



28th Annual Gabor Racz Advanced Interventional
Pain Conference and Workshop
Budapest, Hungary **August 25-27, 2025**

Cancer Pain in 2025 – Are We Catching Up with the Need?

María Luz Padilla del Rey, MD, FIPP, CIPS, EDPM, ABHM
Pain Clinic, La Tour Hospital, Geneva, Switzerland



CONFLICTS OF INTERESTS



- President of Sociedad Murciana del Dolor (SMD)
- President of the Scientific Committee of Sociedad Española del Dolor (SED)
- Consultant: Medtronic
- Receives financial compensation for teaching courses in other venues besides place of employment



AGENDA

Cancer Pain in 2025 – Are We Catching Up with the Need?

1 INTRODUCTION

2 DEFINITION

3 EPIDEMIOLOGY

4 TREATMENT

5 CONCLUSIONS

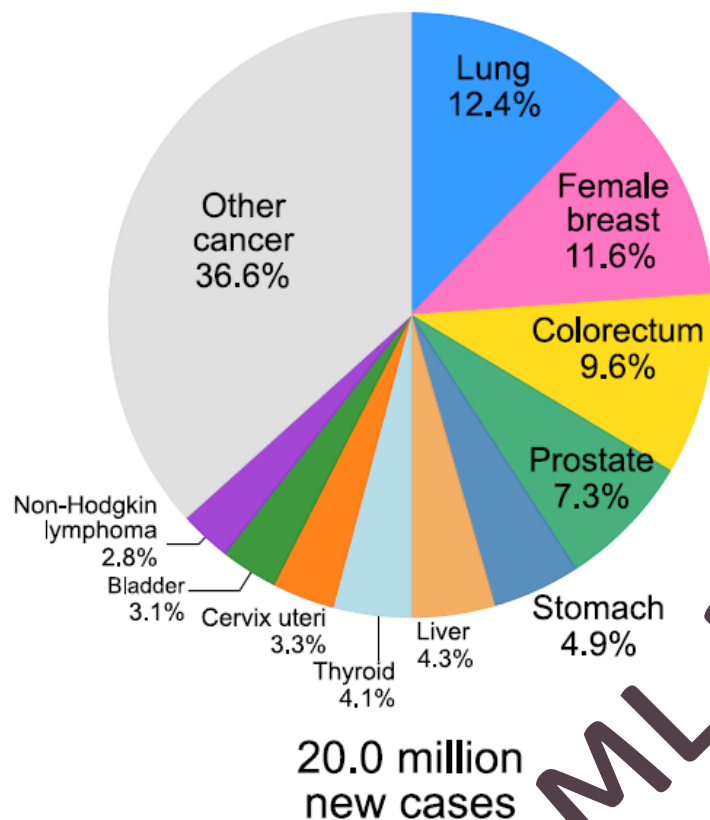




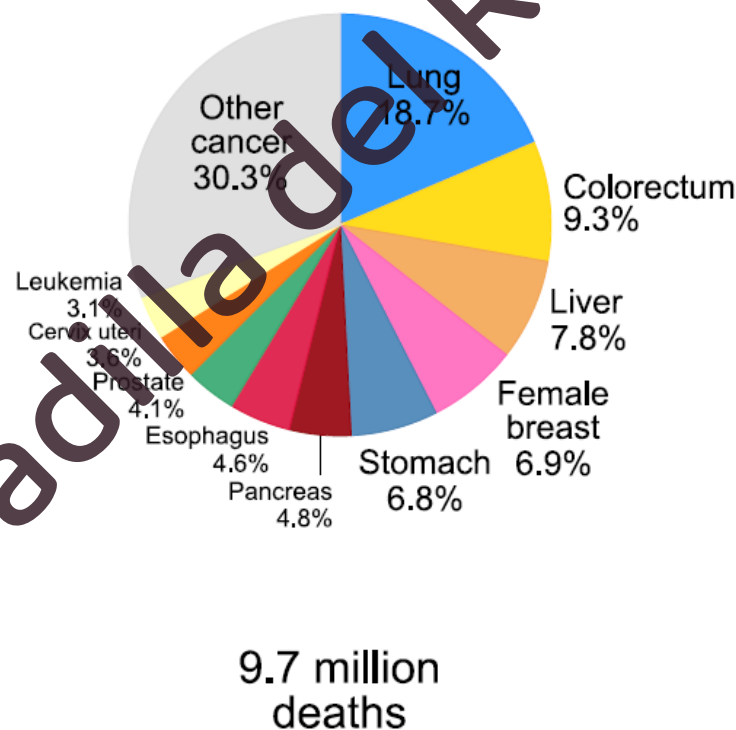
INTRODUCTION

Both sexes

Incidence



Mortality

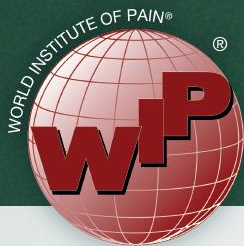


Cancer incidence:
20 million cases / year

+
↑ Population aging

+
↑ Survival

↓
↑ prevalence of pain
(affecting up to 90% in terminal stages)



INTRODUCTION



CANCER-PAIN MANAGEMENT

PAST

Short-term survival expectancy
Treated with high-dose opioids
Comfort at the end of life



ADVANCES IN ONCOLOGIC CARE

Surgery
Chemotherapy
Radiation therapy
Immunomodulators
Bone marrow transplantation...

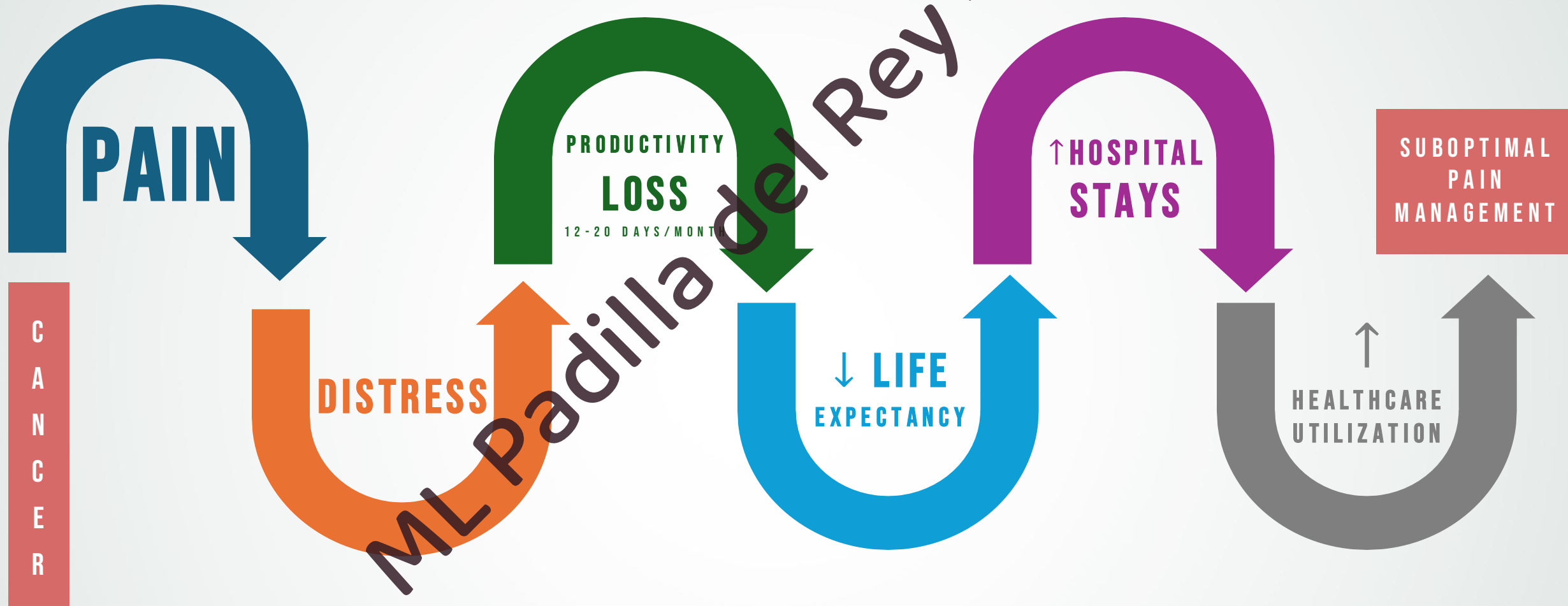


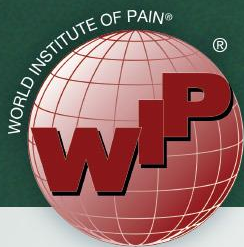
PRESENT

Patients living longer
Relatively preserved quality of life
Desire to remain functional
and productive



INTRODUCTION





INTRODUCTION

ADVANCEMENTS in:

- Pharmacological treatments
- Interventional strategies

But..

