

RADARS[®]

SYSTEM

Researched Abuse, Diversion and Addiction-Related Surveillance System



1st Quarter 2014 Newsletter

Volume 9 Issue 1

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RADARS System Internet Survey is launching in the United Kingdom in 2nd Quarter 2014

Did You Know?

Drug Enforcement Agency (DEA)
National Take Back Day is scheduled for April 26, 2014.

RADARS System Annual Scientific Meeting 2014

The 8th Annual RADARS System Scientific Meeting is to be held April 8-9, 2014 at The Westin Georgetown in Washington DC.

New Frontiers in Prescription Drug Abuse Surveillance

Please sign up at www.RADARS.org to receive updates on this event and other RADARS System news.

The Annual Scientific Meeting is where experts in the field of prescription drug abuse convene to discuss current trends in prescription drug abuse research and develop strategies to ensure the safe and proper use of prescription medicines.

This meeting attracts a diverse group of attendees including pharmaceutical industry leaders, representatives from government agencies including the Food and Drug Administration, Drug Enforcement Agency, and Centers for Disease Control and Prevention, and researchers from the pharmacovigilance and academic arenas.

Agenda Highlights

- ◆ RADARS System 2013 Data Updates
- ◆ Can Prescription Monitoring Programs be Used for Surveillance?
- ◆ Responding to an Epidemic: Prescription Nonmedical Use in Florida 2000-2013
- ◆ Non-Traditional Data Sources for Drug and Public Health Surveillance
- ◆ Squeezing the Balloon: The Impact of Prescription Drug Abuse Interventions

An introduction to two of our guest speakers:

Danna Droz, RPh, JD



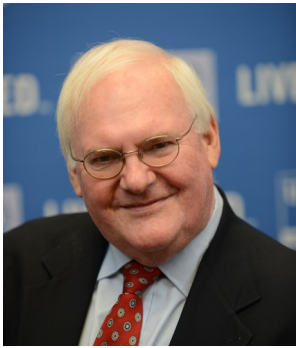
Ms. Droz is the Prescription Monitoring Program (PMP) Liaison for the National Association of Boards of Pharmacy (NABP). She works with state PMPs to enhance their ability to work together and utilize NABP tools to complement the state programs. Ms. Droz is a frequent lecturer on prescription monitoring programs and drug law topics including pharmacy drug law, drug law for practitioners, federal drug law, drug diversion and legal issues in pain management.

Ms. Droz will be presenting on the current state of PMPs and future direction, including the use of PMPs in surveillance of prescription drug abuse.

8th Annual Scientific Meeting

Speaker Introductions, continued.

Jim Hall, PhD



Dr. Hall serves as Epidemiologist with the Center for Applied Research on Substance Use and Health Disparities at Nova Southeastern University. His work at the University is a community partnership with the United Way of Broward County's Commission on Substance Abuse, The Miami Coalitions, and the Florida Department of Children and Families. Dr. Hall's work has focused on converting research about emerging drug abuse problems into community-based solutions.

Dr. Hall will be presenting "Responding to an Epidemic: Prescription Nonmedical Use in Florida 2000-2013" regarding the impact of state and local interventions on abuse and diversion of prescription medications.



New for this Year!

The RADARS System will be holding an International Session
April 8, 2014 at The Westin Georgetown in Washington DC.

Monitoring Prescription Drug Abuse Across the Globe

Agenda Highlights

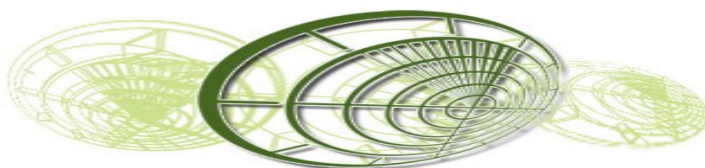
- ◆ What's the evidence of non-medical use of prescription medicine outside the US?
- ◆ Prescription Monitoring Programs: The Canadian Landscape
- ◆ International RADARS System Programs
- ◆ Panel Discussion with Q&A

An introduction to one of our guest speakers:

Dr. Wood is a Consultant Physician and Clinical Toxicologist at Guy's and St. Thomas' NHS Foundation Trust and King's Health Partners, London UK and an honorary senior lecturer at King's College London, London, UK. He has a clinical, academic and research interest in the epidemiology of use and acute harms associated with the use of classical recreational drugs and novel psychoactive substances ("bath salts" or "legal highs"). Included in this is work studying the non-medical use of prescription and over-the-counter medication in the UK.

