Non-Pain Conditions and Teamwork

ERIC BUSH MD, RPh, MBA

Program Details

- **Title:** Non-Pain Conditions and Teamwork
- **Dates/Term of offering:** This activity was released on May 18, 2020 and is valid for one year. Requests for credit must be made no later than May 18, 2021.
- **Joint Providership:** This activity is jointly provided by Global Education Group and Hospice and Palliative Board Review.com.

- **Target Audience:** The educational design of this activity addresses the needs of Physicians, NPs, Nurses, and health care professionals interested in learning more about hospice and palliative medicine and those who want to earn continuing education credits and/or prepare for board certification in hospice and palliative medicine.

PROGRAM DETAILS

- **Program Overview:** Clinicians and health care professionals are unaware of best practices to be utilized regarding appropriate personnel allocation in hospice and palliative care. As such, they do not know how to adequately counsel patients & families on appropriate personnel utilization in the hospice and palliative care setting.

- **Faculty:** Eric Bush, MD, RPh, MBA • **Physician Accreditation Statement:**
- This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of Global Education Group (Global) and Hospice and Palliative Board Review.com. Global is accredited by the ACCME to provide continuing medical education for physicians.

PROGRAM DETAILS

- **Physician Credit Designation:**
- Global Education Group designates this enduring activity for a maximum of 0.50 *AMA PRA Category 1 Credit™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.
- **Instructions to Receive Credit:** In order to receive credit for this activity, the participant must score at least a 75% on the post quiz and submit a completed evaluation and credit application form.
- **Global Contact Information:** For information about the accreditation of this program, please contact Global at 303-395-1782 or cme@globaleducationgroup.com.
- **Fee Information:** There is a fee for this educational activity.

PROGRAM DETAILS

- **System Requirements:**
- **PC:** Microsoft Windows 2000 SE or above, Flash Player Plugin (v7.0.1.9 or greater), Internet Explorer (11.0 or greater), Chrome, Firefox, Adobe Acrobat Reader*
- **MAC:** MAC OS 10.2.8, Flash Player Plugin (v7.0.1.9 or greater,), Safari, Chrome, Adobe Acrobat Readers*, Internet Explorer is not supported on the Macintoch.

  *Required to view printable (PDF) version of the lesson.
- **Disclosure of Conflicts of Interest:** Global Education Group (Global) requires instructors, planners, managers and other individuals and their spouse/life partner who are in a position to control the content of this activity to disclose any real or apparent conflict of interest they may have as related to the content of this activity. All identified conflicts of interest are thoroughly vetted by Global for fair balance, scientific objectivity of studies mentioned in the

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materials or used as the basis for content, and appropriateness of patient care recommendations.

- **Disclosure of Conflicts of Interest (continued):** The faculty reported the following financial relationships or relationships to products or devices they or their spouse/life partner have with commercial interests related to the content of this CME activity:
- **Eric Bush, MD, RPh, MBA:** Nothing to disclose
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- **Lindsay Borvansky:** Nothing to disclose

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- **Andrea Funk:** Nothing to disclose
- **Liddy Knight:** Nothing to disclose
- **Disclosure of Conflicts of Interest (continued):**
- **Ashley Cann:** Nothing to disclose
- **Eric Bush:** Nothing to disclose
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Program Details

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- **Disclaimer:** Participants have an implied responsibility to use the newly acquired information to enhance patient outcomes and their own professional development. The information presented in this activity is not meant to serve as a guideline for patient management. Any procedures, medications, or other courses of diagnosis or treatment discussed in this activity should not be used by clinicians without evaluation of patient conditions and possible contraindications on dangers in use, review of any

PROGRAM DETAILS

applicable manufacturer's product information, and comparison with recommendations of other authorities.

LEARNING OBJECTIVES

- Describe how to perform symptom management in the palliative and hospice setting.
- Describe how to counsel patients and caregivers on interventions in this setting and the applicable risk versus benefit for appropriate interventions.
- Describe how to perform goals of care and advanced care planning discussions with patients and family.
- Describe how to counsel patients and caregivers on appropriate goals of care and advanced care planning given the patient's disease trajectory and wishes.
- Describe how to perform triage and referral of eligible patients for palliative and hospice services.
- Describe how to counsel patients and families on appropriate utilization of hospice and palliative care services.
- Describe how to perform discussions of US hospice regulations with patients and family.
- Describe how to counsel patients and caregivers on US hospice regulations and appropriate care for the patient and family given current regulations.

Hospice Regulatory

Eligibility for Admission Under Hospice Benefit

- In order to be eligible to elect hospice care, an individual must be:
  - Certified as being “terminally ill”(prognosis of six months or less if the disease were to follow its expected course)
  - Many other insurers follow Medicare lead with respect to Hospice benefits and eligibility

Areas of Increased Scrutiny

- **Hospice Eligibility**
  - Initial
  - Ongoing
  - Physician narrative
- **Certain non-cancer diagnosis** – Alzheimer's
  - Cerebrovascular disease
- **Level of care documentation**
  - General Inpatient, initial and ongoing

When to Document Eligibility

- **Certification**
  - Verbal certification
  - Written certification
  - Physician narrative statement
- **Admission**
  - Comprehensive assessment
- **Ongoing hospice service**
  - Every note by the IDT/IDG
  - Update to the comprehensive assessment

- **Recertification**
  - F2F(Face to Face) encounter
  - Physician narrative statement

Hospice Timeframes

- Six month eligibility broken down into initial 90 day certification with subsequent 90 day re-certification
- If patient remains eligible after six months, there are ongoing 60 day re-certification periods

Eligibility - 1st 90-day period

- Demonstration of eligibility at admission:
  - Information & consultation between attending physician and hospice physician
  - Physician narrative speaks to PT eligibility
  - Obtain medical history and recent clinical documentation
  - Comprehensive assessment by IDT documents reasons for eligibility

- Attending physician and hospice physician certify patient based on disease progression

Co-Morbidities

Should be used in determining initial and ongoing hospice eligibility

- Chronic obstructive pulmonary disease
- Congestive heart failure
- Ischemic heart disease
- Diabetes mellitus
- Neurologic disease (CVA, ALS, MS, Parkinson's)
- Renal failure
- Liver Disease
- Neoplasia
- Acquired immune deficiency syndrome
- Dementia

Local Coverage Determination Policies (LCDs)

Guidelines:

- Developed by each MAC (CGS, Palmetto etc)
- Outline guidelines for condition-specific determination of eligibility

- Discuss documentation of secondary diagnoses and co-morbid conditions to support terminal prognosis

Local Coverage Determination Policies (LCDs), cont.

Emphasize functional decline

- Must have details to document the extent of decline(tangible)

  - Need to consider the impact of disease on patient's quality of life
- **Be familiar with the LCDs that are used for your region**

Documentation Using LCDs

- Documentation needs to address:
  - Impairments in function & structure
  - Activity limitations

– Secondary diagnoses & co-morbidities

The Physician Narrative

- Components of a comprehensive and adequate physician narrative should include:
  - Explanation of the clinical findings that support initial &/or ongoing hospice eligibility
  - Reference to specific LCDs if appropriate

  - Reference to prognostic indicators or symptom management as indicated

The Physician Narrative, cont.

- Components of a comprehensive and adequate physician narrative should include:
  - Reference to functional status, tangible decline
- PPS - Validated in palliative care

- ECOG - Cancer
- Karnofsky - Cancer
- FAST - Dementia

– Be ***specific***

The Physician Narrative, cont.

- Components of a physician narrative should include:
  - Evidence of tangible decline
  - Recent hospitalizations
  - Information about co-morbidities

  - Other LCD guided statements that support eligibility
  - Statement should be concise
- Statement should contain prognostic indicators

IDG/IDT

Interdisciplinary group or interdisciplinary team:
Required:

- Physician
- RN
- SW
- Chaplain
- Meet every other week for each patient

- Patient must be seen at least once every 14 days by RN to maintain hospice eligibility

HOSPICE QUALITY

CMS Hospice Quality Reporting Web Page:

- Information posted on CMS web site as it becomes available:
  https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/Hospice-QualityReporting/index.html

- Other CMS Resources:
  http://www.cms.gov/Hospice-Quality-Reporting/

  NHPCO(National Hospice and Palliative Care Organization)-also excellent resource

Hospice Item Set

- Consists of data elements to collect standardized patient –level data for specific domains of care that include:
  - Pain
  - Respiratory Status

- Medications
- Patient Preferences
- Beliefs and Values

Experience of Care Survey & Other Items

- CAHPS survey similar to Hospital surveys
- Other items - visits in the last 3 and 7 days of life

Medicare Part D (Drug Coverage) and Hospice

- Area of scrutiny
- Hospice should cover all symptom management medication & medications related to primary hospice diagnosis
- For further info/guidance go to: http://www.medicareadvocacy.org/hospice-andaccess-to-medications-new-cms-guidance/

PEPPER Report

- The Program for Evaluating Payment Patterns Electronic Report (PEPPER)
- Hospice-specific data statistics
- CMS sets PEPPER focus areas

PEPPER Details

- Focus on services at risk for improper payments
- Three years of claims data

PEPPER Details, cont.

