Stage B Clinical In-service Meeting Slides

Definition of Pain

- An individual's unpleasant sensory or emotional experience
  - Acute pain is abrupt usually abrupt in onset and may escalate
  - Chronic pain is pain that is persistent or recurrent

Pain in Older Adults

- Studies on pain in persons ≥65 years of age report 25%-50% of community dwellers have persistent pain
- 45-80% of nursing home residents report pain that is often left untreated
- Pain is strongly associated with depression and can result in
  - Decreased socialization
  - Impaired ambulation
  - Increased healthcare utilization and costs
- Older adults tend to minimize or not report their pain or are unable to due to sensory and or cognitive impairments

Flaherty E. Try This: Best Practices in Nursing Care to Older Adults. 2007;7.
AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain in Older Adults (cont)

- The most common reason for unrelieved pain in the U.S. is failure to routinely assess for pain
- JCAHO has incorporated assessment of pain into its practice standards as “the 5th vital sign”

Barriers to the Recognition of Pain in the LTC Setting

- Different response to pain
- Staff training
- Cognitive or sensory impairments
- Practitioner limitations
- Social or cultural barriers
- System barriers
- Co-existing illness and multiple medications

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Sources of Pain in the Nursing Home

Condition causing pain	Frequency (%)
Low back pain	40
Arthritis	37
Previous fractures	14
Neuropathies	11
Leg cramps	9
Claudication	8
Headache	6
Generalized pain	3
Neoplasm	3

Stein WM, Ferrell BA. *Clin Geriatric Med*. 1996;12:601-603.

2004 National Nursing Home Survey

- 16,100 facilities
- 1,492,200 nursing home residents

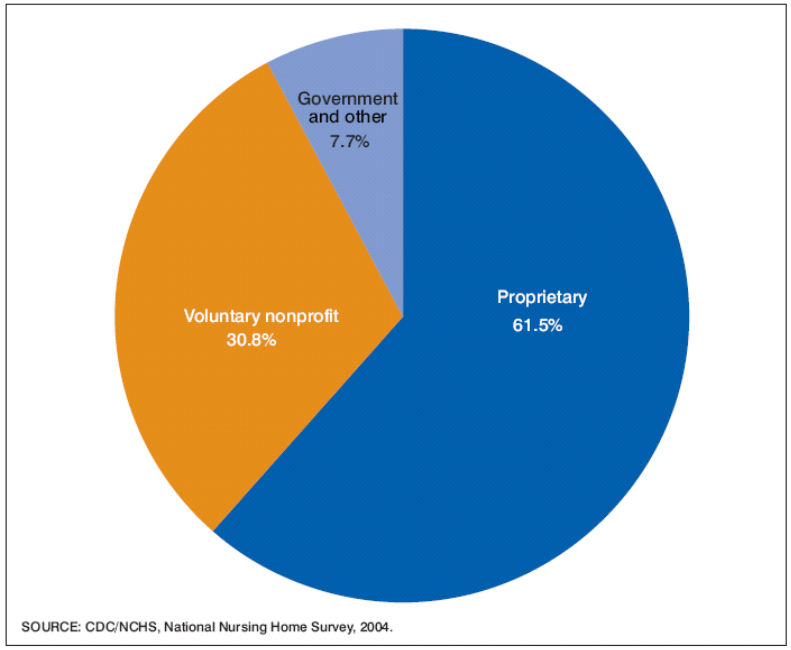


Figure 1. Percent distribution of nursing homes, according to type of ownership: United States, 2004

