



THE PERSPECTIVE

A PUBLICATION OF THE VERMONT ACADEMY OF FAMILY PHYSICIANS

"To promote excellence of the health care provided to all the people of Vermont."

Summer 2014

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Contact Us

PO Box 1457
Montpelier, VT 05601

800-640-8767 or
223-7898
Fax 802-223-1201

Online at:
www.vtafp.net

PRESIDENT'S REPORT

Labor Day is here. Children are back in school and the end of the summer state fairs are upon us. Summer flew by as usual. I hope you took some time off or have some down time coming. I am reminded how even an afternoon in a kayak on the lake, or an early morning run, stopping to watch the sunrise or sunset, or playing a game of tennis can brighten my outlook and refresh my spirits.

We have continued to work on your behalf at the state level advocating for Family Medicine. I hope you were able to take advantage of the free Vermont Day at the June Family Medicine conference in Burlington. We are proud to be able to join with UVM College of Medicine and the Department of Family Medicine to make that free day possible for our members around the state.

Our annual conference is on Saturday, November 1st – again free to members this year. I hope you are planning to attend for CME and a chance to visit with other colleagues. This year it will take place in Montpelier. The schedule of CME will be out the beginning of October. Dr. Reid Blackwelder, the current president of the AAFP, is planning to attend. This will be a wonderful opportunity to hear from him about the Academy's work at the national level and what they are doing to promote our specialty. But also for you to be able to tell him what it is like to practice here in Vermont and our wishes for advocacy. Please don't miss this opportunity.

On the state level, we continue to represent you on several committees to be sure the Family Medicine perspective is present. Andy Regan is on the VITL advisory committee. Our members are also on the VCHIP senior advisory committee, the Primary Care Public Health Integration Committee, Blueprint, Pediatric Council, Immunization Funding Advisory Committee, delegates to the VMS, and others. We testified at the State House on several bills this winter – some successfully. And, we joined with the VMS and the AAP in some of this advocacy.

We have a continuation of the grant for distributing free lead screening machines throughout Vermont. If you haven't received one for your office or would like to know more about the program, please let us know. It offers point of care testing for some of our youngest patients.

I was just present at a welcome picnic for the medical students who have an interest in Family Medicine that took place in Oakledge Park in Burlington. It was a great turnout and a beautiful day. Residents, 3rd and 4th years as well as 1st years attended. In addition, local Family Medicine docs were in attendance. The VTAFP and its members were thanked for the contribution that we make in working as mentors and teachers as well as helping to fund several students each year to be able to attend the Student FM conference in August in Kansas City.

It was wonderful to see the interest in Family Medicine in the students at the Medical school. I heard from many of the 3rd and 4th years about how their interest was sparked by spending a month in a busy practice with you as preceptors. It is good to remember the impact we make every day with our patients, our communities and the future family medicine doctors. As I travel around the state meeting with you, I am constantly impressed by your knowledge, skill, energy, dedication and compassion. I am proud to be one of your colleagues. Thank you for all you do every day.

See you November 1st!!

Allyson Bolduc, MD



GAMBLING ON THE TRANSITION FROM FEE-FOR-SERVICE TO VALUE-BASED CARE

As published by AAFP and written by Mark M. Nunlist, MD, MS, Sean Uiterwyk, MD, and Betsy Nicoletti, MS, CPC

Mainstream media, and even medical journals, would lead one to believe that a new physician payment model based on quality, outcomes, and patient satisfaction is imminent. But most medical practices today must still operate as fee-for-service businesses, in which patient volume, visit coding, productivity, scheduling, payer mix, billing, collections, and expense control are preeminently important. This often leaves scarce resources available to participate in quality improvement programs.

In recent years, the Centers for Medicare & Medicaid Services (CMS) has implemented several programs that tie payment to performance, such as using a qualified e-prescribing system, reporting measures for the Physician Quality Reporting System (PQRS), and achieving meaningful use of certified electronic health record (EHR) technology. States, including our home state of Vermont, and private payers are offering their own quality-based payment incentives as well. Many medical practices believe the incentive payments associated with these programs are insufficient relative to the cost and complexity of their implementation but have pursued them anyway – as our practice has – recognizing their potential to help improve patient care. We are hoping that our efforts position us for success when the transition from fee-for-service to value-based payment is complete. But we have some serious concerns about the financial sustainability of our work in the meantime.