- Hospices can use the data to support internal auditing and monitoring activities
- PEPPER compares a hospice's Medicare billing practices with other hospices in the:
  - State
  - Medicare Administrative Contractor (MAC) jurisdiction
  - US

- Each hospice receives only its PEPPER
- Not available to the public
- Contractor provides Access database with PEPPER data to MACs, Recovery Audit Contractors
- Pay attention to any findings at or above the national 80th percentile
- www.pepperresources.org

Focus of PEPPER Report

- Beneficiaries whose episode of service ends in the reporting year, either by live discharge or death
- Areas of scrutiny:
  - **"Live Discharges"** includes all episodes where the beneficiary was discharged alive with a length of stay less than 25 days
  - **"Long Length of Stay"** counts beneficiary episodes of service that had a long length of stay -- greater than 180 days

– Areas of scrutiny may result in TPE (Targeted Probe and Educate - previously known as ADRAdditional Data Review) by a MAC

Privacy, HIPAA & Individual Rights

Individual Rights

- The Final Rule provides individuals with the right to request that covered entities and business associates provide a copy of their PHI directly to a designated individual
- This right applies to both paper and electronic information
- Any such request must be in writing, signed by the individual, and must clearly identify the designated recipient and where the information should be sent

- Restriction of certain disclosures of PHI to their health plans

Modifications to Notices of Privacy Practices Required

- Privacy notices must include a statement regarding the right of affected individuals to be notified following a data breach and must describe certain uses and disclosures of PHI that require patient authorization related to

psychotherapy notes, marketing and the sale of PHI.

- The Notice must inform patients of the right to restrict certain disclosures of PHI to health plans where the individual pays out of pocket in full.

Direct Liability for Business Associates

and

Amendments to Business Associate Agreements

- Business associates and business associate subcontractors are directly subject to applicable HIPAA rules including the HIPAA Security Rule and certain provisions of the Privacy Rule

New Fundraising Requirements

- Expansion of the type of information covered entities, may use to target fundraising appeals including the department of service, the treating physician and outcome information

- Permits the use of only demographic information and dates of health care provided to the patient
- Fundraising communications must provide recipients with a clear opportunity to opt-out and the method provided for the opt-out may not cause undue burden or more than nominal costs

Decedent information

- A covered entity only has an obligation to comply with the requirements of the Privacy Rule with

respect to the PHI of a deceased individual for 50 years following that individual's death

- Rule permits covered entities to disclose PHI to a family member or other individuals involved in a decedent's care or payment for such care, unless such a disclosure is inconsistent with a prior expressed preference of the decedent

Other Regulatory

- Expansion of Prohibited Marketing Activities

  - HIPAA prohibits use or disclosure of PHI for marketing to individuals without obtaining authorization, with important exceptions
- Prohibiting the Sale of PHI
  - Prohibits the receipt of direct or indirect remuneration (including in-kind benefits) in exchange for PHI
  - This new restriction includes several exceptions, including disclosures to business associates, as required by law, and for treatment and payment purposes

Hospice QAPI, Levels of Care, Reimbursement

Hospice QAPI (Quality Assurance and Performance Improvement)

- Should meet regularly (at least quarterly)
- Should include PT outcome
- Measures (HIS,CAHPS)
- Should also include Bereavement, Volunteers, and contracts

- Should be multi-disiplinary (Chaplain, SW, CNA, RN, MD ETC)

Hospice Levels of Care

- General inpatient-for symptoms that cannot be treated in another venue
- Continuous care-requires symptom mgmt, 51% of care must be skilled NSG at PT residence(CNA does not count)
- Respite-5 day benefit for caregiver relief, often at SNF, ALF

- Routine home care - care at home

What Hospice Covers

- Meds
- DME
- Nursing
- CNA
- SW
- Chaplain
- MD/NP

- Bereavement
- Sometimes “expanded access”-HD, transfusions, etc – case by case

Hospice Reimbursement

- Per diem for services
- GIP reimbursed at highest level
- Continuous care 2nd highest reimbursement
- Routine home care lowest level reimbursement
- No reimbursement for F2F(face to face) visit

PALLIATIVE CARE AND SYMPTOM MANAGEMENT

PALLIATIVE CARE PERSPECTIVE

- Empathy: The ability to understand the feelings of another

PALLIATIVE CARE

- Care given to improve the quality of life of patients who have a serious, chronic or life-threatening disease.
- The goal of palliative care is to prevent or treat as early as possible the symptoms of a disease, side effects caused by treatment of a disease, and psychological, social, and spiritual problems related to a disease or its treatment.

- In short, symptom management, regardless of where the patient is in the disease process utilizing a biopsychosocial approach

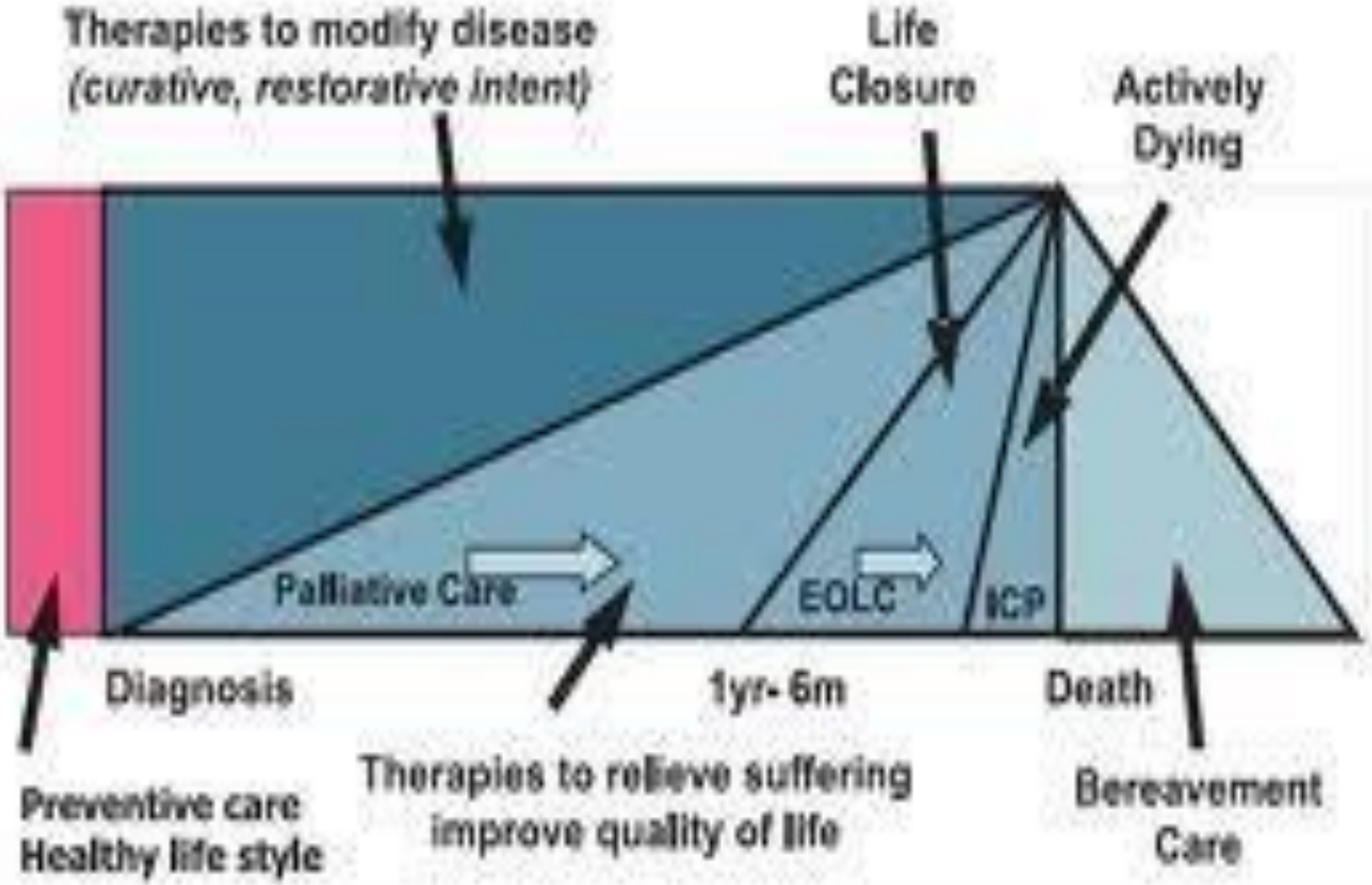
DIFFERENTIATION

- Hospice: If the disease follows the expected course, a prognosis of six months or less(patients often referred late)
- Palliative: Symptom focused care anywhere throughout the disease spectrum, can be delivered in conjunction with curative care

Why Palliative Care?

