

# Academic Physician Quarterly

A DEPARTMENT OF MEDICINE BULLETIN



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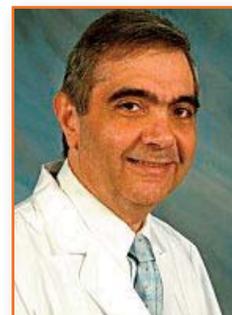
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## CHAIRMAN'S MESSAGE

Dear Colleagues:

As we embark on a new year, we look forward to new opportunities to enhance our service capabilities. As often is the case, there has never been a shortage of challenges. Nevertheless, it is our firm conviction that challenges make us better people as we tackle them and resolve them. The last year we had our share of challenges. Fortunately the resolve and dedication of the faculty and staff within the Department were instrumental in achieving our targets. The scholarly productivity of the faculty continued to increase.



Our training program maintained its high Board pass rate that places us at the top of the leading teaching institutions. The accomplishments of the faculty are too numerous to describe in this newsletter. However, these achievements are summarized in our annual report that is now available upon request and on line.

As I have always said we simply cannot rest on our past laurels. We will push forward to achieve new levels of excellence in patient care, teaching and innovative research.

We hope that the New Year will be full of new achievements and successes.

Happy New Year.

Arshag D. Mooradian, MD  
Professor of Medicine  
Chairman, Department of Medicine



By Abubakr Bajwa, MD  
Associate Professor and Chief

Division of Pulmonary, Critical Care and Sleep Medicine

Department of Medicine

## Bronchial Thermoplasty - A new option for refractory asthma.

Over the years asthma prevalence has slightly increased from about 7.5% in 2001 to just over 8% in 2010. For asthma to be considered controlled the symptoms and need for rescue inhaler use should not occur more than twice per week along with no night time symptoms, no limitation on activity and normal pulmonary function tests (Table 1).

**Table 1. Levels of asthma control**

Characteristic	Controlled (All of the following)	Partly controlled (Any present in any week)	Uncontrolled
Daytime symptoms	Twice or less per week	More than twice per week	3 or more features of partly controlled asthma present in any week
Limitations of activities	None	Any	
Nocturnal symptoms/awakening	None	Any	
Need for rescue/"reliever" treatment	Twice or less per week	More than twice per week	
Lung function (PEF or FEV1)	Normal	< 80% predicted or personal best (if known) on any day	

The mainstay for asthma management is inhaled corticosteroids with addition of long acting beta agonists and leukotriene antagonist if control is not achieved. Until recently the only options available for refractory asthma was addition of oral steroids or anti-IgE therapy with Omalizumab which requires biweekly injection. Bronchial Thermoplasty is a new bronchoscopic procedure for refractory asthma.

The terms difficult to treat or control, refractory or severe asthma are often interchangeable. The first step in management of difficult to control asthma is to confirm the diagnosis and evaluate for other conditions that can mimic asthma (Table 2).

**Table 2. Differential diagnosis of asthma**

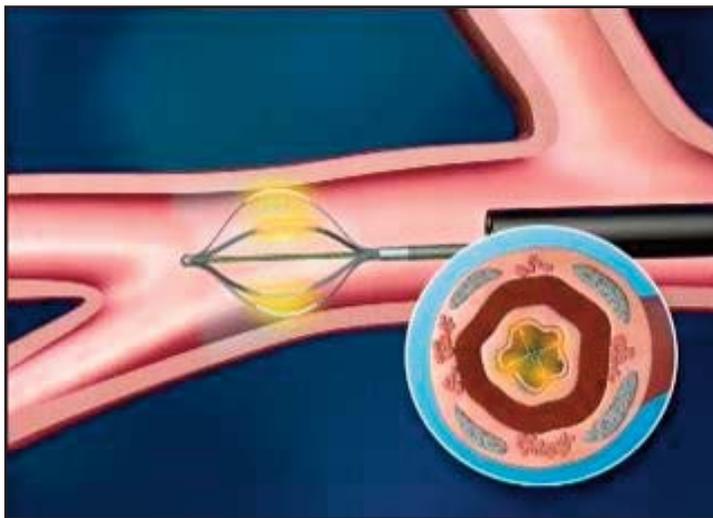
Post infectious cough	Angina
Post nasal drainage	Foreign body
GERD	Lung cancer
COPD	Hyperventilation syndrome
Heart failure	Vocal cord dysfunction
Congenital malformation	

Once the diagnosis is confirmed, a number of factors that can lead to difficulty in managing asthma patients need to be addressed. These factors are delineated in Table 3.