- 22.7% reported pain in the 7 days prior to the facility interview

2004 National Nursing Home Survey: Pain Management Strategies

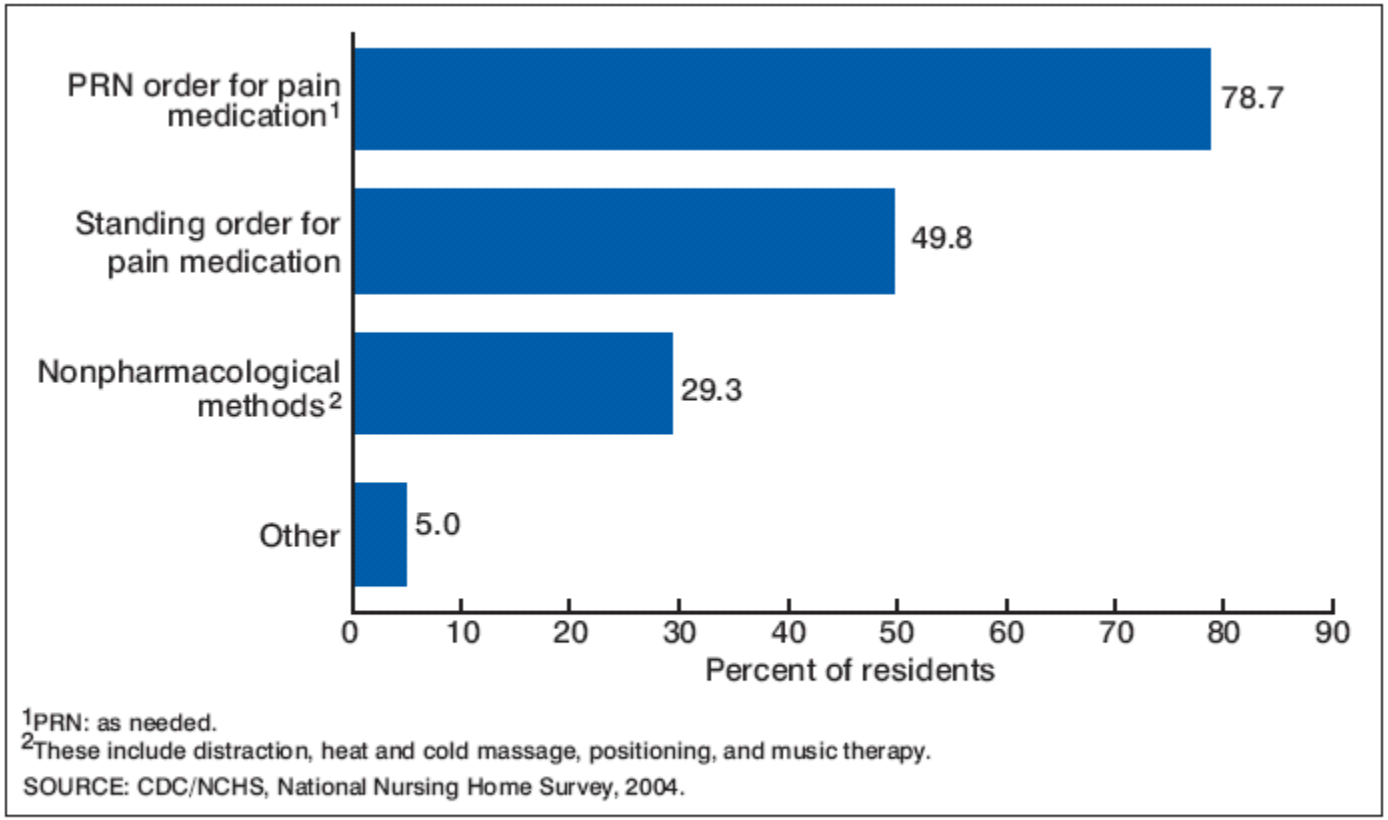


Figure 13. Percentage of nursing home residents who had any pain in the 7 days before the facility interview, by pain management strategy: United States, 2004

2004 National Nursing Home Survey: Common Morbidities

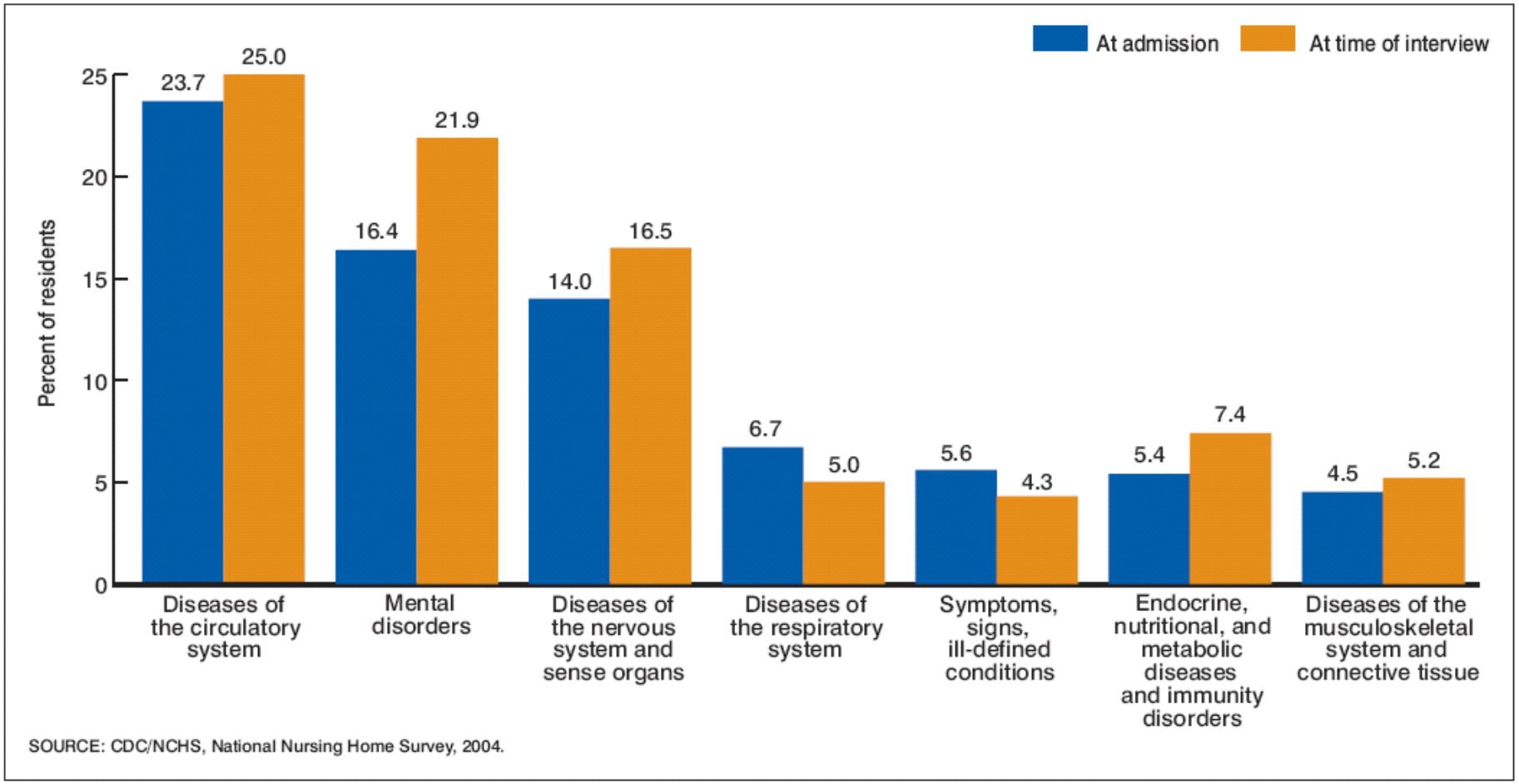


Figure 7. Percentage of nursing home residents, by selected primary diagnoses at admission and at time of interview: United States, 2004

Pathophysiology of Pain

Inferred Pain Pathophysiology

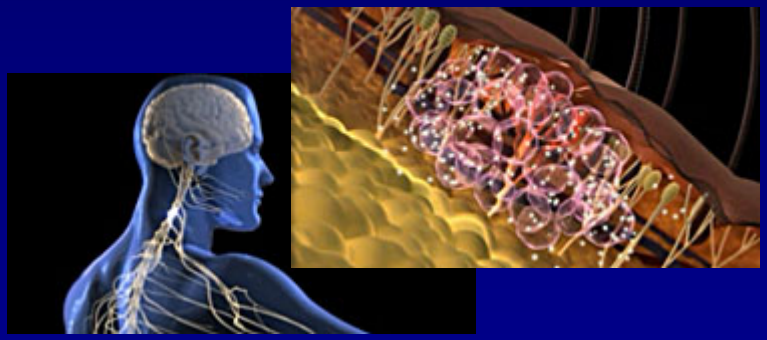
- Nociceptive pain – Explained by ongoing tissue injury
- Neuropathic pain – Sustained by abnormal processing in the peripheral or central nervous system
- Psychogenic pain – Sustained by psychological factors
- Idiopathic pain – Unclear mechanisms