BARRIERS:

- Opioid access restrictions
- Provider knowledge gaps
- Underutilization of specialized pain interventions



**INADEQUATE
PAIN RELIEF**



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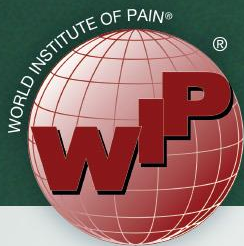
1 INTRODUCTION

2 DEFINITION

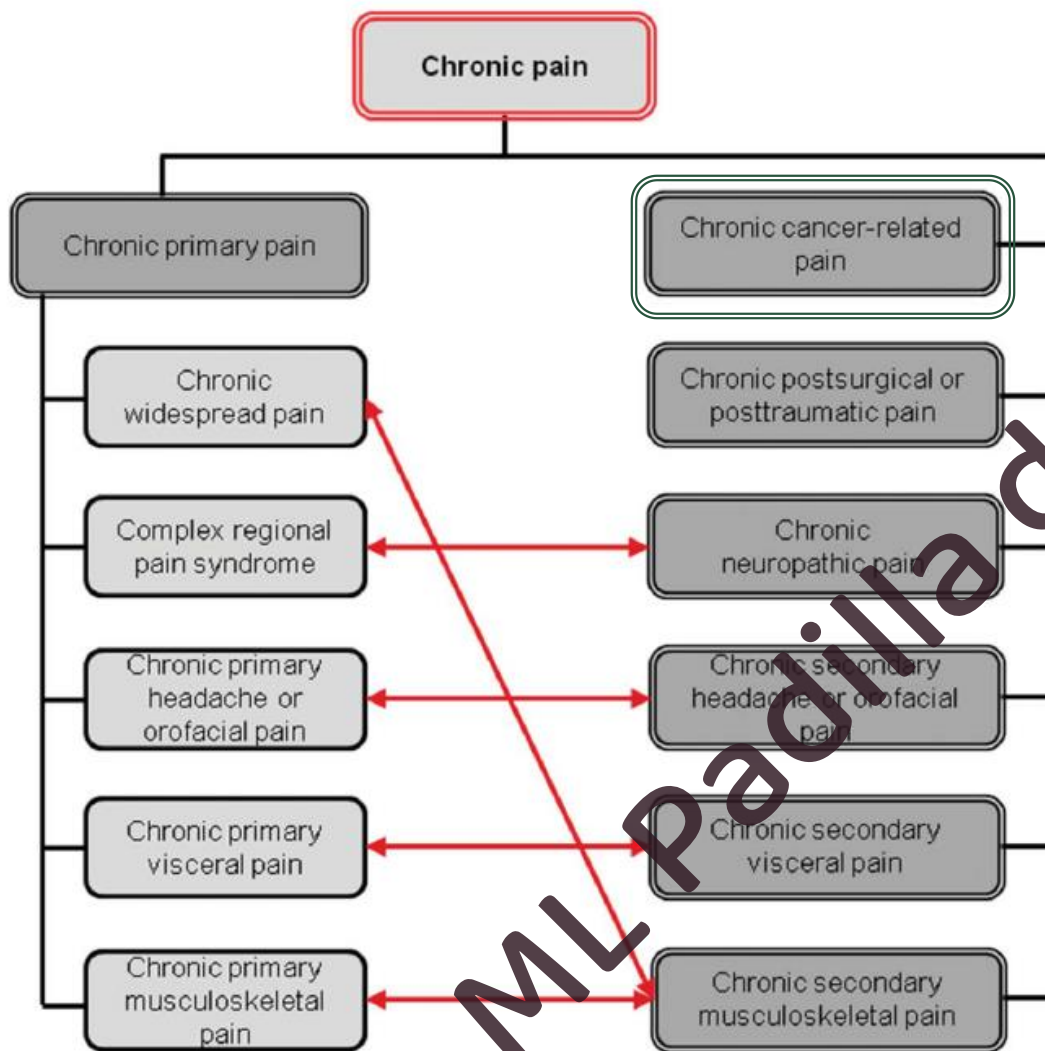
3 EPIDEMIOLOGY

4 TREATMENT

5 CONCLUSIONS



DEFINITION



Chronic pain caused by the primary cancer itself or metastases (chronic cancer pain) or its treatment (chronic postcancer treatment pain)

Narrative Review

PAIN

ICD-11

Chronic pain as a symptom or a disease: the IASP Classification of Chronic Pain for the *International Classification of Diseases (ICD-11)*