An uncertain future

White River Family Practice resides in the shadow of a large academic medical center in a state where most family physicians are employed by hospitals. Our six-physician practice remains independent. Sunday mornings find our physicians studying quality data rather than reading the Sunday paper. Using reports available in our EHR, physicians track quality indicators in real time, such as the percentage of patients with diabetes who have had an A1C test in the past three months; rates of alcohol or tobacco-use counseling provided during office visits; and rates of preventive screening, such as colonoscopy and mammography. The practice changes care processes regularly to improve these and other measures. (To read about another group's quality improvement journey, see "Controlling Hypertension: Focusing on 'Why' Makes 'How' a Lot Easier".)

To read the rest of this article please visit - <http://www.aafp.org/fpm/2014/0900/p6.html>.



IN MEMORY OF DR. ROGER W. MANN

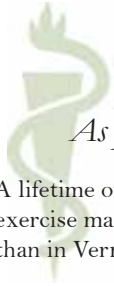


Dr. Roger W. Mann, longtime family physician, passed away at his home on Monday, June 30, 2014.

He was born to the late Merritt Hulburt and Cornelia Lois Mann in Waterville, VT on December 8, 1911. His early years were spent in Waterville, and he graduated from Cambridge High School in 1929. He received his undergraduate degree from Eastern Nazarene College in Quincy, MA where he first met his wife, the late Muriel S. Mann, and went on to graduate from the University of Vermont College of Medicine in 1939. Following his marriage on June 27, 1939, he taught pathology at the Medical School and served on the staff of the Mary Fletcher Hospital while opening his own practice in Waterville. In the early forties, Dr. Mann continued his practice in Jeffersonville and, in 1946, established the R. W. Mann hospital on Maple Street to better serve the needs of his patients.

Dr. Mann was instrumental in the development of Smuggler's Notch Ski Ways and the establishment of Lamoille Union High School and Green Mountain Technology and Career Center. He served his community on the Waterville and Lamoille school boards for a total of 58 years. He was a former President of the Vermont Medical Society and the Vermont Heart Association, and served on the Vermont Board of Health, and the founding board of Beacon Investments.

An original Yankee, Dr. Mann was known for his patriotism and his unwavering devotion to Christ. His children, grandchildren, and great grandchildren grew up emblazoned with the truth that "youth is not a time of life – it is a state of mind." He will be remembered for his love of poetry and antique books, his fondness of hunting and trapping, and his faith in the Red Sox throughout the entirety of the Curse of the Bambino. He and Muriel founded their lives in the promise of Christ, and served as the penultimate example of love and commitment to all whom they met. Dr. Mann was the hero of many.



BEST STATE IN AMERICA: VERMONT, FOR ITS HEALTHY KIDS

As printed in the June 20th Washington Post - Written by Reid Wilson

A lifetime of good health starts in childhood. Health insurance, access to health care and regular exercise make for fit kids with long life expectancies. And nowhere in America are kids healthier than in Vermont.

Across a range of metrics, the Green Mountain State excels, according to the latest data - <http://www.childhealthdata.org/learn/NSCH> - collected by the Centers for Disease Control and Prevention. Fewer than one in four Vermont children are overweight or obese. More than 81 percent have access to medical and dental care. Nearly 99 percent have health insurance. And one-third of all Vermont children report exercising at least 20 minutes a day.

Vermont's relatively small and prosperous population makes it easier than in some other states for officials to reach out to potentially vulnerable children, said Cathy Hess, managing director for coverage and access at the National Academy for State Health Policy. What's more, Vermont has been a pioneer in children's health reform.

The state's Dr. Dynasaur - <http://www.benefits.gov/benefits/benefit-details/1614> - program, created in 1989, covered tens of thousands of low-income children long before the federal Children's Health Insurance Program came into being. Congressional authors modeled the federal program in part on Vermont's plan.

Vermont policymakers have also worked for years to build partnerships between public and private institutions to promote children's health. There's the Vermont Child Health Improvement Program - <http://www.uvm.edu/medicine/vchip/>, run through the University of Vermont; Children's Integrated Services - <http://dcf.vermont.gov/cdd/cis>, run through the state Department for Children and Families, which works to connect low-income families with young children to social services; and the Blueprint for Health - <http://hcr.vermont.gov/blueprint>, established in 2006 to improve health-care services and control costs.

