

TOP 11 NERVE BLOCKS EVERY INTERVENTIONAL RADIOLOGIST SHOULD KNOW

Focus: Indications + Targets + Imaging Guidance + CPT/billing +
Documentation Pearls

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Disclosures

None

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CREATING COMMUNITIES

TRANSFORMING CARE



Learning Objectives

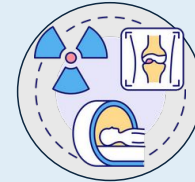
1 Background on pain procedures

2 Overview 11 core nerve blocks and ablation

3 New open source resource tool



Indication



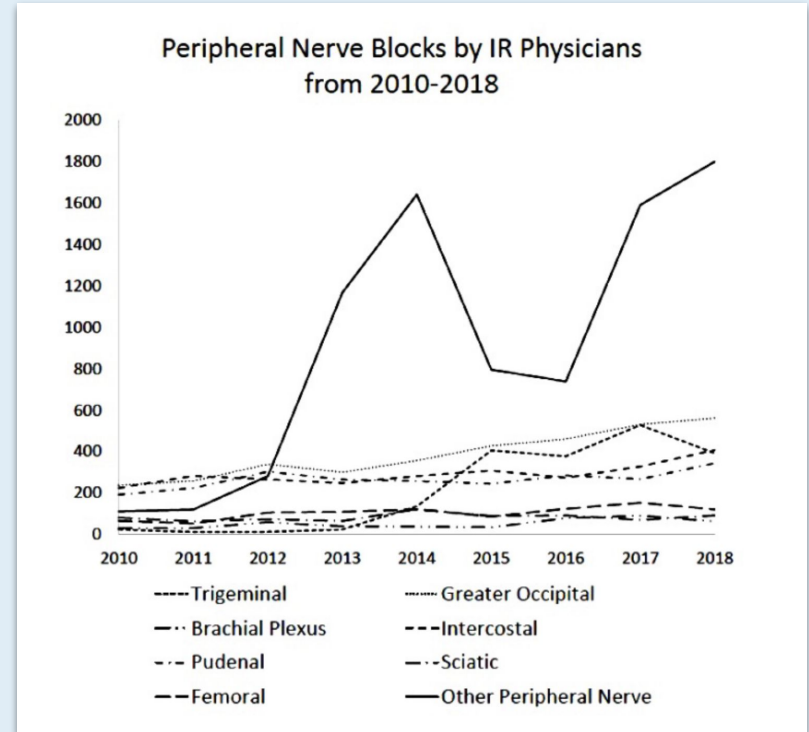
Target +
Guidance



ICD-10 + CPT
& Documentation

Background

- Opioid prescribing has declined, yet overdose deaths remain high.⁽¹⁾
- IR PNBs are rising but still a small share: 1,176 (2010) → 4,110 (2018).⁽²⁾
- Recent review frames IR pain care as an adjunct when conservative therapy fails.⁽³⁾
- IR integrates pain blocks directly into workflows to reduce peri-/post-procedural pain instead of opioids.⁽⁴⁾
- Coverage is an active policy issue: SIR/ACR advocate continued coverage for image-guided diagnostic blocks + peripheral nerve interventions.⁽⁵⁾



(2) Nelson A, et al. JVIR. 2022

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Overview

Block Name	CPT Block	CPT Neurolysis (Pharm / RFA)
Stellate Ganglion	64510 (No)	64999
Intercostal Nerve	64420 (64421 each additional level) (No)	64620 (No)
Hepatic Hilar Nerve	64999	
Transversus Abdominis Plane	UL: Single injection (64486) CC (64487) BL: Single injection (64488) CC (64489)	
Celiac Plexus	64530 (Yes)	64680 (Yes)
Superior Hypogastric Plexus	64517 (No)	64681 (Yes)
Ganglion Impar	64999 (N/A)	64999 (N/A)
Femoral Nerve	Single injection (64447) (Yes) CC (64448)	64640 (No)
Sciatic Nerve	Single injection (64445) (Yes) CC (64446)	64640 (No)
Posterior Popliteal Sciatic	Single injection (64445) (Yes) CC (64446) Tibial/common peroneal branch post-bifurcation (64450)	64640 (No)
Genicular Nerve	64454	64624 (Yes)