- Aggressive measures for control of pain and other distressing symptoms
- Better quality and often longer life, with neither quality or quantity achieved at the other's expense
- More goal centered
- Interdisciplinary team of caregivers, participating in holistic care of patient and family

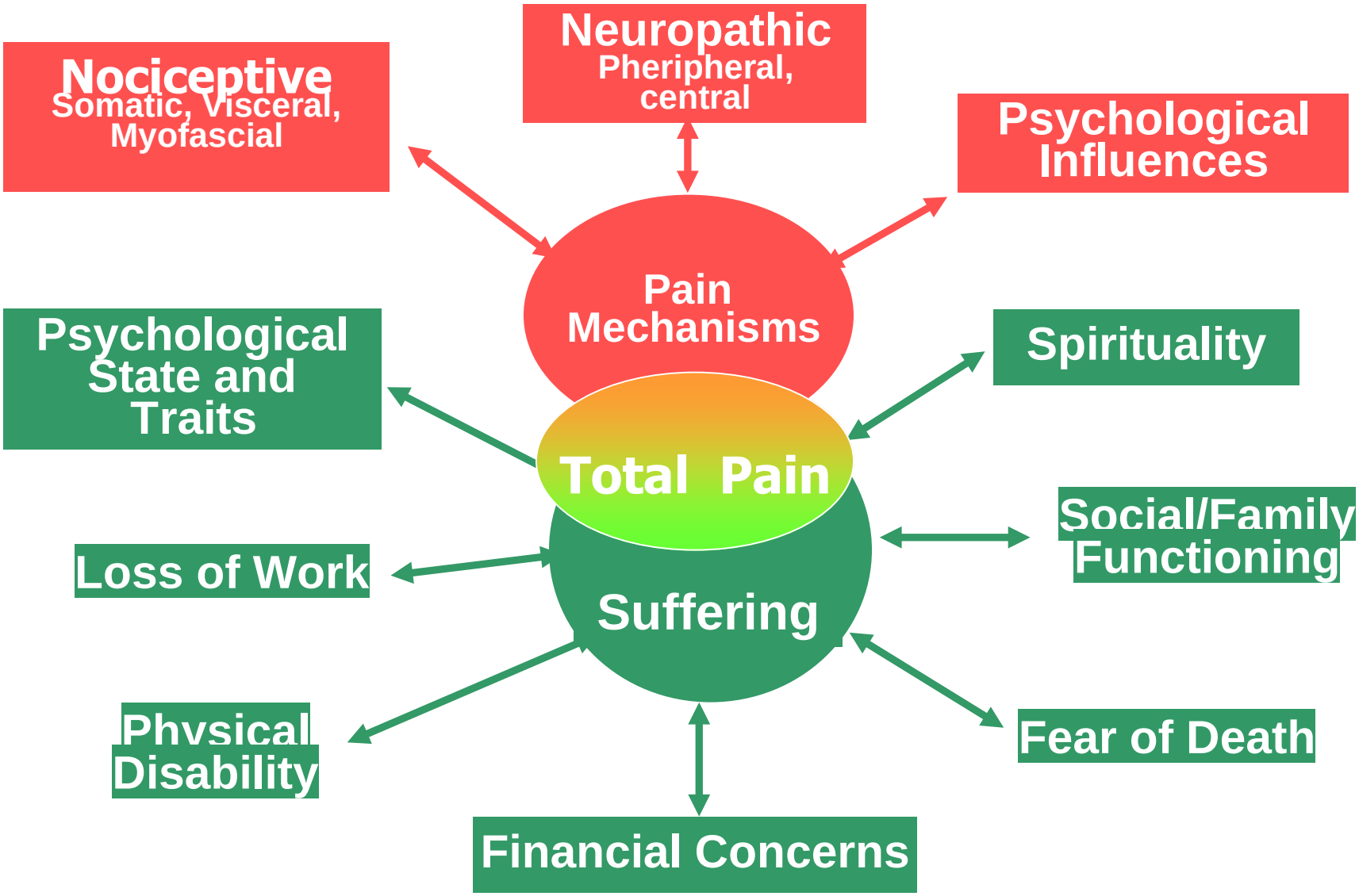
Modified from-
http://depts.washington.edu/pallcare/training/ppt.shtml



Basic concepts in palliative Care - Pain Mgmt

- Pain: An unpleasant sensation that can range from mild, localized discomfort to agony. Pain has both physical and emotional components

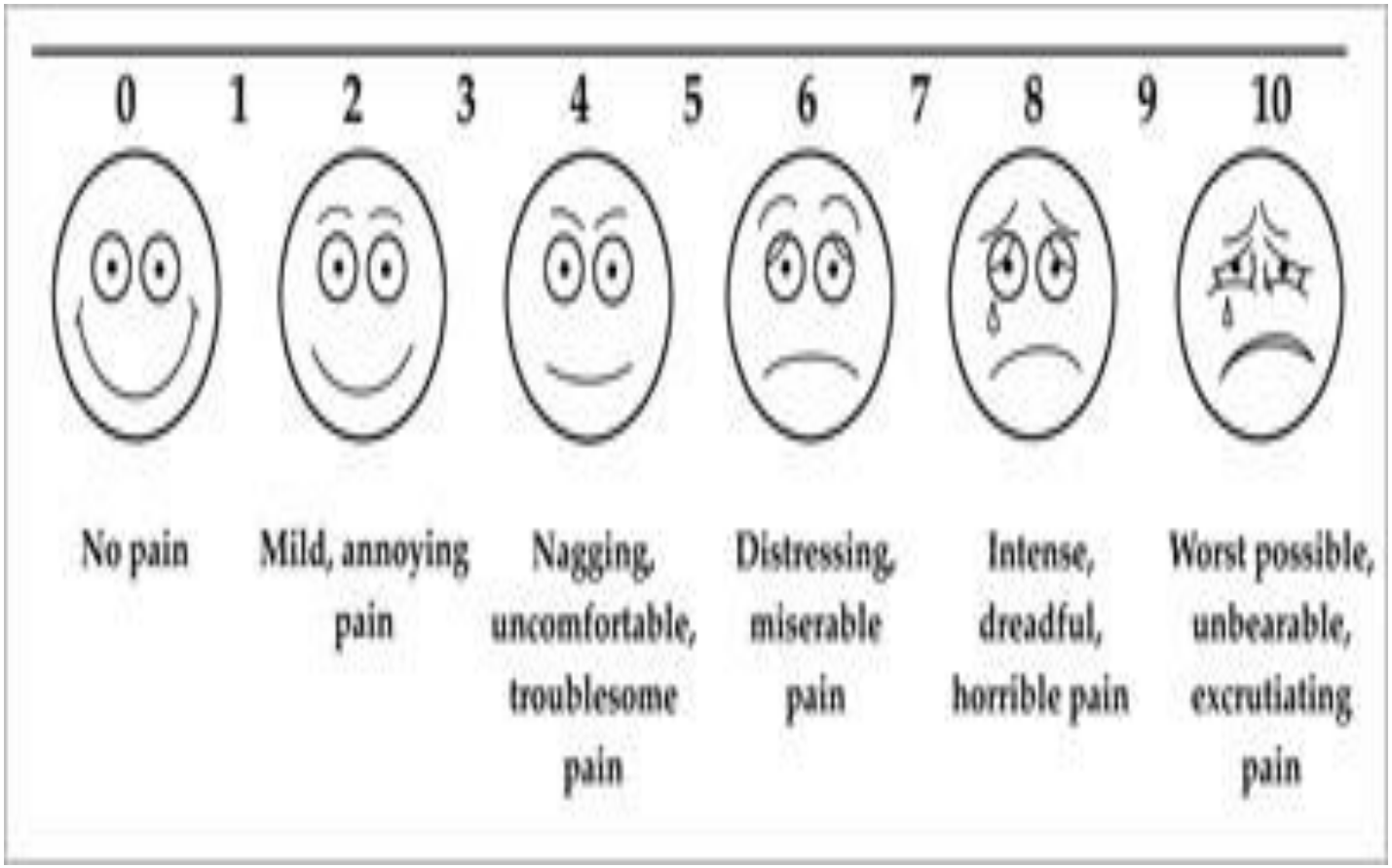
Nature of Pain


Nociceptive
Somatic, Visceral, Myofascial
Neuropathic
Pheripheral, central
Psychological Influences
Pain Mechanisms
Psychological State and Traits
Spirituality
Total Pain
Social/Family Functioning
Loss of Work
Suffering
Phvsical Disability
Fear of Death
Financial Concerns

Assessment

- Vital role of nursing in pain and symptom management
- Under appreciated resource
- Goal of assessment and appropriate pain management is to restore functionality

VAS w/Wong-Baker


0 1 2 3 4 5 6 7 8 9 10
No pain
Mild, annoying pain
Nagging, uncomfortable, troublesome pain
Distressing, miserable pain
Intense, dreadful, horrible pain
Worst possible, unbearable, excrutiating pain

PAIN ASSESSMENT (NON-VERBAL)