"They're focusing on the child and the family, and not so much trying to fit the child in different bureaucratic holes," Hess said.

Other states can brag about their successes: Children in West Virginia, Missouri, Tennessee and Oklahoma report getting more exercise than their compatriots in Vermont. Kids in Utah and Colorado are less likely to be obese or overweight. And Hawaii and Massachusetts insure a greater proportion of their children.

States with higher percentages of low-income families tend to fall at the less healthy end of the spectrum, especially if those families are minorities with less access to health care. Nearly 40 percent of children in Louisiana and Mississippi are obese or overweight. Only 56 percent of children in Nevada and 59 percent in Idaho have access to medical and dental care. Just 18 percent of Utah children say they get 20 minutes of daily exercise. Perhaps those states should study Vermont's model. The Green Mountain State is a lap ahead of the rest of the field.



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CURRENT INFORMATION ON EBOLA

As sent to FAHC Medical Staff

By Stephen Leffler, M.D., FACEP, CMO of FAHC

There has been a significant amount of publicity and fear surrounding the current Ebola outbreak. Dr. Chris Grace has drafted the following information to help answer some of the questions and concerns.

Ebola Virus: The Importance of Taking a Travel History - West Africa is experiencing the largest outbreak of Ebola virus infection in history. Ebola hemorrhagic fever is a contagious febrile illness with a very high mortality rate. Because of rapid international travel, it is important to be aware of this, to be alert to those at risk and be prepared to institute appropriate infection control measures.

Current epidemic: Episodic Ebola virus infection outbreaks have been recognized since 1976 in sub-Saharan central African countries. Although very deadly these past epidemics have been self-limited. The current epidemic began in late 2013 in Guinea and confirmed by the World Health Organization (WHO) in March 2014. It has spread to Liberia, Sierra Leone and Nigeria. As of August 6, 2014 there have been 1711 laboratory confirmed cases with 932 deaths (a case fatality rate of 55%).

Transmission: Ebola virus is transmitted from person to person by direct contact with body fluids such as blood, saliva, sweat, stool or urine. It can be potentially spread by aerosols during endotracheal intubation/extubation, use of BiPAP, suctioning or bronchoscopy. Asymptomatic persons who have been exposed (and therefore at risk of illness) are not contagious.

Incubation period (contact with contagious person until onset of symptoms): Generally 5-7 days, but may be as long as 21 days.

Clinical illness: Sudden onset of fever, headache, diffuse myalgia, nausea, vomiting and abdominal pain. Patients may develop a diffuse maculopapular rash, conjunctival injection, discoloration of the soft palate, pharyngitis and cough. The illness may progress to circulatory collapse with multi-organ failure and signs of mucocutaneous bleeding. Laboratory evaluation may include leukopenia with bandemia, thrombocytopenia, elevated hepatic transaminases and coagulopathy.

Who is at risk: Persons who have traveled to West Africa, especially Liberia, Guinea, Sierra Leone or Nigeria and who have had direct contact with someone there who has been ill or who had died from Ebola virus infection and is now sick with a febrile illness.

Infection control: Standard, contact and droplet precautions

- Private isolation room (with private bath and ante-chamber)
- Fluid resistant/impermeable gown
- Gloves
- Face shield
- Surgical face mask or N-95 respirator if performing aerosolizing procedures
- Limit the number of HCWs entering room
- Dedicated equipment usage in the patient room

Treatment: Supportive. There are no approved therapies or vaccines

What to do if you suspect someone may have Ebola virus infection:

- Place the patient in a private room
- Institute the infection control measures above
- Call the Infectious Diseases attending immediately via PAS, 847-2700.

Other resources:

- Centers for Disease Control and Prevention (CDC) - <http://www.cdc.gov/vhf/ebola/>
- World Health Organization (WHO) - <http://www.who.int/mediacentre/factsheets/fs103/en/>
- Center for Infectious Disease Research and Policy (CIDRAP)- <http://www.cidrap.umn.edu/infectious-disease-topics/ebola>
- Vermont Department of Health (VDH) - <http://healthvermont.gov/prevent/ViralHemorrhagicFever.aspx>



For More Info. Go To:
newenglandruralhealth.org

New England Rural Health Conference

Rural Health Symposium
Leadership+Networking Summit
Oral Health Symposium

October 1-3, 2014
Westford, MA
Westford Regency Inn

The New England Rural Health RoundTable is pleased to announce the 2014 **New England Rural Health Conference**. For the first time, our Rural Health Symposium, Leadership & Networking Summit (previously titled Fed Day) and our Oral Health Symposium will be offered as a **combined three day event**.
We hope you can join us!





