

2017 INTERNATIONAL CONFERENCE ON OPIOIDS

Posters Presented June 11–13, 2017

Profile of Patients Attending Methadone Maintenance Therapy (Opioid Substitution) in the Community Health Centre of Jakarta: Are They Still Using Heroin?

Muhammad Akbar; Muhammad Rayhan; Muhammad Zufar; Reza Yudianto; Kristiana Kurniasanti, SpKJ(K)
Indonesia depends on the methadone program to reduce the risk of heroin injection. However, a significant number of patients are still using heroin while receiving methadone. This research aims to identify and explain the factors associated with the phenomenon.

Patient Satisfaction with Switching from Sublingual to Buccal Buprenorphine/Naloxone

Brent Boyett, DO, DMD
Buccal buprenorphine/naloxone (BBN, Bunavail), is a novel formulation utilizing a bioerodible, mucoadhesive film delivering bioequivalent doses of buprenorphine at 50 percent of the total buprenorphine dose versus sublingual formulations. This study examined satisfaction scores and other patient- and physician-reported outcomes in subjects switched from sublingual buprenorphine/naloxone (tablet/film) to BBN.

Physiochemical Abuse-Deterrent Properties of Extended Release Tapentadol

Edward Cone; Paul McGoff; Gerd Kochendoerfer
Category 1 assessment of extended release tapentadol indicated that it has equal or superior physiochemical abuse-deterrent properties compared with Oxycontin OP, an FDA approved abuse-deterrent product.

Use of Biosensors to Evaluate Physiologic Responses to Pain and Opioid Use

Arielle Filiberti; Stephanie Carreiro, MD; Premananda Indic, PhD; Keerthi Kumar Chintla; Brittany Chapman; Edward Boyer, MD, PhD
The purpose of this study is to validate previous findings suggesting that wearable biosensors can identify heavy opioid users, as well as to evaluate the potential of biosensors to detect developing tolerance in patients during escalating opioid therapy.

A Novel Method for Placebo Analgesia with Empowerment - Selected for Top Three Posters Presentation

Raouf Gharbo, DO
Heart rate variability (HRV) is a biomarker of physical health, emotional resilience and chronic pain. Wearable technology has propelled HRV biofeedback to become the most versatile objective manner to shift emotion. Preliminary HRV biofeedback for chronic pain RCT data and a method for reproducible placebo analgesia will be presented.

Safety and Efficacy of Opioid Prescribing Practices for Chronic Non-Cancer Pain by Family Physicians: A Qualitative Study in Nova Scotia, Canada

Joshua Goodwin; Susan Kirkland, PhD
We interviewed 7 Nova Scotia family physicians about the issues and challenges around opioid prescribing for chronic non-cancer pain and analyzed the transcripts using a grounded theory approach. We identified intersecting challenges relating to the complexity of chronic pain management, the physician-patient relationship, concern for diversion of opioids, lack of training, and systemic issues.

Decreased Opioid Use and Pain Scores Following Therapy with a Compounded Topical/Transdermal Analgesic: Update on Case-Control Matched and Formulation Comparison Results from the Optimizing Patient Experience and Response to Topical Analgesics (OPERA) Observational Study

Jeffrey Gudin, MD; Michael Brennan, MD; Edmund Harris, MD; Peter Hurwitz; Derek Dietze
This observational study (IRB-approved, informed consent obtained) evaluated the efficacy of compounded topical/transdermal analgesics in reducing Brief Pain Inventory (BPI) Severity and Interference Scores and opioid/other medication use in adult patients experiencing chronic neurologic or musculoskeletal pain. A preliminary analysis of case-control matched and formulation comparison data were also conducted.

Pharmacokinetics and Abuse Potential of KP511, a Novel Prodrug of Hydromorphone, after Intranasal Administration in Recreational Drug Users

Sven Guenther, PhD; Travis Mickle, PhD; Andrew Barrett, PhD; Adam Smith, PhD; Rene Braeckman, PhD; Debra Kelsh, MD
Opioids such as hydromorphone with low oral bioavailability are attractive for non-oral routes of abuse that avoid first-pass metabolism. In this study, a prodrug of hydromorphone, KP511, showed markedly less maximal and overall systemic exposure and lower levels of drug liking relative to hydromorphone HCl following intranasal administration.