- CNVI/CNPI Pain Scale w/Move At rest
- Nonverbal vocalizations:* :*
- Facial grimaces/winces :* :*
- Bracing :* :* • Restlessness :* :*
- Rubbing :* :*
- Vocal complaints :* :*
- Pain score (0-12)=

FUNCTIONAL PAIN SCALE

- Functional Pain Scale-adapted from Gloth et al
- 0 No Pain
- 2 Tolerable (Doesn't interfere with activities)
- 4 Tolerable (Interferes with some activities)
- 6 Intolerable (Able to use phone, TV, or read)
- 8 Intolerable (Unable to use phone, TV, or read)

- 10 Intolerable (Unable to verbally communicate)

Alberta Health Services

Covenant Health

Edmonton Symptom Assessment System:
(revised version) (ESAS-R)

Please circle the number that best describes how you feel NOW:

No Pain	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Pain
No Tiredness *(Tiredness = lack of energy)*	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Tiredness
No Drowsiness *(Drowsiness = feeling sleepy)*	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Drowsiness
No Nausea	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Nausea
No Lack of Appetite	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Lack of Appetite
No Shortness of Breath	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Shortness of Breath
No Depression *(Depression = feeling sad)*	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Depression
No Anxiety *(Anxiety = feeling nervous)*	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Anxiety
Best Wellbeing *(Wellbeing = how you feel overall)*	0	1	2	3	4	5	6	7	8	9	10	Worst Possible Wellbeing
No _____ Other Problem *(for example constipation)*	0	1	2	3	4	5	6	7	8	9	10	Worst Possible _____

Patient's Name _____

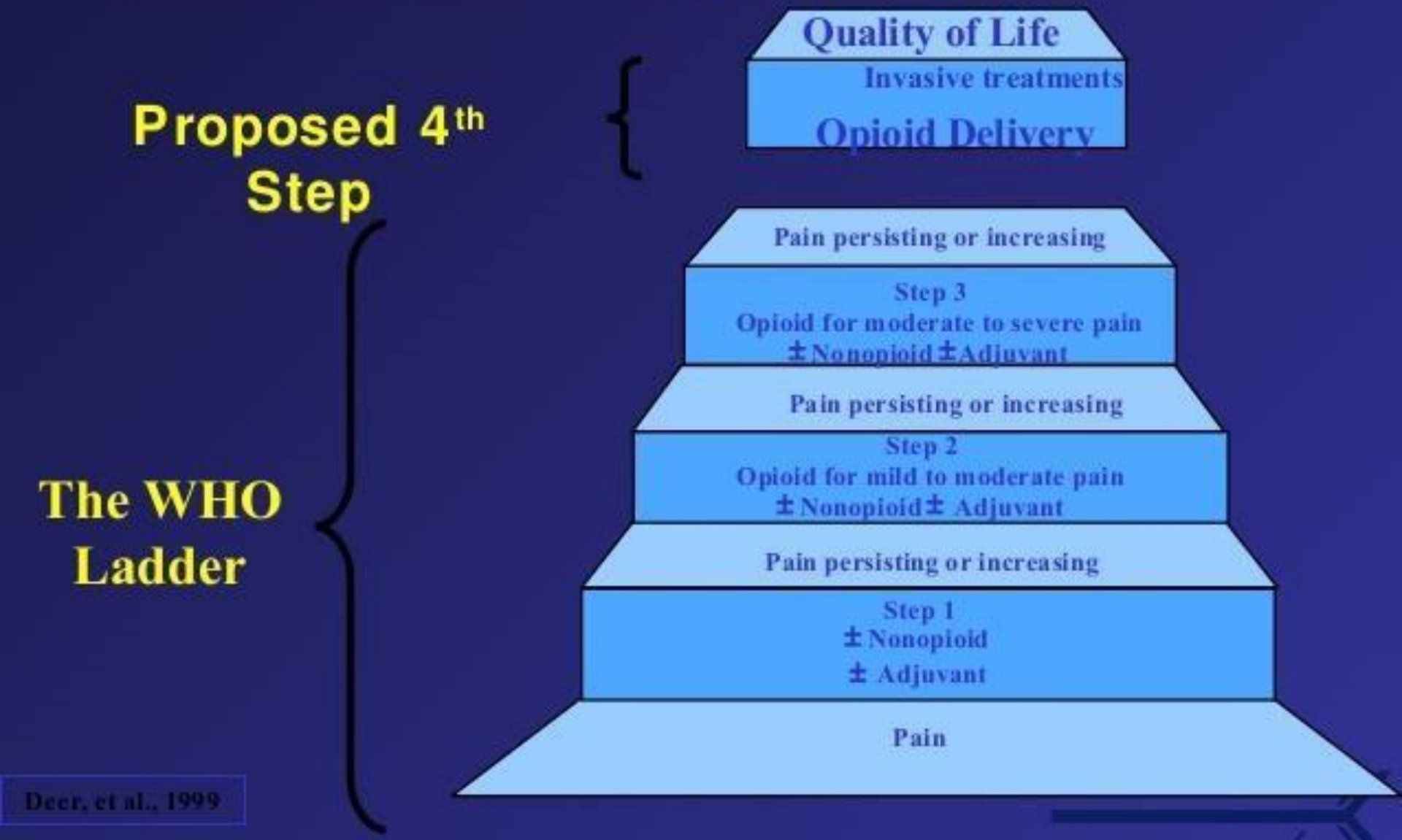
Date _____ Time _____

Completed by (check one):

- ☐ Patient
- ☐ Family caregiver
- ☐ Health care professional caregiver
- ☐ Caregiver-assisted

BODY DIAGRAM ON REVERSE SIDE

Modified WHO Analgesic Ladder



Deer, et al., 1999

POLYPHARMACY NIGHTMARE

Avoid the 31 Flavors of Baskin Robbins approach ***for all symptoms:***

- *Stick to the basics.* The basic principle is to titrate one agent to effectiveness or side effect, before introducing a second agent. Use 1 long acting and 1 short acting opiate.

- *Explore the possibilities:* Investigate etiology of pain. Consider complementary approaches. Use opioid sparing adjuvants.

CONCEPT

- DOME
- Daily Oral Morphine Equivalence
- Codeine and meperidine should be avoided

Opioid Prescribing and Equian				
Generic (Brand)	**Onset (O) and Duration (D)**		**Approximate Equianalgesic Dose**	
	Oral	**IV**	**Oral**	**IV**
Morphine (MSIR®) [CII]	O: 30-60 min D: 3-6 h	O: 5-10 min D: 3-6 h	30 mg	10 mg
Morphine extended release (MS Contin®) [CII]	O: 30-90 min D: 8-12 h	—	30 mg	10 mg
Hydromorphone (Dilaudid®) [CII]	O: 15-30 min D: 4-6 h	O: 15 min D: 4-6 h	7.5 mg	1.5 mg
Hydrocodone/APAP 325 mg (Norco 5, 7.5, 10®) [CII] Hycet (7.5 mg/325 mg per 15 mL)	O: 30-60 min D: 4-6 h	—	30 mg	—
Fentanyl [CII] (Sublimaze® Duragesic®) *Patch for opioid tolerant patients ONLY*	Transdermal O: 12-24 h D: 72 h per patch	O: immediate D: 30-60 min	—	100 mcg (0.1 mg)
Methadone (Dolophine®) [CII] *Opioid tolerant patients ONLY*	O: 30-60 min D: >8 h (chronic use)	—	Variable	Variable
Oxycodone 5, 15, 30 mg (Roxicodone®), Oxycodone 5, 7.5, 10 mg/ APAP 325 mg (Percocet®), ER=Oxycontin® [CII]	O: 10-15 min D: 4-6 h	—	20-30 mg	—
Tramadol (Ultram®) [CIV] ^	O: 1 h D: 3-6 h	—	300 mg	—

^ Not recommended in nursing mothers.

