

## Background

1. Cancer remains the leading cause of death worldwide in 2022. The prevalence of chronic cancer pain ranges from 33% after curative intent to 59% during cancer therapy and to 64% in advanced setting. (1)
2. A meta-analysis published in 2023 suggests that nearly half of the cancer survivors report pain within 3 months after completion of curative therapy. (2)
3. Due to the increasing number of cancer survivors, more patients will spend the rest of their lives with severe chronic pain, which can interfere significantly with daily functioning.
4. Cancer-related pain is a major health issue, which impacts overall survival by increasing non-adherence to oncologic treatment. (3)

## Primary objective

Within the BSMO supportive taskforce we wanted to assess pain management in the Oncology Units in Belgium between 2019 and 2021. It took 2 years to recruit these data due to the Covid pandemic.

## Patients and Methods

A structured questionnaire was developed by a writing committee consisting of 2 radiotherapists, 1 medical oncologist, 1 palliative care specialist, 1 palliative nurse specialist and 1 supportive care specialist. The content was driven by the ESMO, ONS, NCCN, Pallialine and palliaguide Clinical Practice guidelines for pain management in adult patients. Thirty-seven health professionals received the questionnaire and twenty-three replied (62%). In total 15 centers from Flanders, 6 from Wallonia and 2 from Brussels participated in the survey.

## Results

Pain management is most often organized by the pain clinic (91%), followed by in a multidisciplinary team (83%) and a palliative care unit (74%) as shown in Table 1. Pain is less often managed by or in collaboration with a home care team. In seventy percent of the participants, the pain clinic differs from the supportive/palliative team but the majority, i.e., 60%, collaborates to give advice (Table 2),

Table 1	Different services for pain management	N	%
	Pain clinic	1/23	91,3%
	Multidisciplinary team	19/23	82,6%
	Palliative care unit	17/23	74%
	MOC	15/23	65,2%
	Mobile unit	15/23	65,2%
	Specific consultations	13/23	56,5%
	Supportive unit	11/23	47,8%
	Home care team	5/23	21,7%
	Collaboration with the home care team	12/23	52,2%
	For in and out patients	23/23	100%
	For home patients	12/23	52,2%

Table 2

Format of pain organisation	N	%
Is this different from the supp/palliative team?		
Yes	16/23	69,5%
No	6/23	26%
Is there a collaboration with the supp/paliative team?		
Yes	14/23	60,8%
No	8/23	34,8%
What kind of collaboration?		
Multidisciplinary advice	10/23	43,4%
Discussion about invasive procedures	2/23	8,7%
Liaison nurse	1/23	4,3%

### Pain cancer treatment

Mild to moderate pain is well managed with paracetamol, non-steroidal anti-inflammatory drugs and tramadol. All centers handle severe pain with strong opioids such as morphine and buprenorphine, followed by fentanyl and tapentadol. Remarkable is the limited use of ketamine and methadone in the cancer pain arsenal. Neuropathic pain appears to be preferentially treated with pregabalin, gabapentin, tricyclic antidepressants and strong opioids. (Table 3)

Table 3

Drug	Mild	N	%	Moderate	severe	neuropathic
Step I	23/23	100		18/23	78	14/23 60,8 7/23 30,4
Step II	6/23	26		6/23	26	10/23 43,5 7/23 30,4
Step III				8/23	34,8	19/23 82,6 10/23 43,5
Buprenorphine				13/23	56,5	19/23 82,6 12/23 52,2
Fentanyl				7/23	30,4	19/23 82,6 7/23 30,4
Tapentadol				6/23	26	9/23 39,1 6/23 26
Antiepileptic	2/23	8,7		2/23	8,7	4/23 17,4 22/23 95,6
Tricyclic antidepressant	1/23	4,3		2/23	8,7	2/23 8,7 21/23 91,3
Ketamine				2/23	8,7	14/23 60,8 12/23 52,2
Methadone				2/23	8,7	9/23 39,1 6/23 26
Clonidine	1/23	4		4/23	17,4	8/23 34,8 7/23 30,4
Lidocaine plaster	3/23	13		6/23	26	3/23 13 9/23 39,1
Capsaicine				4/23	17,4	1/23 13 7/23 30,4
Lidocaine-prilocaine plaster	10/23	43,8		3/23	13	4/23 17,4 5/23 21,7
Cannabinoids	2/23	8,7		3/23	13	5/23 21,7 4/23 17,4
MEOPA	3/23	13		3/23	13	4/23 17,4 1/23 17,4

### Recommendation for inadequate analgesia

Consultation with a pain clinic, starting combination therapy, opioid rotation or interventional therapy are recommended for patients with inadequate pain relief despite opioid escalation. Eighty to ninety percent of responders has access to epidural and intraspinal techniques, most often performed by the anesthesiologists. (Table 4)

Recommendations	N	%
Ask pain clinic for advice	8/23	34,8
Combination therapy	8/23	34,8
Opioid rotation	6/23	26
Interventional therapy	5/23	21,7
Invasive management of refractory pain	N	%
Epidural techniques	21/23	91,3
Coeliac plexus block	21/23	91,3
Intraspinal techniques	19/23	82,6
Anesthesiologist	13/23	56,5
Pain team	8/23	34,8
Chordotomy	7/23	30,4

### Guidelines for pain management

Most clinicians use pain guidelines, of which ESMO guidelines are the most mentioned, followed by those of WHO and NCCN. (Table 5)

Do you use pain guidelines?	N	%
Yes	16/23	69,5%
Which?		
ESMO guidelines	13/23	56,5%
WHO	5/23	21,7%
NCCN	3/23	13%
Evidence based	2/23	8,7%
MASCC	2/23	8,7%
Palliaguide	2/23	8,7%
AFSOS	2/23	8,7%
EAPC	2/23	8,7%
HAS & SFETD	2/23	8,7%
KCE	1/23	4,3%

## Conclusions

1. This is the first survey of pain management/organization in the Belgian Oncology Units.
2. Ketamine and methadone are mainly used by specialized pain teams for refractory pain. There is low level of evidence for the use of cannabinoids. Data will be shown during the oral presentation.
3. Teaching programs on pain relief is offered in sixty-one percent, while research is only done in thirty percent of the centers. There is a high need for improvement. Data will be shown during the oral presentation.

## References

1. Update on prevalence of pain in patients with cancer: Systematic review and meta-analysis. Van den Beuken-van Everdinge MHJ, Hochstenbach LMJ, Joosten EAJ et al. J Pain Symptom Manage 2016; 1070-90.
2. Pain prevalence and characteristics in survivors of solid cancers: a systematic review and meta-analysis. Haenen V, Evenepoel M, De Baerdemaeker T et al. Supp Care Cancer 2022; 31:85.
3. Pain and opioid use in cancer survivors. Nijs J, Roose E, Lahousse A et al. Pain physician 2021; 24: 309-17.