Knowledge, Skills, and Attitudes Regarding the Use of Medical Cannabis in the Hospice Population: An Educational Intervention - Selected for Top Three Posters Presentation

Kelly Mendoza, MS, PharmD; Mary Lynn McPherson, PharmD, MA, MDE, BCPS, CPE
Practitioners are concerned about their lack of knowledge regarding cannabis, especially in states where it has been legalized. This project evaluates changes in knowledge, skills and attitudes after taking an online course on medical cannabis.

Assessment of the Oral Human Abuse Liability and Pharmacokinetics of Xtampza ER®

Diana Meske, PhD; Megan Shram, PhD; Steve Passik, PhD
Xtampza (oxycodone) extended-release capsules with the DETERx technology is a microsphere-in-capsule, ER, abuse-deterrent analgesic. This is the second oral human abuse liability study assessing the abuse liability and pharmacokinetics of Xtampza ER taken intact and chewed compared with crushed immediate-release oxycodone.

Possible Role of Glucocorticoids in the Attenuating Effects of Selective D3R Antagonist on Social Defeat-Induced Reinstatement to Cocaine Seeking Behavior

M. Victoria Milanés, MD, PhD; Rocío Guerrero, PhD Student; Bruno Ribeiro Do Couto, PhD; M. Luisa Laorden
We have evaluated the role of D3R in social stress-induced both reinstatement to cocaine-seeking behavioral and corticosterone release. Our results suggest that D3R would be implicated in the effects of stress on cocaine addiction.

Dopamine D3 Receptor (D3R) Blockade Prevented Stress-Induced Corticosterone Release and Attenuated Reinstatement of Cocaine-Seeking Behavior

Cristina Núñez, PhD; Rocío Guerrero, PhD Student; M. Victoria Milanés, MD, PhD; M. Luisa Laorden; Bruno Ribeiro Do Couto, PhD
We hypothesize, based on the current results, our previous data and the work of others, that the blockade of D3R may attenuate relapse in cocaine-seeking behavior by impairing glucocorticoids release.

Perceived Barriers to Implementation of Current Guidelines on Long-Term Opioid Therapy: Results of an Opioid Post-Course Survey

Paul A. Sloan, MD; Richard A. DeVito, Jr.

Opioid education has been suggested to help with the opioid crisis in America. Survey results of clinicians following a 3-day opioid education course find that most prescribers perceive barriers in practice to the implementation of current opioid guidelines.

Pharmacokinetic Characteristics of Oral and Intranasal Administration of Morphine ARER (MorphaBond™ ER), a Novel Abuse-Deterrent Formulation of Morphine

Lynn R. Webster, MD, FACPM, FASAM; Carmela Pantaleon; Matthew Iverson, MPH
Morphine ARER (MorphaBond™ ER) is an abuse-deterrent, extended-release morphine formulation. In vitro and in vivo studies show morphine ARER has properties expected to reduce abuse/misuse via injection and insufflation. This pharmacokinetic study demonstrates that morphine ARER retains its extended-release characteristics after manipulation (crushed intranasal administration) compared with intact oral administration.

NKTR-181 Produces Full CNS μ -Opioid Agonism with Significantly Lower Abuse Potential

Aleksandrs Odinecs, PhD; Lynn Webster, MD; Jack Henningfield, PhD; August Buchhalter; Suresh Siddhanti; Carlo Di Fonzo; Michael Eldon
Comparison of miosis after administration of NKTR-181 and oxycodone provides clinical evidence that both opioids produce comparable maximal μ -opioid central effects. However, NKTR-181 has significantly lower abuse potential than oxycodone at doses proven to be efficacious in a phase 3 efficacy study.