Equianalgesic Opioid Dosing

Drug	Equianalgesic Doses (mg)	
	Parenteral	Oral
Morphine	10	30
Buprenorphine	0.3	0.4 (sl)
Codeine	100	200
Fentanyl	0.1	NA
Hydrocodone	NA	30
Hydromorphone	1.5	7.5
Meperidine	100	300
Oxycodone	10*	20
Oxymorphone	1	10

Onset of Action

- IV opioids: 5-15 minutes
- Oral opioids: 45-60 minutes
- Transmucosal (fentanyl): 20-30 minutes

Methadone-Benefits

Mu agonist, synthetic opioid:

- Has two non-opiate analgesic receptor activities:
  - Prevents MAO reuptake in periaqueductal gray

    - Prevents N-methyl-d-aspartate (NMDA) receptors
- Lacks neuroactive metabolites
- High bioavailability (79 +/-11 hours)
- Long half life (30 +/- 16 hours)
- Highly lipophilic
- Fecal excretion-safe in ESRD
- Very inexpensive

METHADONE

When converting to Methadone:

- Assess the appropriateness of converting in the home
- Educate to side effects and responses
- Process takes 3-5 days to reach full therapeutic effect
- Breakthrough dosing with another opioid is imperative for transition
- Know the assessment findings that indicate overdose or under dosing

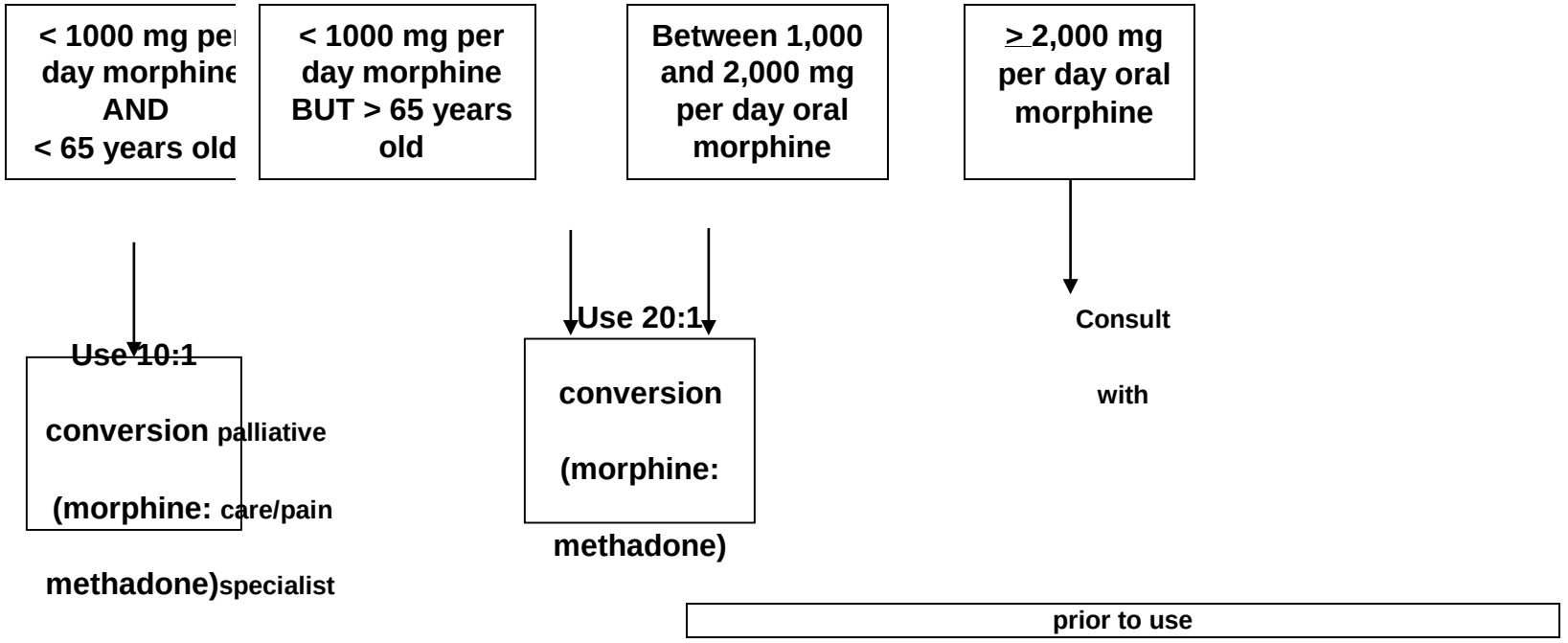
METHADONE PRECAUTIONS

- Lack of caregiver(s) to monitor the patient
- Very limited prognosis
- Increased risk of QT prolongation in patients with known bradycardia or heart failure, patients with hypokalemia or those taking drugs which potentiate QT prolongation.
- Patients with OSA, hypercarbia.

METHADONE DOSES

- Initial dose for opioid naïve patients: 1-2.5mg at bedtime or twice a day
- Use their previous opioid or morphine for breakthrough pain
- With careful oversight, can use methadone for breakthrough(rare) in case of allergies etc..
- IV Methadone is twice as potent as oral

CONVERSION FROM MORPHINE TO METHADONE



FENTANYL PATCH

It isn't for everyone:

- Generally not for beginners. Patient must be opioid tolerant to the minimum equivalent of Morphine 50-65 mg/day, to be able to tolerate 25 mcg of Transdermal Fentanyl . No they can't be cut in half or use prn.
- Need a little fat for the patch. It's a lipophilic agent requiring adequate adipose tissue to facilitate absorption into fatty subcutaneous molecules.
- Not good for a quickie. It takes 12-24 hours for onset of action, not appropriate for acute or emergent pain management.
- Keep it cool. Fever/External heat (102-104^{o}) can increase absorption
- Generally, doubling the strength of the patch will give you the DOME(Daily Oral Morphine Equivalents). For example, a 25 mcg patch will provide approximately 50***mg*** of oral morphine equivalents per day(please see fentanyl patch manufacturing info/package insert for exact dosing prior to prescribing).

OPIOIDS ARE INCREASED BUT NO PAIN RELIEF IS IN SITE.....

What type of pain is the patient experiencing?

- Somatic, Myofascial, Neuropathic
- Has the pain changed in quality-important in differentiating acute on chronic
- Total body pain
- Emotional suffering/depression-pay attention to pt affect

- Anxiety

PCA Pitfalls

Your patient is getting sleepier and sleepier:

- Is the patient opioid naïve and receiving basal and bolus dosing at the start?
- Is someone other than the patient using the bolus button?
- Is the prescriber increasing the basal rate in response to the patient's persistent complaints of pain?
- PCA to oral
- Does the patient need a long-acting opioid?
- Will prn dosing only provide adequate coverage?
- The pump is off-when should the new regimen start?

- The bolus button becomes a Xbox(Nintendo etc) game(anxiety)*Attempts verses Doses received*
- Continuous opioid infusions even at end of life should only be started once patient has “failed” appropriate titration of ATC parenteral opiates

IMPORTANT DEFINITIONS

- Addiction-characterized by *aberrant behaviors*
- Physical Dependence-need for a substance to function
- Tolerance-requiring increased dose of substance to experience expected effects
- Opioid Naïve-<30mg DOME
- High Dose Opiates->90mg DOME

SABOTAGING SIDE EFFECTS

CNS: drowsiness, confusion, hallucination

- The dose of opioid is excessive
- The pain is not opioid responsive
- Conversion from one opioid to another was done incorrectly
- Other concomitant sedatives being prescribed(most commonly benzos)

Respiratory Depression

- Excessive opioid dose in naïve patient

- Can occur if dosing persists in face of sedation

CASE 1

- 43 YO M WITH 1 YR C/O “DYSPNEA”(2012-2013)
- NON-SMOKER
- FORMER MILITARY
- LEFT CW PAIN
- MARRIED, 1 ADULT SON W/SPECIAL NEEDS
- ER CT SHOWED LT LUNG MASS
- VATS COMPLETED PATH C/W STAGE 4 NSCLC
- PAIN 8/10 “SHARP,STABBING”
- WHERE DO WE GO FROM HERE

CASE 1 (CONTINUED)

- Gabapentin+IV Ketorolac+IV Hydromorphone Immediate Postop
- Chemo/RT
- Convert to po dilaudid prn btp prior to d/c, continue and titrate gabapentin,venlafaxine added for depression
- Patient continues to f/u oupt pall care(5yrs later), remains on gabapentin,venlafaxine, “medical marijuana” & crizotinib with good qol

CASE 2

- 72 yo F consulted for acute on chronic LBP
- Initial admit for CHF exacerbation, deconditioning
- Pt with long h/o chronic LBP, s/p spinal cord stim placed at JHU ~5yrs ago
- Given gabapentin at hs and po oxycodone/acetaminophen prn
- Little improvement in pain
- Extremely flat affect

CASE 2 (CONTINUED)

- Pt queried wrt depression
- Dgtr died earlier this month from CA
- Son died almost exactly 1 yr previously from AMI
- Pt w/insight into somatization of depressive features/normal grief process
- Declined additional anti-depressant tx
- Opted to embrace current coping skills (religion, denial)
- Dx-Unresolved/complicated grief

CASE 3

- 52 yo m physician w/widely metastatic prostate ca
- Chemo 1 wk PTA
- Severe pain,dyspnea
- Seen on bipap in ICU,teenage son at bedside
- Taking Oxycontin 80mg po q6h atc with Oxy IR 30mg po q4h prn for BTP

CASE 3 (CONTINUED)

"Physician know thy self"

