

# CAYMAN PULSE

A publication of The Heart Health Centre for health care professionals

## Update on Smoking Cessation

**Dr. Carlos Rivas-Gotz, MD, FACC**

Cigarette smoking is a leading preventable cause of mortality, responsible for nearly six million deaths worldwide and over 400,000 deaths in the United States annually. Up to fifty percent of smokers are expected to die from a smoking-related illness.

Smoking cessation counseling can be frustrating to both, practitioner and patient alike. Only 3-7% of unaided attempts are successful at one year. This increases to about 30% after immersion in a comprehensive smoking cessation program with behavioral, pharmacologic therapy and close follow up. Despite those odds, most patients expect genuine advice from their physician. A multidisciplinary approach that incorporates clinician counseling, smart phone interventions (certain applications and text messages), group therapy, training in problem solving, searching for and treating underlying psychiatric disturbances such as depression, bipolar disorders and schizoaffective disorders and pharmacologic interventions directed at nicotine dependence, seem to provide the best long term results.

Pharmacologic therapy includes nicotine replacement therapy (NRT) bupropion and varenicline. NRT should include a long and a short acting formulation in order to effectively prevent nicotine withdrawal syndrome. It appears safe to use in stable, chronic coronary artery disease. The FDA has issued a warning about its use in acute, unstable coronary syndromes. Bupropion, at a dose of 150 mg BID doubles the rate of abstinence at three months and at one year compared to placebo. It is contraindicated in patients with a history of seizure disorder as it lower seizure threshold. It is useful in patients with a background history of depression. Varenicline is a partial agonist of the nicotine acetylcholine receptor, responsible for the rewarding effects of nicotine. It, therefore, prevents nicotine withdrawal symptoms and reduces the rewarding effects of smoking. It appears more effective than bupropion and placebo but only marginally better than short-acting NRT. Interestingly, a 2012 meta-analysis included the open-label RCT and one other small open-label trial and found no statistically-significant difference in abstinence at 24 weeks with varenicline or NRT. Additional studies are needed to determine the relative efficacy of varenicline and nicotine replacement. No trial has yet directly compared the efficacy of varenicline with combination NRT. It appears that varenicline and less importantly bupropion, may have serious neuropsychiatric side effects in some patients, but the nature and magnitude of this risk is not yet well defined. Obtaining a thorough psychiatric history and avoidance of its use in patients with history of depression and/or suicidal ideation is strongly advised. Patients should be monitored closely while on the drug.

Reports of a higher incidence of non-fatal myocardial infarction, need for coronary revascularization and new diagnosis of PAD while on varenicline have surfaced. The differences did not reach statistical significance. Following reports of increased accidental injuries and road accidents, the FAA has recently prohibited pilots and air traffic controllers from using varenicline.

Most patients, who successfully quit smoking, only do so after multiple attempts. A relapse should not be seen as total failure. The patient should be counseled and prescribed the same medication that resulted in a successful attempt accompanied by stronger behavioral intervention and perhaps the addition of a second agent.



## Our Physicians

Dr. Mikhail Kosiborod, MD, FACC  
Dr. Carlos Rivas-Gotz, MD, FACC  
Dr. A. Iain McGhie, MD, FACC  
Dr. Ibrahim 'Abe' Saeed, MD, FACC  
Dr. Adnan Chhatriwalla, MD, FACC

## Our Services

Consultation Services  
Diagnostic Testing and Imaging  
Electrocardiogram  
Treadmill Stress Test  
Echocardiogram  
Stress Echocardiogram  
Nuclear Stress Testing  
(Pharmacological and Exercise)

## This Month

**January 2<sup>nd</sup> Dr. Kosiborod @ CTMH**

**January 3<sup>rd</sup>-4<sup>th</sup> Dr. Kosiborod**  
(Stress Echocardiography available)

**January 10<sup>th</sup>-11<sup>th</sup> Dr. McGhie**  
(Nuclear Stress Testing Available)

**January 17<sup>th</sup>-19<sup>th</sup> Dr. Saeed**  
(Stress Echocardiography Available)

**January 23<sup>rd</sup>-26<sup>th</sup> Dr. Rivas-Gotz**  
(Stress Echocardiography Available)

**EKGs and Regular Echocardiograms are available full time with a comprehensive report from a board certified cardiologist.**

**Physical Address:**  
The Heart Health Centre  
West Shore Center  
508 West Bay Road  
Tel: (345) 943-5800  
Fax: (345) 943-5801

**Mailing Address:**  
The Heart Health Centre  
P.O. Box 32148  
Grand Cayman KY1-1208  
CAYMAN ISLANDS

**Connect With Us:**  
[www.hearthealthcayman.com](http://www.hearthealthcayman.com)  
[info@hearthealthcayman.com](mailto:info@hearthealthcayman.com)  
[www.facebook.com/TheHeartHealthCentre](http://www.facebook.com/TheHeartHealthCentre)  
[www.twitter.com/HeartHealthGCM](http://www.twitter.com/HeartHealthGCM)