



Division of Medicine

Department of
Pulmonary Medicine
and Critical Care

Staff

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Innovation

- **Interventional Bronchoscopy Service**

The following service are offered:

- Laser Bronchoscopy/Tumor ablation
- Brachytherapy catheter placement
- Stent placement
- Thoracoscopic evaluation of pleura for biopsy and pleurodesis
- Endo-Bronchial ultrasound needle biopsy for much improved yields in lymph node biopsies.



This service, directed by Dr. Oliveira is the only one of its kind the Broward County

- **Thoracic Surgery Service**

At the end of 2006, Cleveland Clinic Florida launched its new Section of Thoracic Surgery and a new comprehensive Multidisciplinary Thoracic Oncology program. The multidisciplinary team is composed of a thoracic surgeon, pulmonologists, medical and radiation oncologists, radiologists, pathologists, gastroenterologists, and numerous support staff. Together they specialize in the diagnosis and treatment of lung and esophageal cancer as well as

other thoracic malignancies such as chest wall tumors, thymic tumors, and lymphoma.

Keith D. Mortman, M.D., F.A.C.S., F.C.C.P., Head of the Section of Thoracic Surgery, specializes in minimally-invasive surgical techniques, including thoracoscopic (VATS) lobectomy. With a minimally-invasive approach, patients that require surgery benefit from smaller incisions, less postoperative pain, and shorter hospital stays. Patients undergoing thoracoscopic surgery better tolerate postoperative treatments such as chemotherapy compared to those having more traditional “open” surgery.

The Section of Thoracic Surgery is pleased to offer its patients new innovative treatments such as photodynamic therapy (PDT). For patients with cancer in the main airways or in the esophagus who cannot undergo surgical resection, PDT is an endoscopic (no incisions) light-based treatment used to destroy the tumor. This typically involves a few outpatient treatments over one week and allows patients to breathe or swallow easier depending on the location of the tumor.

In conjunction with the Interventional Pulmonary service, tracheobronchial stenting can be used when there is airway obstruction from a variety of causes.

Other new thoracic surgical services include:

- Thoracoscopic lung biopsy for interstitial lung disease with an average length of stay of less than 24 hours.
- Thoracoscopic sympathectomy for hyperhidrosis. This is performed on an outpatient basis.
- Thoracoscopic decortication for empyema or parapneumonic effusion.
- Thoracoscopic first rib resection for thoracic outlet syndrome.
- Thoracoscopic resection of mediastinal masses including thymectomy for myasthenia gravis.

For patients with tumors in the major airways, a lung-sparing procedure called “sleeve lobectomy” may be utilized to preserve pulmonary function. In the past, the surgical alternative would have been a pneumonectomy—the removal of the entire lung.

In conjunction with the Division of Radiation Oncology, stereotactic radiosurgery is used to treat certain thoracic malignancies. This new modality provides great accuracy and precision in the delivery of radiation to the planned target with fewer treatment sessions than more traditional external beam radiation.

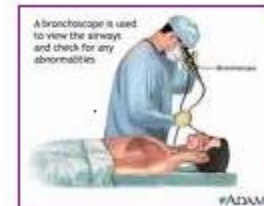
Corroborating with the Division of Interventional Radiology, radiofrequency ablation may be used to treat lung tumors in patients who are not candidates for surgery. This allows for a minimally invasive approach to the treatment of primary and metastatic lung cancers.

The Section of Thoracic Surgery is pleased to offer these latest advances in the management of chest disorders to the patients of south Florida. Approximately 90% of our procedures are performed minimally invasively with a relatively brief hospitalization.

For a consultation with the Section of Thoracic Surgery, please call 954-659-5321

• **Bronchoscopic Intubations**

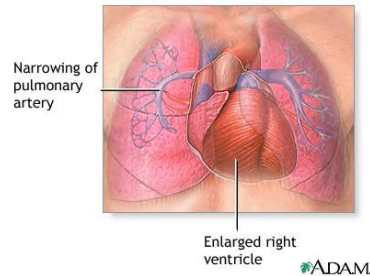
When the body is in distress, at times, it is necessary to insert a tube into the airways assist the patient in breathing. Usually this procedure is performed by direct visualization and insertion of the endotracheal tube. Our pulmonologists use special scopes to insert endotracheal tubes resulting in 100% success rate in intubation, with less trauma to the patient and decreased need for sedation.