Yes = CPT includes "with or without radiological monitoring"

No = Not included

Continuous Catheter (CC), Unilateral (UL), Bilateral (BL)

Ablation: Pharmacologic/RFA vs Cryo

NEUROLYSIS			
"Neurolysis" - CPT			T Code
Nerve	Pharmacologic	RF Ablation	Cryo
Stellate ganglion	64999	64999	0442T
Intercostal Nerve	64620	64620	
Celiac Plexus	64680	64680	
Superior Hypogastric Plexus	64681	64681	
Ganglion Impar	64999	64999	
Femoral Nerve	64640	64640	0441T
Sciatic Nerve	64640	64640	
Posterior Popliteal Sciatic	64640	64640	
Genicular Nerve	64624	64624	
Upper-extremity			0440T

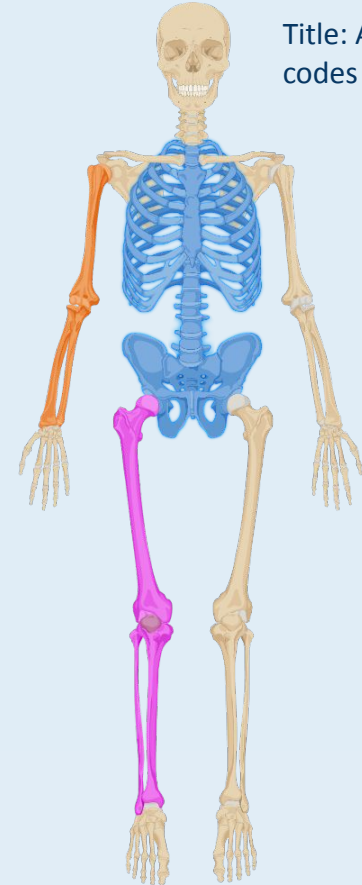
Yes = CPT includes "with or without radiological monitoring"

No = Not included

CPT = Code

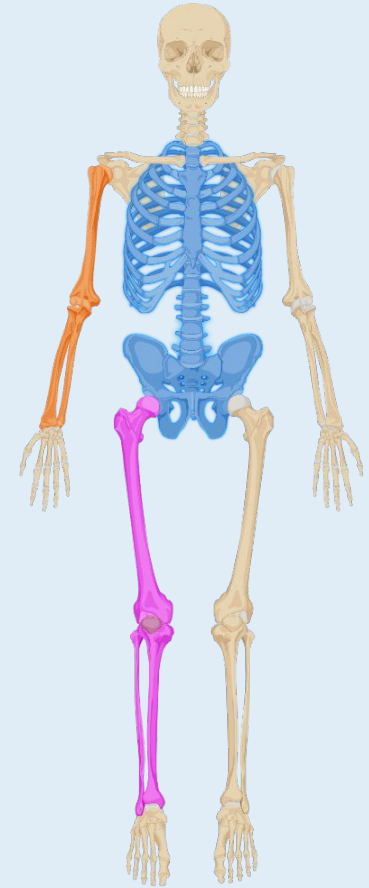
Title: Ablation codes

Anatomy →



From Codes to Billing (susies: Ablation codes to billing)

Ablation	Pharmacologic/ RF Ablation	Typical Price (USD)	Cryo	Hospital Outpatient	ASC
Stellate ganglion	64999	N/A	0442T	\$6,404	\$4,627
Intercostal Nerve	64620	\$280–\$350			
Celiac Plexus	64680	\$300–\$500+			
Superior Hypogastric Plexus	64681	\$300–\$600+			
Ganglion Impar	64999	N/A			
Femoral Nerve	64640	\$285–375	0441T	\$1,953	\$1,504
Sciatic Nerve	64640	\$285–375			
Posterior Popliteal Sciatic	64640	\$285–375			
Genicular Nerve	64624	\$400–450+			
Upper-extremity			0440T	\$1,953	\$1,504



Blocks

Peri-procedural

- Blocks used for intraprocedural, post-procedural analgesia
- Common indications:
 - Biopsies
 - Ablations
 - Embolizations
- Common examples:
 - HHB - Liver MWA/RFA/TACE
 - TAP- Cholecystostomy, Biopsy, Drainage
 - ICNB- Lung biopsy, ablation
 - GIP- transgluteal drainage
 - SHPB- UFE, Pelvic congestion syndrome
 - FEMB- Arterial procedure