UPDATES TO THE WIC PROGRAM MEDICAL DOCUMENTATION

By Donna Bister, WIC Director, Vermont WIC Program

Based on updates to the Federal WIC Food Package rules, the Vermont WIC Program is changing our medical documentation requirements for soy products and cheese which may affect some of your patients.

In addition, a new option will allow for the provision of lower fat milks to 1 year olds where that would be appropriate.

Updated versions of WIC's medical documentation forms for women and for infants/children can be accessed at www.healthvermont.gov/wic/providers.aspx.

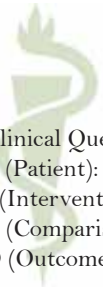
Summary of changes effective October 1, 2014

- Children can now receive soy beverage and/or tofu without medical documentation.
- Medical providers may now request lower fat milk for one year old children for whom that would be appropriate. See Pediatrics, vol 117, number 2, February 2006 for more information: <http://pediatrics.aappublications.org>. Whole milk is the standard issuance by WIC for children age 12-24 months.
- For patients who require medical formula from WIC, medical providers can now authorize WIC nutrition staff to add WIC foods to the patient's food benefits.
- WIC is no longer allowed, even with medical documentation, to offer additional cheese over the maximum for children and women. For your patients with lactose intolerance, WIC does offer lactose reduced/free milks, tofu, and soy beverage.

For our partners with infant patients

WIC strongly supports and encourages breastfeeding, but for those infants who use formula Vermont WIC provides Abbott products including the standard milk-based Similac and soy-based Isomil. Additional Abbott formulas include Similac Sensitive, Similac Total Comfort, Similac for Spit Up, and Alimentum. By choosing an appropriate Abbott product for your patient, it reduces costs for Vermont WIC.

For information about these changes or any other WIC topic visit our webpage at www.healthvermont.gov/wic.



THE RESIDENTS CORNER: CLINICAL QUESTION: PRESCRIBING TRAMADOL

Clinical Question:

P (Patient): In the treatment of moderate to moderately severe pain

I (Intervention): is Tramadol (Ultram or Ultracet)

C (Comparison): better or worse than commonly prescribed opioids (Hydrocodone)

O (Outcome): with regards to abuse liability.

Evidenced-based answer:

- “Tramadol carries a risk of substance abuse (SOR B, based on case report surveillance programs)”
- “While it appears that Tramadol’s risk of substance abuse is low (SOR B, based on case report surveillance programs), Tramadol is associated with a withdrawal syndrome typical of opioid withdrawal (SOR B, based on case report surveillance programs, and a prospective descriptive study).”
- Evidence of abuse comes primarily from federally operated programs collecting adverse drug event data.
 - o MedWatch program of the FDA
 - o Drug Abuse Warning Network (DAWN).
- “Tramadol exposure is likely suppressed in addiction communities with access to preferred, more potent or euphoriant opioids than Tramadol.”

Why this question?

- Many Physicians/Clinicians assume Tramadol has no (or very low) substance abuse potential, based in part to its prior nonscheduled status under the Controlled Substance Abuse Act (CSA)
- We often use Tramadol as our “go to” medication when dealing with patient encounters or phone calls in which an opioid is requested.

Tramadol:

- An analgesic with 2 postulated mechanisms of action

Mild opioid agonist activity through the mu receptor through its main active metabolite O-desmethyltramadol

Inhibition of monoamine reuptake (norepinephrine and serotonin)

Complements the opioid receptor-binding activity and increases the analgesic activity of tramadol.

Naloxone blocks only about 45% of the analgesic effect produced.

