

FAST FACTS

- **Pain Disorders:** in HIV are common, undertreated, multidimensional, culturally based, & subjective. There are **4 types**: nociceptive pain - immediate activation of sensory fibers by stimulation of specialized peripheral receptors (nociceptors) by thermal, mechanical or chemical stimuli; central pain – (aka “deafferentation” or “neuropathic” pain) mediated by the CNS, with delayed onset after initial trauma and subsequent changes in sensory threshold; pain suffering – (emotional pain, depression or delusional pain); & pain behavior – (the associated disability(ies), sometimes more disabling than the pain itself).
- **Confounding relationships** exist between primary peripheral sensory pain, and the central perception of pain. Most afferent pain information is conveyed diffusely through the brainstem reticular activating system, thalamus, and limbic system. As a result, interruption of a specific pathway often does not eliminate the perception of pain.
- **Pain Components:** “original pain”: the *primary*, organic or tissue component, i.e., the “felt” sensation; & “reactive pain”: the *secondary* or presenting component, i.e., the psychological response to the felt sensation. For psychiatrists, the reactive component lends itself to intervention. It can be: altered by distraction, reduced by suggestion, or augmented by untreated/undertreated anxiety.
- **Pain Issues in HIV:** All pain is “real” pain (except malingering). *Prevalence in HIV:* varies with stage and care setting: ambulatory: ~30%-80%; hospitalized: ~50%; hospice: ~50%-70%. Intensity of pain and number of concurrent pains (2-3) are comparable to reports made by mid-stage cancer patients. *Undertreatment of pain issues:* gender (females twice as likely to be undertreated); education (less educated, more likely to be undertreated); substance abuse history (M.D. fear of prescribing); “barriers” to access (patient-related, system-related, provider-related). Undertreatment leads to functional impairment, greater disability. *Consequences of undertreatment:* disruption of doctor-patient relationship and adherence; worse health outcomes; increased risk of relapse in previous addicts; increased “drug-seeking” behavior; increased fear; anticipatory anxiety; increased suicidality; depression; demoralization. *Quality of life issues:* untreated/undertreated depression highest comorbidity; PWA’s with pain twice as likely to have suicidal ideation as those without; increased fears of death, anxiety, hopelessness all contribute to the perception of pain.
- **Pain Categories:** Cat. I = ~50% (pain directly related to HIV infections, or consequences of immunocompromise); Cat. II = ~30% (pain due to AIDS-related therapies); Cat. III = ~20% (pain unrelated to AIDS/AIDS therapies.)

Pain Syndromes:	Most Common:	Other Examples:
oral & pharyngeal pain	candidiasis (~75%)	gingivitis, ulcers, abscesses
esophageal pain	esophageal candidiasis (~80%)	dysphagia, odynophagia, etc
abdominal pain	non-specific diarrhea (~30%+)	cryptosporidiosis, salmonella/shigella, etc.
acute abdomen	OI's/CMV-related	peritonitis, perforation, intussusception, KS, etc.
gall bladder pain	OI's/CMV-related	cryptosporidiosis, etc.
pancreatic pain	OI's/CMV-related	meds: pentamidine, ddl, ddC,
anorectal pain	peri-rectal abscess (~30%)	herpes simplex, other OI's
headache pain	mass lesions (~50%)	OI's, neoplasms, PML, meningitis, meds, etc.
neurologic pain	sensory neuropathy (~40%)	G-B, demyelinating neuropathies, herpes zoster
rheumatologic pain	various arthritides, arthropathies	myopathies, myositides, etc.
pelvic/gynecologic pain	infection, tumors	OI's