**Table 3. Factors that can possibly lead to poorly controlled asthma**

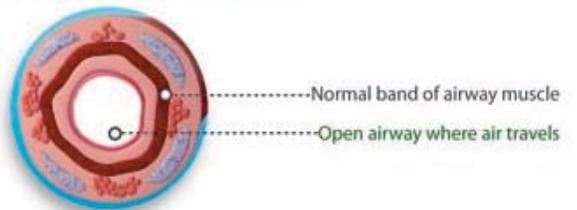
Confirm diagnosis
Check adherence
Review inhaler use technique
Evaluate exposure to allergens, irritants, sensitizers
Manage co-existing conditions such as GERD, Rhino-sinusitis
Concomitant drug use such as B-blockers and NSAIDs
Address obesity, OSA
Evaluate for other asthma related condition such as ABPA, and Eosinophilic Granulomatosis with Polyangiitis (previously known as Churg Strauss Syndrome)

In patients who have been thoroughly evaluated and have well controlled co-existing conditions than can lead to poor asthma control, the options include Omalizumab and Bronchial Thermoplasty (BT). The concept behind bronchial thermoplasty revolves around ablation of the hypertrophied smooth muscle in the airways to reduce the frequency and severity of exacerbation (figures below).

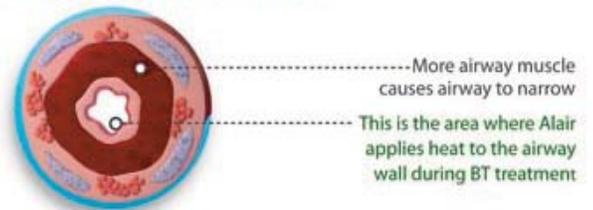


Airways Before and After Bronchial Thermoplasty Treatment

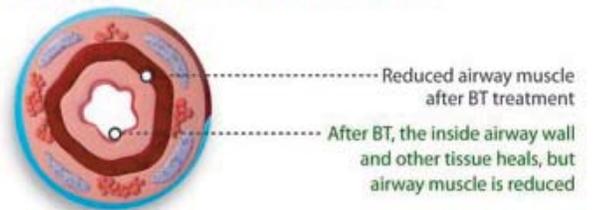
Airway of Person without Asthma



Airway of Person with Severe Asthma

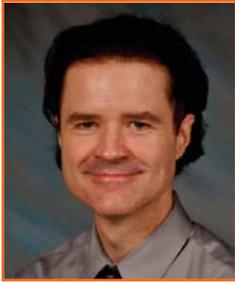


Airway of Person with Severe Asthma after Treatment



The procedure is out patient based and generally requires three separate sessions. The recently published long term data in the Journal of Allergy and Clinical Immunology in December 2013 showed a reduction in the percentage of BT-treated patients experiencing severe exacerbations (compared to patients treated with a sham control) that was maintained out to five years. Over five years, 48% average decrease was observed in the rate of severe exacerbations in BT-treated patients compared to the year prior to receiving BT and 88% average decrease was observed in the rate of emergency room (ER) visits for respiratory symptoms in BT-treated patients compared to the year prior to receiving BT. There is a short term risk of asthma exacerbation following the procedure so patients have to be given steroids prior to, during and after the procedure.

UF Health Jacksonville is the only center in the city performing this procedure. For more information and to schedule an appointment for evaluation, call Mary Hames at 904-244-3071.



