancer (November 2009) to support health professionals and organisations who would like to audit current practice. This should be used in conjunction with the best practice statement and not in isolation.

<b>Section 1: Pain management education</b>		<b>Y</b>	<b>N</b>	<b>Don't know</b>	<b>Action and comments</b>
a	Patients and carer(s) have been provided with education and information regarding the management of their pain.				
b	Health professionals involved in the management of pain in patients with cancer have attended education programmes on the principles of cancer pain management.				

<b>Section 2: Pain assessment</b>		<b>Y</b>	<b>N</b>	<b>Don't know</b>	<b>Action and comments</b>
a	A question regarding the presence of pain has been included in the initial assessment of all patients with cancer.				
b	In patients with cancer reporting pain, a comprehensive pain assessment has been conducted using a formalised pain assessment tool.				
c	Patients with complex and/or poorly controlled pain have been referred to an appropriate specialist.				

<b>Section 3: The pharmacological management of pain</b>		<b>Y</b>	<b>N</b>	<b>Don't know</b>	<b>Action and comments</b>
a	Patients have been encouraged to take an active role in their pain management.				
b	The principles of treatment outlined in the WHO cancer pain relief programme have been followed in patients with cancer experiencing pain.				
c	There is evidence of multidisciplinary working in the management of pain in patients with cancer.				
d	Specialist palliative care advice has been sought for the appropriate choice, dosage and route of opioid in patients with cancer with reduced kidney function and/or experiencing opioid toxicity.				

<b>Section 4: The use of syringe pumps/drivers</b>		<b>Y</b>	<b>N</b>	<b>Don't know</b>	<b>Action and comments</b>
a	Health professionals involved in the use of syringe pumps/drivers have received formalised education and competency training on their use.				
b	Patients and carer(s) have been told the purpose of syringe pumps/drivers and given details of who to contact for further advice.				
c	There are locally agreed guidelines on the use of syringe drivers in the management of pain in patients with cancer which include details of: <ul style="list-style-type: none"> <li>• initial set-up, preparation of infusion and reason for use</li> <li>• drug compatibility and stability</li> <li>• a list of commonly used drugs</li> <li>• incident reporting</li> <li>• documentation and labelling for syringe pump/driver use</li> <li>• the provision of one type of syringe pump/driver</li> <li>• 24-hour access</li> <li>• maintenance and repair of equipment.</li> </ul>				

<b>Section 5: The non-pharmacological management of pain (multidisciplinary teamwork)</b>		<b>Y</b>	<b>N</b>	<b>Don't know</b>	<b>Actions and comments</b>
a	Health professionals work in partnership with patients and carer(s) in the management of pain.				
b	Non-pharmacological interventions have been explored and used when appropriate in the management of pain in patients with cancer				

Please see the NHS Quality Improvement Scotland website ([www.nhshealthquality.org](http://www.nhshealthquality.org)) to download a Word version of this audit tool to save and use electronically, or print to use by hand.

## Glossary

<b>addiction</b>	<p>A primary, chronic, neurobiological disease with genetic, psychological, and environmental factors influencing its development and manifestations...characterized by behaviours that include one or more of the following:</p> <ul style="list-style-type: none"> <li>• impaired control over drug use</li> <li>• compulsive use</li> <li>• continued use despite harm and craving<sup>23</sup> (see Figure 12).</li> </ul>	<b>holistic</b>	<p>Describing an approach to patient care in which the physiological, psychological, and social factors of the patient's condition are taken into account not just the diagnosed disease.</p>
<b>adjuvant analgesics</b>	<p>Drugs with other primary indications that can be effective analgesics in specific circumstances<sup>8</sup>.</p>	<b>immediate release morphine</b>	<p>Onset of action of about 20 minutes and reach peak drug levels on average at 60 minutes<sup>8</sup>.</p>
<b>ATC</b>	<p>Around the clock.</p>	<b>incident pain</b>	<p>Pain associated with activities of daily living and can be anticipated<sup>8</sup>.</p>
<b>bisphosphonates</b>	<p>Drugs used to reduce pain and skeletal related events in the presence of bone metastases<sup>8</sup>.</p>	<b>modified release morphine</b>	<p>Slower onset and later peak effect. Twice daily preparations onset of action 1–2 hours and reach peak at 4 hours. Once daily preparations reach a peak at 8.5 hours<sup>8</sup>.</p>
<b>breakthrough pain</b>	<p>A transitory flare of more severe pain over relatively well-controlled baseline pain<sup>20</sup>.</p>	<b>neuropathic pain</b>	<p>Pain associated with nerve compression or injury.</p>
<b>equivalent dose</b>	<p>Should be calculated when changing from a weak opioid to morphine and when switching between strong opioids. To ensure adequate analgesia without overdosing<sup>8</sup>.</p>	<b>NMC</b>	<p>Nursing &amp; Midwifery Council</p>
		<b>nociceptive pain</b>	<p>Pain associated with tissue distortion or injury.</p>
		<b>opioid switching</b>	<p>Changing to a different opioid in an attempt to improve the balance between efficacy and side-effects thus achieving good pain control<sup>8</sup> (see Figure 6).</p>