Neuropathic Pain Pathophysiology

- Involves injury or alteration of the normal sensory and modulatory nervous systems
- Multiple processes are capable of producing sufficient neural alteration to produce neuropathic pain:

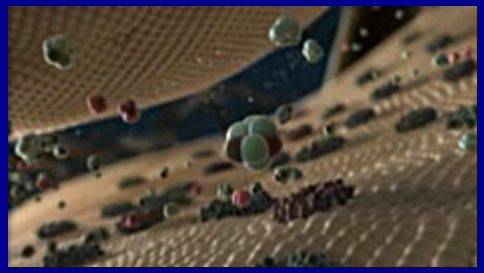
Abnormal nerve regeneration

Disinhibition of modulatory processes



Increased expression of membrane sodium channels

Decreased expression of mu-opioid receptors



Types of Neuropathic Pain

- Deafferentation
  - Pain arises from damage to the peripheral nervous system
- Central
  - Pain arises from injury to the spinal cord or brain.
  - Usually an area of altered sensation incorporating the painful area but commonly extending beyond it with no local disease to account for pain
- Sympathetic-maintained
  - Pain is a relatively uncommon sequel to tissue or sympathetic nerve injury
  - Essential features are pain (often burning) and sensory disorder related to vascular as opposed to neural distribution
  - Diagnostically relieved by a sympathetic plexus block
- Complex regional pain syndrome (CRPS)
  - Associated autonomic and trophic changes following a soft tissue or nerve injury
  - Sub-classification of pain is useful since it helps to predict which analgesic agent may be most effective for an individual patient

http://book.pallcare.info/index.php?page=introduction

Abnormal Sensory Symptoms and Signs With Neuropathic Pain States

Allodynia	• Pain due to nonnoxious stimuli *(eg, clothing) when applied to the* symptomatic cutaneous area • Pain may be mechanical, static (eg, induced by a light pressure), dynamic (induced by moving a soft brush), and thermal (eg, induced by a nonpainful cold or warm stimulus)
Dysesthesias	Spontaneous or evoked unpleasant sensations, such as an annoying sensation elicited by cold stimuli or pinprick testing
Hyperalgesia	An exaggerated pain response to a mildly noxious (mechanical or thermal) stimulus applied to the symptomatic area
Hyperpathia	A delayed and explosive pain response to a noxious stimulus applied to the symptomatic area
Paresthesias	Spontaneous intermittent painless abnormal sensations

Pappagallo M. In: Tollinson CD, et al., eds. Practical Pain Management. 3rd ed. Lippincott, Williams & Wilkins. Philadelphia: 2002;431-438.

Assessment of Pain

Palliative Care Guidelines: Detailed Pain Assessment

1. Clinical history
   - Site and number of pains
   - Intensity/severity of pains
   - Radiation of pain
   - Timing of pain
   - Quality of pain
   - Aggravating and relieving factors
   - Sensory disturbance
   - Power/functional loss and the effect on activities of daily living
   - Aetiology of pain e.g. cancer, treatment related, osteoarthritis, other pathology
   - Type of pain: nociceptive, neuropathic, referred, mixed etc.
   - Analgesic and other drug history
   - Presence of clinically significant psychological disorder (eg, depression or anxiety)
   - Contribution from psychosocial and spiritual factors
   - Patient understanding and beliefs concerning pain
2. Physical examination
3. Identification of the likely cause of pain and classification the type of pain
4. Arrangement for appropriate diagnostic investigations
5. Arrangement for multi-disciplinary professional assessment when practicable
6. Regular review to determine the effectiveness of treatment; frequency of review depends upon the severity of the pain and associated distress

http://book.pallcare.info/index.php?page=introduction

American Medical Directors Association (AMDA) Clinical Practice Guidelines

- Pain Management in Assisted Living Facilities
  - Recognition
  - Assessment
  - Treatment
  - Monitoring

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain Recognition Steps

1. Is pain present?

2. Have characteristics and causes of pain been adequately defined?

3. Provide appropriate interim treatment for pain.

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain Recognition (cont)

Clinical Indicators of Pain*	Psychosocial Indicators of Pain*
Restlessness, repetitive movements	Change in mood
Sleep cycle	Change in behavior
Functional limitation in range of motion	Sad, apathetic, anxious appearance
Change in ADL function	Loss of sense of initiative or involvement
Pain site	Resisting care
Pain symptoms	
Any disease associated with pain	
Mouth pain	
Weight loss	
Skin lesions	
Foot problems	
Range-of-motion restorative care	

***In MDS**

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain Recognition (cont)

- Non-specific signs and symptoms suggestive of pain:
  - Frowning, grimacing, fearful facial expressions, grinding of teeth
  - Bracing, guarding, rubbing
  - Fidgeting, increasing or recurring restlessness
  - Striking out, increasing or recurring agitation
  - Eating or sleeping poorly
  - Sighing, groaning, crying, breathing heavily
  - Decreasing activity levels
  - Resisting certain movements during care
  - Change in gait or behavior
  - Loss of function

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain Assessment in Older Adults

- Patients' self report is the most reliable measure of pain intensity as there are no biological markers of pain
- Simply worded questions and tools, which can be easily understood, are the most effective
- Most widely used pain intensity scales:
  - Numeric Rating Scale (NRS)
  - Verbal Descriptor Scale (VDS)
  - Faces Pain Scale-Revised (FPS-R)

Flaherty E. Try This: Best Practices in Nursing Care to Older Adults. 2007;7.

