# THERAPEUTIC CONUNDRUMS

## What Would Dr. Ponte Do?

Charles D. Ponte, BPharm, PharmD, FAADE, FAPhA, FASHP, FCCP, FNAP
Professor of Clinical Pharmacy and Family Medicine

# OPIOID ANALGESICS

- Remember – regardless of the drug used, the pharmacologic and therapeutic properties are similar

# ROUTES OF ADMINISTRATION

- Oral
- IM
- SubQ
- IV (bolus vs infusion)
- PCA
- Rectal/Vaginal
- Epidural/Intrathecal

# GUIDELINES FOR SELECTION

- Oral effectiveness
- Duration of action
- Smoothe muscle effects
- Metabolic disposition
- Past patient experience

# PAIN NOT AFFECTED BY OPIOIDS

- Bone pain
- Deafferentation pain
- Increased intracranial pressure
- Muscle spasm
- Smooth muscle spasm

# TAKE OUT A PIECE OF PAPER

- Iam Olde is an 76 yo woman who comes to the clinic for a new patient physical. She has long standing T2DM and painful diabetic peripheral neuropathy in her feet (taking oxycodone/APAP, 2 (5/325) po q 4 hrs prn). Her past medical history also includes breast cancer, HTN, CHF, osteopenia and worsening dementia. Choose the **best** therapeutic strategy for Iam's painful neuropathy.

1. Taper the opioid off and begin tramadol 50 mg po q 6 hrs prn
2. Add pregabalin 150 mg po q 12 hrs
3. Taper the opioid off and begin nortriptyline 25 mg po qhs
4. Apply lidocaine patches to the painful areas on her lower extremities

# TAKE OUT A PIECE OF PAPER

- Iam Olde is an 76 yo woman who comes to the clinic for a new patient physical. She has long standing T2DM and painful diabetic peripheral neuropathy in her feet (taking oxycodone/APAP, 2 (5/325) po q 4 hrs prn). Her past medical history also includes breast cancer, HTN, CHF, osteopenia and worsening dementia. Choose the **best** therapeutic strategy for Iam's painful neuropathy.

1. Taper the opioid off and begin tramadol 50 mg po q 6 hrs prn
2. Add pregabalin 150 mg po q 12 hrs
3. Taper the opioid off and begin nortriptyline 25 mg po qhs
4. Apply lidocaine patches to the painful areas on her lower extremities

# CASE STUDY

- CC and HPI:

  AP is a 50 year-old female calls the hospice nurse with a complaint of increasing back pain. She has been taking oxycodone-APAP 10/325 2 tablets every 6 hours around the clock with minimal relief. The tablets only seem to last 3 hours.

- PMH:

  Metastatic breast cancer (diagnosed in 2010), osteopenia, fibromyalgia, hypertension, hyperlipidemia and type 2 diabetes.

- Medications:

  Oxycodone-APAP 10/325 1-2 tablets po q 4-6 hrs. prn pain, atenolol 50 mg po qd, HCTZ 12.5 mg po qd, pioglitazone/glimepiride 30/2 po qd, rosuvastatin 20 mg po qd, calcium citrate 2 po qd and multivitamins. She is allergic to codeine (measles-like rash, 1990, never rechallenged) and amoxicillin (urticarial rash, as a child).

# PUT YOUR THINKING CAPS ON……

- What is the most likely cause for AP's need for increased doses of oxycodone/APAP?

1. She's selling her opioid on the street
2. She is the victim of a drug-drug interaction
3. She's developing opioid tolerance
4. She's developing allodynia

# PUT YOUR THINKING CAPS ON……

- What is the most likely cause for AP's need for increased doses of oxycodone/APAP?

1. She's selling her opioid on the street
2. She is the victim of a drug-drug interaction
3. She's developing opioid tolerance
4. She's developing allodynia

# TOLERANCE

- Larger opioid dose required for pain relief
- First sign – reduced duration of analgesia
- Common with chronic administration
- Complex physiologic basis
- Less likely with oral opioids/combinations
- Cross-tolerance is incomplete

# RIDDLE ME THIS

- Name one opioid preparation that should be flushed down the toilet versus discarded in the trash….