Dr. Wood will be presenting "What's the evidence of non-medical use of prescription medicine outside the US?"

David Wood, MD



Recent Conference Attendance

Conference American College of Medical Toxicology (ACMT) Annual Scientific Meeting

March 27-30, 2014 in Phoenix, AZ

www.acmt.net

At the ACMT Annual Scientific Meeting, Dr. Eric Lavonas, MD presented a platform combining data from two accepted abstracts on buprenorphine/naloxone formulations focusing on abuse, diversion and pediatric ingestion.

Buprenorphine/Naloxone Addiction and Diversion: Film Rates are Less Than Tablet Rates

(Green, et al.)

RADARS System quarterly data from Drug Diversion (2010Q4-2013Q1), Opioid Treatment and Survey of Key Informants' Patients (2011Q2-2013Q1) Programs were analyzed to determine if abuse and diversion rates differ between buprenorphine sublingual formulations (mono-ingredient tables, combination ingredient tablets, combination ingredient film).

Diversion	Rate Investigations per 10,000 URDD	95% CI	Rate Ratio	95% CI	Significance
Combination Tablets	13.6	12.8 – 14.5	10.6	9.0 – 12.4	P < 0.0001
Single Ingredient Tablets	8.7	7.6 – 9.8	6.7	5.5 – 8.2	P < 0.0001
Combination Film	1.3	1.1 – 1.5	<i>Reference</i>		
Treatment Programs	Rate Endorsements per 10,000 URDD	95% CI	Rate Ratio	95% CI	Significance
Combination Tablets	21.3	20.3 – 22.3	2.3	2.2 – 2.5	P < 0.0001
Single Ingredient Tablets	61.8	59.2 – 64.6	6.8	6.3 – 7.3	P < 0.0001
Combination Film	9.1	8.7 – 9.6	<i>Reference</i>		

In conclusion, diversion and abuse rates for buprenorphine and buprenorphine/naloxone tablets consistently exceed those of buprenorphine/naloxone sublingual film. This data recently was accepted for publication in the Journal of Substance Abuse Treatment (in press).

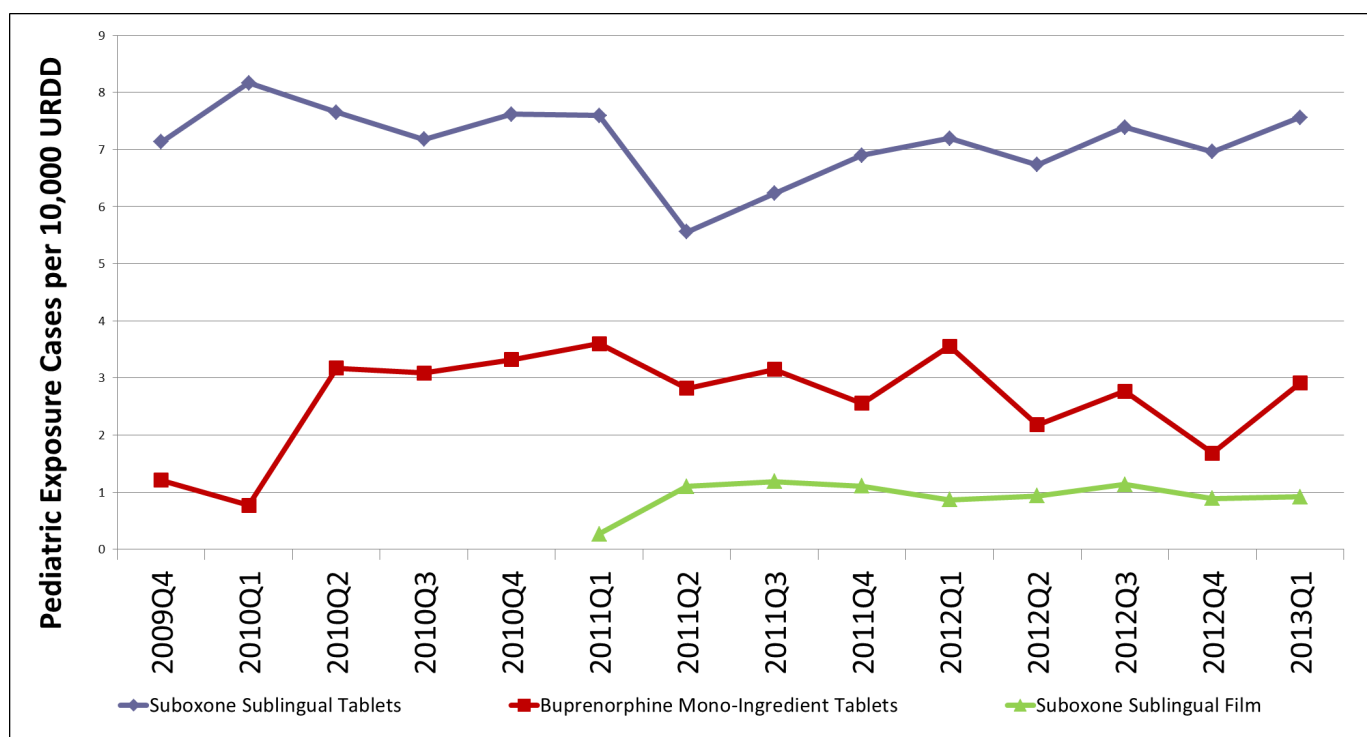
Buprenorphine/Naloxone Pediatric Ingestion: Exposure Rates Differ Between Film and Tablet Formulations