**Carlos Palacio, MD, MPH**

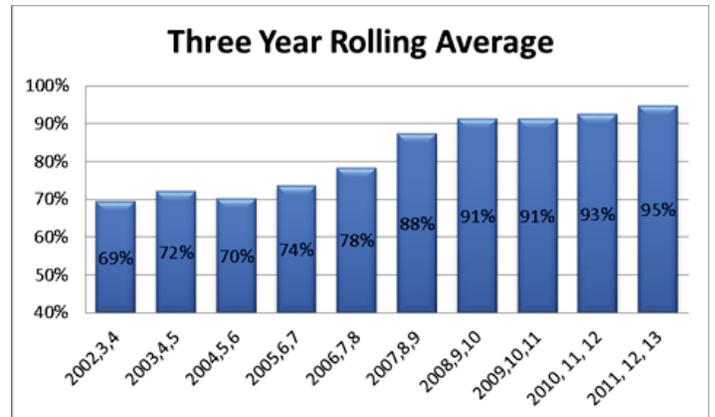
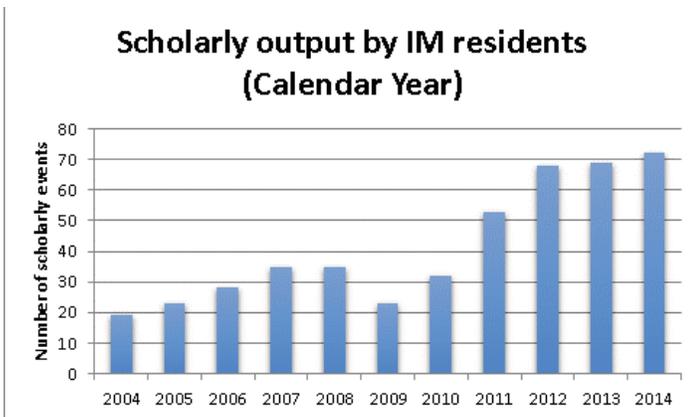
**Associate Professor of Medicine Division of General Internal Medicine**

**Associate Program Director,  
Internal Medicine Residency**

## Outcomes Based Review of Residents

One of the most telling points of the merits of a residency program is the productivity of the residents in the areas of academic and professional development. Reviewing the results of data collected since 2004 reveals a compelling story.

In the context of academic productivity the Internal Medicine residents have thus far totaled 3 grants, 45 presentations, 21 published abstracts, and 3 published manuscripts for a total of 72 items qualifying as “scholarly output”. In comparing this to trends starting in 2004, we have seen a steady linear increase from 19 items that year. This represents a tripling of yearly productivity in the ten years since such data have been collected.



We also see from performance on board certification success that the program has seen a consistent and positive trend in the rolling three-year board pass rate. Starting in 2002-2004, the board pass rate was 69%. We see again a consistent trend in board pass rates through the last ten years with the period 2011-2013 board pass rate at 95%. When taken in comparison to the national program average of 85%, it is clear that the residency program is well-above.

Our latest 14 resident graduates have by now moved on to the next phase of their careers. Those who have gone on to fellowship represent 50% of the group. Another 5 have chosen to go into hospital medicine, and 2 have entered academics, serving as chief residents. The success rate of overall matching for fellowship averages 90%. Fellowship matching data since 2010 demonstrate that a total 23 of 49 residents continued their training internally. The remainder went on to external fellowships spanning all the subspecialties in internal medicine in programs throughout the country. These outcomes support the case that the program continues to evolve in a positive manner. The ongoing efforts of the faculty mentors and the residents and fellows create a platform in which professional development may be realized. The existing data provide an up-to-date source of evidence for applicant-candidates embarking on their careers after medical school. This allows them to make a determination of which program is competitive enough to rank.

Trevanne Matthews Hew, MD, Internal Medicine Resident  
Department of Medicine, UFCOM-Jacksonville

## Anomalous Origin of the Right Coronary Artery (RCA)

### CASE PRESENTATION

A 30-year-old woman presented to the Emergency Department with sub-sternal crushing chest pain and palpitations. The chest pain lasted 10 minutes after taking an intramuscular Sumatriptan injection for one of her typical migraines. There were no other associated symptoms. Past medical history includes diabetes mellitus and chronic migraines. Family history revealed premature myocardial infarction in her mother. No history of smoking or drug abuse.