Numeric Rating Scale (NRS)

- Most popular assessment tool
- Asks a patient to rate their pain by assigning a numerical value with zero indicating no pain and 10 representing the worst pain imaginable

0 1 2 3 4 5 6 7 8 9 10

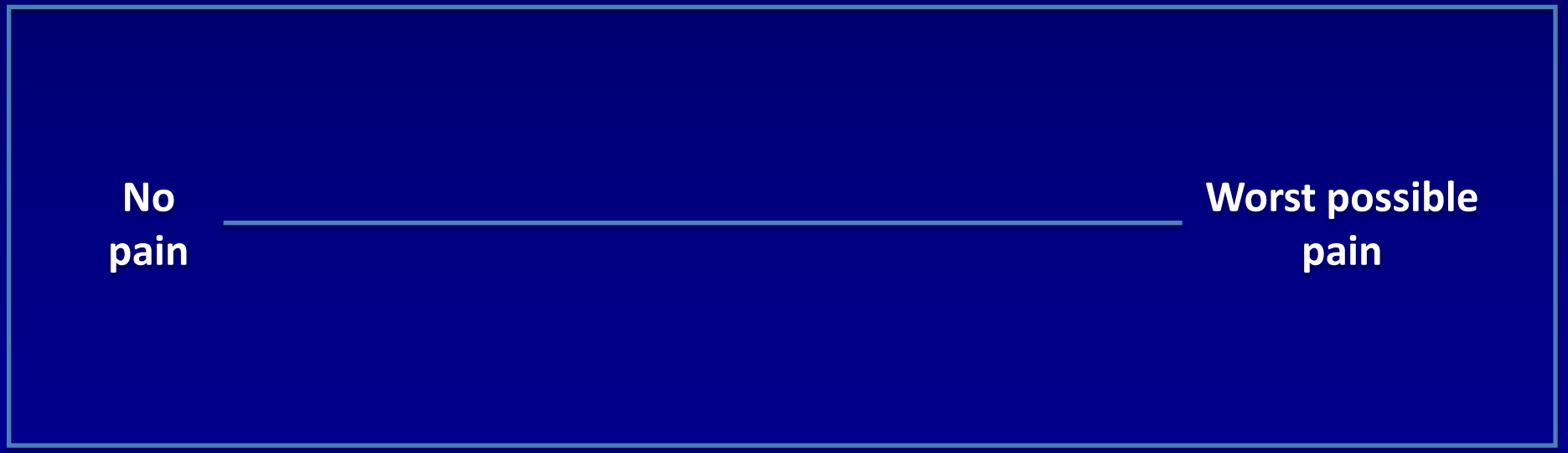
No pain

Moderate pain

Worst possible pain

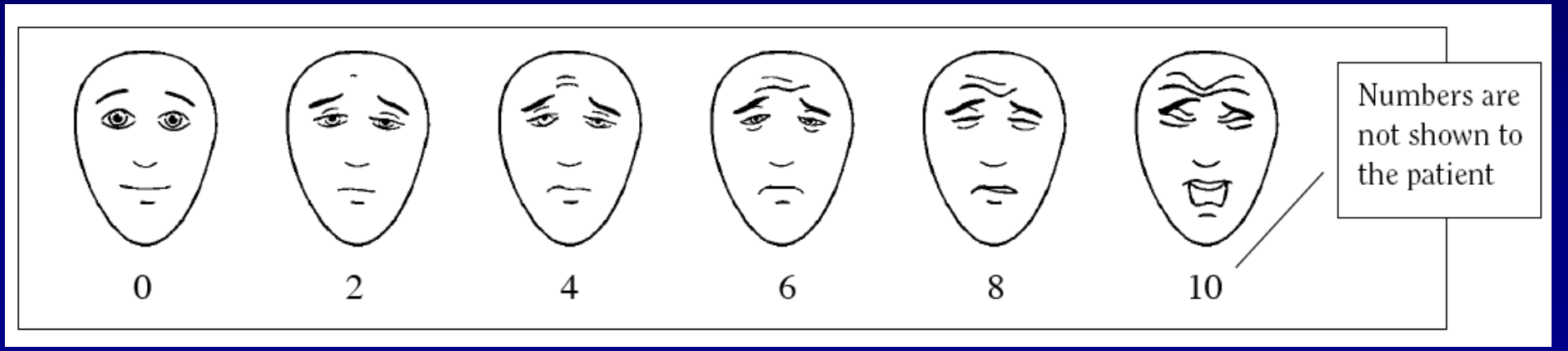
Verbal Descriptor Scale (VDS)

- Asks the patient to describe their pain from “no pain” to “pain as bad as it could be”



Faces Pain Scale-Revised (FPS-R)

- Asks patients to describe their pain according to a facial expression that corresponds with their pain



Nociceptive vs Neuropathic Pain: LANSS Pain Scale

Symptom / Sign	Score for "yes"
Does the pain feel like strange unpleasant sensations? (eg, pricking, tingling, pins/needles)	5
Do painful areas look different? (eg, mottled, more red/pink than usual)	5
Is the area abnormally sensitive to touch? (eg, lightly stroked, tight clothes)	3
Do you have sudden unexplained bursts of pain? (eg, electric shocks, 'jumping')	2
Does the skin temperature in the painful area feel abnormal? (eg, hot, burning)	1
Exam: Does stroking the affected area of skin with cotton produce pain?	5
Exam: Does a pinprick (23 GA) at the affected area feel sharper or duller when compared to an area of normal skin?	3
0 - 12 = likely nociceptive, Score > 12 likely neuropathic	**Total:**

Arnsten P. Try This: Best Practices in Nursing Care to Older Adults. 2010;SP1.

Nociceptive vs Neuropathic Pain: DN4 Questionnaire

Symptom / Sign		No = 0; Yes = 1
Does the pain have the following characteristic?	Burning	
	Painful cold	
	Electric shocks	
Does the area of pain also have the following?	Tingling	
	Pins & needles	
	Numbness	
	Itching	
Exam: Decrease in touch sensation (soft brush)?		
Exam: Decrease in prick sensation (von Frey hair #13)?		
Exam: Does movement of a soft brush in the area cause or increase pain?		
0 – 3 = likely nociceptive pain ≥4 = likely neuropathic pain		**Total:**

Arnsten P. Try This: Best Practices in Nursing Care to Older Adults. 2010;SP1.