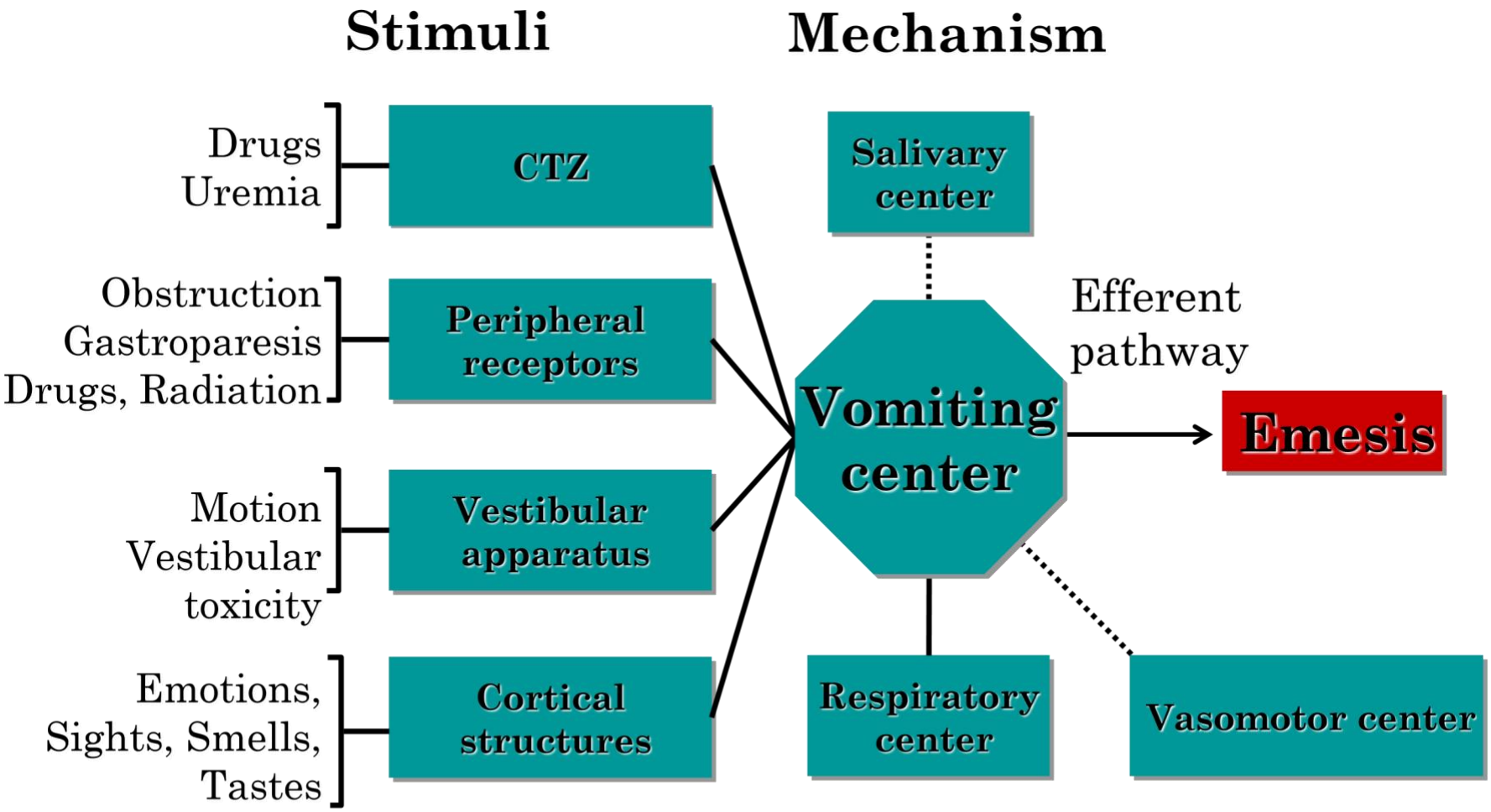
- Establish goals of care("break the ice if needed")

- Do not take hope away but be realistic
- Discuss risks and benefits(we ALL have them)
- Establish a clear plan and objectives
- Calculate DOME as a starting point(convert to hydromorphone PCA Basal 1mg/hr,bolus 0.5mg q6min)
- Use adjuvants(Dexamethasone 8mg IV BID)
- Know the therapeutic index prior to making changes
- Use adjuvants aggressively when possible

NAUSEA

- Definition-stomach distress with a distaste for food and an urge to vomit

Nausea & Vomiting



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ANTI-EMETIC THERAPY

- CTZ
- Serotonin antagonists *5-HT3*
- (Ondansteron, granisetron)
- Peripheral and Cortical
- Corticosteroid
- Benzodiazepine
- Lorazepam
- *S/E sedation*
- Butyrophenone
- Haloperidol
- *S/E tardive dyskinesia, arrthymias, hypotension*
- Dopamine antagonist
- *D2*
- Metoclopramide
- *S/E seizures, tardive dyskinesia*
- Cannabinoid
- *Blocks VC*
- Dronabinol /Nabilone
- *S/E alt sensorium, anxiety, mood disturbance*
- Anti-convulsant
- *Taste related nausea*

- Clonazepam
- *S/E drowsiness, ataxia*
- Anti-histamine

- Meclizine,scopolamine
- *S/E tachycardia, dry mouth*

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COMPLEMENTARY THERAPIES

- Acupressure bands("Sea Bands")
- Acupuncture
- Avoid triggers
- Environment
- Music toning

- Relaxation, imagery, diversion therapy
- Meditation
- Hypnosis
- Psychosocial support

CASE 4

- 38 yo M with Stage III Laryngeal CA
- Recent completion of cisplatin
- Undergoing RT
- Persistent N/V
- Has PEG tube

- No recent BM's
- Where do we go from here?

CASE 4 (CONTINUED)

- Metoclopramide 5mg IV q6h ATC with titration upward to 10mg IV q6h ATC
- Nausea improved, now w/emesis without preceding nausea, scopolamine patch added
- MRI brain ordered-negative for CNS/cerebellar mets
- 2nd scopolamine patch added, & reglan titrated up to 10mg IV q4h ATC with adequate symptom

controlsubsequent med conversion to liquid via PEG and d/c home

CONSTIPATION

- Constipation is defined as having a bowel movement fewer than three times per week

BACK-UP ON THE GI BELTWAY: CONSTIPATION

- Opioids, anticholinergics, antispasmotics, antidepressants, antipsychotics, antiemetics, aluminum antacids, diuretics, iron, vinca alkaloids
- Hypercalcemia, hypokalemia
- Dehydration, polyuria, fever,
- Radiation fibrosis

- Lack of privacy & bowel training
- Autonomic neuropathy/failure
- Bowel ileus or obstruction
- Spinal cord involvement
- Hemorrhoids, anal fissure, perianal abscess
- vomiting

- Intracolonic or pelvic tumor
- Inadequate fluid & fiber

  mass

  intake
- Immobility

TREATMENT

Step 1: Preventative/Maintenance Regime

Stool softner & stimulant

Docusate Sodium/casanthranol

Docusate Sodium/Sennosides

** *abdominal cramping, colic, diarrhea, nausea, vomiting*

Step 2: If no bowel movement in 48 hrs

Hyperosmotic Agents or Laxatives

Lactulose, Poly-ethylene-glycol, Sorbitol

Milk of magnesia, Bisacodyl

** *abdominal distention, pain, flatulence, electrolyte disorders*

TREATMENT

Step 3A: If no bowel movement in 3-4 days

- *Rapid-acting Laxative*

Note: *Administer only in the presence of active bowel sounds & in the absence of rectal fecal impaction, vomiting, severe abdominal cramping*

- Magnesium citrate, Mineral oil 30-60 ml
- ** *malabsorption of fat soluble vitamins, electrolyte disturbance*

Step 3B: if no bowel movement in 3-4 days *Fecal Impaction*

- Pre-treat with analgesia or mild sedative
- Soften stool with glycerin suppository or oil retention enema
- Manually disimpact stool, while encouraging relaxation deep breathing techniques
- Follow with SSE or tap water enemas until clear
- Offer sitz bath, or apply warm compresses, Tucks pads or local anesthetic ointment

PHARMACOLOGIC TREATMENT

- Prokinetic agent:
- Metoclopramide 5-10 mg QID
- Erythromycin 250mg IV BID
- Opioid Antagonist
- Naloxegol
- Methylnaltrexone
- Naloxone
- Opioid rotation to lipophilic agent
- Fentanyl or Methadone

CASE 5

- 46 yo F with Stage 4 Cervical CA
- Cachexia, declining fxnal status
- On opiates as outpt
- Scant BM x 5 wks PTA
- Abd distention and pain • How do we proceed?

CASE 5 (CONTINUED)

- D/C prn IV hydromorphone with change to Fentanyl PCA

- Initiate adjuvants for pain(gabapentin)
- Metoclopramide 5mg IV q6h ATC with upward titration to 10mg IV q4h ATC
- GI involved mult enemas given, mult scopes performed to try and resolve impaction
- Surgery on board in case of perforation
- Methylnaltrexone given subcut mult times with some results

DYSPNEA

- The *subjective* sense of breathlessness or smothering.

BACKGROUND

- Dyspnea is the primary complaint of patients with advanced lung or heart disease.
- 94% of patients with chronic lung disease experience dyspnea in the last year of life.
- In SUPPORT (Study to Understand Patient Preferences and Outcomes of Treatment), “serious dyspnea” was far more common (66%) than “serious pain” (25%).

- These investigators reported that patients with COPD were more likely to die with poor control of dyspnea than patients who had lung cancer.