Legend

Chronic pain

Top level diagnosis

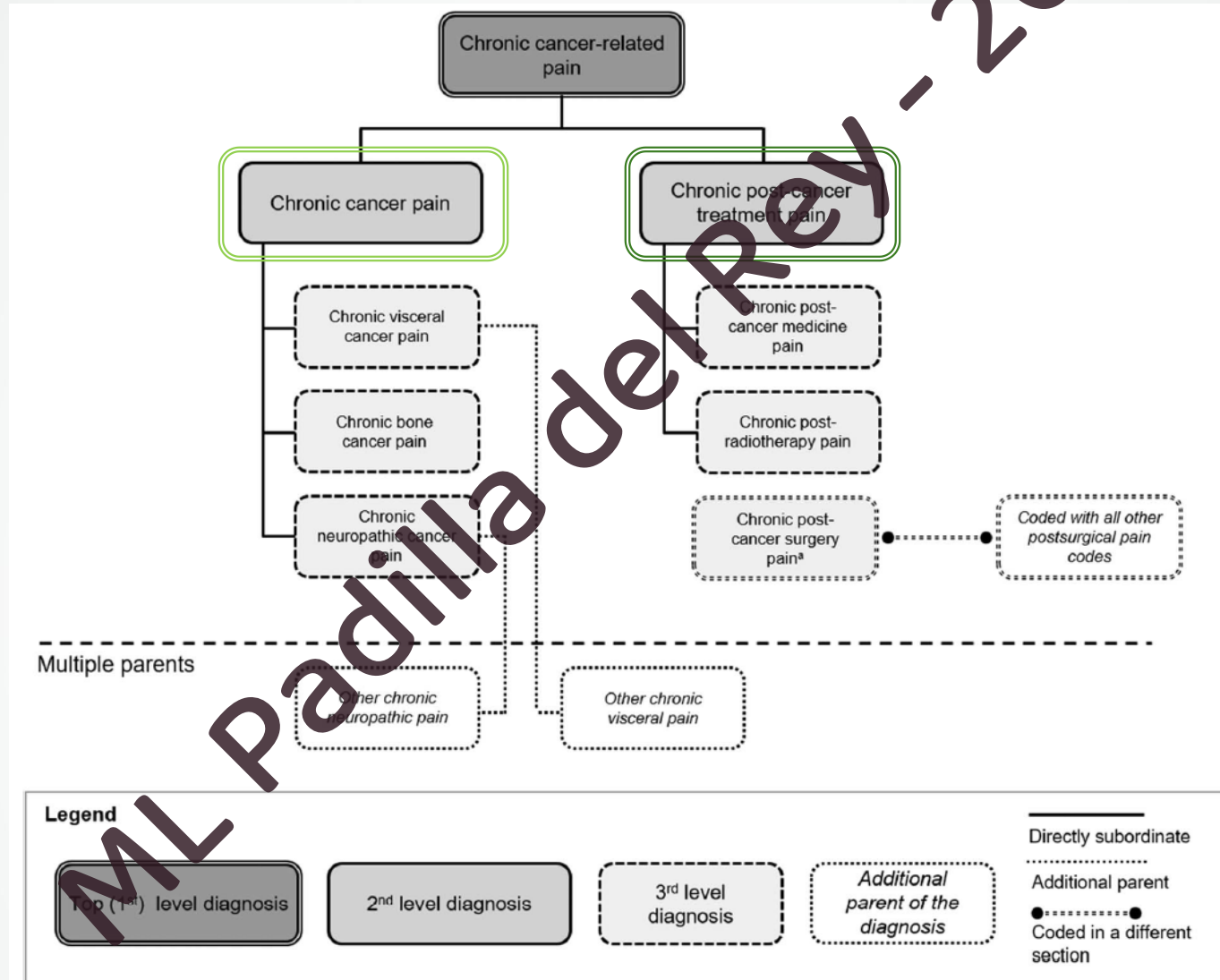
1st level diagnosis

Directly subordinate
Differential diagnosis



DEFINITION

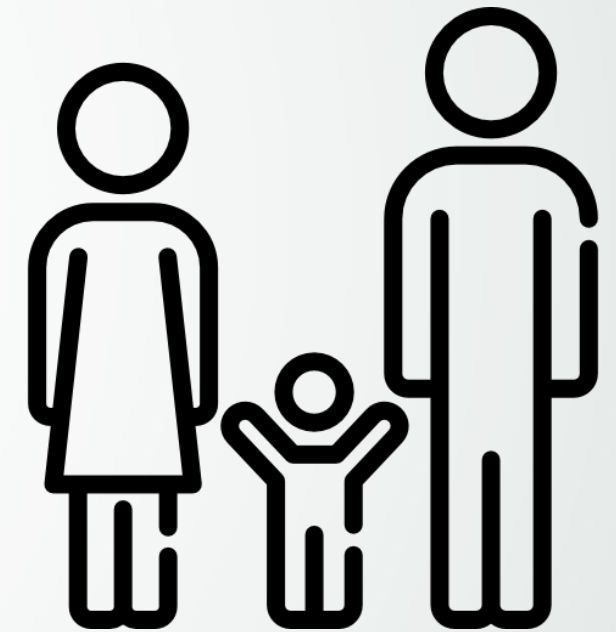
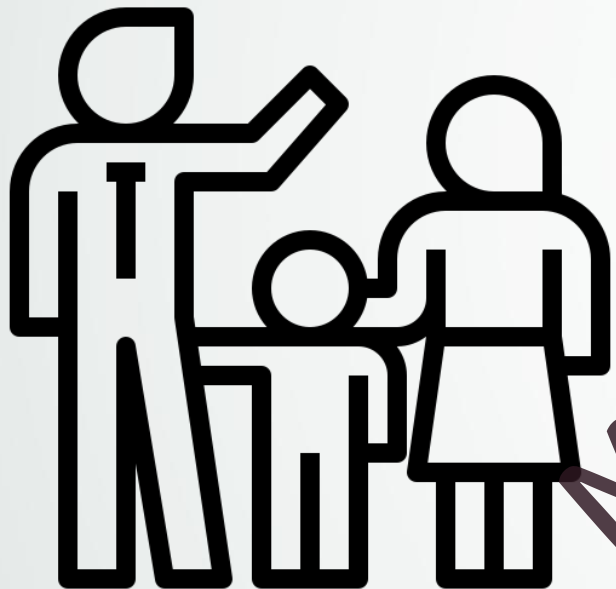
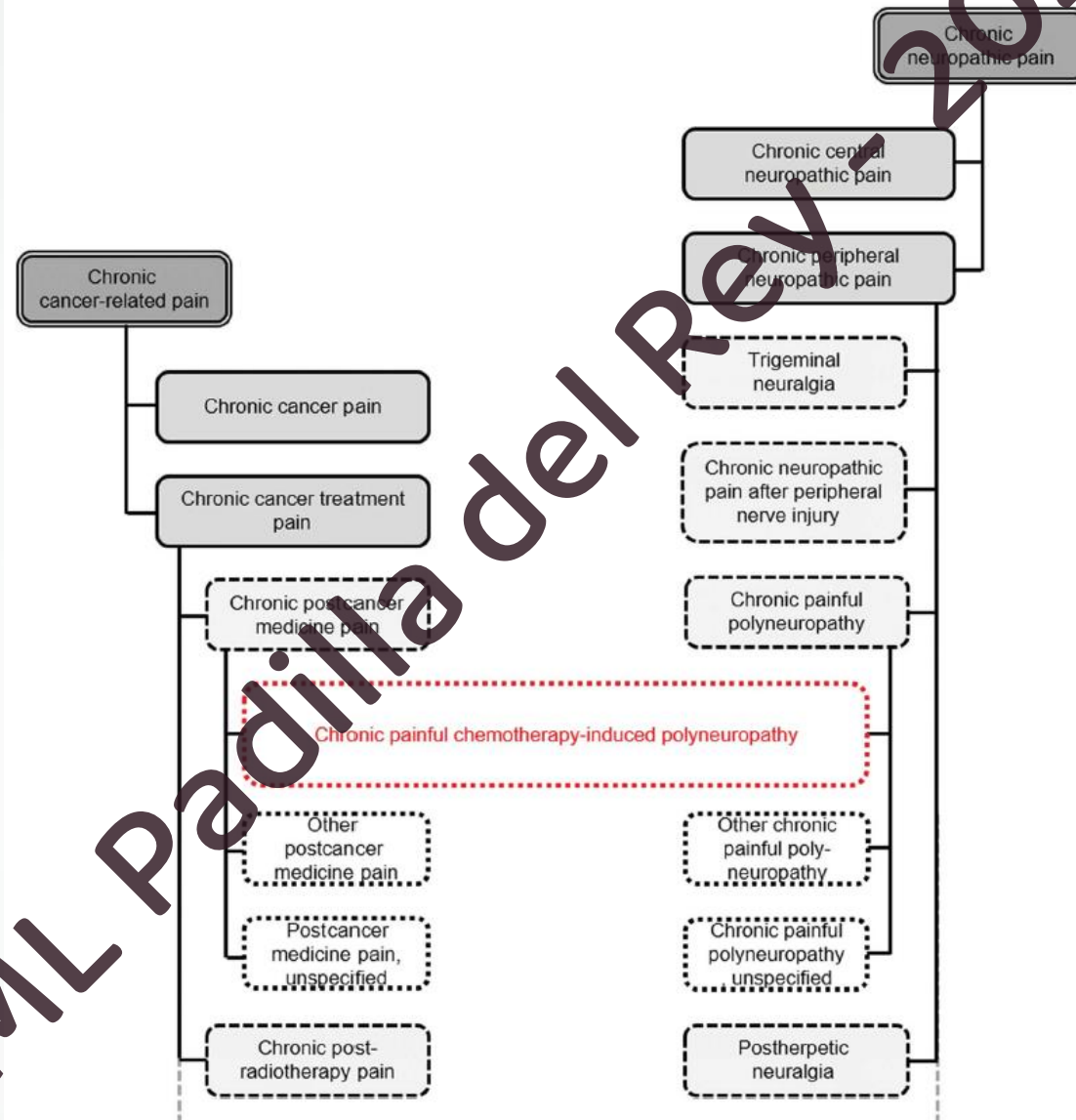
Chronic pain
caused by the
primary cancer
or metastases

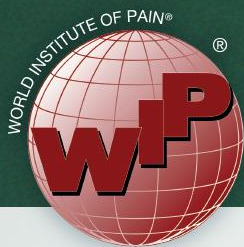


Chronic pain
caused by the
treatments for
cancer



DEFINITION





RESED

Revista de la Sociedad Española del Dolor

EDITORIAL

DOI: 10.20986/resed.2021.3905/2021

***Dolor asociado al proceso oncológico: viejos
conceptos y nuevos horizontes***

Dolor asociado al proceso oncológico (**DAPO**) is a broad phenomenon that affects, to varying degrees, the individual experiencing it, their family environment, and healthcare and social support structures





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Population with cancer pain is a broad heterogeneous group

	AFTER CURATIVE TREATMENT	DURING ANTI-CANCER TREATMENT	ADVANCED, METASTATIC OR TERMINAL DISEASE GROUP
Antes del 2004	33%	59 %	64 %
2005/2014	39,3 %	55%	66,4%
2022	35.8%	50.3%	54.6%

Systematic Review

Update on Prevalence of Pain in Patients with Cancer 2022: A Systematic Literature Review and Meta-Analysis

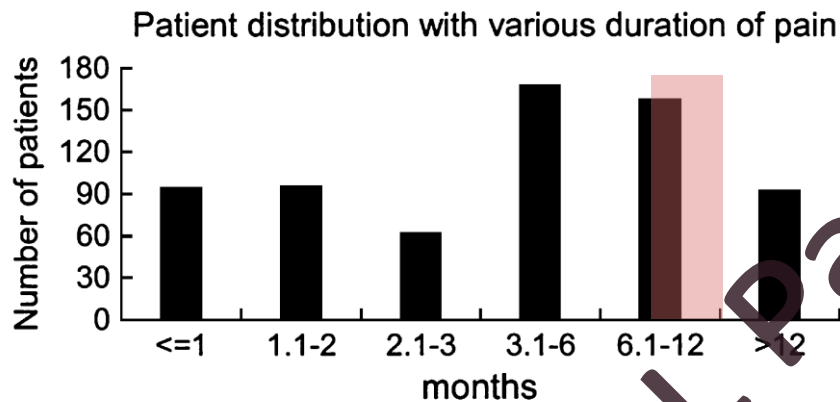
The current literature on the prevalence of pain and pain severity in patients with cancer shows that both the prevalence of pain and pain severity have declined over the past decade. Pooled pain prevalence rates resulted in an overall prevalence of 44.5%. The treatment group with the lowest prevalence of pain was the group after curative treatment (35.8%). Despite the decline found, the results of this systematic literature review show that the prevalence of pain remains high, especially in advanced, metastatic and terminal cancer patients (54.6%).

CANCER-RELATED PAIN:
STILL A MAYOR PROBLEM



Multidisciplinary Management of Cancer Pain: A Longitudinal Retrospective Study on a Cohort of End-Stage Cancer Patients

Mean duration: 6.9-8.1 months



Patient Distribution and Cumulative Incidence of Pain Listed by Cancer Type

	All Patients		Patients with Pain	
	Number	% of All Patients	Number	Incidence of Pain ^a
Head and neck	93	12	87	94
Respiratory system	151	20	120	80
Gastrointestinal, hepatobiliary system	310	40	269	87
Breast	77	10	71	92
Urogenital system	79	10	71	90
Hematopoietic-lymphatic system	53	7	43	81
Skin, sarcoma, connective tissue	24	3	23	96
Others	27	4	22	82
Total	772 ^b	100	669	87 %

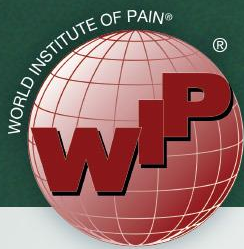
Use of Systemic Analgesics and Other Pain-Control Modalities

	n (%)
WHO Step I analgesics	
Acetaminophen	295 (44)
NSAIDs (oral) ^a	405 (61)
NSAIDs (parenteral)	67 (10)
COX-2 (oral) ^b	314 (47)
WHO Step II analgesics	
Codeine	95 (14)
Tramadol (oral)	453 (68)
Tramadol (parenteral)	322 (48)
WHO Step III analgesics	
Morphine, immediate-release (oral)	355 (53)
Morphine, extended-release (oral)	141 (21)
Morphine (parenteral)	517 (77)
Meperidine (parenteral)	72 (11)
Fentanyl (parenteral)	1 (0.2)
Fentanyl patch	209 (31)
PCA (parenteral) ^c	133 (20)
Intrathecal morphine	1 (0.2)
Epidural morphine/fentanyl	6 (0.9)
Adjuvant drugs and therapies	
Anticonvulsants, etc. ^a	584 (87)
Laxatives, etc. ^b	660 (99)
Bisphosphonates	46 (7)
Ketamine	1 (0.2)
Strontium-89	13 (2)
Intercostal block	6 (0.9)
Celiac block	13 (2)
Radiofrequency for neurolysis	1 (0.2)
Nonsurgical antineoplastic treatments ^c	530 (79)
Spine, orthopedic, and palliative surgeries	158 (24)
Multidisciplinary approach	
Psychiatry	158 (24)
Neurology	108 (16)
Neurosurgery	67 (10)
Rehabilitation	82 (12)
Anesthesiology	107 (16)
Hospice care	160 (24)
Others ^d	275 (41)



Despite optimal medical
management...

10-15 % of all cancer patients &
20% of those with advanced disease
experience pain



SYMPTOMS AND SURVIVORSHIP

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12062

Prevalence of pain symptoms among U.S. adult cancer survivors.