Theranostic (Block):

- Blocks used for diagnostic and temporary treatment of cancer related pain
- Common indications: **(ICD-10 code)**
 - Cancer pain - **G89.3**
 - Ischemic pain - **I70.22**
 - Acute pain syndrome **G89.1x**
 - Chronic pain syndromes **G89.2x**
 - CRPS - **G90.5 (type 1)**
 - PTSD - **F43.1x**
- Common examples:
 - STG- PTSD, CRPS
 - ICNB- Post thoracotomy, Radiation necrosis
 - CPB - Visceral (Pancreatic) cancer
 - GIP- Genital malignancy (Rectal/prostate/gynecologic), Post radiation, CPP, Coccydynia
 - SHPB- Endometriosis, Pelvic malignancy
 - SNB/PPNB/FEMB- PAD, Phantom limb

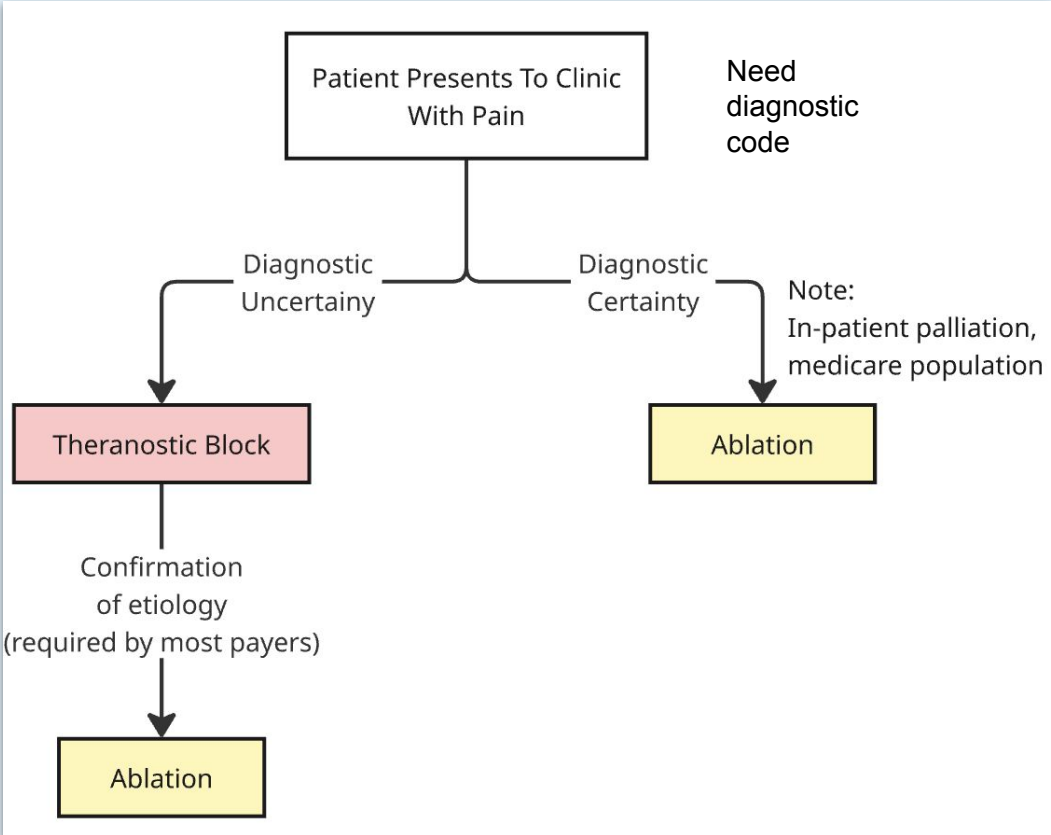
Therapeutic Nerve Ablations

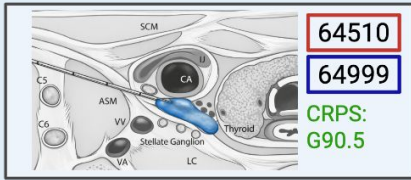
Nerve Ablations

- Common indications: (ICD-10 code)
 - Cancer pain - G89.3
 - Ischemic pain - I70.22
 - Acute pain syndrome G89.1x
 - Chronic pain syndromes G89.2x
 - CRPS - G90.5 (type 1)
 - PTSD - F43.1x
- Common examples:
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Patient Pain Treatment Pathway