<b>pain</b>	An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage <sup>33</sup> .
<b>pain intensity</b>	Severity of the pain as measured by the patient numerically or on visual analogue scale <sup>8</sup> .
<b>physiological dependence</b>	State of adaptation that is manifested by a drug class specific withdrawal symptom that can be produced by abrupt cessation, rapid dose reduction, decreasing blood level of the drug and/or administration of an antagonist <sup>23</sup> (see Figure 13).
<b>stable pain</b>	Pain which is well controlled by analgesia <sup>8</sup> .
<b>visceral</b>	Pain associated with gut distension and colic.
<b>WHO</b>	World Health Organisation



## References

- 1 Breivik, H., Cherny, N., Collett, B., de Conno, F., Filbert, M., Foubert, A. J., Cohen, R., & Dow, L. 2009, "Cancer-related pain: a pan-European survey of prevalence, treatment and patient attitudes", *Annals of Oncology*.
- 2 van den Beuken-van Everdingen MH, de Rijke, J. M., Kessels, A. G., Schouten, H. C., van, K. M., & Patijn, J. 2007, "Prevalence of pain in patients with cancer: a systematic review of the past 40 years.", *Annals of Oncology*, vol. 18, no. 9, pp. 1437-1449.
- 3 Cancer Care Research Centre 2008, *Scoping exercise to review best practice statements: skincare of patients receiving radiotherapy; and, the management of pain in patients with cancer*, CCRC, Stirling.
- 4 Schunemann, H. J., Fretheim, A., & Oxman, A. D. 2006, "Improving the use of research in guideline development: 10. Integrating values and consumer involvement", *Health Research Policy and Systems*, vol. 4, p. 22.
- 5 Patient Advisory Group. 2009.
- 6 Oldenmenger, W. H., Sillevs Smitt, P. A., van, D. S., Stoter, G., & van der Rijt, C. C. 2009, "A systematic review on barriers hindering adequate cancer pain management and interventions to reduce them: a critical appraisal, *European Journal of Cancer*, vol. 45, no. 8, pp. 1370-138
- 7 Krishnasamy M. 2008. Pain. In Corner J & Bailey C. (Eds), *Cancer Nursing: Care in context*. Chapter 17, pgs 449 – 461. Second Edition, Blackwell, Singapore
- 8 Scottish Intercollegiate Guidelines Network 2008, *Control of pain in adults with cancer. A national clinical guideline*, SIGN, Edinburgh. <http://www.sign.ac.uk/pdf/SIGN106.pdf>, accessed April 2009
- 9 Field, L. 1996, "Are nurses still underestimating patient's pain post-operatively?", *British Journal of Nursing*, vol. 5, no. 13, pp. 778-784
- 10 Grossman, S. A., Sheidler, V. R., Sweeden, K., & et al 1991, "Correlation of patient and caregiver ratings of cancer pain", *Journal of Pain and Symptom Management*, vol. 6, no. 2, pp. 53-57.
- 11 Ferrell, B. R. 2003, "The role of nursing in pain management," in *Clinical Pain Management*, N. Sykes, M. T. Fallon, & R. Patt, eds., Arnold, London, pp. 87-94.
- 12 Schumacher, K. L., Koresawa, S., & West, C. 2002, "The usefulness of a daily pain diary for outpatients with cancer related pain", *Oncology Nursing Forum*, vol. 29, pp. 1304-1313.
- 13 World Health Organisation 1996, *Cancer Pain Relief: With a guide to opioid availability*, WHO, Geneva.
- 14 World Health Organisation (WHO). 2002. The Essential Adjuvant Analgesics for Neuropathic Pain. *Cancer Pain Release*, 15 (2).
- 15 Hanks, G. W. & Hawkins, C. 2000, "Agreeing a gold standard in the management of cancer pain: The role of opioids," in *The Effective Management of Cancer Pain*, R. Hillier et al., eds., Aesculapius Medical, London, pp. 57-75.
- 16 Nursing & Midwifery Council 2006, *Standards of proficiency for nurse and midwife prescribers*. <http://www.nmc-uk.org/aDisplayDocument.aspx?documentID=1645>, accessed May 2009.
- 17 Nursing & Midwifery Council 2008, *Standards for medicines management*. <http://www.nmc.uk.org/aDisplayDocument.aspx?DocumentID=6228>, accessed May 2009.