- **Pulmonary Hypertension Clinic**

The largest of its kind in South Florida outside of Miami, the Pulmonary Hypertension Clinic provides comprehensive diagnostic and treatment services for patients with pulmonary hypertension. The hospital and the staff are familiar with PH patients.

Procedures that are denied in other hospitals due to lack of staff familiarity are successfully performed in our institution. We provide expert echocardiographic testing, right heart catheterization with reversibility testing on Nitric Oxide, specialized and dedicated nursing support services and readily accept transfers from outside hospitals of patients in need of specialized care. The Pulmonary Hypertension Clinic is under the direction of Dr. Rahaghi. He is national speaker in the field of pulmonary hypertension, with multiple ongoing research projects.



- **Pulmonary Education**

There is clear evidence that pulmonary rehabilitation decreases complications of COPD and increased patient well-being.

The pulmonary department continues to support an active rehabilitation and exercise program for patients with lung disease. In conjunction with the rehabilitation



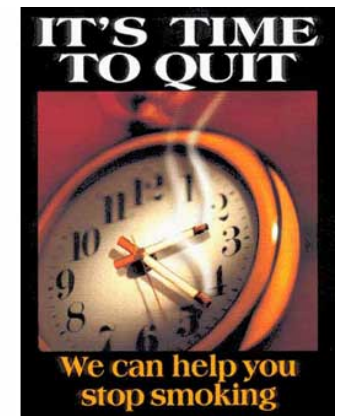
educators, we are offering a unique blend of pulmonary education services in the clinic. They include:

- Disease state teaching in COPD, Emphysema, and asthma
- Inhaler, peak flow, spacer teaching.
- Asthma action plan and COPD contingency planning
- Pulmonary rehab evaluation
- Smoking cessation clinic, using state of the art techniques.
- Incentive spirometry teaching and exercise planning to decrease complications prior to cardiac surgery.

Pulmonary rehabilitation, asthma action plans and disease state teaching have all be shown to decrease morbidity of pulmonary diseases.

- **Smoking Cessation Clinic**

Staffed by trained respiratory therapist, this comprehensive clinic provides multiple visits, support, medication and guidance to patients- under the supervision of a pulmonary physician.



State of the art techniques and latest medications are used to end nicotine addiction. The services are billed to insurances

Psychotherapy and Acupuncture are also available, some on a fee basis.

- **Sleep Disorders Center**

Our Sleep Disorders Center is one of two certified centers in Broward County. We recently expanded the lab to 6 beds and relocated to Marriot Hotel. By moving to a Hotel setting, we seek to provide an environment more conducive to sleep, and providing greater comfort to the patients.

Our Sleep Lab is backed by two Sleep Board certified physicians. Latest technology, outmost care is our standard. Multiple research projects are ongoing in the sleep center, contributing to the clinical practice of sleep.

- **ICU**

Aside from applying the latest in technology, our ICU is particularly innovative in the following dimensions:



- Use of ultrasound guidance in all ICU procedures, including thoracentesis and central line placement.
- Multidisciplinary rounds with collaboration of an extensive ICU team: Board certified ICU attending, medical residents, interns, medical students, respiratory therapists, ICU nurses, nursing students, Pharmacists, pharmacy students, case managers, and dietitians. This group approach improves decision making and facilitates collaborative execution of the plans.
- The academic residency programs, in conjunction with cardiology, gastroenterology, and renal fellowships drive excellence: as repeatedly demonstrated, hospitals with academic programs have an overall decrease in mortality.
- Continued education of the nursing staff by medical educators.