Patient seen in clinic document
ICD-10 code: **G89.3**
Neoplasm-related pain
acute or chronic



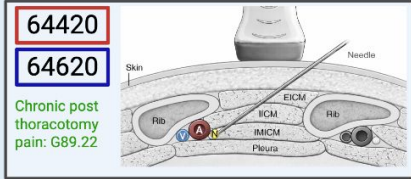


64510

64999

CRPS:
G90.5

STG



64420

64620

Chronic post
thoracotomy
pain: G89.22

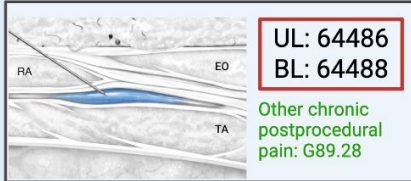
ICN



64999

CRP: G89.3 +
HCC: C22.0

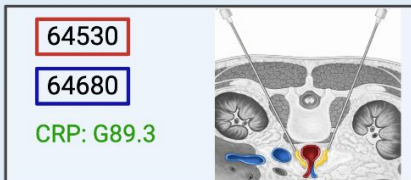
HHNB



UL: 64486
BL: 64488

Other chronic
postprocedural
pain: G89.28

TAP

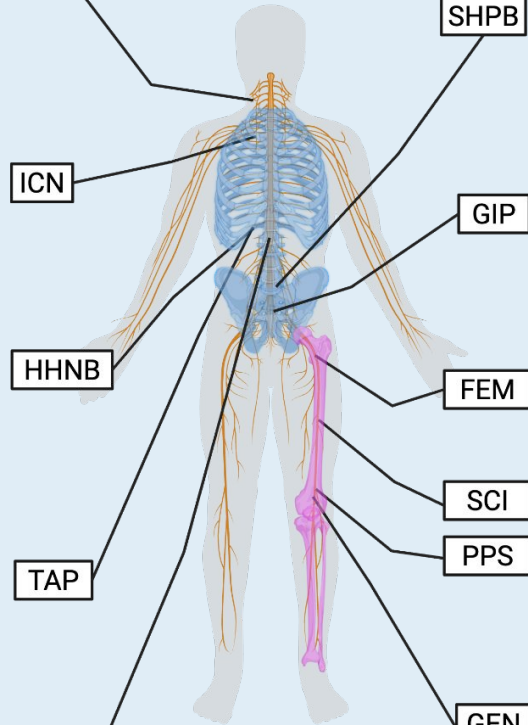


64530

64680

CRP: G89.3

CPB



SHPB

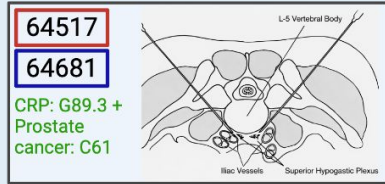
GIP

FEM

SCI

PPS

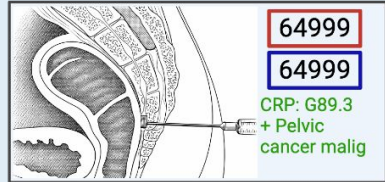
GEN



64517

64681

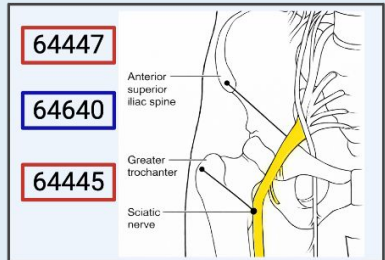
CRP: G89.3 +
Prostate
cancer: C61



64999

64999

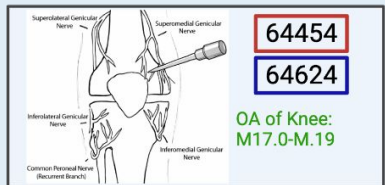
CRP: G89.3
+ Pelvic
cancer malign



64447

64640

64445



64454

64624

OA of Knee:
M17.0-M.19

Cryoablation

0440T - UE

0441T - LE

0442T - Truncal

CPT Block

CPT Neurolysis

ICD-10 Indication

*CRP: Cancer related pain

Over The Wire: Nerve Block Cards

Nerve Block Cards:
Connect ICD-10 and CPT Codes

www.interventionalradiology.ai

CPB: Celiac Plexus Nerve Block

1 ICD-10: Clinical Indication

Upper abdominal visceral pain ⁽¹⁻³⁾
Median arcuate ligament syndrome (MALS): I77.4

