

## guideline summary

# pain in patients with cancer, or those at advanced stages of COPD or heart failure

Date of approval of guideline:  
december 2019 | version 3.0

Accountability: Guideline working group  
on pain in patients with cancer, or those  
at advanced stages of COPD or heart  
failure

It is vital that as a care provider you are  
familiar with this guideline. For the most  
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[www.oncoline.nl/pijn](http://www.oncoline.nl/pijn)

# pain in patients with cancer, or those at advanced stages of COPD or heart failure

## General

- Always take a full history and carry out a physical examination. Perform additional diagnostics on indication.
- Differentiate between nociceptive and neuropathic pain on the basis of the nature of the pain and accompanying symptoms.
- Pay attention to the somatic, psychological, social and spiritual dimensions of the pain.
- Measure the pain regularly by means of a Numeric Rating Scale. Take action if the pain intensity score is  $\geq 4$  and the patient agrees.
- Identify the cause(s) of the pain and the factors that influence it.
- Give information about pain and its treatment and encourage therapy compliance and self-management.
- Provide support to the patient and their loved ones.
- Facilitate continuity and coordination of care by means of an individualised care plan and one central caregiver. Ensure good transfer of information and communication between all caregivers involved.

## Treating the cause of the pain

- Treatment of the underlying disease (systemic therapy of cancer, treatment of COPD or heart failure) or comorbidity.
- In patients with cancer: radiotherapy, nuclear therapy, surgery, and bisphosphonates (IV zoledronic acid or oral clodronic acid) for patients with multiple myeloma or bone metastases
- Treatment of physical symptoms (e.g. coughing) that may promote or intensify the pain.

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## Non-pharmacological treatment

- If required, use classic massage and/or relaxation techniques, sometimes in combination with guided imagery.

## Pharmacological treatment

- Preferably choose the oral or transdermal route of administration.
- If oral and transdermal administration are not possible, or do not achieve the desired effect quickly enough, choose IV or SC administration.
- In patients with cancer, if the pain is uncontrolled or if treatment gives severe side effects, choose intrathecal or epidural administration of opioids.
- Manage maintenance therapy by means of a regular schedule and a step-by-step approach.
- Be extra alert to pharmacological interactions with opioids in patients with polypharmacy and in patients > 70 years-old.

## Nociceptive pain

### Step 1

- Paracetamol 1000 mg 3x/day.
- Possibly in combination with a non-selective NSAID (diclofenac 50 mg up to 3x/day, naproxen 500 mg up to 2x/day or ibuprofen 600 mg up to 4x/day), however, not if creatinine clearance <30 ml/minute, associated with reduced liver function (Child-Pugh score A-C), or in heart failure.

### Step 2

- Morphine SR (initial dosage 20 mg 2x/day, >70 years 10 mg 2x/day, preferably not if creatinine clearance <30 ml/min), fentanyl transdermal (12 µg/hr), oxycodone SR (10 mg 2x/day, >70 years 5 mg 2x/day), hydromorphone SR (4 mg 2x/day), methadone (only if experienced with this drug or after consultation), or tapentadol (50 mg 2x/day).
- If necessary, in combination with paracetamol and/or an NSAID.
- Always in combination with medication for breakthrough pain (see below).

- Always in combination with a laxative (polyethylene glycol/electrolytes or magnesium hydroxide).
- Treat nausea with metoclopramide, domperidone or haloperidol and, if necessary, treat persistent drowsiness with methylphenidate.
- If side-effects are difficult to control, consider opioid rotation (see Step 3).
- In opioid-induced hyperalgesia, lower the dosage of opioids by 40-50%, and start methadone concomitantly. If this is not sufficiently effective, consider opioid rotation to buprenorphine or IV ketamine (during admission).
- Evaluate the effect of strong opioids after 24 hours; if insufficiently effective, increase in increments of 50%. In principle, modify the dosage if medication for unpredictable breakthrough pain is necessary more than three times in 24 hours.
- If a rapid effect is necessary, or if the pain is not adequately controlled by oral or transdermal opioids, start SC or IV administration of morphine, oxycodone or hydromorphone. In a hospital setting, use Patient Controlled Anaesthesia (PCA) in patients who wish to, and are able to, be in control of the administration of breakthrough medication.

### Step 3

- Implement opioid rotation if an opioid is not sufficiently effective and/or has unacceptable side effects.
- In painful skin ulceration if systemic analgesics are ineffective, local treatment with morphine gel can be administered.