(Green, et al.)

RADARS System quarterly data from the Poison Center Program (2011Q1-2013Q1) were analyzed to determine if pediatric exposure rates differ between buprenorphine sublingual formulations (mono-ingredient tables, combination ingredient tablets, combination ingredient film).

Continued on next page

Figure 2: Pediatric Exposure Cases per 10,000 Unique Recipients of Dispensed Drug for Three Buprenorphine Sublingual Formulations



In conclusion, the rate of unintentional exposures to buprenorphine/naloxone sublingual film by young children is significantly less than the rate of exposure to buprenorphine/naloxone or buprenorphine mono-ingredient tablets.

Upcoming Conference Attendance

American Society of Addiction Medicine (ASAM) Annual Medical-Scientific Conference

April 10-13, 2014 in Orlando, FL

www.asam.org

To be presented as posters:

- ◆ Buprenorphine/Naloxone Pediatric Ingestion: Exposure Rates Differ Between Film and Tablet Formulations (Lavonas, *et al.*)
- ◆ Butrans patch abuse using RADARS Poison Center Program data (Wiegand, *et al.*)

National Rx Drug Abuse Summit

April 22-24, 2014 in Atlanta, GA

www.nationalrxdrugabusesummit.org

Dr. Dart will be presenting at the Summit Pharmacy Track on the Impact of Abuse-Deterrent Formulations.

American Pain Society (APS) Annual Scientific Meeting

April 30 – May 3, 2014 in Tampa, FL

www.americanpainsociety.org

To be presented as posters:

- ◆ Reformulation of extended release oxycodone: changes in intentional abuse exposures before and after introduction of tamper resistant formulation (Severtson, *et al.*)
- ◆ The role of tapentadol ER in the illicit market for opioid analgesics in the United States (Le Lait, *et al.*)

Upcoming Conference Attendance (*cont'd.*)

Canadian Pain Society Annual Scientific Meeting

May 20-23, 2014 in Quebec City, Canada

www.canadianpainsociety.ca

Dr. Dart to present the following Symposia: "The Changing Landscape of Prescription Opioid Abuse and Misuse: A North American Epidemic."

European Opiate Addiction Treatment Association (Europad) Congress

May 23-25, 2014 in Glasgow, Scotland

www.europadevents.org

To be presented as posters:

- ◆ Gender Differences in Patients Entering Treatment Programs in Europe (Martinez, *et al.*)
- ◆ European Opiate Addiction Treatment Programs: Poly-opioid Users are Different than Other Patients Seeking Treatment (Martinez, *et al.*)
- ◆ European Patients Entering Opioid Addiction Treatment Whose Primary Drug is Heroin Differ from Those Whose Primary Drug is Another Opioid (Martinez, *et al.*)
- ◆ Use of Treatment History to Identify Drug Use Differences in European Patients (McBride, *et al.*)

European Association of Poison Centres and Clinical Toxicologists (EAPCCT) International Congress

May 27-30, 2014 in Brussels, Belgium

www.eapcct.org

Dr. Dart to present: "International Overview of Prescription Drug Misuse" (provisional title).