Upper abdominal malignancy / visceral pain ⁽¹⁻³⁾
Neoplasm-related pain (acute/chronic): G89.3
Malignant neoplasm of:
Stomach: C16.x
Liver & intrahepatic bile ducts: C22.0
Secondary malignant neoplasm of liver & IH bile ducts: C78.7

Retroperitoneal malignancy-related pain ⁽¹⁻³⁾
Malignant neoplasm of retroperitoneum: C48.0

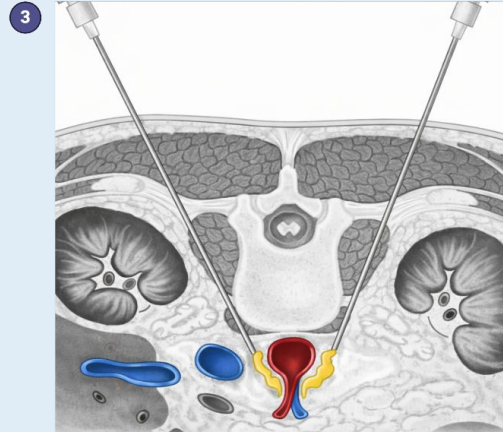
Pancreatic related pain ⁽¹⁻⁶⁾
Neoplasm-related pain (acute/chronic): G89.3
Malignant neoplasm of pancreas: C25.x
Alcohol-induced chronic pancreatitis: K86.0
Other chronic pancreatitis: K86.1

2 CPT Codes

Block: 64530

Neurolysis: 64680

Cryo: 0442T



Cancer-related visceral pain / pancreatic & upper abdominal malignancy

(1) Wong GY, Schroeder DR, Carns PE, et al. Effect of Neurolytic Celiac Plexus Block on Pain Relief, Quality of Life, and Survival in Patients With Unresectable Pancreatic Cancer: A Randomized Controlled Trial. *JAMA*. 2004;291(9):1092-1099. doi:10.1001/jama.291.9.1092

(2) Eisenberg E, Carr DB, Chalmers TC. Neurolytic celiac plexus block for treatment of cancer pain: a meta-analysis. *Anesth Analg*. 1995;80(2):290-295. doi:10.1097/0000539-199502000-00015

(3) Nagels W, Pease N, Bekkering G, Cools F, Dobbels P. Celiac plexus neurolysis for abdominal cancer pain: a systematic review. *Pain Med*. 2013;14(8):1140-1163. doi:10.1111/pme.12176

Chronic pancreatitis

(4) Kambadakone A, Thabet A, Gervais DA, Mueller PR, Arellano RS. CT-guided celiac plexus neurolysis: a review of anatomy, indications, technique, and tips for successful treatment. *RadioGraphics*. 2011;31(6):1599-1621. doi:10.1148/rg.316115526

(5) Machado JD, Tanner S, Adoor D, et al. Endoscopic ultrasound-guided celiac plexus block for painful chronic pancreatitis: A systematic review and meta-analysis. *Pancreatology*. 2025;25(6):860-867. doi:10.1016/j.pan.2025.08.006

(6) EUS-guided celiac plexus neurolysis for pain due to chronic pancreatitis or pancreatic cancer pain: a meta-analysis and systematic review. *Digestive Diseases and Sciences*. 2009;54(11):2330-2337. doi:10.1007/s10620-008-0601-3. PMID: 19137428.

Over The Wire: Complete Spreadsheet

SIR Resources

Protecting Patient Access to Interventional Pain Therapies

Nov 24, 2025

Healthcare policy

On Nov. 7, 2025, SIR and ACR submitted a comment letter to five Medicare Administrative Contractors (MACs), strongly urging them to adopt evidence-based coverage policies that preserve patient access to image-guided, opioid-sparing interventional pain procedures. We emphasize recognition of diagnostic nerve blocks as essential tools for identifying appropriate candidates for targeted ablation and support continued coverage for medial branch, peripheral, genicular and pudendal nerve interventions. These policies align with national efforts to reduce opioid reliance and ensure Medicare beneficiaries have access to safe, effective and clinically proven pain management options.