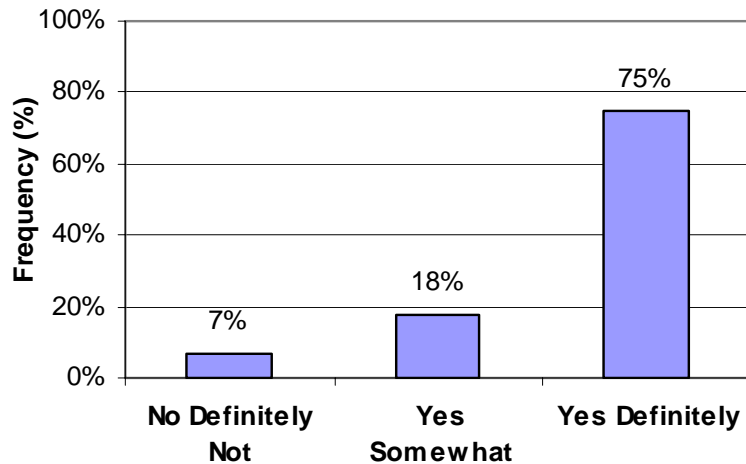
Caring

We are here to care for the patients:

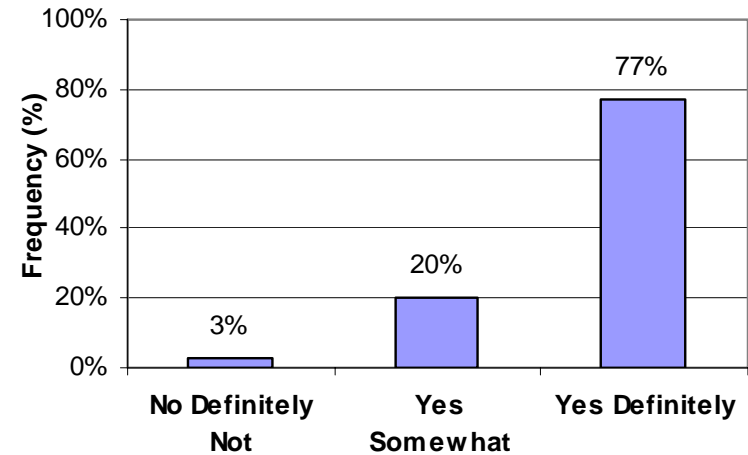
The above attitude drives our everyday activities.

In the pulmonary department, most of our patients are satisfied or very satisfied with us, and most will recommend us to their family and friends: In fact, the word of mouth has been one of the sources of patient referral to us in the last few years. These are results of an independent survey of our pulmonary department physicians:

Doctor Spent Enough Time (N=103)

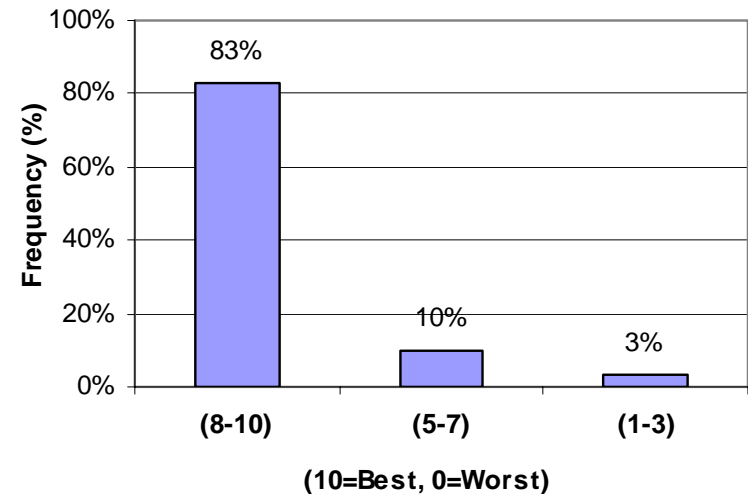


Provider Shows Concern (N=115)



Our patients are extremely satisfied with the care they receive at our Clinic:

Patient Overall Satisfaction



Our sleep lab experience is second to none, as evident by constant appreciation and accolade of the patients in exit surveys, the morning after:

- 100% of patients would recommend the Sleep Center to family and friends:

Did you find the room comfortable and pleasant	Was the bed comfortable	Were the technologists pleasant?	Would you recommend our Sleep Center?
4.63/5	4.51/5	4.81/5	100% Yes

Testimonials by our previous Clinic patients

“ I am writing this letter to tell you about the wonderful care my father received while he was in the ICU at the Cleveland Clinic Florida...I must commend each and every one of the doctors, and thank them for them for all the care they gave to my father...” S.C.

“I want to thank you for the kind words you took time to offer me. So thanks again for caring, it helped.” L.A.