Opioid Prescribing Patterns After the 2014 Federal Hydrocodone Rescheduling Policy

Mukaila Raji, MD, MS (Pharm), FACP; Yong-Fang Kuo, PhD; Deepak Adhikari, MS; Jacques Baillargeon, PhD; James Goodwin, MD
We used data from 9,202,958 privately-insured adults to examine how the 2014 federal hydrocodone rescheduling policy affected opioid prescribing. Hydrocodone prescribing decreased by 26 percent after the 2014 policy; any opioid prescribing decreased by 11 percent. Absolute decreases in hydrocodone use were larger for those with high comorbidities and actively-treated cancer patients.

Adherence to Antidepressant Treatment Associated with Opioid Cessation in Patients with New Depression Episodes following Chronic Prescription Opioid Use

Jeffrey Scherrer, PhD; Joanne Salas, MPH; Mark Sullivan, MD; Brian Ahmedani, PhD; Laurel Copeland, PhD; F. David Schneider, MD; Patrick Lustman, PhD
Treating depression improves chronic pain outcomes. Depression and long-term prescription opioid use have a bi-directional association. It is not known if treating depression is associated with increased opioid cessation.

Rate of Nucynta ER Intentional Abuse Calls to Poison Centers are Lower than ER Oxycodone and ER Oxymorphone

Stevan G. Severtson, PhD; Suzanne K. Vosburg, PhD; Jody L. Green, PhD; Richard C. Dart, MD, PhD
Cumulative rates of Nucynta ER intentional abuse are compared to other extended-release (ER) Schedule II opioids. Multiple imputation was used to assign formulations to unknown products. Nucynta ER abuse rates are significantly lower than ER oxycodone and ER oxymorphone per population and dosage units dispensed.

Abuse Liability of Tapentadol is Significantly Lower Than Other Schedule II Opioids

Suzanne K. Vosburg, PhD; Stevan G. Severtson, PhD; Jody L. Green, PhD, CCRP; Steven P. Kurtz; Richard C. Dart, MD, PhD
Cumulative rates of tapentadol intentional abuse exposures and diversion are compared to Schedule II opioids using Poisson regression. From October 2011 through December 2016, there were 92 intentional abuse exposure mentions reported to poison centers and 60 diversion cases. Rates of tapentadol abuse and diversion were low relative to comparators.

The Probuphine® REMS Training Program: Lessons Learned During the First Year

Ole Snyder, MD; Sonnie Kim, PharmD; Steven Chavoustie, MD
To review the evolution and first 9 months of implementation of the Probuphine Risk Evaluation and Mitigation Strategy (REMS) program, which is the first to include a monitored surgical procedure available to addiction medicine specialists.

Synopsis of VA/DoD Clinical Practice Guideline (CPG) for Opioid Therapy for Chronic Pain

Christopher Spevak, MD; Sara Wilson, MD; Brandon Bilka, MD
In December 2015, the VA and DoD began revising the 2010 joint CPG for the management of opioid therapy for chronic pain, taking into consideration new evidence regarding the risk of prescribing opioid medication for chronic pain. This synopsis summarizes the major recommendations.

Physical Manipulation of Oral Extended-Release Opioid Formulations: In vitro Evaluation of Impact on Drug Release Characteristics

Christy Thompson, PhD; Steve Mayok; Said Saim; Alison Fleming, PhD
Xtampza® ER is a microsphere-in-capsule, extended-release (ER), abuse-deterrent analgesic of oxycodone using the DETERx technology. This in vitro study assessed the effect of particle size reduction (PSR) on drug dissolution from 9 currently marketed ER opioids, including Xtampza ER.

The Effect of Physical Manipulation by Crushing of Xtampza ER (Oxycodone Extended-Release Capsules) Compared with the Abuse-Deterrent Version of OxyContin (Oxycodone Hydrochloride Extended-Release Tablets)

Christy Thompson, PhD; Melinda O'Connor, BA; Diana Meske, PhD; Michael DeGeorge, PharmD; Alison Fleming, PhD
Xtampza® ER is a microsphere-in-capsule, extended-release (ER), abuse-deterrent analgesic of oxycodone using the DETERx technology. This is the second comparator study assessing the safety and pharmacokinetics of Xtampza ER taken intact and crushed with OxyContin® (oxycodone hydrochloride extended-release tablets) intact/crushed and crushed immediate-release oxycodone tablets.