Pain Assessment in Advanced Dementia (PAINAD) Scale

Items*	0	1	2	Score
Breathing independent of vocalization	Normal	Occasional labored breathing; Short period of hyperventilation	Noisy labored breathing; Long period of hyperventilation; Cheyne-Stokes respirations	
Negative vocalization	None	Occasional moan or groan; Low level speech with a negative or disapproving quality	Repeated troubled calling out; Loud moaning or groaning; Crying	
Facial expression	Smiling or inexpressive	Sad; Frightened; Frown.	Facial grimacing.	
Body language	Relaxed	Tense.; Distressed pacing; Fidgeting.	Rigid.; Fists clenched; Knees pulled up; Pulling or pushing away; Striking out	
Consolability	No need to console	Distracted or reassured by voice or touch	Unable to console, distract or reassure	
			Total:**	

*** Five-item observational tool (see the description of each item below).**
**** Total scores range from 0 to 10 (based on a scale of 0 to 2 for five items), with a higher score indicating more severe pain (0="no pain" to 10="severe pain").**

Horgas AL. Try This: Best Practices in Nursing Care to Older Adults. 2007;D2.

Pain Assessment Steps

1. Perform a pertinent history and physical examination
2. Identify the causes of pain as far as possible
3. Perform further diagnostic testing as indicated
4. Identify causes of pain
5. Obtain assistance/consultations as necessary
6. Summarize characteristics and causes of the patient's pain and assess impact on function and quality of life

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain Assessment: Pain History

- Important elements to include:
  - Known etiology and treatments – previous evaluation, pain diagnoses and treatments
  - Prior prescribed and non-prescribed treatments
  - Current therapies

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Pain Assessment: Chronic Pain History

- "PQRST"
  - Provocative/palliative factors (eg, position, activity, etc)
  - Quality (eg, aching, throbbing, stabbing, burning)
  - Region (eg, focal, multifocal, generalized, deep, superficial)
  - Severity (eg, average, least, worst, and current)
  - Temporal features (eg, onset, duration, course, daily pattern)
- Medical History
  - Existing comorbidities
  - Current medications

Valley, MA. Pain measurement. In: Raj PP. Pain Medicine. St. Louis MO. Mosby, Inc. 1996:36-46.

Pain Assessment: Patient History for Neuropathic Pain

- Time of onset
- Location of pain
- Changes in pain (worsening, improvement, spread)
- Quality of the pain
- Discomfort (other abnormal sensations)
- Potential associated neurological symptoms (ie, numbness, weakness, trouble sleeping, bowel or bladder dysfunction)
- Exacerbating and alleviating factors
- Impact on ability to perform daily activities
- Complex regional pain syndrome-specific symptoms (ie, focal swelling, change in skin color, focal sweating abnormality, change in hair growth, change in nails, change in skin texture or subcutaneous fat)

Gabb MG, Galer BS. *Adv Studies Medicine.* 2001;1:248-254.

Documenting an Initial Pain Assessment

Pattern: Constant_____ Intermittent_____

Duration: _____

Location: _____

Character: Lancinating____ Burning_____ Stinging_____

Radiating_____ Shooting_____ Tingling_____

Other Descriptors:_____

Exacerbating Factors:_____

Relieving Factors:_____

Pain Intensity – (None, Moderate, Severe)

1 2 3 4 5 6 7 8 9 10

Worst Pain in Last 24 Hours (None, Moderate, Severe)

1 2 3 4 5 6 7 8 9 10

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Documenting an Initial Pain Assessment (cont)

Mood: _____

Depression Screening Score: _____

Impaired Activities: _____

Sleep Quality: _____

Bowel Habits: _____

Other Assessments or Comments:_____

_____

_____

Most Likely Causes of Pain: _____

_____

Plans: _____

_____

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Management of Pain

Pain Treatment Steps

1. Adopt an interdisciplinary care plan
2. Set goals for pain relief
3. Implement the care plan
4. Provide a comforting and supportive environment

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Goals of Treatment

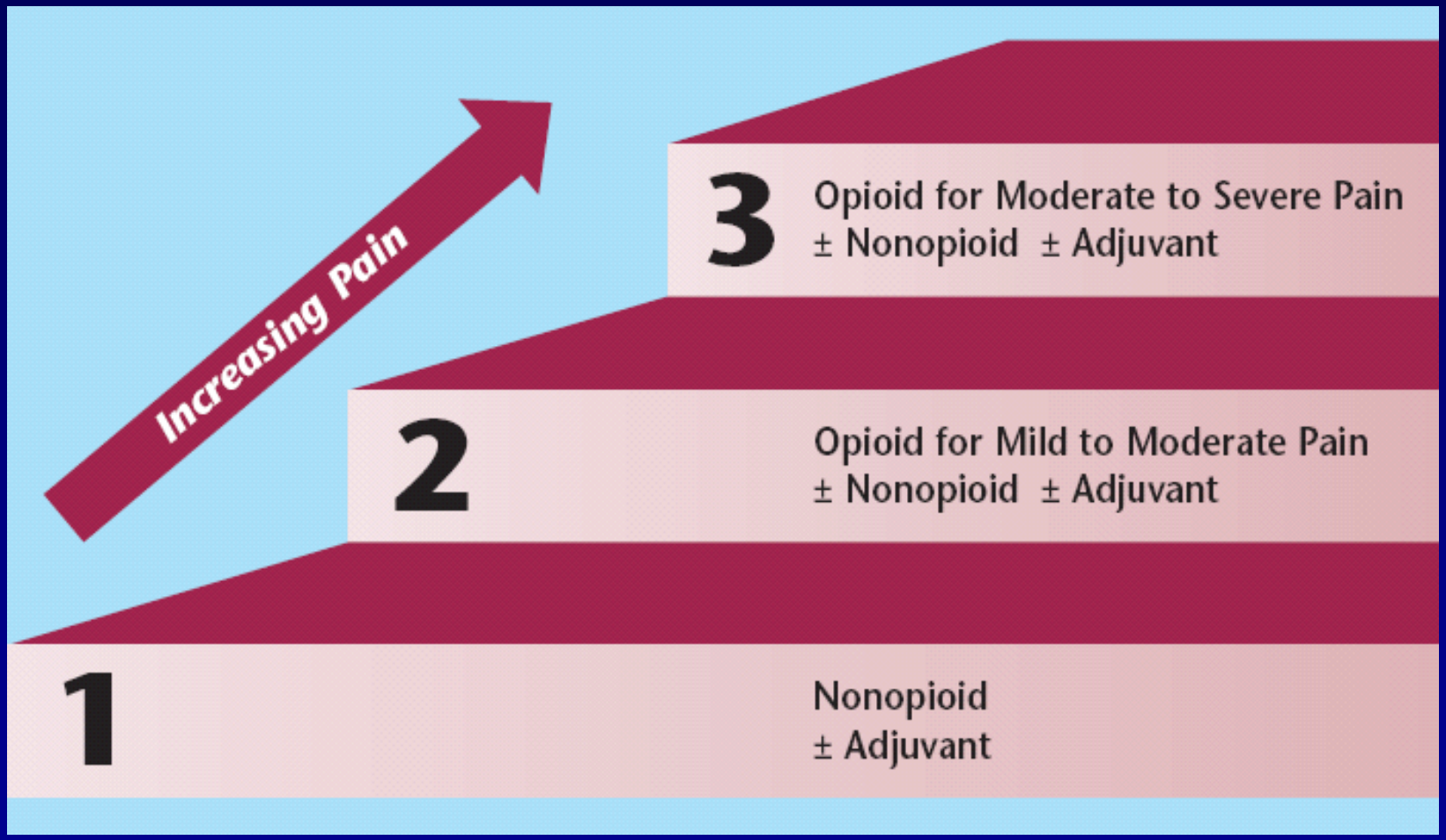
- Decrease pain
- Improve functioning, mood and sleep
- Strength of dosage should be limited only by side effects or potential toxicity

