

1 **Outpatient Pain Management**

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Scottsdale Healthcare System, Scottsdale, AzPartner, Valley Pain Specialists
Phoenix, Arizona2 3 **Fasten Your Seat belts !**

- Alice in Wonderland
- Evolving Concepts
- Old Paradoxes
- What's New at the FDA ?
- Procedures – Corticosteroids
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4 **Propofol /
Diprivan
(Chasing the
White Rabbit)**5 **Propofol I : The Knowns**

- 1) Potent Sedative/Anesthetic
- 2) Narrow Therapeutic Index
- 3) Resp/CV Depression

6 **Propofol II: The Unknowns**




- 4) Pain Relevance: Synergy (known) + analgesia & anti-hyperalgesia (new !)
(Anesthesiology 2010 Jul 6 [Epub ahead of print].)



- 5) Not Yet "Controlled" !!!

7 **Propofol III: Use in Terminal Sedation**

- 1) Use after failure of other drugs
- 2) Used for both its sedative as well as anti-emetic effects
- 3) Studies/series had no comparisons to other agents
- 4) Only 4 series/case reports – one recent series in a specialized palliative care unit, 35 patients
- 5) European Literature
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- J Palliat Med 2010 Jan 13(1)73-6.

8 **Evolving Concepts**

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- Preventing Opiate Abuse/Diversion
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- Newer SNRI's
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- New Intrathecal (IT) Drugs
- 9  **Opiate Abuse/Diversion**
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- "Howze Your Cupboard ?"
- 10  **AZ CSPMP**
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- Controlled Substances Prescription Monitoring Program
- Limitations !

- 11  **Opiate Contracts I**
- L. Jean Dunegan M.D., J.D., FCLM
-
- Legal Regulations Impacting Pain Treatment
-
- Dannemiller Memorial Lecture, August 30th, 2007
- 12  **Opiate Contracts II**

- It's the Little Extras That Set You Apart
- Family Involvement/Testimonial Letters
- Patient Acknowledgement of Active Role
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Preventing Prescription Drug Abuse - Homefront

- www.theantidrug.com/drug-information

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- Safeguard all drugs at home. Monitor quantities and control access
- Set clear rules for teens about all drug use, including not sharing medicine and always following the medical provider's advice and dosages.
- Be a good role model by following these same rules with your own medicines.
- Properly conceal and dispose of old or unneeded medicines in the trash
- Ask friends and family to safeguard their prescription drugs as well
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16  **Cymbalta/Duloxetine**

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- Goal of synthesis: create an Antidepressant/Adjuvant pain medication without the side effects of TCA's
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- Bonus: Also anti-anxiety
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Milnacipran/Savella

- inhibits serotonin and norepinephrine uptake in a 3:1 ratio, in practical use, this means a

balanced (equal) action upon both transmitters (in vivo versus in vitro)

- Same issues with Norepinephrine side effects (eg – HTN)
- ? Differences in outcomes from Duloxetine

18 **End of the Road . . . ?**

- Financial Times – Overview Article June 15th, 2010
- 1) Development: High risk/low profit (many “good” generics)
- 2) Public criticism, regulatory scrutiny, litigation
- 3) Clinical trial difficulties
- 4) Few new scientific leads (???)
- 1)

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21 **Intrathecal (IT) Drug Delivery (IDD)**

- Potent Method of Pain Control
- Potential interactions with other Rx
- Excellent Reviews:
- Anesthesiol Clin 2007 Dec 25(4)863-82. (physician's perspective)
- Am J Health Syst Pharm 2007 Dec 1 64(23)2447-61. (pharm. perspective)
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22 **New IT Drugs - Ziconotide**

- From The toxin of the Conus Magnus snail
- N-type CA+2 channel blocker
- Pain Pract 2009 Sep-Oct 9(5)327-37. (neuropathic pain specifically)
- Expert Opin Pharmacother 2008 Jun 9(9)1575-83. (Pharmacy Perspective)

23 **Ziconotide II**

- Severe psychiatric symptoms and neurologic impairment
- Nausea/Vomiting
- Urinary Retention
- Recent Refinements in Practice (smaller doses in combination with other agents)
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26 **NSAIDS & Exercise I**

- David Nieman , Director of the Human Performance Laboratory, Appalachian State University
-
- “Muscle damage is linked to cytokine changes following a 160-km race ”
-
- Journal of the American College of Sports Medicine, May 2005 - Volume 37 - Issue 5

27 **NSAIDS & Exercise II**

- 1) A study of Ultramarathoners showed that those runners who'd taken Ibuprofen before and during the race displayed significantly more inflammation and other markers of high immune system response afterward than the runners who hadn't taken NSAID's. The Ibuprofen users also showed signs of mild renal impairment and, both before and after the race, of low-level endotoxemia, a condition in which bacteria leak from the colon into the bloodstream.
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28 **NSAIDS & Exercise III**

- 2) “In a number of studies conducted both in the field and in human performance laboratories in recent years, NSAIDs did not lessen people's perception of pain during activity or decrease muscle soreness later”

- 3) This is one of a number of studies undertaken recently that demonstrate this
- 4) Pain management implications:
 - A) Underlines (once again) that indiscriminate NSAID use is to be avoided
 - B) Watch out for "Conventional Wisdom"

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30 **Methadone**

- May be more effective for neuropathic/visceral pain (NMDA antagonist) than other opiates
- Inexpensive
- BUT
- Analgesic Duration <<< t_{1/2} (slow terminal elimination)
- Beware accumulation !!!
- Torsade de Pointes Associated with Very-High-Dose Methadone (Ann Intern Med; Volume 137: 501-504)
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31 **What's New at the F.D.A. ?**

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34 **Percocet and Vicodin**

- 1) Some thoughts:
 - 2) 1) Acetaminophen Toxicity (leading cause of liver failure)
 - 2) Analgesic Synergy
 - 3) Simplicity (sic)
 - 4) FDA Regulatory Philosophy (Advisory Panel votes 17:3 to ban both drugs 6-30-2009)

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35 **Opioid R.E.M.S.**

- 2) • Risk Evaluation and Mitigation Strategies

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- Those who cannot learn from history are doomed to repeat it George Santayana

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38 **OPIOID R.E.M.S. II**

- "On February 6, 2009, the Food and Drug Administration (FDA) sent letters to manufacturers of certain opioid drug products, indicating that these drugs will be required to have a Risk Evaluation and Mitigation Strategy (REMS) to ensure that the benefits of the drugs continue to outweigh the risks"

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39 **OPIOID R.E.M.S. III**

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- www.hcplive.com/pain-management
- (REMS update as of May 2010 - ?'s)
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40 **Pain Medicine's Perspective ?**

- Concise editorial in Pain Medicine 2010; 11: 480-481
- Historical Overview, Role and pitfalls of Opioid Rx in Chronic pain, Potential REMS "blindspots", advocacy of a controlled substance training process
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41 **Procedures - Corticosteroids**

- Explosion in numbers over the last 10 years (CMS data)
- - old school (interlaminar) injections up > 15-20%
- - "new" transforaminal injections have at least tripled !

- Pharmacologic Relevance:
- -steroid psychosis
- -hyperglycemia
- -mania
- -Cushing's Syndrome/Adrenocortical Suppression
- -Particulate Nature

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The End . . .

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