- Well-absorbed orally.
- Metabolized by CYP2B6, CYP2D6, and CYP3A4
- Half-life 7-9 hours
- Adverse effects include HA, flushing, dizziness, somnolence, insomnia, pruritus, nausea, and constipation.
- High doses in combination with MAOIs or SSRIs have been associated with a serotonin syndrome consisting of convulsions, hyperthermia, muscle rigidity and pain.
- Pregnancy risk factor C (risk factor cannot be ruled out)
- Lactation: enters breast milk

Tramadol:

Ortho-McNeil’s product package insert for Ultram states: “Tramadol may induce psychic and physical dependence of the morphine type (mu-opioid). Dependence and abuse, including drug-seeking behavior and taking illicit actions to obtain the drug are not limited to those patients with prior history of opioid dependence.” (Italics in original). (1)

- Purpose was to assess “the abuse potential of the opioid analgesic Tramadol”.
- Study supported by a grant from the McNeil Pharmaceutical Co. (Ultram’s manufacturer).
- Double-blind trial, 12 subjects, all volunteer non-dependent opiate abusers.
- Saline vs. Morphine (15 and 30 mg) vs. Tramadol (75, 150, and 300 mg), administered IM
- Subjective, behavioral, and miotic changes assessed before and intermittently for 12h.
- Measured pupil size, BP, pulse, RR, temp
- Subjective-rated measures included:
 - o How much do you feel the drug now?
 - o How much do you like the effects you are feeling now?
 - o How much do you dislike the effects you are feeling now?
 - o How high are you?
 - o How much is the effect you feel like that of: (10 classes of psychoactive drugs)?
 - Rating characteristics such as relaxed, full of energy, need to talk, confusion, paranoia, hallucinations, etc...

Continued on page 7

Conclusions:

- “Morphine 15 and 30 mg were clearly differentiated from placebo and produced typical dose related effects associated with mu opioid agonists in post-addicts”.
- “The 75 and 150 mg doses of Tramadol were not differentiated from placebo”.
- “The 300 mg dose of Tramadol was distinguished from placebo and was identified as opiate-like. However, this dose of Tramadol did not produce significant liking scores, MBG (morphine-benzedrine group) scales, or miosis and, in general, produced minimal effects”.
- “...we did not demonstrate morphine-like effects for tramadol”.
- “The results of our studies are consistent with judgments of minimal or low abuse potential for tramadol taken parenterally”. (1)
- Review of literature regarding available drug treatments for chronic pain
- Paper supported by educational grant from Ortho-McNeil Pharmaceuticals
- Summarized the mechanism, clinical effectiveness, toxicity, tolerance, and physical dependence of each treatment option.
- Points out that Tramadol is approximately 10-fold less potent in binding the mu receptor than is codeine and 6000-fold less potent than morphine. (2)

Conclusions:

- “...the risk of significant tolerance, physical or psychological dependence, or abuse is less likely with Tramadol than with opioid agents.”
- “Patients do not increase the dose of Tramadol over extended periods of time, despite the fact that dosing is under patient control, nor is there a great likelihood of developing drug dependency”.
- “Former drug addicts tested in a masked manner could not distinguish Tramadol from placebo, whereas they readily identified morphine”.
- “Tramadol does not induce a state of euphoria”.
- “Tramadol appears to have a low potential for tolerance, dependence, and abuse”. (3)
- 11,352 subjects with chronic pain, primarily female, white, over 36 y.o., with half (54%) unemployed.
- Trial funded by Ortho-McNeil Pharmaceuticals.
- 3 arm prospective study
- Randomization occurred at the initiation of the study
- Once subject enrolled, became a natural history study
 - Physicians could prescribe appropriate medication based on response to initial medication.
 - Subjects tracked for 12 months.
 - No current substance abuse problem allowed. (3)
- Results based on:
 - An “Abuse Index” based on existing DSM-IV classification systems for abuse and dependence
 - A “Withdrawal Score”: 24-item question set developed by the NIDA Addiction Center Research Center. Used only if patient had discontinued his/her medication. (3)

Abuse Index Algorithm Score

1) Inappropriate use

If the subject met all of the following criteria:

- Increases dose on own (without physician’s approval)
- Never skips a dose
- Never forgets to take a dose

2) Use for purposes other than intended

If the subject answers yes to two or more of the following:

- Takes more when upset
- Takes more when discouraged
- Makes subject feel intoxicated
- Puts subject in good mood

3) Inability to stop use

If the subject answers yes to at least one of the following:

- Physician said to stop or cut down
- Subject tried to stop and responded that it was somewhat or very hard
- Did not try to stop but said it would be hard

4) Evidence of opioid withdrawal

If the Withdrawal Score is 52 or more (range 24–120) (3)