The Prevalence of Nasal Obstruction as a Consideration in the Treatment of Opioid Overdose

Heather Thomson, MS; Scott Weiner, MD, MPH; Andrew Joyce, PhD
Nasal obstructive pathology may be an important consideration when choosing a route of administration for naloxone.

Developing Education Strategies for Pharmacists Licensed and Working in a State with High Overdose-Related Deaths

J. Douglas Thornton, PharmD, BCPS, PhD Candidate; Nilanjana Dwibedi, PhD; Xiaohui Zhao, MS; Virginia Scott, PhD; Charles Ponte, PharmD; Douglas Ziedonis, MD; Usha Sambamoorthi, PhD
The Extended Parallel Process Model (EPPM) was used to categorize pharmacists and describe educational objectives to increase naloxone distribution in community pharmacies. The survey findings were made representative of the state's population of pharmacists by using results from the first functional census of pharmacists, licensed and working, in West Virginia (WV).

Law Enforcement Officer's Readiness to Administer Naloxone in an Emergency Situation in a State with High Overdose-Related Deaths

J. Douglas Thornton, PharmD, BCPS, PhD Candidate; Nilanjana Dwibedi, PhD; Xiaohui Zhao, MS; Traci LeMasters, PhD

Communities in West Virginia (WV) have been disproportionately impacted by the highest opioid-overdose deaths in the country. LEOs are often the first to respond to medical emergencies in the community, including overdose.

Long-Term Opioid Therapy for Chronic Pain: Implementing Coordinated Care Procedures for Safer Prescribing

Kathryn Walker, PharmD, BCPS, CPE; Christopher Kearney, MD; Stephanie Blease; Doug McDonald, PhD; Sarah Shoemaker, PharmD, PhD; Leigh Mathias; Wesley Sargent, Jr., EdD, LPC

This study evaluates an approach to coordinating care of primary care patients taking opioids for chronic pain. Abt Associates and CDC developed an evidence-based Coordinated Care Plan (CCP) based on CDC's opioid prescribing guideline, relevant research, and the experience of several healthcare systems that implemented similar coordinated care practices.

Naloxone Administration as a Measure of Opioid Prescribing Uncertainty in a Hospital Setting

Kathryn Walker, PharmD, BCPS, CPE; Ashley Fan; Kelly Mendoza, MS, PharmD; Peter Kuehl, MD, CMIO

Opioid overdoses are a major concern for health systems across the country. Our study describes inpatient opioid prescribing trends related to naloxone administration across our ten hospital health system. Naloxone administration served as a marker for opioid uncertainty and the cases helped identify prescribing practices associated with opioid overdoses.

Analysis of Impact of Oral Methylalntrexone for Opioid-Induced Constipation (OIC) on Opioid Analgesia and Withdrawal Symptoms in Patients With Chronic Noncancer Pain (CNCP) Taking Methadone

Lynn R. Webster, MD; Sylvia Hanna, MD; Robert J. Israel, MD; Nancy Stambler, DrPH
Some medications that treat opioid induced constipation have reported symptoms consistent with withdrawal.

Oral Methylalntrexone Does Not Negatively Impact Analgesia in Patients with Opioid-Induced Constipation and Chronic Noncancer Pain

Lynn R. Webster, MD; Sylvia Hanna, MD; Robert J. Israel, MD
In a phase 3, randomized, double-blind, 12-week placebo-controlled trial, the potential effects of oral methylalntrexone on centrally mediated opioid analgesia in adults with chronic noncancer pain (CNCP) and opioid induced constipation (OIC) were examined.

Oral Methylalntrexone is Efficacious and Well Tolerated for the Treatment of Opioid-Induced Constipation in Patients with Chronic Noncancer Pain Taking Concomitant Methadone

Lynn R. Webster, MD; Sylvia Hanna, MD; Robert J. Israel, MD
A post hoc analysis of a phase 3, randomized, double-blind, 12-week placebo-controlled trial was performed to evaluate the safety and efficacy of oral methylalntrexone for opioid induced constipation in a subgroup of adults with chronic noncancer pain that received methadone.