## Treating breakthrough pain

- Treat the cause of the breakthrough pain and prevent or treat provoking factors (if possible).
- In unpredictable breakthrough pain, start a fast-acting fentanyl preparation. Start with the lowest dosage and titrate it depending on its effect on the breakthrough pain.
- In predictable breakthrough pain, choose an IR opioid or a fast-acting fentanyl preparation. Take the time necessary for the pain-relieving effect to occur into account. Start an IR opioid at 1/6 of the equivalent daily dosage of the opioid.

## Opioid conversion table<sup>1</sup>

MORPHINE		FENTANYL	OXYCODONE		HYDROMORPHONE		TRAMADOL	BUPRENORPHINE
oral	SC/IV	patch	oral	SC/IV	oral	SC/IV	oral	patch
mg per 24 hrs	mg per 24 hrs	µg per hr	mg per 24 hrs	mg per 24 hrs	mg per 24 hrs	mg per 24 hrs	mg per 24 hrs	µg per hr
30	10	12	20	10	6 <sup>2</sup>	2	150	
60	20	25	40	20	12	4	300	52,5
120	40	50	80	40	24	8	- <sup>3</sup>	
180	60	75	120	60	36	12	-	105
240	80	100	160	80	48	16	-	- <sup>4</sup>
360	120	150	240	120	72	24	-	
480	160	200	320	160	96	32	-	

<sup>1</sup> On switching from one opioid to another (opioid rotation), due to side effects it is advised to give 75% of the equianalgesic dose;

<sup>2</sup> In practice, this dosage cannot be given because the lowest daily dosage of the slow release preparation is 4 mg and the drug must be given 2x/day; <sup>3</sup> Dosages higher than 400 mg per 24 hours are not advised; <sup>4</sup> Dosages higher than 140 µg per hour are not advised

- Combine pharmacological treatment of breakthrough pain with non-pharmacological treatment and/or invasive techniques, if these are possible and appropriate.

## Neuropathic pain

### Step 1

- In mixed neuropathic and nociceptive pain, start strong opioid agents (as in Step 2 for nociceptive pain). In purely neuropathic pain omit this step. If the drugs mentioned below are ineffective, then an opioid may be added at a later stage.

### Step 2

- Anti-epileptics (pregabalin, gabapentin, lamotrigine, levetiracetam), or
- Tricyclic antidepressants (amitriptyline or nortriptyline (preferred for the elderly)), or
- SNRI (venlafaxine or duloxetine).

## Other adjuvant analgesics

- To prevent a pain flare from radiotherapy for painful bone metastases, give corticosteroids prior to treatment.
- In patients with cancer pain, consider the addition of corticosteroids for a short period.
- In patients with cancer pain that cannot be treated effectively with other agents, consider using cannabinoids.

## Invasive treatment (only in patients with cancer):

- Unilateral chordotomy (for localised unilateral pain below C5, life expectancy <1-2 years, and if the centre has experience with the procedure).
- Coeliac plexus block (for upper abdominal pain resulting from malignancy, as soon as treatment with opioids is considered).
- Neuraxial administration of opioids, if necessary in combination with a local anaesthetic and/or clonidine:

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- intrathecal, if the pain-relieving effect of oral, transdermal or parenteral opioid treatment does not result in adequate pain relief and/or has severe side effects.
- epidural, if intrathecal treatment is not possible or if life expectancy is very short (less than 4 weeks).
- Hypogastric plexus block (for visceral pain caused by tumours in the pelvis).
- Lower end block (for perineal pain, if other treatments have failed and the patient no longer has bladder or rectal function).
- Neurolysis of a nerve (for local pain).

### Diagnosics and treatment of pain in the terminal phase

- In the event of restlessness, distinguish between terminal delirium (lower dosage or rotate opioids) and restlessness due to uncontrolled pain (intensify pain treatment).
- In principle, discontinue paracetamol and NSAIDs.
- Preferably administer transdermal fentanyl; alternatively continuous SC administration of morphine (not if pre-existent creatinine clearance <50 ml/min) or oxycodone.
- Administer medication for breakthrough pain SC or IV, or via the oral mucous membranes.



### Netherlands Comprehensive Cancer Organisation

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Edition

Netherlands Comprehensive Cancer Organisation

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december 2019