To be presented as posters:

- ◆ Global Toxicosurveillance Network (GTNet): Characterizing Prescription Opioid Exposures Reported to European Poison Centres (Green, *et al.*)
- ◆ Prescription Opioid Misuse in Europe: From Opioid Treatment Programs to Poison Centres (Green, *et al.*)

International Conference on Opioids

June 8-10, 2014 in Boston, MA

www.opioidconference.org

The RADARS System has submitted abstracts for consideration.

College on Problems of Drug Dependence (CPDD) Annual Meeting

June 14-19, 2014 in San Juan, Puerto Rico

www.cpdd.vcu.edu

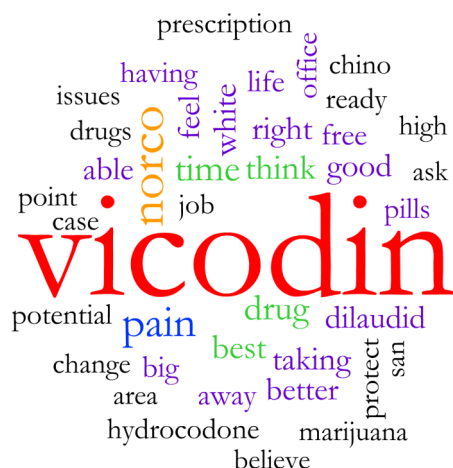
To be presented as posters:

- ◆ Buprenorphine/naloxone pediatric ingestion: exposure rates differ between film and tablet formulations (Lavonas, *et al.*)
- ◆ Buprenorphine/naloxone abuse and diversion: film rates are less than tablet rates (Lavonas, *et al.*)
- ◆ Global impact of prescription opioid misuse: Europe and US (Green, *et al.*)
- ◆ Regional concentrations of Opana® ER abuse before and after introduction of a tamper resistant formulation in 2012 (Severtson, *et al.*)
- ◆ The street prices of immediate and extended release tapentadol are lower than other schedule II opioid tablets/capsules (Le Lait, *et al.*)

RADARS System Web Monitoring Program

Hydrocodone in Social Media

A commercially available web monitoring tool was used to identify posts on public social media, online blogs and online forums that mentioned hydrocodone or a branded hydrocodone product between March 1, 2014 and March 31, 2014. During this time, 60,736 posts met search criteria. Below is a conversation cloud for the month of March that shows the 50 most commonly mentioned words in posts about hydrocodone or a branded hydrocodone product. The words that are used most often are shown larger and in color. Also shown below is a graph of the number of posts per day that mention hydrocodone.



Hashtag

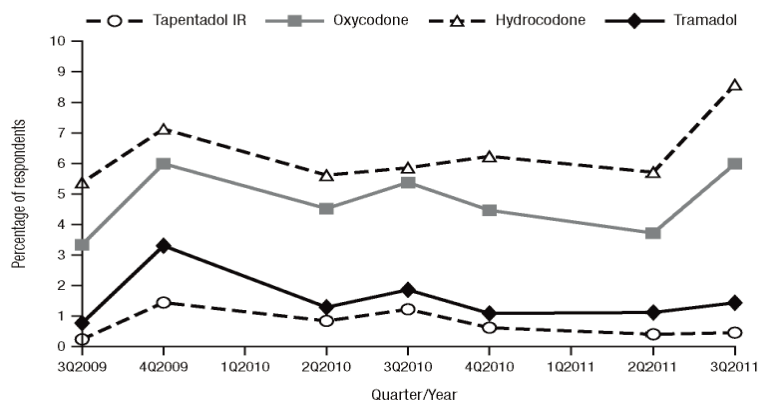
Hashtags (the # symbol) are used to mark keywords or topics in a Twitter or Facebook post. Hashtags are searchable and allow posts to be grouped, so that trending topics can be identified.

RADARS System Publication

Non-medical use of Tapentadol Immediate Release by College Students (Dart, et al.)

The abstract reports rates and methods of non-medical use of analgesic tapentadol immediate release (IR) and other commonly prescribed opioid analgesics among US college students following the launch of tapentadol IR in June 2009. The prevalence of non-medical use of tapentadol IR in each of the 7 semesters surveyed is shown in Figure 1.