Examination was unrevealing except for obesity. Vitals were normal except for transient sinus tachycardia. Cardiac enzymes were negative for three consecutive sets. EKG showed non-specific T-wave abnormalities.

In the Emergency Department she received nitroglycerin which relieved the pain. She was admitted to cardiac observation. The following day she underwent treadmill stress test during which she developed tight chest pain, shortness of breath and ECG revealed repeated episodes of non-sustained then sustained ventricular tachycardia. The test was aborted, and she was given nitroglycerin which again relieved the chest pain.

Left heart catheterization revealed anomalous right coronary artery originating in the left sinus of Valsalva. Coronary CT scan demonstrated a malignant course and right-sided dominance (Figure 1).

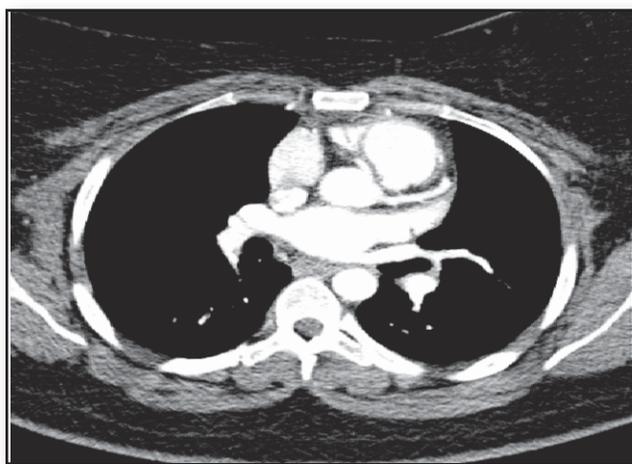


Figure 1: Patient's coronary computer tomography angiogram (CCTA)

### DISCUSSION

Coronary artery anomalies occur in less than 1 % of the general population and have associations with congenital heart diseases such as tetralogy of Fallot, transposition of the great arteries, univentricular heart, double outlet right ventricle and truncus arteriosus.

Clinical presentation could be asymptomatic, symptomatic in association with exercise. anginal chest pain, syncope and sudden cardiac death (SCD)

Anomalous RCA courses between the aortic root and pulmonary trunk. The cause of myocardial ischemia is unclear. The possible causes include mechanical compression, acute angle of takeoff, flap like closure of

abnormal orifice, compression within aortic wall and spasm of artery

The diagnosis is made with transthoracic echo, coronary magnetic resonance angiography (CMRA), coronary computer tomography angiogram (CCTA) and coronary angiogram when other tests are non-diagnostic.

Treatment is surgical intervention for all LCA from right sinus and symptomatic RCA from left sinus while treatment of asymptomatic RCA from left sinus is debatable and determined case by case basis. The medical management would include beta blockers. Surgical interventions are CABG, intracoronary stents, unroofing and pulmonary artery translocation.

## CONCLUSION

The incidence of anomalous origin of coronary arteries is low and is commonly seen associated with congenital heart disease. The clinical presentation includes angina, syncope and first symptom may be SCD. The CCTA and CMR are good imaging studies. Surgery is recommended for symptomatic patients.