CLINICAL
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- **General Treatment Principles:** Most often, psychiatrists involved in pain evaluation and treatment are part of a *multi-disciplinary* treatment team utilizing the *bio-psycho-social-spiritual* paradigm. Rarely, if ever, should a psychiatrist initiate or adjust narcotic analgesics without the opinion of a pain specialist, or co-treating internist/surgeon. *Psychosocial Variables:* sx preoccupation, emotional distress, loss of control, substance use, psychosocial supports, cultural factors, family disruption, disability, secondary gain.
- **Interviewing the pain patient:** pay attention to details; pay attention to style of discourse; look for fluctuations in course of pain; ask what life events coincided with exacerbations; ask what helped and what didn't; ask how long periods of remission occurred. Do not call the pt.'s pain "psychological"; allow the pt. to tell own story; encourage expression of affect; ask pt. to discuss what they are angry at; suggest simple remedies as well as complex ones; assure treatment will continue even if no immediate improvement. Maintain/transmit realistic hope. Pain is often multifactorial; r/o organic causes with colleagues first, but don't delay pain treatment until a definitive diagnosis is made; avoid surgical intervention prematurely. If end-stage/incurable pain, consider palliation of symptoms; follow WHO analgesic ladder guidelines; attempt to prevent severe pain in the first place, rather than trying to stop it later.
- **Pain Assessment:** Obtain thorough history, comprehensive physical, specialty consultations, etc., all necessary labs/tests, psychological testing, information from family/significant others. *Remember: "P, Q, R, S, T":* (P = palliative/provocative factors; Q = quality of pain; R = region; S = severity; T = temporal sequence.) There is no tool for objectively verifying a pt.'s complaint of pain. However, objective measurements of the pt.'s subjective response (via a written or verbal analog scale of pain, from 0 – 10, or a categorical rating scale, or a "pain drawing", etc.) can be performed.
- **DSM Differential:** untreated/undertreated major depression (most common comorbidity); somatoform d/o's (including pain d/o); psychoses (including delusional pain); psychological factors affecting medical condition; and - malingering (the only pain *not* felt).
- **Non-Pharmacologic Interventions:** Multimodal: education for pt., family, health care providers; supportive psychotherapy; cognitive-behavioral; hypnosis/acupuncture; rehab medicine; ECT; regional nerve blocks; neurosurgical intervention.
- **Pharmacologic Interventions:** Optimal pain management is always multi-modal. Determining which type of pain, helps determine which kinds of medications to use (e.g., neuropathic pain does not respond to narcotic analgesics, but does respond to anticonvulsants, like gabapentin.) Thus, choice of analgesic should be based on severity and mechanism of pain. **Narcotic use principles:** are narcotics really the drugs of choice? Does the drug have good oral potency? Avoid "PRN" dosing and use around-the-clock dosing ("ATC") instead. Avoid medications with erratic absorption. Check potency of drug, half-life, absorption by different routes, and drug interactions. (See Below).
- **Special considerations:** PWA's may suffer from diarrhea, malabsorption, wasting, dysphagia; transdermal therapies must be placed on *intact* skin; beware increased sensitivity to opioid side effects. *Special sub-populations:* prior history of drug abuse does *not* preclude needed treatment with potentially addicting meds, however, certain cautions should be taken. Risk of re-addiction may be 20% or higher.
- **Prescribing guidelines:** Pain management contract: conditions of prescribing must be made explicitly clear. No unscheduled refills; thorough documentation; no "accidents" requiring another prescription. Avoid prescribing drugs with high street value if possible – if not, prescribe in small quantities. Patient should agree in writing to expect serious consequences if treatment plan violated. Use random urine/blood screens; present narcotic meds as a therapeutic "trial" that may be dc'd if no benefit (have pt. log levels of pain/function to assess benefit). If pain is continuous and severe, use a long-acting agent administered ATC, not PRN, to promote stable plasma levels, and to avoid peaks that may make pt. feel "high". PRN's should be used only for "breakthrough" pain. Use of parenteral agents should be reserved for: patients with alimentary dysfunction (e.g., obstruction), rapid titration, or a bona fide pain "emergency".
- **WHO Analgesic Ladder:** *mild* pain = non-opioid, +/- adjuvant; *moderate* pain = weak opioid, +/- non-opioid, +/- adjuvant; *severe* pain = strong opioid, +/- non-opioid, +/- adjuvant. **Opioids:** fall into 2 categories: *short-acting* (morphine, codeine, oxycodone, meperidine, hydrocodone, hydromorphone); and *long-acting*

(methadone, SR morphine, transdermal fentanyl). **Adjuvants:** fall into 2 categories: *adjuvant analgesics* (AD's, anticonvulsants, - used along with opioids and NSAID's in all stages of this ladder to help control pain); and *adjuvant agents* (used to control opioid side effects, such as: sedation, nausea, vomiting, constipation, respiratory depression, delirium). Always check PDR for data/dosages/drug interactions.