PRINCIPLES

- The experience of dyspnea includes sensory (how severe is it?) and affective (how unpleasant is it?) components.
- Based on a neurophysiological model, breathlessness is thought to be similar to the perception of pain.

- ACCP Statements based on dyspnea that persists at rest or with minimal activity and is distressful despite optimal therapy of advanced lung or heart disease.

ACCP Position

- Patients with advanced lung or heart disease should be asked about the intensity and distress of their breathlessness.
- Pursed-lips breathing, relaxation, oxygen for those with hypoxemia, noninvasive positive

pressure ventilation, and oral/parental opioids can provide relief of dyspnea.

- Therapies should be started with the understanding that the patient and clinician will reassess whether the specific treatments are relieving dyspnea without causing adverse effects.
- It is important to communicate about palliative and end-of-life care.

PT PRESENTATION

- Shortness of breath

- Breathlessness
- Smothering feeling
- Suffocation
- Present at rest
- Worsened by activity

DIAGNOSIS

- Self-report is the key to detecting dyspnea & appreciating the severity of dyspnea.

- Blood gas, oxygen saturation, and respiratory rate do not substitute for patient's self assessment and report of dyspnea.

Goal of Treatment

- Should be to improve the patient's subjective sensation rather than trying to modify any abnormality in blood gases or pulmonary function
- *Primum non nocere* - avoid suctioning and other traumatic interventions when possible, start low

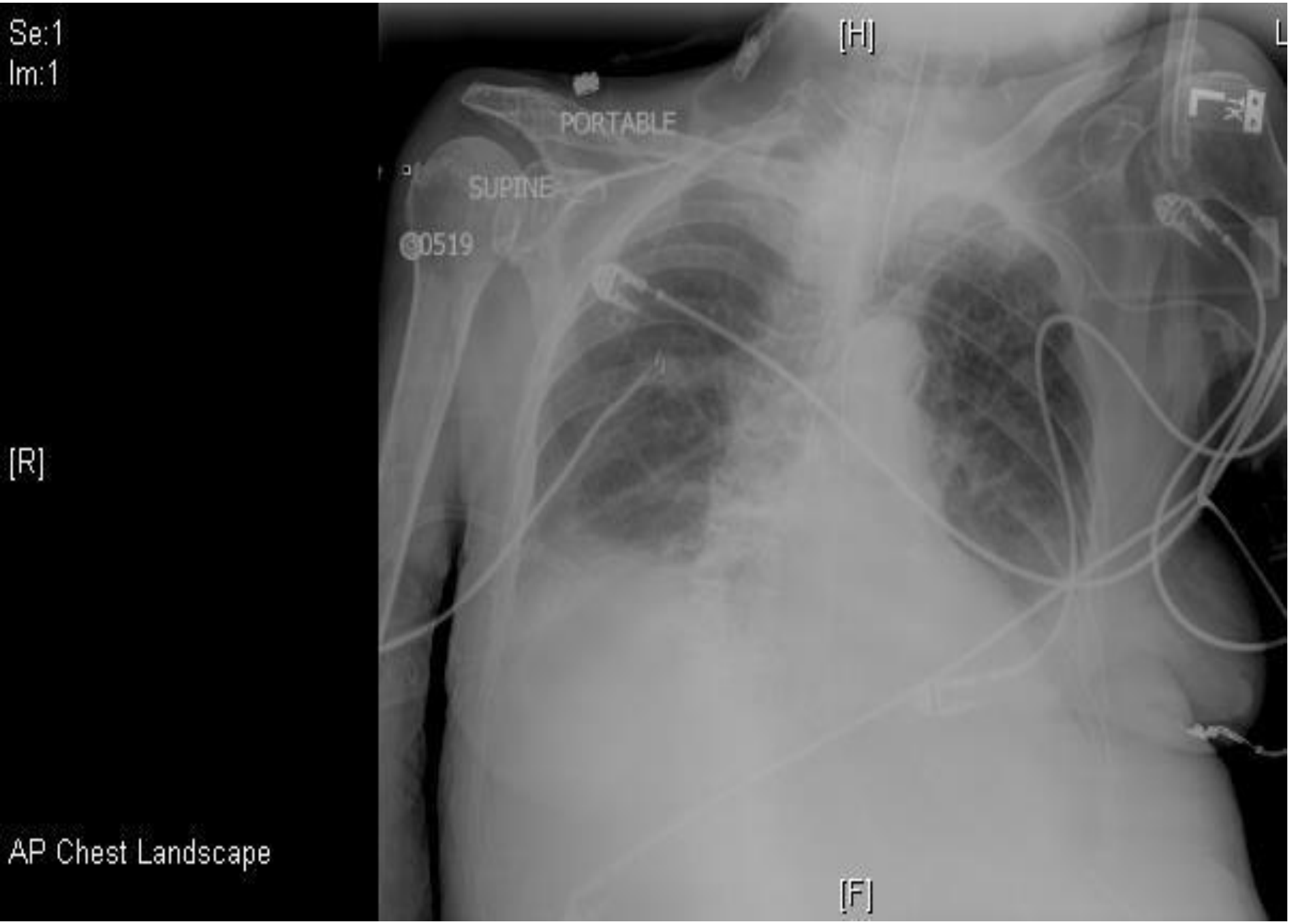
doses of medications in naïve individuals and titrate appropriately

PATIENT CASE 6

- 86 yo F with CHF
- UTI subsequent hypotension
- Dyspneic and “anxious”

PATIENT CASE 6 (CONTINUED)

- Pt on NRB
- Agitated, dyspneic ,tachypneic, pooling oropharyngeal secretions
- On TPN, with inc wt and dec albumin
- B/L Crackles, poor aeration
- Pt AMS, poor historian, non-verbal cues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PORTABLE
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AP Chest Landscape
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TREATMENT

- Address goals of care
- Continue O2 (but remove mask when possible)
- Diurese
- Decrease fluid burden (d/c TPN and IVF)
- Start low dose opiates (ie; Morphine 2mg IV q4h ATC with titration for dyspnea - when goal is comfort, do not hold for parameters such as BP etc)

- Scopolamine patch 1.5 mg top q72 for secretions

AGITATION/ANXIETY IN DEMENTIA

- Agitation/anxiety - a moving back and forth or with an irregular, rapid, or violent action; a feeling of worry, nervousness, or unease, typically about an imminent event or something with an uncertain outcome
- Prevalence 60 to 90 percent of patients
- Both typical and atypical antipsychotics carry ***negative mortality benefit(ie increase risk for earlier death)***
- Interventions - remove/treat exacerbating cause if possible(UTI,PNA etc), provide supportive ,caring

environment, avoid physical restraints, use pharmacologic interventions selectively; if antipsychotics absolutely necessary use low dose preferably via SL route(ie Haloperidol 1mg sl q4h prn)

CASE 7

- 90 yo m with ES dementia (FAST 7A) well cared for at home, acute/chronic
- UTI-TX w/ceftriaxone
- Agitation persists in spite of TX environment
- 24 Hr sitter

- Start Valproic Acid Sprinkels 125mg PO Q6H, ATC w/ improvement in behavior

TAKE HOME POINTS

- *Primum non-nocere (First do no harm)*
- Risk/benefit ratio changes as patients goals of care change
- Palliative care can lengthen lifespan and enhance QOL
- Evaluate the whole patient (look for congruent vs discordant non-verbal cues).

- Maintain your own well-being and appropriate boundaries

KNOWLEDGE CHECK

- Palliative care is the same as Hospice Care T/F
- Morphine is the strongest opiate T/F
- Hydromorphone, Methadone & Buprenorphine are strong opiates T/F
- Dyspnea is defined by Pulse Ox T/F
- Agitation in dementia is best treated with non-

pharmacologic interventions

T/F

Methadone

Methadone: Objectives

- The Drug
- Benefits
- Risks
- Dosing
- Cardiac Toxicicity

Opioid Families

Phenanthrene Derivatives:

- Morphine
- Codeine
- Hydrocodone
- Hydromorphone
- Oxycodone

Opioid Families Continued

- Phenylpiperidine Derivatives
- Meperidine

- Fentanyl
- Diphenylheptane Derivatives
- Methadone

History: Methadone

- Myth
- Executive order from Hitler due to
- Morphine shortage
- Named after him
- Reality
- Work on long line of analgesics, antipyretics

- Need for opiate substitute
- Dolor for pain; fin for end
- Opioid abstinence programs USPHS 1950
- Methadone Maintenance 1960
- Analgesic availability 1976

Methadone

- Analgesic and plasma t1/2 differ
- Onset of 15min with peak in 1 to 2 hrs
- Analgesic t1/2 of 4 to 6 hrs

- Plasma t1/2 of ~24hrs
- Clinical implications of pk properties

Methadone-Benefits

Mu agonist, synthetic opioid:

- Has two non-opiate analgesic receptor activities:
- Prevents MAO reuptake in periaqueductal gray
- Prevents N-methyl-d-aspartate (NMDA) receptors
- Lacks neuroactive metabolites
- High bioavailability (79 +/-11 hours)
- Long half life (30 +/- 16 hours)