## REFERENCES

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## RX UPDATES

By Lauren Rios, Pharm.D. PGY-2 Pharmacy Resident

## Hydrocodone Combination Products Change From Schedule III to Schedule II

*Reprinted with permission from Drug Update, Volume 31, Number 4 Aug-Sept 2014*

On August 21, 2014, the Drug Enforcement Administration (DEA) announced that all hydrocodone combination products will become Schedule II (C-II) controlled substances effective Monday, October 6, 2014. The Final Rule published in the Federal Register was the result of a recommendation by the Assistant Secretary for Health of the U.S. Department of Health and Human Services (HHS) and a review of data. Prior to the ruling, single-ingredient, extended release hydrocodone was approved in 2013 as a C-II substance, while hydrocodone combination products were classified as C-III. The rescheduling of hydrocodone combination products has been under review since 1999 in response to a petition from a physician. A scientific and medical evaluation of hydrocodone combination products found that individuals are taking hydrocodone combination products in amounts sufficient to create a hazard to their health or the safety of others, there is significant diversion of hydrocodone combination products, and individuals are taking hydrocodone combination products on their own initiative versus medical advice from a licensed practitioner. Additionally, surveys conducted from 2002 to 2011 found that twice as many high school seniors were abusing hydrocodone combination products when compared with oxycodone, a C-II drug. The U.S. Food and Drug Administration (FDA) held a public Advisory Council meeting in 2013 in which the members voted 19 to 10 in favor of rescheduling. The HHS determined that hydrocodone combination products have a high potential for abuse which may lead to severe psychological or physical dependence and sent their recommendation for re-scheduling to the DEA in late 2013. The DEA received 573 comments in response to the proposed rule. Of these comments, 52% supported the schedule change while 41% opposed it and 7% had no definitive position. As a result of this change, effective October 6, 2014, a new, signed, written prescription will be required for patients at the UF Health Jacksonville Ambulatory Pharmacy. This prescription may NOT have any refills and will replace any existing prescription for hydrocodone combination products that a patient has on file.

## Successful Fellowship Match

We are pleased to announce that all of our fellowship programs filled their positions, marking another successful fellowship match. Our program directors and associate program directors have put a lot of hard work to finding the right applicants, and I am sure their efforts will result in excellent fellows and eventual subspecialists. A special thanks is in order to all of the program administrators and fellows who certainly worked hard to put their programs in a good light.

We would like to also recognize our residents for their successes in the Fellowship Match. Most of our residents have matched in fellowships of their choice and we are working to help the few who have not. Two chief residents and nine residents, both past and present, attained fellowship positions this year. Five of these will be staying with us for their training, while seven will be moving on to other programs. It was a bumper crop of pulmonary/critical care this year with five residents attaining positions in that field. Other specialties in which our residents will enter next year include cardiology, Heme/onc, infectious disease, and nephrology.

As always, it is important to recognize the hard work that our program leadership and especially their administrators have put into recruitment. Their efforts are the biggest factor in the success of our programs match. The fellowship match is hard work for the resident applicants as well; requiring a considerable amount of time and effort that for many begins as far back as their internship. The recruitment season is a very anxious time and there are certainly some very relieved trainees now that the match is out.

Please join me in congratulating all of the successes of the fellowship directors, program administrators, fellows and house staff. We are very proud and excited for them all.

## Department of Medicine at UF Health North

The Department of Medicine is looking forward to the opening of UF Health North and will be offering outpatient services in the following specialties beginning with the opening of the UF Health North campus in February:

- \* Cardiology
- \* Endocrinology
- \* Gastroenterology
- \* General Internal Medicine
- \* Pulmonary

For more information, please visit [north.ufhealthjax.org](http://north.ufhealthjax.org).

## MEET YOUR COLLEAGUES



**Myint Thway, MD, Assistant Professor, Division of Rheumatology**

Dr. Thway earned her medical degree from the Institute of Medicine in Mandalay, Myanmar. She completed her residency in Internal Medicine at Lutheran Medical Center in Brooklyn, NY and her fellowship in Rheumatology at the University of Miami, Jackson Memorial Hospital.

## UF HEALTH JACKSONVILLE

### **UF Health North: Opens Feb. 17, 2015**

Strategically located in North Jacksonville on Max Leggett Parkway near Interstate 95, UF Health North will include a 24/7 full-service emergency room, outpatient surgery, occupational medicine, a birth-center, advanced imaging and other diagnostic services. Additionally, top University of Florida and community physicians will offer more than 20 specialty services including obstetrics, internal medicine, neurology, orthopaedics, cardiology, pediatrics and rehabilitation in the facility.



*UF Health North is a state-of-the-art outpatient medical complex that will make access to high quality medical care more convenient for residents throughout Northeast Florida and Southeast Georgia.*