- **Pharmacologic Interventions: Mild to Moderate Pain: (A) NSAIDS** (which are sensitive to changes in plasma protein binding and hepatic metabolism; all have a ceiling effect, i.e., maximum dose). SE's: blood dyscrasias, GI damage, increased bleeding time, renal toxicity, hepatic reactions. **Mild to Moderate Pain: (B) "Weak Opioids"** (which are often overused, resulting in inadequate pain relief because of exaggerated concerns of addiction to strong opioids. Ceiling effects with those preparations containing ASA or acetaminophen.) **Moderate to Severe Pain: (C) "Strong Opioids"** (which have no ceiling effect; must be titrated to pt.'s pain level; most serious SE: respiratory depression-arrest.)

NSAIDS	starting dose	duration	t _{1/2}	comments
ASA/aspirin	650mg/d	4-6h	4-6h	standard for comparison among non-opioid analgesics
ibuprofen	400-600mg/d	----	----	can inhibit platelet function, like ASA
trisalicylate	700-1500mg/d	8-12h	----	few if any heme or GI side effects
ketorolac	120-400mg/d	4-6h	4-7	parenteral form available

Weak Opioids	starting dose	duration	t _{1/2}	comments
codeine	32-65mg/d	3-4h	----	met'd to morphine
oxycodone	5-10mg/d	3-4h	----	a single agent, or in combo with ASA/acetaminophen
propoxyphene	65-130mg/d	4-6h	----	avoid; toxic metabolite accumulates w/ repeat dosing

Strong Opioids	equipotencies	duration	t _{1/2}	comments
morphine-po	60mg	1-2h	2-4h	standard for comparison among narcotic analgesics
morphine-im/iv/sc	10mg	0.5-1h	2-4h	----
hydromorphone-po	7.5mg	3-4h	2-3h	short t _{1/2} may be preferable for elderly
hydromorph.-im/iv	1.5mg	3-4h	2-3h	also available in rectal suppositories
methadone-po	20mg	4-6h	15-30h	long t _{1/2} ; tends to accumulate; may lead to sedation; complicated dosing for chronic pain; avoid in methadone maintenance; careful titration; monitor for potential drug-drug interactions with ARVs (see "HIV and Substance Abuse" fact sheet).
methadone-im/iv	10mg	----	15-30h	----
levorphanol-po	4mg	4-6h	12-16h	long t _{1/2} ; short duration
levorphanol-im	2mg	4-6h	12-16h	----
meperidine-po	300mg	4-6h	3-4h	avoid; very neurotoxic, may cause seizure; toxic metabolite accumulates (t _{1/2} =16h); delirium
meperidine-im	75mg	4-6h	3-4h	avoid; toxic metabolite accumulates (t _{1/2} =16h); delirium
fentanyl-td	0.1mg	48-72h	20-22h	transdermal patch must be applied to intact skin
fentanyl-iv	0.1mg	----	----	transdermal patch must be applied to intact skin

Psychotropic Adjuvants: (see "Mood, Psychotic & Anxiety Disorders" for medications & dosing)

SSRI's as per "Mood Disorders"	Anticonvulsants as per "Mood Disorders"
TCA's as per "Mood Disorders"	Benzodiazepines as per "Anxiety Disorders"
Heterocyclics as per "Mood Disorders"	Antihistamine as per "Anxiety Disorders"
Psychostimulants as per "Mood Disorders"	Neuroleptics as per "Psychotic Disorders"