Xinwen Hu, Chao Cao, Yunan Han, Shu Jiang, Lin Yang, Graham A. Colditz; Washington University School of Medicine, St. Louis, MO; Program in Physical Therapy, Washington University School of Medicine, St. Louis, MO; Division of Public Health Sciences, Department of Surgery, Washington University School of Medicine, St. Louis, MO; Alberta Health Services, Calgary, AB, Canada

Poster Session

National survey 1997-2018
(n = 55,716; weighted population = 17.3 million)

50% of US cancer **survivors**
experienced pain, driven by
low back and neck pain



↑↑↑↑ prevalence of pain was noted in cancer survivors with:

- younger age (< 40 years)
- female sex
- low income

suboptimal lifestyle behaviors (smoking, ↓ physical activity, diabetes, and cardiovascular disease)



Geographical disparities in
cancer pain management:
worse in low and middle-
income countries

Access to painkillers
remains disproportionately low
compared to high-income settings

INADEQUATE
PAIN MANAGEMENT

EPIDEMIOLOGY

DIRECT
COSTS

x 2-3

INDIRECT
COSTS

Lost productivity
Caregiver burden
Quality of life

=

healthcare system

healthcare
system

society

society

society

SUBSTANCIAL
FINANCIAL
STRAIN

healthcare
system

healthcare
system

society



BREAKTHROUGH CANCER PAIN

€1,421
patient / month

Including:

- hospital visits
- medication
- supportive care

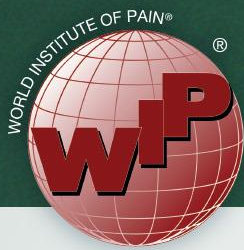
CANCER-RELATED NEUROPATHIC PAIN

\$2.3 billion in 2010
\$3.32 billion in 2024
(adjusted for inflation)

Primarily due to:

- Delays
- Dose reductions
- Therapy discontinuations





PEDIATRIC CANCER-RELATED PAIN

Frequently under-recognized & **undertreated**

Neuropathic components increasingly reported

Management emphasizes:

- age-appropriate pharmacological regimens
- psychological support
- interventional approaches in refractory cases

Data on interventional treatments
remain extremely **limited**



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**CANCER-RELATED
PAIN TREATMENT**

WE CAN

**DO BETTER,
MUCH BETTER!**

'T

ML Padilla del Rey





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CANCER-RELATED PAIN TREATMENT

1

INTERDISCIPLINARY APPROACH



ML Padilla del Rey, 2025



CANCER-RELATED PAIN TREATMENT

1

INTERDISCIPLINARY APPROACH

2

PAIN MANAGEMENT KNOWLEDGE

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Cancer Pain in 2025 – Are We Catching Up with the Need?

28th

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Annual Gabor Racz Advanced Interventional Pain Conference and Workshop

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CANCER-RELATED PAIN TREATMENT

PAIN MANAGEMENT KNOWLEDGE

CONSERVATIVE PAIN MANAGEMENT

Diagnostic and Therapeutic Workout for
Chemotherapeutic Induced Neuropathy
(Current Evidence)

Kris Vissers, MD, PhD, FIPP (Netherlands)

Beyond the Ladder

Peter Staats, MD, MBA, FIPP (USA)

INTERVENTIONAL PAIN MANAGEMENT

When Do We Start with Interventionism in
Cancer Pain, Too Early? Too Late?

Manuel Herrero Trujillano, MD, FIPP, CIPS (Spain)

Patient Selection for Interventions for Cancer
Pain

Arun Bhaskar, MD, FIPP (UK)

Neuromodulation for Cancer Pain

Jee Youn Moon, MD, PhD, FIPP, CIPS (S. Korea)

Interventional Pain Management for Head
and Neck Cancer

Manuel Herrero Trujillano, MD, FIPP, CIPS (Spain)

Cryoablation and Cryoneurolysis in
Oncology: Expanding Indications

Andrea Trescot, MD, FIPP, CIPS (USA)

How to Make Your Cancer Pain Interventions
More Effective?

Arun Bhaskar, MD, FIPP (UK)

CT-Guided Cordotomy

Mert Akbas, MD, FIPP (Turkey)

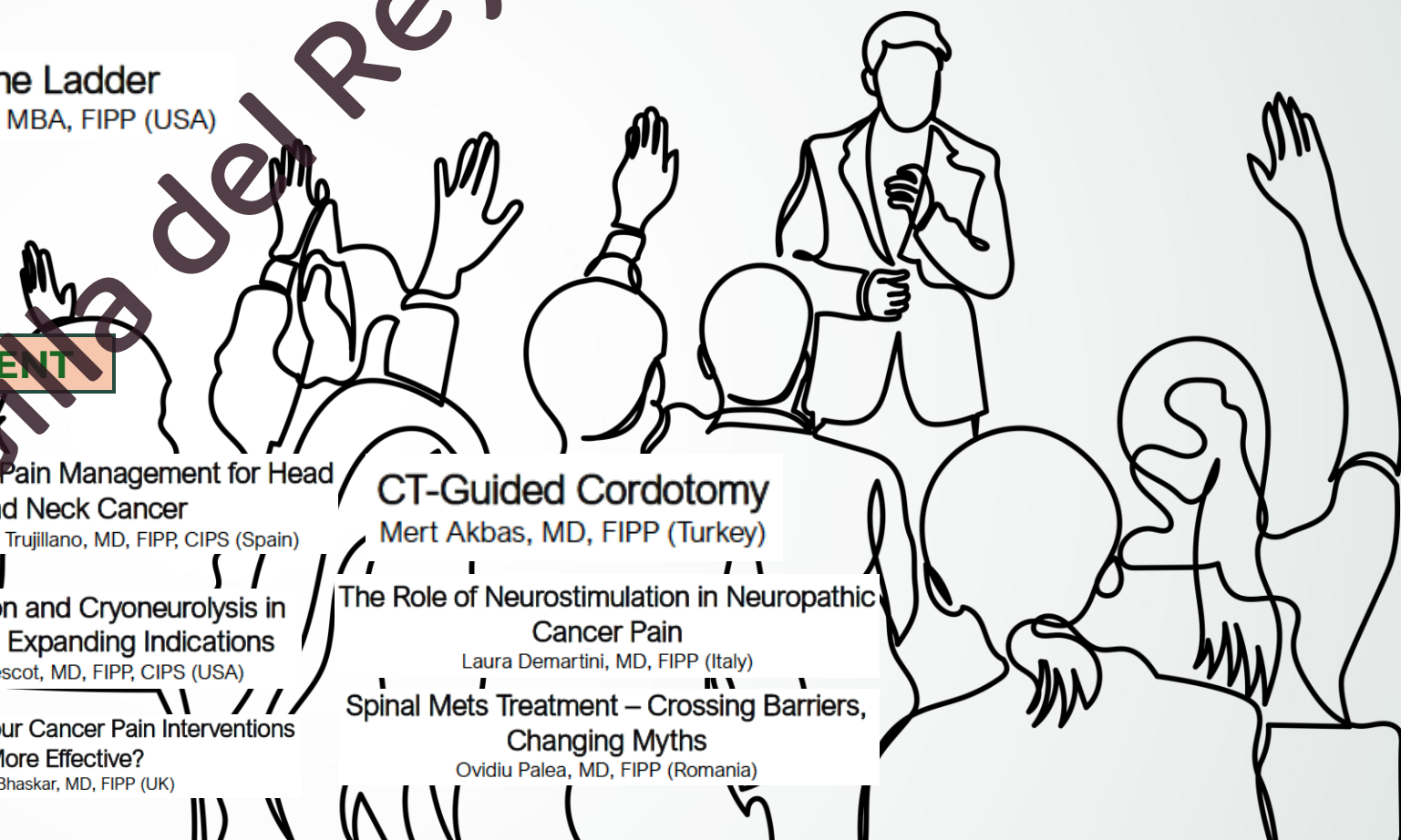
The Role of Neurostimulation in Neuropathic
Cancer Pain

Laura Demartini, MD, FIPP (Italy)

Spinal Mets Treatment – Crossing Barriers,
Changing Myths

Ovidiu Palea, MD, FIPP (Romania)

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CANCER-RELATED PAIN TREATMENT

PAIN MANAGEMENT KNOWLEDGE

NIH National Library of Medicine
National Center for Biotechnology Information

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CANCER PAIN



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RESULTS BY YEAR



1877

2026

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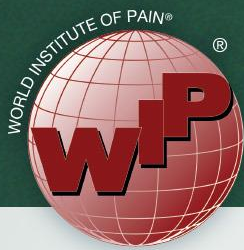


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CANCER-RELATED PAIN TREATMENT





CANCER-RELATED PAIN TREATMENT

Recognition of the limitations inherent to the WHO analgesic ladder for managing complex cancer pain has increased...

Journal of Pain Research

Open Access Full Text Article

Effectiveness of the World Health Organization cancer pain relief guidelines: an integrative review
guidelines is that they may be considered outdated by many because they are not specific to the pharmacological and interventional options used in contemporary pain management practices. The conundrum of updating the WHO guidelines is to encompass the latest pharmacological and interventional innovations while maintaining its original simplicity.

Cathy L Carlson REVIEW

Multicenter Study of Pain and Its Management in Patients with Advanced Cancer in Korea

Yun YH et al

430 Journal of Pain and Symptom Management

Vol. 25 No. 5 May 2003

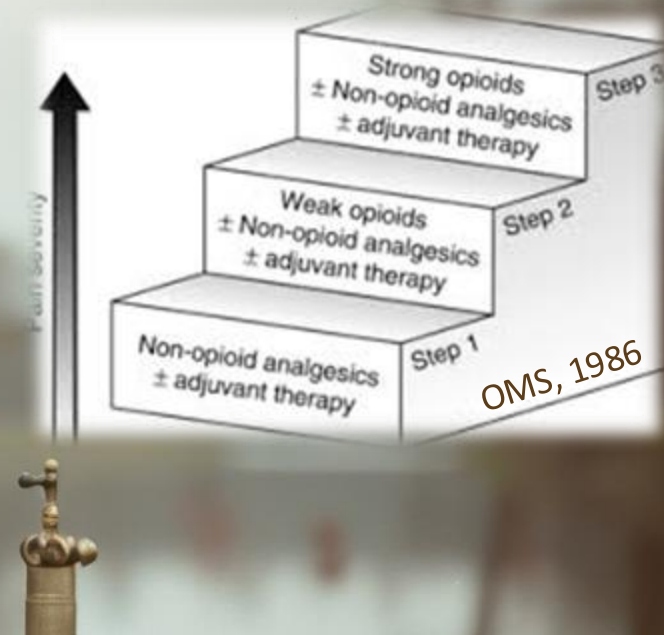
53.2% of advanced cancer patients experienced inadequate pain relief despite adherence to WHO guidelines

An international, open-label, randomised trial comparing a two-step approach versus the standard three-step approach of the WHO analgesic ladder in patients with cancer

M. Fallon et al. 2022. Annals of Oncology

Background: Worldwide, cancer pain management follows the World Health Organization (WHO) three-step analgesic ladder. Using weak opioids (e.g. codeine) at step 2 is debatable with low-dose strong opioids being potentially better, particularly in low- and middle-income countries where weak opioids are expensive. We wanted to assess the efficiency, safety and cost of omitting step 2 of the WHO ladder.