# TAKE OUT A PIECE OF PAPER

- WM is a 52 yo man with widely metastatic prostate cancer to his spine who is presently taking methadone (30 mg po q 12 hrs) along with rescue doses of IR oxycodone 15 mg po q2 hrs prn and naproxen 500 mg po q 8-12 hrs prn. His pain is fairly well controlled but has been experiencing difficult to manage constipation for several months. Increased fluid intake, high fiber foods and stool softeners have met with little success. Is there a problem here?

# TAKE OUT A PIECE OF PAPER

- WM has difficult to manage opioid-induced constipation despite an aggressive bowel regimen. Which of the following strategies would be most useful to treat his condition?

1. Double his dose of docusate
2. Change his regimen to senna/docusate and PEG 3350, titrate as needed
3. Assume this yoga position 
4. Add lubiprostone twice daily

# TAKE OUT A PIECE OF PAPER

- WM has difficult to manage opioid-induced constipation despite an aggressive bowel regimen. Which of the following strategies would be most useful to treat his condition?

1. Double his dose of docusate
2. Change his regimen to senna/docusate and PEG 3350, titrate as needed
3. Assume this yoga position

4. Add lubiprostone twice daily

# DRUG-DISEASE STATE INTERACTIONS

WJ is a 58 yo Caucasian male with a long history of chronic pelvic and low back pain following an unrestrained MVA (and run over) 5 years ago. He comes to the Family Practice Center for a new patient physical and to establish care.

# DRUG-DISEASE STATE INTERACTIONS

- Pertinent PMH includes:

  MVA 2005 (pelvic crush injury)

  PTSD

  Depression

  Prolonged QT syndrome

  Hypertension

  Cocaine Abuse

  Allergies – MS (?)

# DRUG-DISEASE STATE INTERACTIONS

- Medications
- sertraline 150 mg po qd
- lisinopril 40 mg po qd
- aspirin 81 mg po qd
- oyxcodone ER 40 mg po bid
- oxycodone IR 10 mg po qid and prn
- docusate/senna 2 po bid

# DRUG-DISEASE STATE INTERACTIONS

During the intake interview, the patient states that his pain has never been well controlled and has some friends who take methadone with good pain relief. He inquires whether he would be a suitable candidate for oral methadone. What say yee??

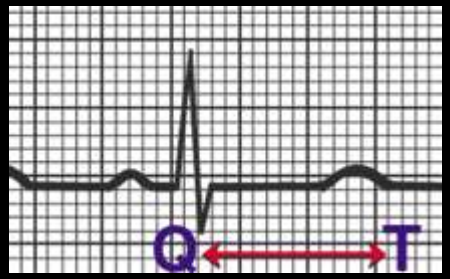
# DRUG-DISEASE STATE INTERACTIONS

# THE PROBLEM

- Prolonged QT syndrome and methadone

  Consequences – torsade de pointes

  (syncope, VT, sudden death)




# METHADONE SCREENING GUIDELINES

- Inform patients about risk
- Ask about structural HD, arrhythmia, syncope
- ECG at time 0, 30 d and yearly
- QTc > 450 < 500 ms – monitor closely

  > 500 ms – d/c, change dose, change drug, evaluate contributors
- Awareness of drug-drug interactions

Krantz MJ et al. Ann Intern Med 2009; 150:387-95

# AVOIDING INTERACTIONS

Before prescribing/recommending an opioid:

- Review current Rx and nonprescription drug regimens (Head to Toe)
- Evaluate medication/comorbid conditions that may interfer with the metabolic clearance of the opioid
- Evaluate comorbid condition(s) that may be affected by the choice of opioid

# AVOIDING INTERACTIONS

- Use the appropriate tools to assist you in evaluating the interaction potential:
  - On-line references
  - Smart Phone/PDA apps
  - Colleagues (MD/DO, PharmD/RPhs)
  - Drug Information Centers


That's all Folks!