- Highly lipophilic
- Fecal excretion-safe in ESRD
- Very inexpensive

Methadone-Risks

- Tremendous interpatient pharmacokinetic variability
- Poorly defined equianalgesic potency
- Potentially scary dosing/safety issues
- Drug interactions-?clinical relevance

- Enigma assoc with MMT

Dosing Dilemmas

- Half life (30+/- 16 Hours)
- Recommended dosing intervals (3-24 hours)
- Duration of analgesia for a single dose (4-6 hours)
- Rapid absorption-distribution
- Accumulates in tissues-initial q4hour dosing may stretch to bid

Equianalgesic Conversions

Tables typically report IV Morphine to Methadone 1:1, Oral Morphine to methadone 3:1 or 3:2

- ***Based on single dose studies***
- Not applicable to chronic dosing

Emerging Principles for Dosing Methadone Safely

- Starting with Methadone in Opioid naïve
- Start low go slow
- Back off as drug starts to accumulate
- Beware day 5

Emerging Principles for Dosing Methadone Safely

- Converting from other opioids
- Consider dose and setting
- Behaves as much more powerful opioid the higher the dose of the prior opioid---
- ??Tolerance

Emerging Principles for Dosing

- ?? NMDA receptor antagonist

Methadone Safely

- Vigilance is necessary during drug initiation, during conversion from one opioid to another, and during dose titrtion

Emerging Principles for Dosing

- *Peak respiratory depressant effects typically occur later and persist longer than its peak analgesic effects*

Interactions

Absorption, distribution, and metabolism:

- Absorption mediated by gastric pH and Pglycoprotein (Pgp) transport protein
- Metabolized principally by CYP-3A4 and CYP-2D6 enzymes
- Cimetidine ,fluoxetine increase methadone concentrations
- Carbamazepine decreases methadone concentration

Drug Interactions with Methadone

Inhibitors – Icreased methadone plasma levels (reduced calculated methadone dose by 25%)

- Amiodarone
- Cimetidine
- Ciprofloxacin
- Erythromycin
- Clarithyromycin
- Fluconazole
- Fluoxetine
- Paroxetine
- Ketoconazole

- Ritonavir

Drug interactions with Methadone

Inducers – Decreased methadone plasma levels

- (encourage use of breakthrough medication)
- Carbamazepine
- Phenobarbital
- Phenytoin
- Primidone
- Rifampin

Interactions

Avoid opioid-antagonists or partial agonists:

- Buprenorphine
- Butorphanol
- Dezocine
- Nalbuphine
- Nalorphine
- Pentazocine -displaces methadone from mureceptors

Dosage Formulations

- Tablets: 5, 10 mg; 40 mg dispersible tablets
- Oral liquid:
- 10 mg/ml oral concentrated liquid
- 5 mg/5 ml, 10 mg/5 ml oral solution
- Injectable: 10 mg/ml injectable solution
- Available as powder for compounding

Clinical Uses

- Neuropathic pain and/or mixed nociceptive pain not responding to morphine and coanalgesic
- End-stage renal failure
- True morphine allergy
- Cost

Methadone Conversion Method #1 (EPERC)

> 2000 mg	Consult Expert
> 1001 mg	20:1
801 – 1000	15:1
601 – 800	12:1
301 – 600	10:1
101 – 300	5:1
< 100	3:1

Methods of Conversion to

Methadone from other Opioids

- Morley-Makin method (6 d)
- Stop and Go method (1d)
- Ripamonti method (3d)
- Manfredi-Houde method (1d)

Clinical pearls

- Methadone safe and effective when used judiciously

- Consider when failing other opioids/difficult to control pain
- QTc issues can be concern in conjunction w/other agents affect cardiac conduction(TCA's etc.)

More Clinical Pearls

- Cheap and safe in ESRD, caution w/ESLD
- May work better for neuropathic pain but not EBM at this time
- EPERC dosing recommended(most conservative)

- Less than 300mg DOME use 1mg po Methadone equals 10mg po morphine, >600 DOME use 1:20

Just a few more Things

- Mg for mg the most potent po opiate
- Beware accumulation on day 4 and 5
- MMT dosing is once daily vs BID/TID dosing for analgesia
- Single dose studies do NOT equivocate clinical use

- Use only as prn if dire situation
- IV methadone 2x as potent as po

Case 1

- 35 yo M with chronic LBP, works in HVAC
- On Fentanyl 75mcg TD patch and oxy ir 15 to 30mg po q6h prn pain
- Sharp stabbing pain begins in L-S spine and radiates down legs, pain w/poor control limiting fxn at work

- Start methadone 5mg po tid, add pregabalin 25mg po tid as adjuvant

Case 2

- 38 yo F with cervical CA
- On Hydromorphone PCA with basal 18mg/hr
- On gabapentin as adjuvant, pain poorly controlled, primarily neuropathic
- Start methadone PCA at basal of 9mg/hr with upward titration based on symptoms

Case 3

- 57 yo F with widely metastatic breast ca
- Actively dying on Methadone 70mg po q6h atc w/worsening pain and dysphagia
- What to do?

Summary

- Works well for bone pain, neuropathic pain, pt who have failed multiple other opiates and

refractory pain, co-morbid addictions (Etoh etc), patients with ESRD, patients who cannot afford other opiates

- Be careful of pt with OSA, sedation on day 4/5, withdrawl on day 7+,drug interactions, QTc issues, ESLD

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APPENDIX

Co-Morbidities Pg 16: Notes

- Need to look beyond primary diagnosis
- New CoPs say must assess other diagnoses even if not related and be sure someone is addressing the needs

- Any of these can hasten death – make more prone to infection, reduce nutritional intake, decrease mobility, etc

- The medical policies set by our Fiscal Intermediaries often include co morbidities as a factor in prognosis – we will discuss the policies more later

Onset of Action - Pg 62: Notes

- The 1992 Agency for Health Care Policy and Research CPG states that pain should be reassessed:
    1. Within 30 minutes of parenteral drug administration
    2. Within one hour of oral drug administration
    3. With each report of new or changed pain
- However, these recommendations pertain to the reassessment of acute pain in an acute care setting.
- Multiple factors determine the appropriate frequency of pain reassessment, including characteristics of the pain (eg duration, severity), patient factors and needs, the clinical setting, and pain management plan (ie type of drug or intervention).
- In the outpatient setting, patients should be instructed to report any changes in pain characteristics, side effects of treatment, and treatment outcomes. Periodic reassessment is recommended in patients with chronic pain to evaluate

improvement, deterioration, or treatment-related complications.

Nausea & Vomiting – Pg 80: Notes

- The vomiting center coordinates emesis. It is located in the lateral reticular formation of the medulla, adjacent to the structures involved in the coordination of vomiting (cranial nerves VIII and X and the vasomotor, respiratory, and salivary centers).
- Vomiting results from the stimulation of a multistep reflex pathway controlled by the brain. It occurs when efferent impulses are sent from the vomiting center to the salivation center, abdominal muscles, respiratory center, and cranial nerves.
- There are many stimuli that can contribute to poorly controlled emesis in patients receiving complex, multiday chemotherapy.
- Some of these stimuli, such as motion, uremia, smells, or tastes, act centrally in the brain to stimulate the vomiting center.
- Others, such as gastroparesis and radiation, primarily interact peripherally by stimulating afferent impulses from the gut to the vomiting center.

- Chemotherapy drugs stimulate emesis both centrally and peripherally.

Anti-Emetic Therapy – Pg 81: Notes

- Corticosteroids are widely used to control CINV; their antiemetic mechanism of action is unknown, but it may be mediated through inhibition of prostaglandin synthesis.
- At equivalent doses, corticosteroids have equivalent safety and efficacy and can be used interchangeably. The corticosteroids most commonly studied for use as antiemetics have been dexamethasone and methylprednisolone. Dexamethasone has the advantage of being available in many dosage formulations.
- For acute CINV, corticosteroids (eg, dexamethasone, methylprednisolone) add approximately 20% to 25% to the emetic response rates of cancer patients when given with a serotonin antagonist, compared with using the serotonin antagonist alone. For delayed CINV, dexamethasone and serotonin antagonists appear to have equivalent antiemetic activity.
- Use of corticosteroids in hematologic malignancy patients may be prohibited by treatment protocols either because of theoretical concerns about drug interactions or infection concerns in high-risk patients.

- Often the cancer treatment regimen already includes a corticosteroid, the administration of which should be scheduled close to chemotherapy administration to take advantage of the synergy with serotonin antagonists.

Methadone - Pg 112: Notes

I want to call your attention to methadone. Methadone has garnered the reputation of being the opioid of choice for neuropathic pain because not only is it an opioid that works at all of the receptors, it's also a serotonin reuptake inhibitor and an NMDA blocker. So theoretically, this ought to be a good drug for neuropathic pain.

POSTTEST/QUIZ

Please click on the link below to be taken to this activity's quiz. After successful completion, you can then fill out an evaluation and application for CME credit.

Non-Pain Conditions and Teamwork