**INTERVENTIONAL RADIOLOGY
CODING UPDATE**

2026

Conclusion

1. Practical framework for using IR pain blocks + ablation in daily practice
2. How to match Indication (ICD-10), Target, Technique (Block vs Neurolysis vs Cryo)
3. Resource for additional deep dive:
<https://www.interventionalradiology.ai/nerve-blocks.html>

Thank you to Dr. Hunt and Dr. Lundberg!

Thank you!

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Citations

- (1) <https://www.clinicalradiologyonline.net/article/S0009-9260%2823%2900013-2/fulltext>
- (2) [https://www.jvir.org/article/S1051-0443\(22\)00720-5/abstract](https://www.jvir.org/article/S1051-0443(22)00720-5/abstract)
- (3) <https://pubmed.ncbi.nlm.nih.gov/40499286/>
- (4) <https://evtoday.com/articles/2021-oct/tackle-the-block-pain-management-and-sedation-for-percutaneous-ablation>
- (5) <https://www.sirweb.org/publications/news/protecting-patient-access-to-interventional-pain-therapies/>
- (6) <https://www.clinicalradiologyonline.net/article/S0009-9260%2823%2900013-2/fulltext>

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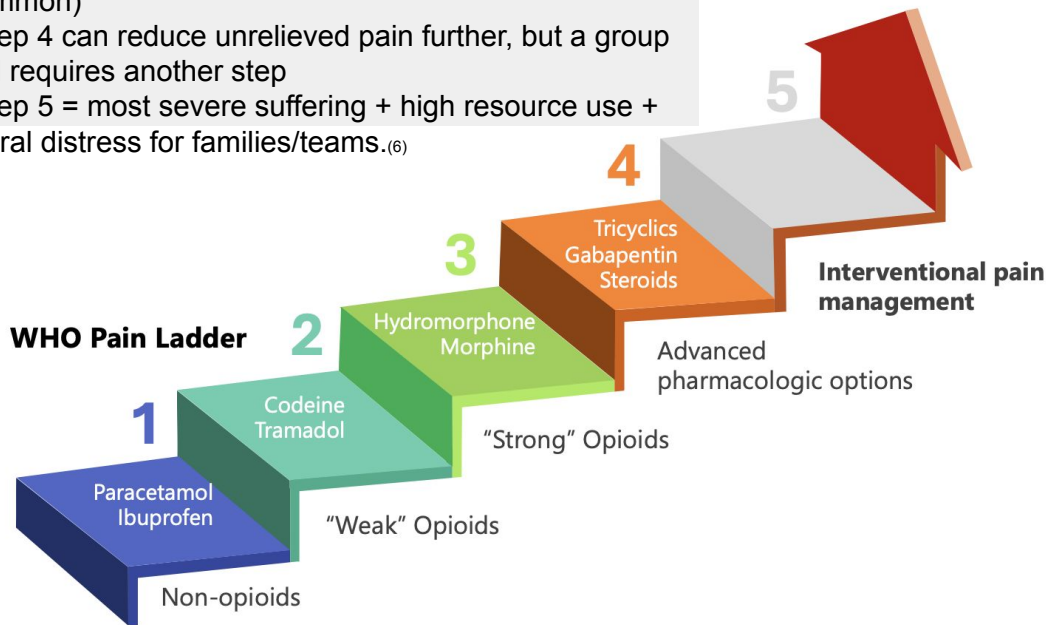
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When Should IR Enter Pain Care?

Most pain responds to meds, but not all

- WHO ladder relieves pain in ~85-90% of cancer patients -Even 10-15% is a large number (cancer is common)
- Step 4 can reduce unrelieved pain further, but a group still requires another step
- Step 5 = most severe suffering + high resource use + moral distress for families/teams.⁽⁶⁾



3 Indications for Interventional Pain Management

1) Opioid minimization

2) When analgesics aren't working

3) Restricted access to analgesics

"Pain is inevitable, suffering is optional" - Buddhist proverb⁽⁶⁾