General Principles for Prescribing Analgesics in the LTC Setting

- Evaluate patient's overall medical condition and current medication regimen
- Consider whether the medical literature contains evidence-based recommendations for specific regimens to treat identified causes
  - For example, acetaminophen for musculoskeletal pain; narcotics may not help fibromyalgia
- In most cases, administer at least one medication regularly (not PRN)

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

WHO Pain Ladder



General Principles for Prescribing Analgesics in the LTC Setting (cont)

- Use the least invasive route of administration first
  - For chronic pain – begin with a low dose and titrate until comfort is achieved
  - For acute pain – begin with a low or moderate dose as needed and titrate more rapidly
  - Reassess/adjust the dose to optimize pain relief while monitoring side effects

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Common Analgesics for Neuropathic Pain

Agent		Initial Dose	Side Effects
Topical Agents	lidocaine (5% patch)	Applied to the painful area; up to 3 patches can be used at a time for a max of 12 hrs, within a 24 hr period	Localized skin irritation; systemic toxicity from cutaneous absorption of lidocaine very rare
Opioids	oxycodone**	5 mg orally every 6 hrs*	Sedation, nausea, dizziness, constipation
SNRI Antidepressants	duloxetine**	60 mg/d	Somnolence, dizziness, nausea
TCA Antidepressants	nortriptyline**; desipramine**	10 to 25 mg/d orally at bedtime*	Sedation, confusion, anticholinergic effects (dry mouth, blurred vision, constipation, urinary retention)
Antiepileptic Agents	gabapentin	300 mg/d orally	Somnolence, dizziness, ataxia, nystagmus
	pregabaline	75 to 150 mg/d orally bid, increasing to 300 mg/d orally after 1 wk	Somnolence, dizziness, ataxia, blurred vision

***Other agents are also available for use.**
**** Does not have FDA-approved labeling for postherpetic neuralgia**

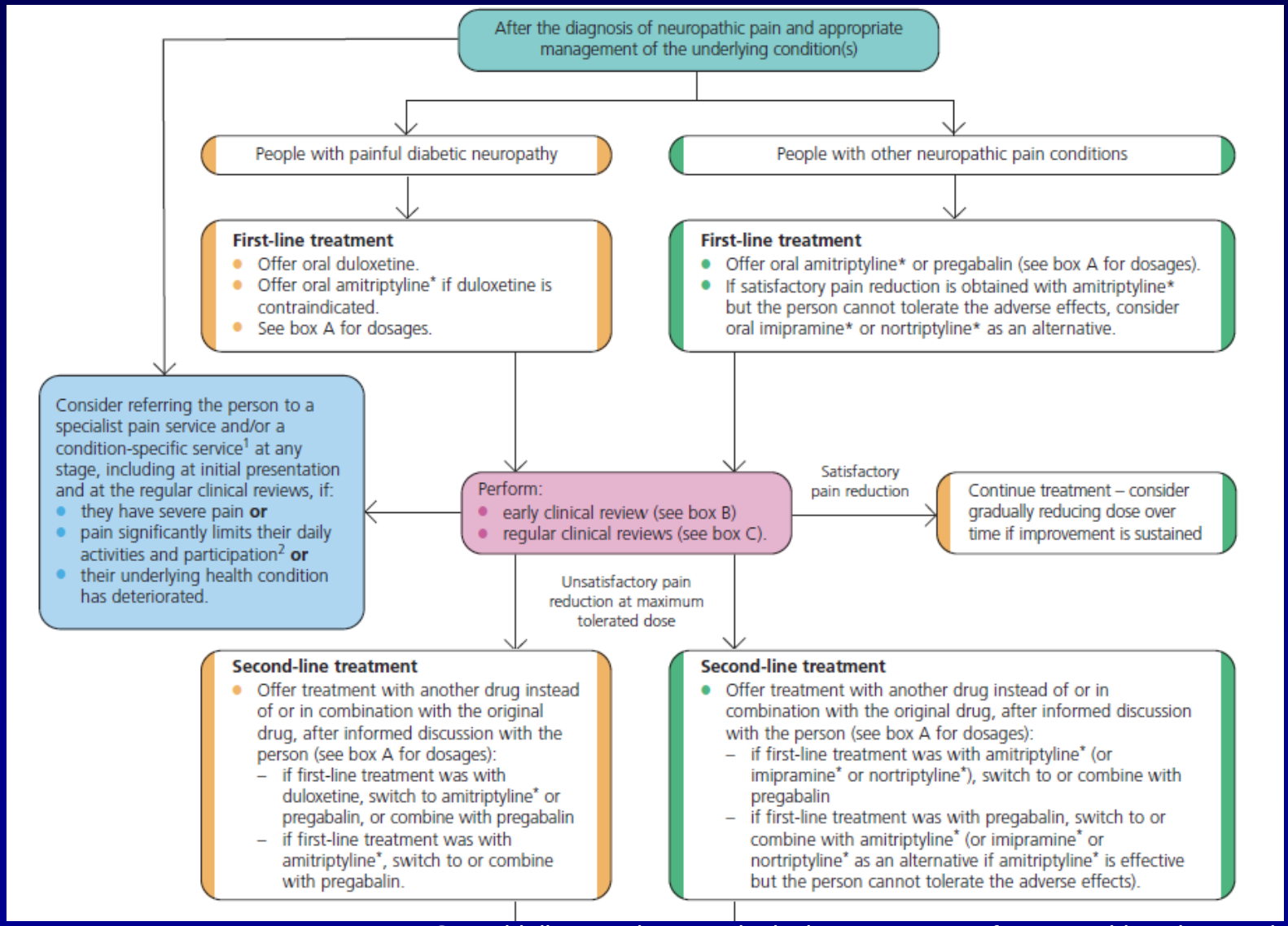
Gnan JW, Whitley RJ. *New Engl J Med.* 2002;347:340-346.