Conclusion: This trial provides some evidence that the two-step approach is an alternative option for cancer pain management.





CANCER-RELATED PAIN TREATMENT

ESCALERA-ASCENSOR TERAPÉUTICO DEL DOLOR





The American Society of Pain and Neuroscience (ASPN) Best Practices and Guidelines for the Interventional Management of Cancer-Associated Pain

Table 2 United States Preventive Services Task Force Grading

Degree of Recommendation	Meaning
A	Extremely recommendable (good evidence that the measure is effective, and benefits outweigh the harms)
B	Recommendable (at least, moderate evidence that the measure is effective, and benefits exceed harms)
C	Neither recommendable nor inadvisable (at least moderate evidence that the measure is effective, but benefits are similar to harms and a general recommendation cannot be justified)
D	Inadvisable (at least moderate evidence that the measure is ineffective or that the harms exceed the benefits)
I	Insufficient, low quality or contradictory evidence; the balance between benefit and harms cannot be determined

Note: Reprinted from *Am J Prev Med*, 20(3 Suppl), Harris RP, Helfand M, Woolf SH, et al, Current methods of the US Preventive Services Task Force: a review of the process, 21–35, 2001, with permission from Elsevier.²³



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CANCER-RELATED PAIN TREATMENT

CONSERVATIVE TREATMENT

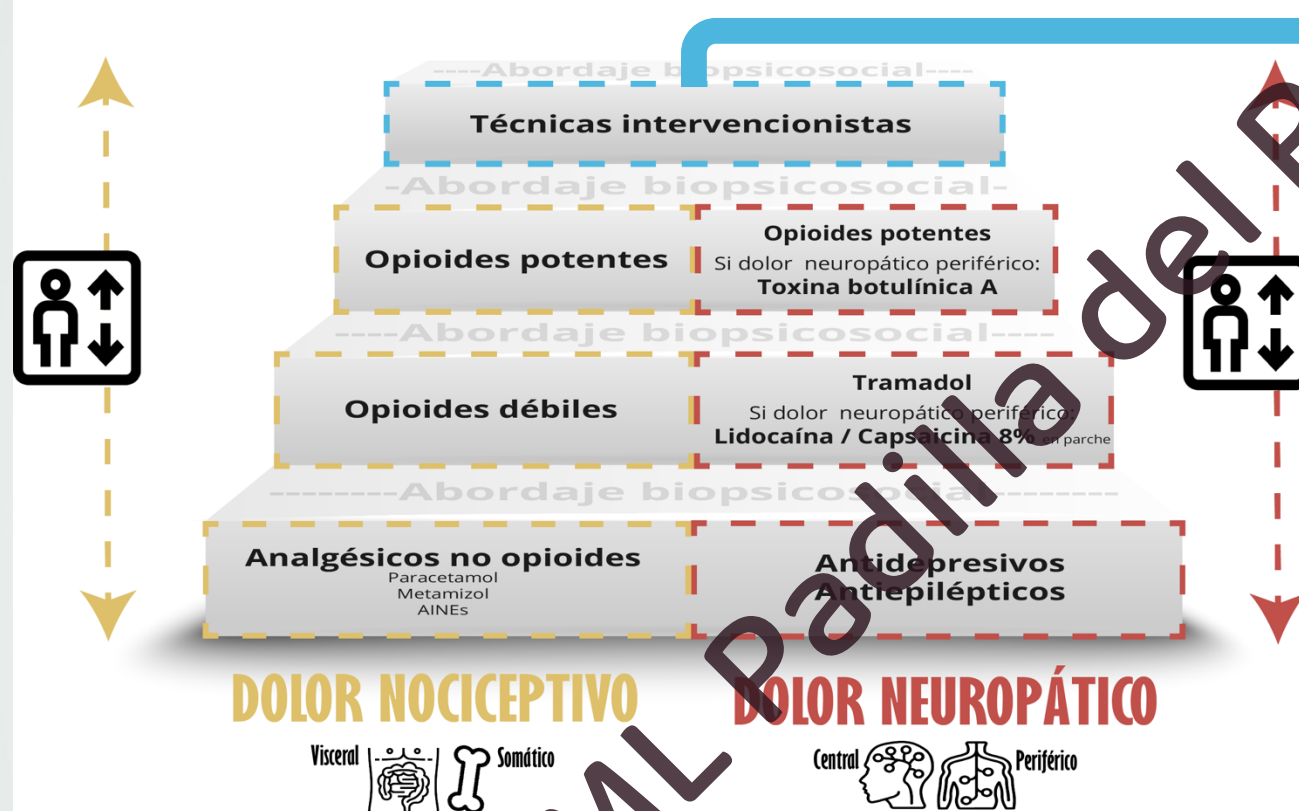
The American Society of Pain and Neuroscience (ASPN) Best Practices and Guidelines for the Interventional Management of Cancer-Associated Pain

Therapy	Statement	Evidence Level	Grade
Opioids for cancer pain	Opioids should be considered for moderate to severe cancer-related pain. Opioid agent selection should be individualized to account for the variance in pain presentations and co-existing medical comorbidities.	I III	A B
Methadone	Methadone should be considered when other opioids are ineffective, or additional NMDA or serotonin receptor modulation is desired. Dosing initiation is dependent on opioid tolerance with low introductory doses for naïve patients. For opioid tolerant patients a conservative approach is recommended starting at 75-90% less than the calculated equianalgesic dose using 1:15 to 1:20 conversion factor.	II-3 II-3 II-3	C B A
Ketamine	Ketamine therapy for cancer pain should be considered on a case-by-case basis for refractory neuropathic, bone, and mucositis-related pain.	II-I	B

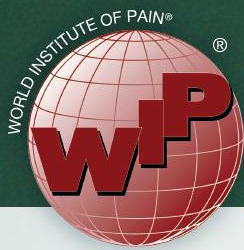


CANCER-RELATED PAIN TREATMENT

ESCALERA-ASCENSOR TERAPÉUTICO DEL DOLOR



- NERVE BLOCKS
- NEUROLYSIS
- NEUROSTIMULATION
- VERTEBRAL AUGMENTATION + RF
- RADIOOTHERAPY, RADIOISOTOPES AND BONE-MODIFYING AGENTS FOR METASTASIS
- SPINAL DRUG DELIVERY INFUSION
- SURGICAL OPTIONS:
CORDOTOMY, MYELOTOMY, DRES-Otomy, CINGULOTOMY



When?

Curr Oncol Rep (2017) 19:10
DOI 10.1007/s11912-017-0570-0



PALLIATIVE MEDICINE (A JATOI, SECTION EDITOR)

Multidimensional Treatment of Cancer Pain

Weiyang Christopher Liu¹ · Zhong Xi Zheng² · Kian Hian Tan¹ · Gregory J. Meredith¹

Interventional cancer pain procedures can be broadly classified into soft tissue injections, neuraxial analgesia, nerve blocks, and neuroablative procedures. Though there is increasing amount of literature suggesting that these procedures are helpful, there is also a lack of adequately powered randomized controlled trials (RCT) [56•]. This may reflect the difficulty recruiting a large homogenous group of patients.

Indian J Palliat Care. 2015 May-Aug; 21(2): 137–147.
doi: [10.4103/0973-1073.156466](https://doi.org/10.4103/0973-1073.156466)

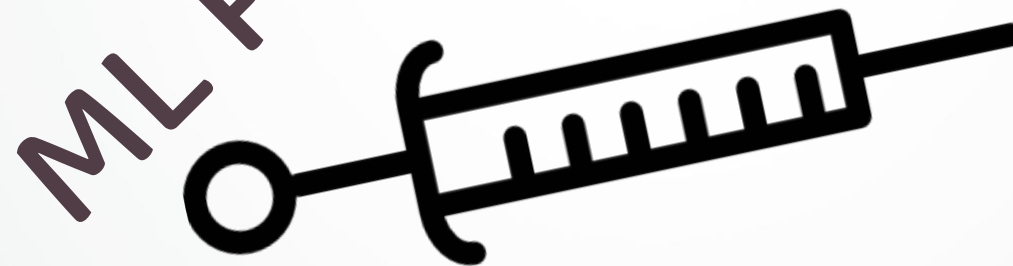
PMCID: PMC4441173
PMID: [26009665](https://pubmed.ncbi.nlm.nih.gov/26009665/)

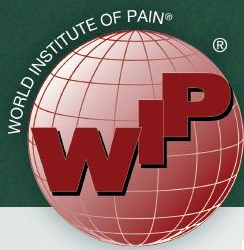
Evidence-based Clinical Practice Guidelines for Interventional Pain Management in Cancer Pain

Sushma Bhatnagar and Maynak Gupta¹

In recent years, there have been calls to perform neuroablative interventional pain procedures earlier to minimize the complications of long-term opioid use [63]. It might be logical to defer more liberal performance of neurolytic procedures until more evidence becomes available with regards to the outcomes and safety.

ASAP!