Non medical use of tapentadol IR, oxycodone, hydrocodone, and/or tramadol in the past 90 days, RADARS system College Survey Program, 3Q2009 to 3Q2011.



RADARS System in Social Media – Get Connected!



Come follow us [@RADARS_System](https://twitter.com/RADARS_System). You can find news relating to prescription drug surveillance and abuse in the US and abroad. And, RADARS System tweets include publication announcements, conference attendance and program updates.



Publication and conference attendance news can be found on our LinkedIn site (www.linkedin.com/company/radars-system).



Visit www.RADARS.org for active links to presentations, conference attendance and manuscript details.

RADARS System Quarterly Technical Report

RADARS System Technical Report #2014Q1

Appearance of Canadian Oxycodone Extended Release Products in the United States

[Current Technical Report](#)

Recent RADARS System Publications

Manuscripts in Press (E-publication not yet available):

- ♦ Lavonas EJ, Severtson SG, Martinez EM, Bucher-Bartelson B, Le Lait M-C, Green JL, Murrelle L, Cicero TJ, Kurtz SP, Rosenblum A, Surratt HL, Dart RC. Abuse and diversion of buprenorphine sublingual tablets and film. *Journal of Substance Abuse Treatment*.

Manuscripts in Press (E-publication ahead of print):

- ♦ Dart RC, Bucher Bartelson B, Adams EH. Non-medical use of tapentadol immediate release by college students. 2013. *Clinical Journal of Pain*. Epub Date 09/18/2013.

Just Published:

- ♦ Surratt HL, O'Grady C, Kurtz SP, Stivers Y, Cicero TJ, Dart RC, Chen M. Reductions in prescription opioid diversion following recent legislative interventions in Florida. *Pharmacoepidemiology and Drug Safety*. 2014; 23 (3):314-320.
- ♦ Davis JM, Severtson SG, Bucher-Bartelson B, Dart RC. Using poison center exposure calls to predict prescription opioid abuse and misuse-related emergency department visits. 2013. *Pharmacoepidemiology and Drug Safety*. 2014; 23(1):18-25. Epub Date 10/17/2013.
- ♦ Davis JM, Searles VB, Severtson G, Dart RC, Bucher-Bartelson B. Seasonal variation in suicidal behavior with prescription opioid medicine. *Journal of Affective Disorders*. 2014;158:30-36. Epub Date 01/31/2014.

Did You Know?

A mono-ingredient hydrocodone product, Zohydro™, was launched on March 3, 2014.

Contact Information

Account or Subscription Inquiries:

Annelies Hall
Business Manager
(303) 389-1233

Program or Data Inquiries:

Annelies Hall
Business Manager
(303) 389-1233

RADARS System Mission Statement

The RADARS System provides timely, product specific and geographically-precise data to the pharmaceutical industry, regulatory agencies, policymakers and medical/public health officials to aid in understanding trends in the abuse, misuse, and diversion of prescription drugs.

Rocky Mountain Poison and Drug Center and Denver Health and Hospital Authority

The RADARS System is a governmental nonprofit operation of the Rocky Mountain Poison and Drug Center (RMPDC), an agency of Denver Health (DH). The RMPDC has been in operation for more than 50 years, making it one of the oldest poison control centers in the nation. DH is the safety net hospital for the City and County of Denver and is the Rocky Mountain region's academic Level I trauma center and includes Denver Public Health, Denver's 911 emergency medical response system, family health centers, school-based clinics, NurseLine, correctional care, Denver CARES, the Denver Health Medical Plan, and the Rocky Mountain Center for Medical Response to Terrorism, Mass Casualties and Epidemics.

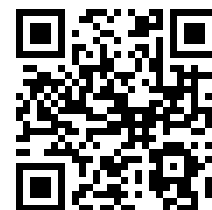


RADARS® System 777 Bannock Street Mail Code 0180
Denver, CO 80204-4507
Questions or comments?

Email the RADARS® System at business@radars.org.

Visit us at www.RADARS.org

Follow us on  Twitter [@RADARS_System](https://twitter.com/RADARS_System) and  LinkedIn



777 Bannock Street ■ Mail Code 0180
Denver, Colorado 80204-4507