Appropriateness of Regular or Breakthrough (PRN) Dosing

- More severe pain
  - Standing order for more potent, longer-acting analgesic and supplement with a shorter acting analgesic PRN
- Severe/recurrent acute or chronic pain
  - Regular, not PRN dosage of at least one medication
  - Start with low to moderate dose, then titrate upwards

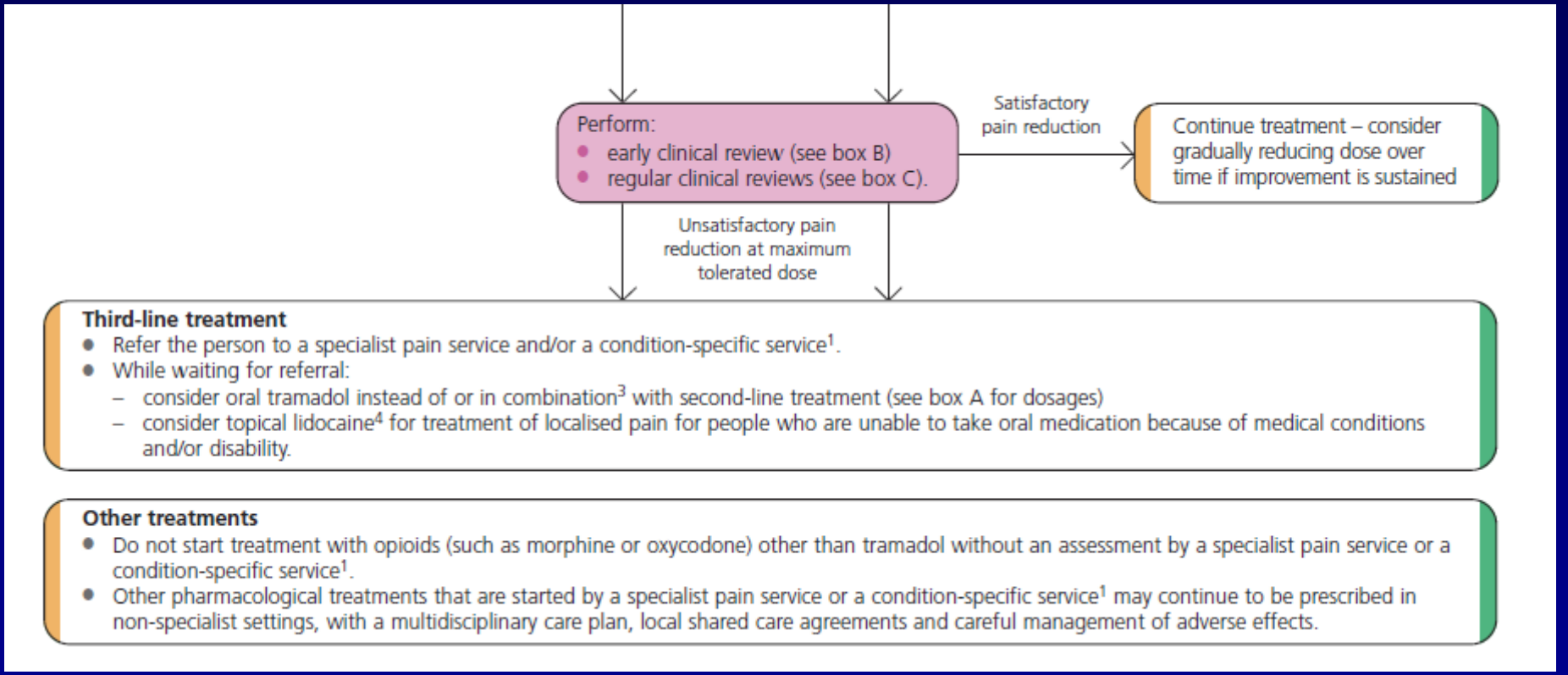
AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

NICE Guidelines for Neuropathic Pain



NICE guideline on pharmacological management of neuropathic pain. March 2010.

NICE Guidelines for Neuropathic Pain (cont)



NICE guideline on pharmacological management of neuropathic pain. March 2010.

NICE Guidelines for Neuropathic Pain (cont)

Box A Drug dosages

- Start at a low dose, as indicated in the table.
- Titrate upwards to an effective dose or the person's maximum tolerated dose (no higher than the maximum dose listed in the table).

Drug	Starting dose	Maximum dose
Amitriptyline*	10 mg/day	75 mg/day[a]
Pregabalin	150 mg/day[b] (divided into 2 doses)	600 mg/day (divided into 2 doses)
Duloxetine	60 mg/day[b]	120 mg/day
Tramadol[c]	50–100 mg not more often than every 4 hours	400 mg/day

[a] Higher doses could be considered in consultation with a specialist pain service.
[b] A lower starting dose may be appropriate for some people.
[c] As monotherapy. More conservative titration may be required if used as combination therapy.

NICE guideline on pharmacological management of neuropathic pain. March 2010.

NICE Guidelines for Neuropathic Pain (cont)

Box B Early clinical review

After starting or changing a treatment, perform an early clinical review of dosage titration, tolerability and adverse effects to assess suitability of chosen treatment.