- 18 Twycross, R. & Wilcock, A. 2007, *Palliative Care Formulary* London.
- 19 Department of Health 2004, *Building a safer NHS for patients: improving medication safety*.
- 20 Caraceni, A., Martini, C., Zecca, E., Portenoy, R. T., & Working Group of an IASP Task Force on Cancer Pain 2004, "Breakthrough pain characteristics and syndromes in patients with cancer: An international study", *Palliative Medicine*, vol. 18, pp. 177-183.
- 21 O'Mahony S. 2003. Cancer pain: Prevalence and undertreatment. In Bruera ED & Portenoy RK (eds) *Cancer Pain: Assessment & Management*. Cambridge University Press, New York.
- 22 Pasero, C. 1998, "Talking to patients and families about addiction", *American Journal of Nursing*, vol. 98, no. 3, pp. 18-19.
- 23 Paice, J. 2003, "Pain," in *Cancer Symptom Management*, 3rd edn, C. H. Yarbro, M. Goodman, & M. Frogge, eds., Jones & Bartlett, Boston, pp. 77-96.
- 24 Clinical Resource and Audit Group 2002, *Good practice statement on the preparation of injections in near-patient areas, including clinical and home environments*, Scottish Government, Edinburgh.
- 25 Royal College of Nursing 2003, *Standards for Infusion Therapy*. [http://www.rcn.org.uk/\\_\\_data/assets/pdf\\_file/0005/78593/002179.pdf](http://www.rcn.org.uk/__data/assets/pdf_file/0005/78593/002179.pdf), accessed May 2009.
- 26 Bender, J. L., Hohenadel, J., Wong, J., Katz, J., Ferris, L. E., Shobbrook, C., Warr, D., & Jadad, A. R. 2008, "What Patients with Cancer Want to Know About Pain: A Qualitative Study", *Journal of Pain and Symptom Management*, vol. 35, no. 2, pp. 177-186.
- 27 Medical Devices Agency. Infusion Systems. 2003. MDA Device Bulletin. <http://www.mhra.gov.uk/Publications/Safetyguidance/DeviceBulletins/CON007321>, accessed May 2009.
- 28 Corner, J. 1997, "Beyond Survival Rates and Side-Effects: Cancer Nursing as Therapy: The Robert Lecture 9th International Conference on Cancer Nursing", *Cancer Nursing*, vol. 20, no. 1, pp. 3-11.
- 29 Rankin, J., Robb, K., Murtagh, N., Cooper, J., & Lewis, S. 2008, "Cancer Pain," in *Rehabilitation in Cancer Care*, Wiley, pp. 280-321.
- 30 Cooper, J. 2006, "Occupational therapy and anxiety management and relaxation," in *Occupational therapy in oncology and palliative care*, 2nd Edition edn, Wiley, Chichester, pp. 41-50.
- 31 Cooper, J. 2006, "Occupational therapy approaches in symptom control," in *Occupational therapy in oncology and palliative care*, Wiley, p. 32.
- 32 Menefee Pujol, L. A. & Monti, D. A. 2007, "Managing cancer pain with nonpharmacologic and complementary therapies", *The Journal of the American Osteopathic Association*, vol. 107, no. 7, pp. 15-21.
- 33 International Association for the Study of Pain, S. o. T. 2009, "Classifications of chronic pain. Descriptions of chronic pain syndromes and definitions of pain terms.", *Pain*, vol. Supp 3, p. S1-S226.

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