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CANCER-RELATED PAIN TREATMENT

INTERVENTIONAL TREATMENT

The American Society of Pain and Neuroscience (ASPN) Best Practices and Guidelines for the Interventional Management of Cancer-Associated Pain

Therapy	Statement	Evidence Level	Grade
 Blocks and neurolysis	Celiac plexus neurolysis should be performed for pancreatic cancer-related abdominal pain.	I	A
	Splanchnic nerves neurolysis should be considered in patients with intractable abdominal cancer-related pain due to advanced body and tail located pancreatic CA.	I	B
	Early neurolysis is associated with better outcomes	II-3	B
	Superior hypogastric plexus neurolysis should be considered in patients with intractable pelvic cancer-related pain.	II	B
	Ganglion impar neurolysis should be considered in patients with intractable perineal cancer-related pain.	III	B



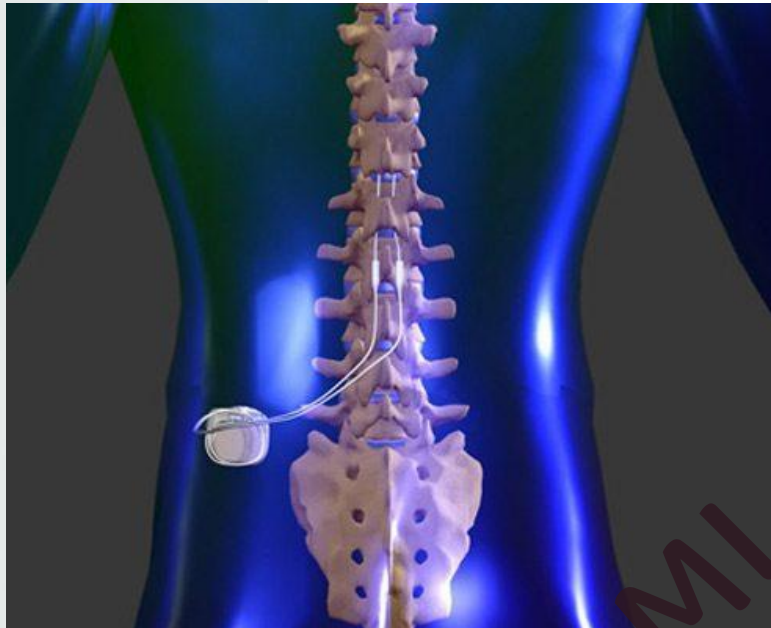
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INTERVENTIONAL TREATMENT

The American Society of Pain and Neuroscience
(ASPN) Best Practices and Guidelines for the
Interventional Management of Cancer-Associated
Pain

Therapy	Statement	Evidence Level	Grade
Spinal cord stimulation	Spinal cord stimulation may be considered in patients with refractory cancer pain.	II-3	C
	Spinal cord stimulation may be considered on a case-by-case basis for pain that is related to cancer treatment such as chemotherapy induced neuropathy.	III	C



Spinal Cord Stimulation as a Treatment Option for Intractable Neuropathic Cancer Pain

Alexander E. Yakovlev, MD and Yakub Elias, MD

Clinical Medicine & Research
Volume 6, Number 3/4: 103-106
©2008 Marshallfield Clinic

Spinal Cord Stimulation as Treatment for Cancer and Chemotherapy-Induced Pain

August 2021 | Volume 2 | Article 699993

Breanna L. Sheldon¹, Jonathan Bao¹, Olga Khazen¹ and Julie G. Pilitsis^{1,2*}

Exceptional Cases of Spinal Cord Stimulation for the Treatment of Refractory Cancer-Related Pain

Neuromodulation. 2023 July ; 26(5): 1051-1058

Evgeny Bulat, MD, MA¹, Vikram Chakravarthy, MD², Jason Crowther, MD, PhD¹, Neal Rakesh, MD, MSE³, Ori Barzilai, MD², Amitabh Gulati, MD^{3,*}

Systematic Review

Spinal Cord Stimulation to Treat Unresponsive Cancer Pain: A Possible Solution in Palliative Oncological Therapy

Federica Paolini^{1,*} , Gianluca Ferini² , Lapo Bonosi¹, Roberta Costanzo¹ , Lara Brunasso¹,

Treatment of Cancer-Related Chest Wall Pain Using Spinal Cord Stimulation

Alexander E. Yakovlev, MD¹, Beth E. Resch, APNP¹, and Sergey A. Karasev, MD²

American Journal of Hospice & Palliative Medicine® 27(8)

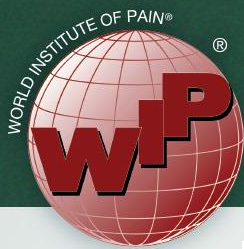
Spinal Cord Stimulation Relieves Chemotherapy-Induced Pain: A Clinical Case Report

Journal of Pain and Symptom Management
Vol. 27 No. 1 January 2004

Juan P. Cata, MD, Joseph V. Cordella, BS, Allen W. Burton, MD,



Life 2022, 12, 554.

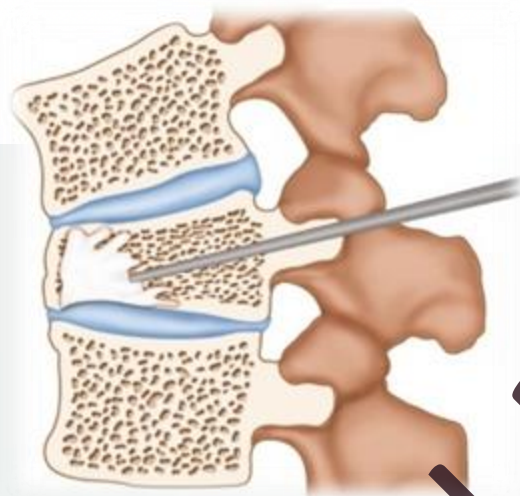


CANCER-RELATED PAIN TREATMENT

INTERVENTIONAL TREATMENT

The American Society of Pain and Neuroscience
(ASPN) Best Practices and Guidelines for the
Interventional Management of Cancer-Associated
Pain

Therapy	Statement	Evidence Level	Grade
Vertebral augmentation and radiofrequency ablation	Vertebral augmentation should be strongly considered for patients with symptomatic vertebral compression fractures from spinal metastases.	I	A
	Percutaneous radiofrequency ablation with or without cement augmentation is indicated for treatment of severe back pain from spinal tumors and has proven to be a safe and effective palliative therapy for painful spinal metastasis.	II-2	B





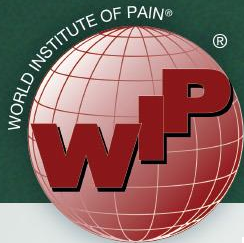
CANCER-RELATED PAIN TREATMENT

INTERVENTIONAL TREATMENT

The American Society of Pain and Neuroscience
(**ASPN**) Best Practices and Guidelines for the
Interventional Management of Cancer-Associated
Pain

Therapy	Statement	Evidence Level	Grade
Radiotherapy, radioisotopes, and bone-modifying agents for metastasis	External beam radiation therapy with short, fractionated regimens are favored over conventional protracted schedules for painful metastatic bone disease . Stereotactic body radiation therapy may be preferred for radio-resistant cancers or oligometastatic disease.	I	A
	There is evidence for the use of osteoclast inhibitors , though it has not been found to be effective for some cancers, such as metastatic non-small cell lung cancer. Therefore, these agents should be used as an adjuvant treatment and considered on a case-by-case basis	II-I	B



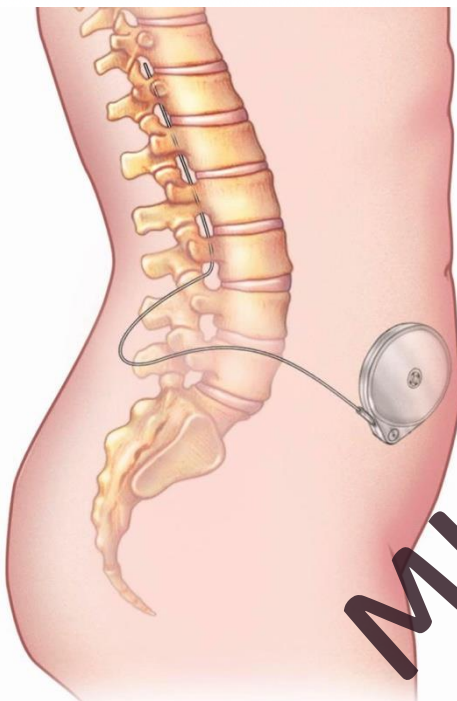


CANCER-RELATED PAIN TREATMENT

INTERVENTIONAL TREATMENT

The American Society of Pain and Neuroscience (ASP^N) Best Practices and Guidelines for the Interventional Management of Cancer-Associated Pain

Therapy	Statement	Evidence Level	Grade
Targeted drug delivery	Intrathecal drug delivery using an implantable pump should be strongly considered in patients with cancer-related pain that is not responding to conventional medical management	I	A
	Trialing before intrathecal pump implantation for cancer-related pain should be optional and at the discretion of the physician and patient.	III	C



The strongest levels of evidence in support of **INTRATHECAL DRUG DELIVERY** exist in the population with cancer pain, with robust evidence of:

- analgesic efficacy
- side-effect reduction
- improved survival

The PACC considers **IDD** as a minimally invasive and potent modality of pain management in carefully selected patients with ongoing cancer pain management needs. USPSTF Grade A; Level of certainty high; Quality of evidence I-B.

> 82% of patients with cancer with chronic pain can be managed through the **INTRATHECAL route alone** without needing supplemental oral opioids

Most patients treated with IT opioids for cancer pain have **undetectable serum opioid levels**, which may have benefits in terms of bowel function and opioid-induced proneoplastic effects



The American Society of Pain and Neuroscience (ASPN) Best Practices and Guidelines for the Interventional Management of Cancer-Associated Pain

Therapy	Statement	Evidence Level	Grade
Surgical options	Cordotomy should be considered for uncontrolled unilateral nociceptive pain after failure of more conservative options.	II	B
	Myelotomy is used for infradiaphragmatic visceral pain for pain control and decrease opioid consumption.	III	C
	DREZ-otomy is indicated for focal limb pain and in Pancoast tumors.	III	I
	Cingulotomy is indicated for late-stage and uncontrolled pain refractory to other therapies	III	C

CANCER-RELATED PAIN TREATMENT

1

INTERDISCIPLINARY APPROACH

2

PAIN MANAGEMENT KNOWLEDGE

3

CURRENT SITUATION

ML Padilla del Rey, 2025





World Health Organization
Model List of Essential Medicines



23rd list
(2023)

Opioids are included in this list;
recognizing its significance for improving
patients' health status and well-being

2.2 Opioid analgesics

codeine	Tablet: 30 mg (phosphate).
fentanyl*	Transdermal patch: 12 micrograms/hr; 25 micrograms/hr; 50 micrograms/hr; 75 micrograms/hr; 100 micrograms/hr. *For the management of cancer pain
☐ morphine Therapeutic alternatives: - hydromorphone - oxycodone	Granules (slow release; to mix with water): 20 mg to 200 mg (morphine sulfate). Injection: 10 mg (morphine hydrochloride or morphine sulfate) in 1 mL ampoule. Oral liquid: 10 mg/5 mL (morphine hydrochloride or morphine sulfate). Tablet (slow release): 10 mg to 200mg (morphine hydrochloride or morphine sulfate). Tablet (immediate release): 10 mg (morphine sulfate).
Complementary list	
methadone*	Tablet: 5 mg; 10 mg (hydrochloride) Oral liquid: 5 mg/5 mL; 10 mg/5 mL (hydrochloride) Concentrate for oral liquid: 5 mg/mL; 10 mg/mL (hydrochloride) *For the management of cancer pain.