Heroin Dependence Transition Rates for Newly Incident Heroin Users in the United States, Before and During the Current Heroin Epidemic Years 2005 Through 2013 - Selected for Top Three Posters Presentation

Olga Josefina Santiago Rivera, PhD, MHSA; James C. Anthony, PhD; Jennifer R. Havens, PhD
Studying a nationally representative sample of newly incident heroin users in the United States (US), we estimate the HDS transition probability.

Effects of Age on Hydromorphone Thermal Antinociception in Female Cats

Bradley Simon, DVM, MSc, DACVAA; Paulo Steagall, DVM, MSc, PhD, DACVAA; Elizabeth Scallan, DVM, MSc, MBA
The objective of this study was to determine if hydromorphone provides different onset and duration of antinociception in kittens and young cats. Thermal antinociception was evaluated in ten healthy female cats at two distinct ages, 6-months and 9-months. Hydromorphone provided shorter duration of antinociception in kittens compared with young cats.

Usability of Naloxone Nasal Spray by Age and Literacy Level: A Pooled Analysis of Human Factors Studies

Julie Aker MT(ASCP); Melissa Beck, BA
Usability is an important characteristic of naloxone nasal spray, which is indicated for the emergency treatment of known or suspected opioid overdose and administered by laypersons under stressful conditions. Findings from human factors studies are presented for two prespecified subgroups: adolescents and participants with low literacy.

Abuse and Route of Administration Prevalence for Tapentadol Products Within the NAVIPPRO® ASI-MV® Surveillance System

Jared Beaumont, MPH; Theresa Cassidy, MPH; Taryn Dailey Govoni, MPH
Post-market surveillance data indicate low abuse levels of tapentadol products, but research regarding the route of administration profile of tapentadol abusers is limited. Our analyses evaluated abuse and routes of administration of tapentadol within a sample of 270,695 adults assessed for substance abuse problems during January 2012 through September 2016.

International Conference on Opioids, June 11-13, 2017

The 2017 International Conference on Opioids (ICOO2017) was held in Boston, June 11-13, 2017, at the Joseph B. Martin Conference Center at Harvard Medical School. Attendees from around the world participated in this two plus day conference that featured renowned speakers from many countries presenting the latest research, ethics, legal and clinical applications of opioids.



SAMHSA's Kana Enomoto discussing crucial issues faced by healthcare providers who prescribe opioids in her keynote presentation, *Addressing America's Opioid Crisis: How Practitioners Can be Agents for Change*.



Sharon Walsh, PhD in her excellent keynote presentation, *Tackling the Opioid Epidemic with Science: Studies from the Laboratory and Clinic*.



Charles Argoff, MD in his insightful presentation, *Evidence for Chronic Opioid Therapy*.

Sincere thanks and congratulations to all our ICOO 2017 presenters, conference committee, educational partners and co-chairs for creating a truly world class event!
Join us for ICOO 2018, June 10-13, 2018!



Dr. Lynn Webster discussing the future of Abuse Deterrent Opioids in his keynote presentation *The Role of ADFs in Curbing Opioid Abuse: Can ADFs Reduce Opioid Abuse?*



Co-Chairs, Dr. Paul Sloan and Dr. Michael Brennan directed the sixth annual International Conference on Opioids to a successful conclusion.



Richard Dart, MD, PhD presenting *Effect of Abuse-Deterrent Formulations and Immediate-Release Opioids on Abuse, Overdose and Death from Rx Opioids*. Dr. Dart is the guest co-chair for ICOO2018.



(Left to Right) Dr. Kathryn Walker and Dr. Mary Lynn McPherson engaging the audience with their presentation *To Infinity and Beyond! Safe and Effective Titration of Basal and Bolus Opioid Doses*.



Poster Winner 1: Olga Josefina Santiago Rivera, PhD, MHA presenting her, James C. Anthony, PhD and Jennifer R. Havens, PhD's poster *Heroin Dependence Transition Rates for Newly Incident Heroin Users in the United States, Before and During the Current Heroin Epidemic Years 2005 Through 2013*.