Box C Regular clinical reviews

Perform regular clinical reviews to assess and monitor effectiveness of chosen treatment. Include assessment of:

- pain reduction
- adverse effects
- daily activities and participation[2] (such as ability to work and drive)
- mood (in particular, possible depression and/or anxiety[5])
- quality of sleep
- overall improvement as reported by the person.

NICE guideline on pharmacological management of neuropathic pain. March 2010.

NICE Guidelines for Neuropathic Pain (cont)

- NICE guidelines on neuropathic pain may need to be adapted in
  - Patients at the end of life (use clinical judgment)
  - Patients with advanced cancer—strong opioids may be helpful at an earlier stage as patients may have mixed etiology for their pain
- It is recommended that patients with neuropathic pain should be given either:
  - tricyclic antidepressant
  - anticonvulsant
- Where neuropathic pain is difficult to control **both** groups of agents may be required
- Careful monitoring of side effects should be observed
- Specialist advice may be required

NICE guideline on pharmacological management of neuropathic pain. March 2010.

Pharmacological Changes With Aging

Pharmacological Concern	Common Disease Effects
Gastrointestinal (GI) absorption or function	• Disorders that alter gastric pH may reduce absorption of some drugs. • Surgically altered anatomy may reduce absorption of some drugs.
Transdermalabsorption	Temperature and other specific patch technology characteristics may affect absorption.
Distribution	Aging and obesity may result in longer effective drug half-life
Liver metabolism	Cirrhosis, hepatitis, tumors may disrupt oxidation but not usually conjugation.
Renal excretion	Chronic kidney disease may predispose further to renal toxicity.
Active metabolites	• Renal disease. • Increase in half-life.
Anticholinergic effects	Enhanced by neurological disease processes

American Geriatrics Society, JAGS. 2009;57:1331-1436.

Recommended Opioid Doses for Elderly Patients

Opioid Therapy	Recommended Starting Dose*
Hydrocodone	2.5-5 mg every 4-6 h
Hydromorphone	1-2 mg every 3-4 h
Methadone	Typically every 6h, then every 8h, then every 12h
Morphine-immediate release	2.5-10 mg every 4 h
Morphine-sustained release	15 mg every 8-24 h
Oxycodone-immediate release	2.5-5 mg every 4-6 h
Oxycodone-controlled release	10 mg every 12 h
Oxymorphone-immediate release	5 mg every 6 h
Oxymorphone-extended release	5 mg every 12 h
Transdermal fentanyl	12-25 mcg/h patch every 72 h

***Lowest staring dose should be considered in frail older persons with a history of sensitivity to CNS-active drugs.**

Adapted from American Geriatrics Society. *JAGS.* 2009;57:1331-1346.

Analgesics of Particular Concern in the LTC Setting

- Chronic use of the following drugs are not recommended:
  - Indomethacin
  - Meclofenamate
  - Meperidine
  - Pentazocine, butorphanol and other agonist-antagonist combinations
  - Piroxicam
  - Propoxyphene
  - Tolmetin

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Complimentary Therapies for Pain Management

- Physical Therapies
  - Exercise
  - Physical and occupational therapy
  - Positioning (eg, braces, splints, wedges)
  - Cutaneous stimulation (eg, superficial heat or cold, massage therapy, pressure, vibration)
  - Neurostimulation (eg, acupuncture, transcutaneous electrical nerve stimulation)
  - Chiropractic treatments
  - Magnet therapy
- Nonphysical Therapies
  - Cognitive/behavioral therapy
  - Psychological counseling
  - Spiritual counseling
  - Peer support groups
  - Alternative medicine (eg, herbal therapy, naturopathic and homeopathic remedies)
  - Aromatherapy
  - Music, art, drama therapy
  - Biofeedback
  - Meditation, other relaxation techniques
  - Hypnosis

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Factors to Evaluate When Considering Complementary Therapies

- Patient's underlying diagnosis and co-existing conditions
- Effectiveness of current treatment
- Preferences of the patient and family or advocate
- Past patient experience with the therapy
- Availability of skilled experienced providers

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Monitoring Steps

1. Re-evaluate the patient's pain
2. Adjust treatment as necessary
3. Repeat previous steps until pain is controlled
4. When patient is unresponsive to clinical management consider referral to:
   - Geriatrician
   - Neurologist
   - Physiatrist
   - Pain clinic
   - Physician certified in palliative medicine
   - Psychiatrist (if patient has co-existing mood disorder)

AMDA Clinical Practice Guideline. Assisted Living Consult. 2005:28-32.

Monitoring Opioid Therapy

- Critical outcomes: The “Four A’s”
  - Analgesia—Is pain relief meaningful?
  - Adverse events—Are side effects tolerable?
  - Activities—Has functioning improved?
  - Aberrant drug-related behavior

Dilemmas in Pain Management

- While addressing pain management, have strategies in mind for common problems
  - Patient refusal of potentially beneficial medication
  - Patient and family pressure to prescribe certain drugs
  - Patient and family misconceptions about illness
  - Unrecognized or denied psychiatric disturbances

Reviewing the Physician's Role

- Prevention strategies
- Communication with patients/families
- Documentation
- Participate in Quality Improvement
- Follow policies and procedures

Summary

- Views about management of pain in the elderly have changed in recent years
- It is an expectation that pain be managed
- Pain can be effectively treated in the LTC setting
- A culture of patient comfort should permeate all aspects of facility operations

Enhancing the Management of Neuropathic Pain in the Long-Term Care Setting

Case Encounters

Case Study

- A 73-year-old female patient was admitted to a LTCF after hospital recovery from a spinal cord injury and repair surgery
- On admission, she complained of a burning sensation and back pain
- Patient reported using NSAIDs in hospital for pain but did not achieve any satisfying outcome
- She did not have any previous history of a chronic disease or medication

Note: Photograph does not depict actual patient; used to represent a hypothetical patient

Case Study (cont)

- What steps would you take to properly assess this patient's pain?
- How would you confirm that the pain is neuropathic?

Case Study (cont)

- If neuropathic pain was determined based on assessments and exam, what care plan would you design for this patient?
- What considerations would you need to consider for this elderly LTC patient?
- How often would you reassess pain and monitor treatment?