CANCER-RELATED PAIN TREATMENT

CURRENT SITUATION

CONSERVATIVE TREATMENT



World Health Organization
Model List of Essential Medicines



23rd list
(2023)

Opioids are included in this list;
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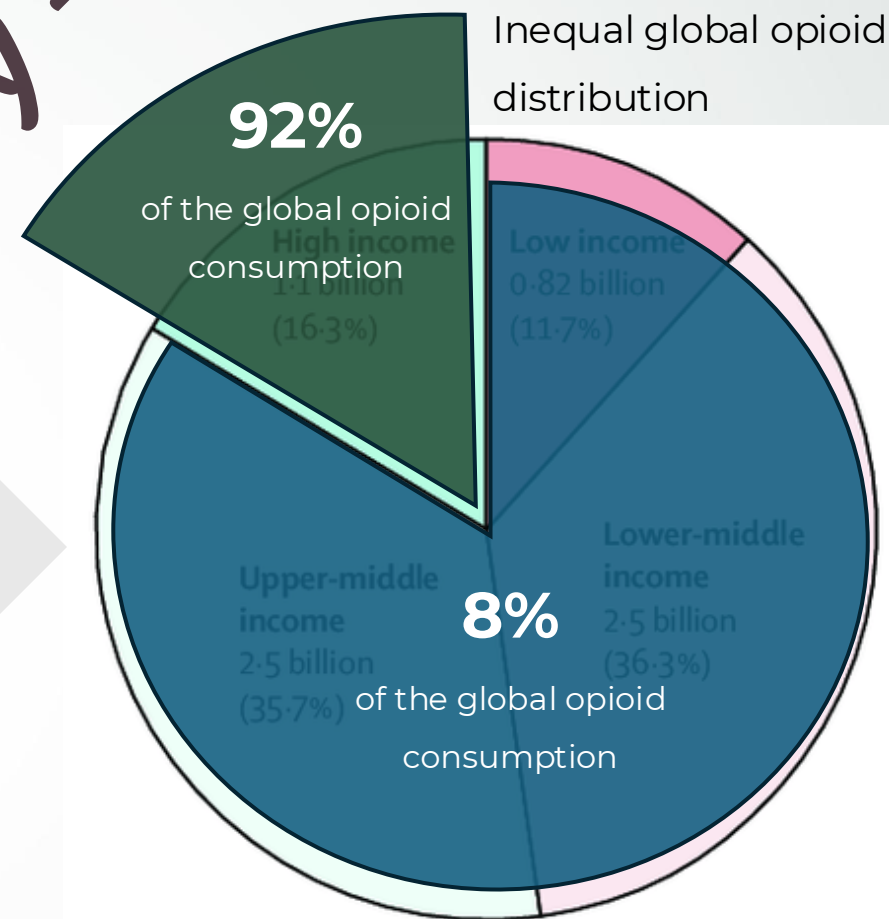
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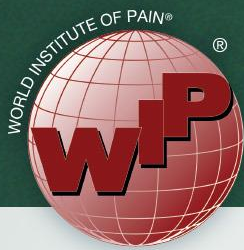
However...

CANCER-RELATED PAIN TREATMENT

CURRENT SITUATION

CONSERVATIVE TREATMENT





CANCER-RELATED PAIN TREATMENT

CURRENT SITUATION

CONSERVATIVE TREATMENT

Are we maybe forgetting non-pharmacological approaches?

PSYCHOLOGICAL interventions

Ruano A, et al. J Pain Symptom Manage. 2022 May;63(5):e505-e520

cognitive behavioral therapy
mindfulness-based therapy
guided imagery
relaxation techniques

PHYSICAL modalities

Plinsinga ML, et al. Sports Med. 2023 Sep;53(9):1737-1752

exercise = the Real Polypill (*Fiuza-Luces C, et al. Physiology. 2013 Sep;28(5):330-58*)
physical therapy
massage

INTEGRATIVE therapies

Ruano A, et al. J Pain Symptom Manage. 2022 May;63(5):e505-e520

acupuncture
music therapy
poetry sessions

Optimize NUTRITIONAL status

*Yilmaz S, et al. Pain Physician. 2021 Aug;24(5):335-344
Corasaniti MT, et al. Int J Mol Sci. 2023 Apr;24(8):7085*

ML Padilla del Rey, 2025

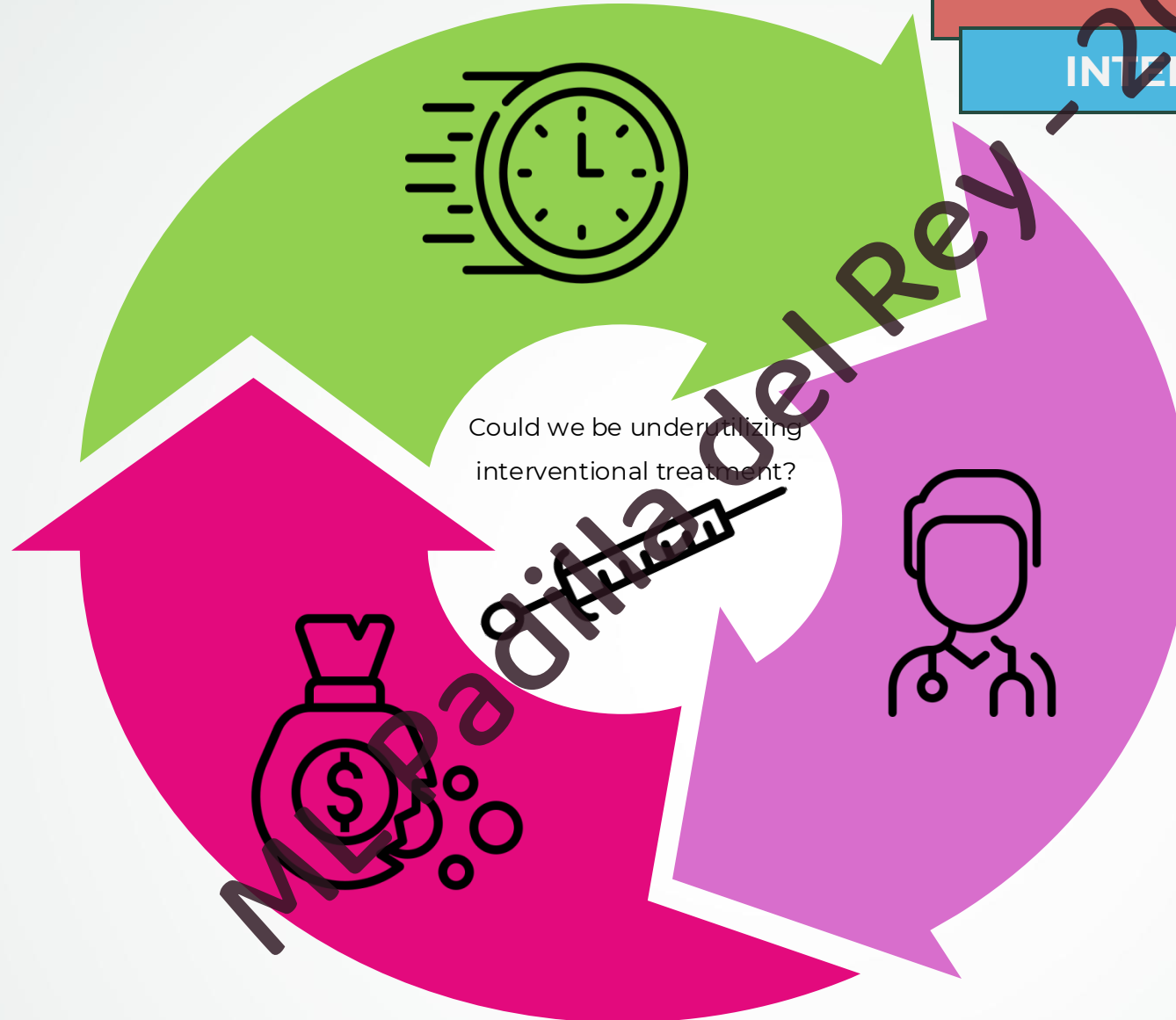




CANCER-RELATED PAIN TREATMENT

CURRENT SITUATION

INTERVENTIONAL TREATMENT



CANCER-RELATED PAIN TREATMENT

1

INTERDISCIPLINARY APPROACH

2

PAIN MANAGEMENT KNOWLEDGE

3

CURRENT SITUATION

4

FUTURE DIRECTIONS

ML Padilla del Rey, 2025





CANCER-RELATED PAIN TREATMENT

FUTURE DIRECTIONS

PERSONALIZED MEDICINE - AI

PREDICTIVE ANALYTICS

AI & machine learning enhance predictive analytics, allowing healthcare providers to anticipate patient needs and outcomes effectively

PERSONALIZED TREATMENT PLANS

Machine learning algorithms help create personalized treatment plans tailored to individual patient profiles, improving patient care

OPTIMIZING RESOURCE ALLOCATION

AI can optimize resource allocation in healthcare settings, ensuring efficient use of medical staff and equipment for cancer pain management