Mellar Davis, MD, FAAHPM, presented *Looking Both Ways Before Crossing the Street: Assessing the Benefits and Risk of Opioids in COPD*.



Poster Winner 2: Mary Lynn McPherson, PharmD, MA, MDE, BCPS, CPE presenting her and Kelly Mendoza, MS, PharmD's poster *Knowledge, Skills, and Attitudes Regarding the Use of Medical Cannabis in the Hospice Population: An Educational Intervention*.



Amadeo Pesce, PhD, DABCC, presented *Quantitative Urine Drug Testing Offers Some Novel Insights*.



Dr. Eric Chen presenting *Opiate Use and Over-Prescription in Post-Operative Patients*.





Dr. Lucy Chen, Dr. Jianren Mao and Dr. Ping Jin answering questions after their interesting discussion, *Ketamine Use in Chronic Pain Management*.



Stephen F. Butler, PhD and Stacey McCaffrey, PhD presented *Assessment, Treatment, and Outcome of Pain Patients at Risk for Prescription Opioid Abuse: A Naturalistic Study*.



Dan Cohen and Paul Coplan, ScD at their Scientific Satellite symposia, *Abuse Deterrent Formulations of Opioids: Approval Reform & Findings from Electronic Health Data*.



Attorney Benjamin Wish, and Dr. Carol Warfield enlightened the audience with their eye-opening presentation *Treating Pain Without Prosecution: Minimizing the Risk of Prescribing Opioids*.



Dr. Sloan presenting *KFL&A Public Health Action Plan on Opioids: Reducing the Community Opioid Load* on behalf of content creator Dr. Kieran Moore.



Ping Jin, MD, PhD, Lucy Chen, MD, and Jianren Mao, MD, PhD presenting *Ketamine Use in Chronic Pain Management*.



Lynn Webster, MD, FACPM, FASAM, J Ramsay Farah, MD, MPH, FAAP, FACPM, FASAM, CPE, CMRO, and Katrina Lewis, MD, BSc presenting *Utilizing Precision Medicine Technologies to Avoid and Treat Prescription Opioid Abuse*.



Dr. Seddon Savage sharing her research in *Overview of Cannabinoids & Opioids*.



(Left to Right) Dr. Brennan, Jim Wahlberg and Dr. Sloan after Jim's stirring presentation and viewing of *If Only*.



Dr. Franklin and Dr. Ngo presenting *Improving Opioid Safety and Access to Quality Pain Care within the VA New England Healthcare System (VISN 1)*.



Dhanalakshmi Koyyalagunta, MD presenting her and Dr. Larry Driver's *Opioid Management in Cancer Survivors: Emerging and Evolving Challenges*.



Natalie Moryl, MD presenting *Patient Reported Outcomes as a Predictor of Admissions and Mortality in Patients with Prostate Cancer*.



(Left to Right) James L. Sall, PhD, FNP-BC and M. Eric Rodgers, PhD, FNP-BC presenting *VA/DoD Clinical Practice Guideline: Opioid Therapy for Chronic Pain*.



Co-Chair, Dr. Michael Brennan sharing some of his vast experience in the field.



Co-Chair, Dr. Paul A. Sloan presenting his timely *Overview of Opioid Management in Cancer Survivors*.



Christopher Cutter, PhD presenting *Physical Exercise as Supplemental Therapy in Methadone Maintenance Treatment*.



Jaya Tripathi and Scott Weiner, MD, MPH, FACEP, FAAEM presenting *MeDSS: A Data-Driven Decision Support Tool for Pain Management*.



Attendees presented detailed questions to the speakers. The interaction was excellent and at times intense.



Hon. Judge Jodi Debbrecht Switalski, BA, JD presenting *Your Name is on the Bottle: Current Opioid Prescribing Litigation Trends and Risk Mitigation Tools to Protect Yourself, Your Practice and Your Community*.



Douglas Oyler, PharmD, BCCCP, Kristy Deep, MD, and Phillip Chang, MD, FACS with their presentation *First Do No Harm: Implementing an Opioid Stewardship Program in a HealthCare System*.