- The term “hit” was used to denote a positive score or case on the Abuse Index ($p < 0.01$)
 - 2 out of 3 points if Withdrawal Score was not used
 - 3 out of 4 points if Withdrawal Score was used
- Percentage of subjects scoring one “hit” during 12-month follow up:
 - 2.5% for NSAIDs
 - 2.7% for Tramadol
 - 4.9% for Hydrocodone
- Percentage of subjects scoring more than one “hit” (a measure of persistence):
 - 0.5% for NSAIDs
 - 0.7% for Tramadol
 - 1.2% for Hydrocodone
- The prevalence of abuse/dependence over a 12-month period was equivalent for Tramadol and NSAIDs, with both significantly less than the rate for Hydrocodone. (4)

Conclusions:

- 1) Tramadol is an analgesic with 2 postulated mechanisms of action
- 2) Opioid dependence, withdrawal and toxicity may occur with Tramadol Use
- 3) “Canadian guidelines suggest that the risk of addiction is lower with Tramadol than with other opioids”.
- 4) Risk depends on genotype: CYP2D6 ultra-rapid metabolizer phenotype is associated with abuse (often found in Middle Eastern countries).
- 5) Tramadol is not scheduled in the Canadian Controlled Drugs and Substances Act.
- 6) Tramadol’s metabolism is variable and unpredictable
- 7) Other toxic effects include seizures and serotonin syndrome
- 8) Tramadol is a modestly effective analgesic. (5)

Why has the DEA recently placed Tramadol into schedule IV of the Controlled Substances Act?

- The CSA and its regulations are “designed to prevent, detect, and eliminate the diversion of controlled substances and listed chemicals into the illicit market while providing for the legitimate medical, scientific, research, and industrial needs of the United States.”
- Every controlled substance is classified in one of 5 schedules based on its potential for abuse, currently accepted medical use, and the degree of dependence the drug or other substance may cause.

Why has the DEA recently placed Tramadol into schedule IV of the Controlled Substances Act?

- In 2010, the Assistant Secretary of the HHS (Health and Human Services) completed an eight-factor analysis and review of Tramadol, and recommended inclusion in schedule IV.
- The DEA performed a similar analysis based on available data, and published a proposal in the Federal Register for including Tramadol in schedule IV. Interested persons were invited to request a hearing (no requests made) and/or submit written comments on the proposal.
- The DEA received 27 comments: 16 in support, 9 opposed, and 2 without a position.
- “Based on consideration of all comments, the scientific and medical evaluation and accompanying recommendation of the HHS, and based on the DEA’s consideration of its own eight-factor analysis, the DEA finds that these facts and all other relevant data constitute substantial evidence of potential abuse of Tramadol. As such, the DEA is scheduling Tramadol as a controlled substance under the CSA.”

Why has the DEA recently placed Tramadol into schedule IV of the Controlled Substances Act?

Determination of Appropriate Schedule

The Deputy Administrator of the DEA found that:

- Tramadol has a low potential for abuse relative to the drugs or substances in schedule III.
- Tramadol is a currently accepted medical use in treatment in the United States, and is approved for management of moderate to moderately severe pain.
- Abuse of Tramadol may lead to limited physical dependence or psychological dependence relative to the drugs or other substances in schedule III.

Based on these findings, “the Deputy Administrator of the DEA concludes that Tramadol, including its salts, isomers, and salts of isomers, warrants control in schedule IV of the CSA.” (6)

Pete Wilhelm, MD PGT-2, Family Medicine

References: (1) Kenzie, LP, Jasinski, DR, and Testa, M. Abuse Potential and Pharmacological Comparison of Tramadol and Morphine. Drug and Alcohol, 1991; 27:7-17 (2) Aronson, MD Nonsteroidal Anti-Inflammatory Drugs, Traditional Opioids, and Tramadol: Contrasting Therapies for the Treatment of Chronic Pain. Clinical Therapeutics, 1997; 19(3). (3) Adams EH, et al. A Comparison of the Abuse Liability of Tramadol, NSAIDs, and Hydrocodone in Patients with Chronic Pain. Journal of Pain and Symptom Management, 2006 31(5). (4) Young, JWS and Juurlink, DM. Five Things to Know About Tramadol. Canadian Medical Association Journal, 2013, 185 (8). (5) McDiamid T, What is the Addiction Risk Associated with Tramadol? The Journal of Family Practice, 2005; 54(1):65-82. (6) Harrigan, T.M., Deputy Administrator, DEA. Schedules of Controlled Substances: Placement of Tramadol Into Schedule IV. Federal Register, Volume 79, No. 127, July 2014