CANCER-RELATED PAIN TREATMENT

FUTURE DIRECTIONS

TELEMEDICINE

INNOVATIVE SOLUTIONS

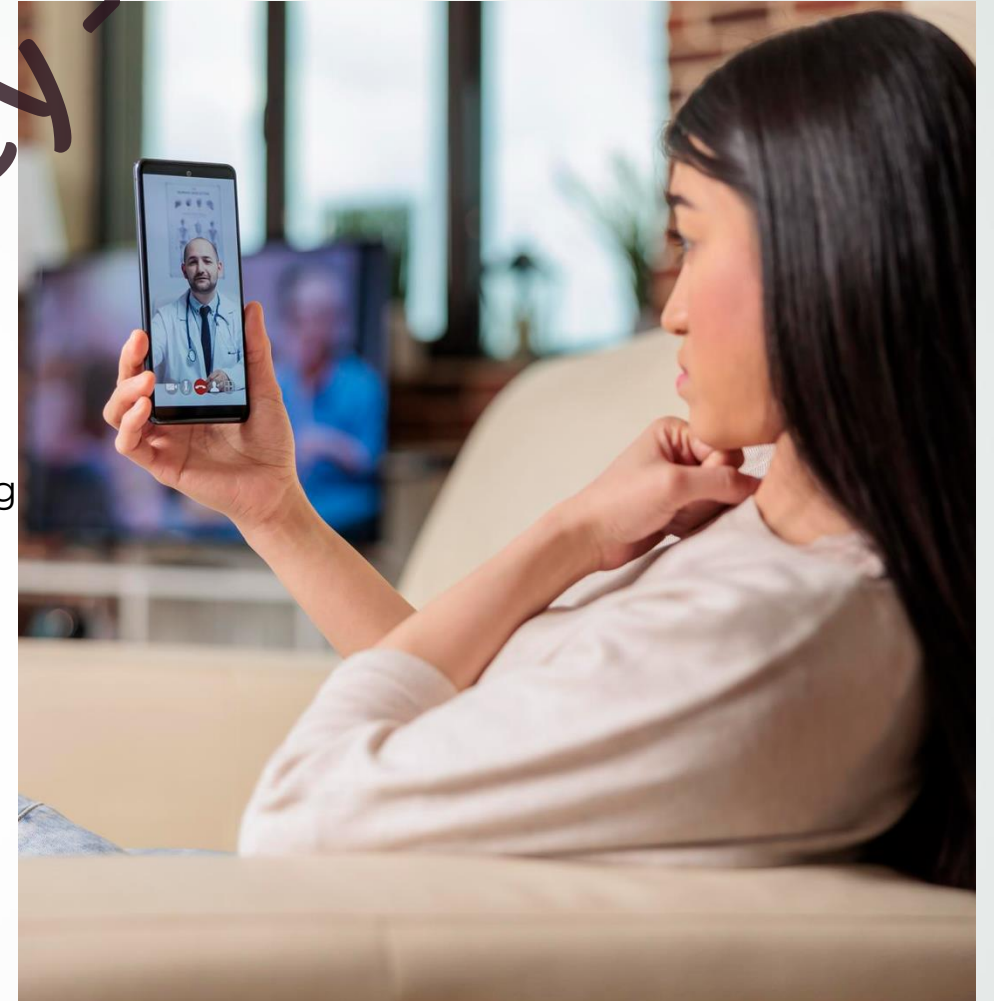
Telemedicine technologies provide innovative solutions for managing cancer-related pain effectively and efficiently

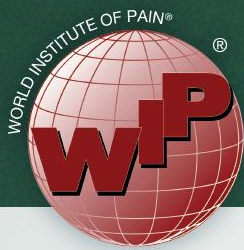
CONTINUOUS PATIENT ENGAGEMENT

These technologies enable continuous engagement with patients, offering support and resources throughout their treatment journey

TIMELY TREATMENT ADJUSTMENTS

Remote monitoring allows for timely adjustments to treatment plans based on real-time patient data, enhancing care outcomes





CANCER-RELATED PAIN TREATMENT

FUTURE DIRECTIONS

INTRATHECAL RESINIFERATOXIN (RXT)

The American Society of Pain and Neuroscience (ASPN) Best Practices and Guidelines for the Interventional Management of Cancer-Associated Pain

Resiniferatoxin (RTX) is derived from the *Euphorbia Resinifera* plant and is a potent agonist for transient receptor potential vanilloid 1 (TRPV1) expressed on Aδ and C nerve fibers. Receptor binding prolongs cation channel activation, leading to a large and rapid influx of intracellular calcium. This results in axonal destruction in TRPV1 expressing primary afferent spinal and dorsal root ganglion neurons while effectively sparing motor, proprioceptive and sensory cell bodies that do not express the TRPV1 receptor.¹⁸³ Initial animal trials were conducted in a rat model,¹⁸⁴ followed by a study in companion dogs afflicted with advanced bone cancer pain and showed favorable effects.¹⁸⁵

Evidence Evaluation and Best Practice Statement

- RTX is still undergoing safety and efficacy trials.
- Grade for this treatment class is insufficient



Cancer Pain in 2025 – Are We Catching Up with the Need?
28th Annual Gabor Racz Advanced Interventional
Pain Conference and Workshop
Budapest, Hungary August 25-27, 2025

María Luz Padilla del Rey, MD, FIPP, CIPS, EDPM, ABHM

AGENDA

Cancer Pain in 2025 – Are We Catching Up with the Need?

1 INTRODUCTION

2 DEFINITION

3 EPIDEMIOLOGY

4 TREATMENT

5 CONCLUSIONS

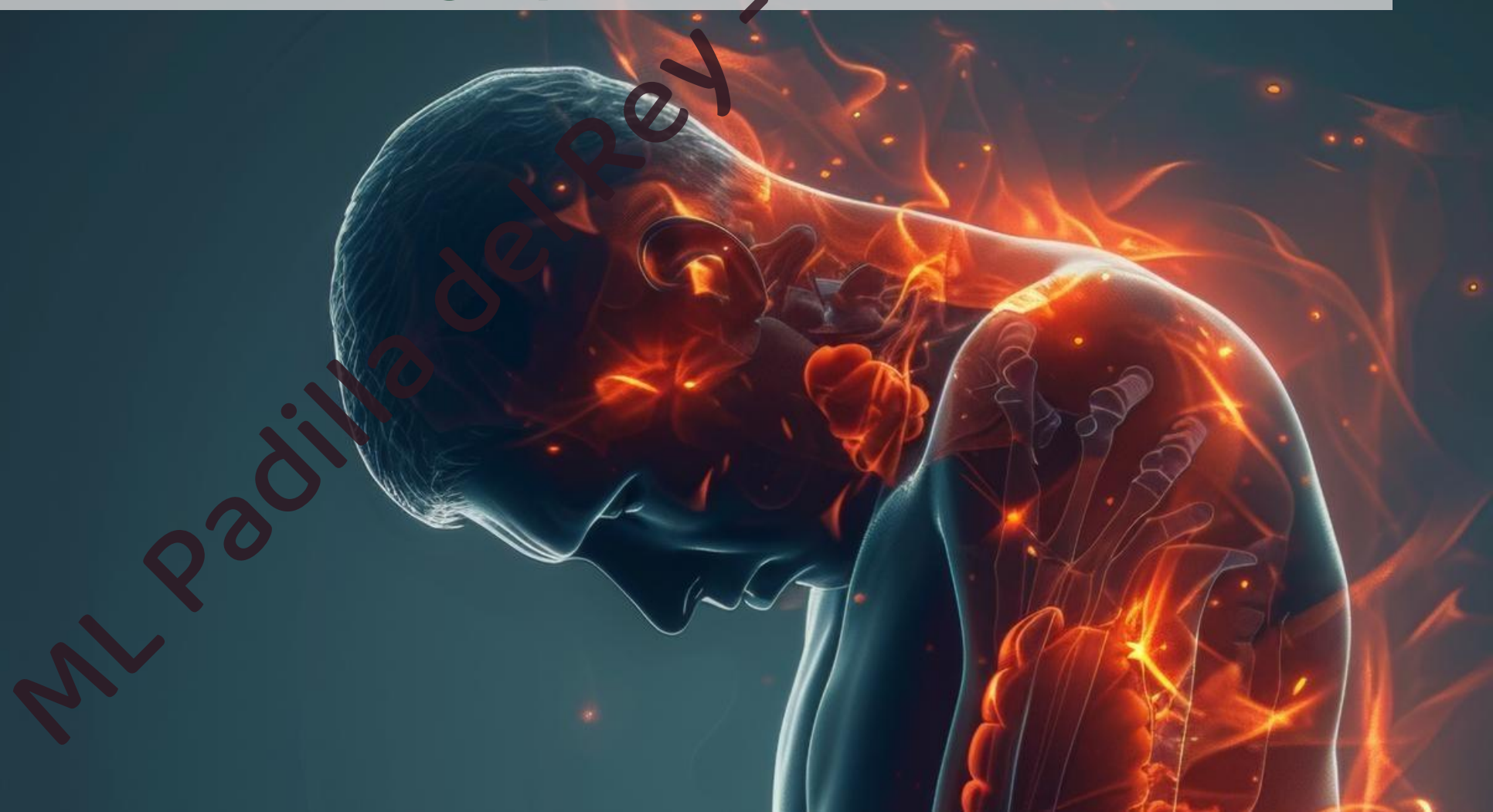


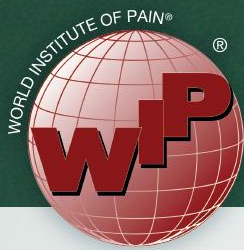
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CONCLUSIONS

Are We Catching Up with the Need?





Are We Catching Up with the Need?

- Despite progress, cancer pain **remains undertreated**
- **Significant gaps** in care, like geographical disparities, still need to be addressed
- **Holistic multimodal management** of "total pain"
- Interventional treatment should not be the last resort
- Interdisciplinary team to coordinate various social and healthcare providers, ensuring an integrated response to the needs of cancer patients
- Need for **education** to align expectations of both patients and clinicians



Thank you for your attention

28th Annual Gabor Racz
Advanced Interventional
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Cancer Pain in 2025 – Are We Catching Up with the Need?

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