

Acute Pain Present & Future

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Types of Pain I: IASP

- Nociceptive - consequence of tissue injury
 - Musculoskeletal, Visceral
 - Opioid-responsive
 - e.g., inflammatory pain, post-op pain, fractures, appendicitis
- Neuropathic - imprinted/aberrant activity of the PNS/CNS
 - Most chronic pain is neuropathic
 - Opioid-resistant
 - e.g., radiculopathy, CRPS (RSD), postherpetic neuralgia

Types of Pain II

- Acute Pain/Breakthrough Pain
 - Positional, activity related, emotional
 - Idiopathic, spontaneous
 - Procedural (e.g., dressing changes, RTX, CT/MRI)
 - End of dose failure

 - Comes on quickly
 - Episodic
 - Post-operative pain, minor procedures, trauma
- Chronic Pain
 - OA, RA, low back pain, CRPS, headaches
- Mixed Pain
 - Orthopedic pain, cancer pain, FBSS

Main Principles of Acute Pain Treatment:

Multimodal analgesia is
Standard of Care

“There are different “types” of pain,

...not just different degrees of the same
type.”

Desired Outcomes

- Earliest ambulation
- Earliest return to ADL and function
- Full participation in physical therapy
- Less CV and pulmonary morbidity
- Full ability to cough, clear secretions & take deep breaths
- Less incidence of thromboembolism
- Earlier return of bowel function
- Decreased length of hospitalization and costs
- Patient satisfaction
- Staff satisfaction



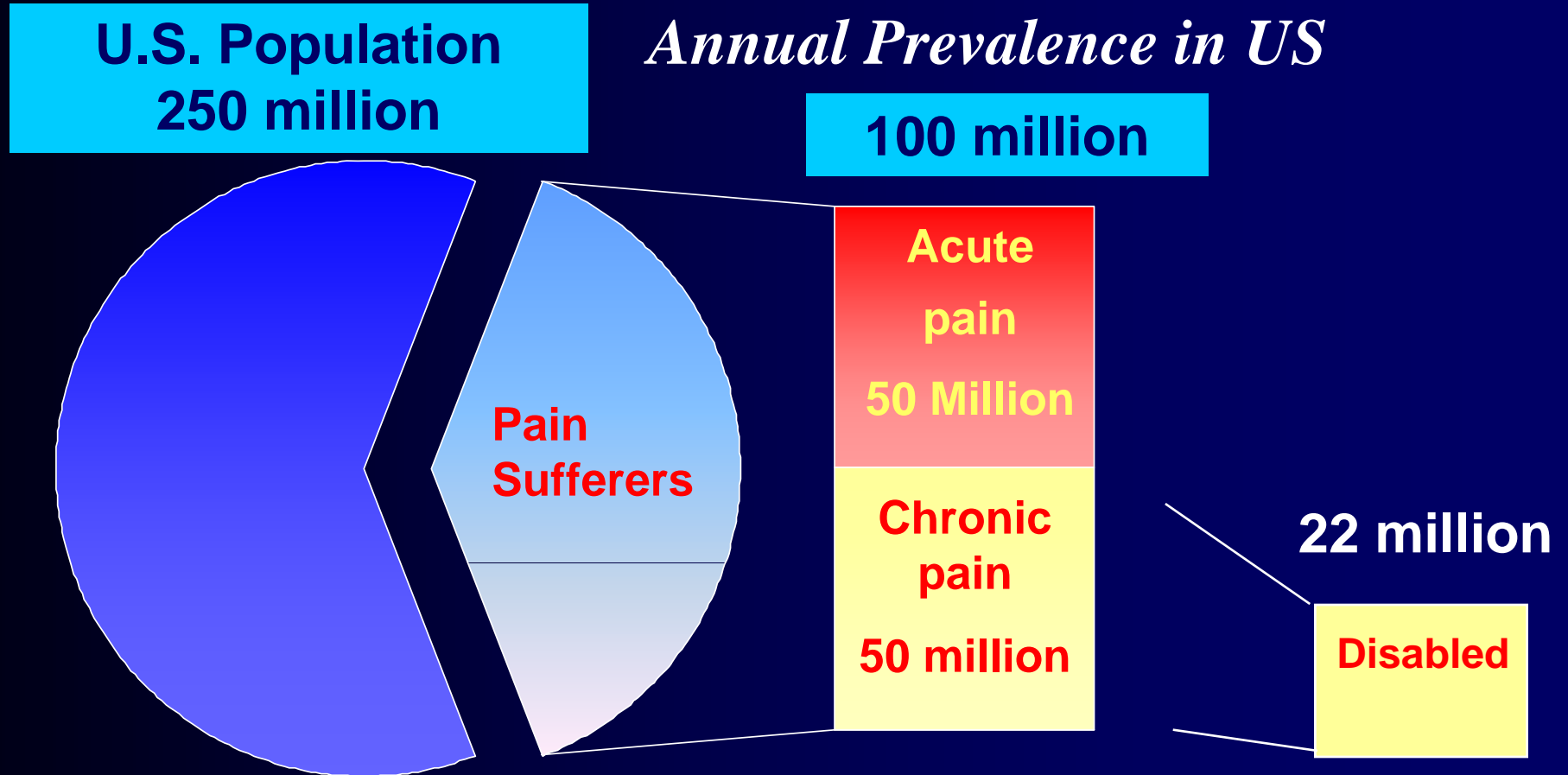
Analgesics – “*What a pain?!*”

- APAP, NSAIDs
- COX-2 inhibitors
- Combination opioids and pure opioids
- Anticonvulsants
- Local anesthetics
- Tramadol, Tramadol/APAP
- Other (e.g., clonidine, dextromethorphan, triptans, etc.)

The Goal in pharmacological treatment
of pain is to Improve Function
& Control the Pain
with minimal
side effects



Pain: Magnitude of the Problem



National Institutes of Health Data

Analgesic Marketplace: Unmet Needs

- Greater selection of noninvasively delivered analgesics
- Greater selection of ultra rapid acting opioids
 - there is only fentanyl at present
- Greater selection of ultra rapid acting nonopioids
 - there is only ketorolac at present
- Availability of analgesics that work via nonopioid, non-PG mediated pathways (e.g., NMDA antagonists)
- Abuse resistant opioids