“I just wanted to express to you again my sincere appreciation for the way you handled my possible life-threatening illness. You and your staff responded immediately by scheduling the necessary tests in the shortest time possible; and more importantly, you treated me with genuine concern throughout the weeks it took to make [the diagnosis]. This is a gift few doctors have in my experience, and it meant the world to me...” E.S.

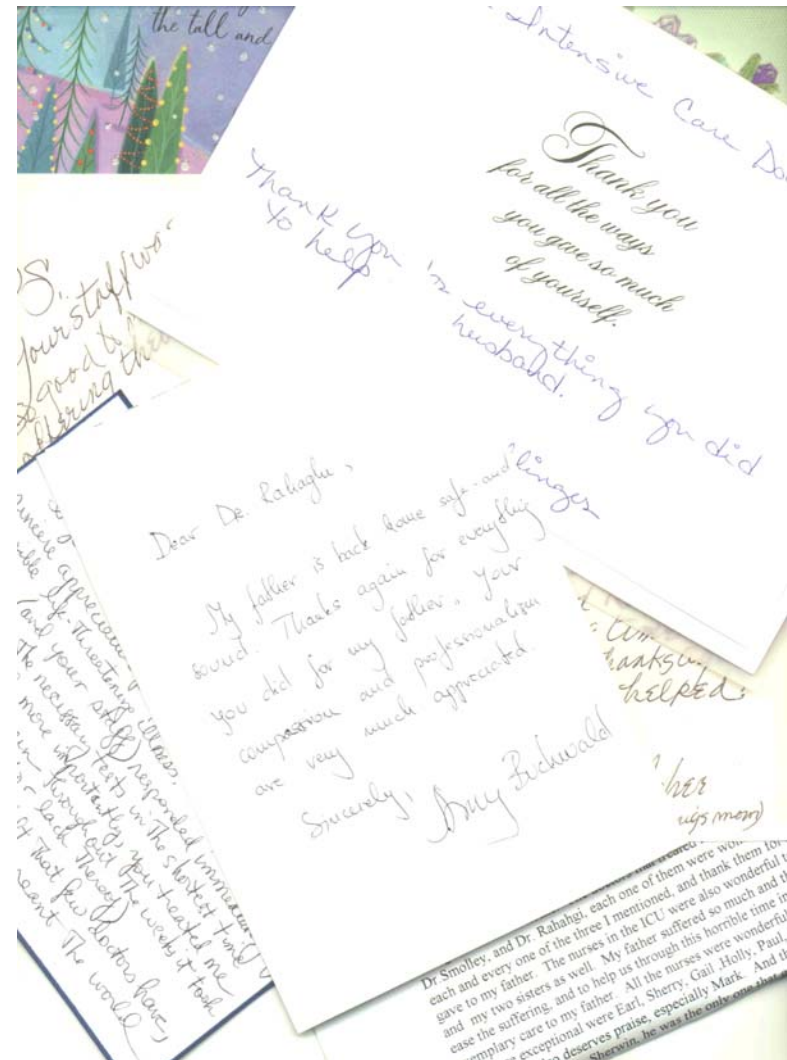
“...We will forever be grateful for what you have done for me to regain my health” M.L.

Testimonials in the ICU

This is a sampling of recent comments by the patients and families that stayed in our ICU:

- Excellent Care...thoughtful and kind. I felt I was treated like royalty.
- Providing excellent care, comforting to know that such quality care was given round-the-clock. The care at Cleveland Clinic made a difference in our father's recovery
- God bless your staff in MICU for the nurses are angels of care.
- The staff in ICU made it possible for my husband & I to continue to have a happy life together.
- I am very grateful to the staff's dedication and my family and I are deeply appreciative to the professional care that was given in CVICU
- Thanks to the many nurses who came in contact with me, nothing can hold a candle to you all. I will never forget any of you and I always am grateful.
- I wish to express my appreciation for the efforts of a specific nurse Christine. Christie took care of my aunt numerous times and each time kept us informed and updated. She did not overwhelm us or speak down to us but spoke to us like we were family.
- We were so grateful to share the moments that we could with our mother in the unit when her time was up and we want to say thank you for all the allowances you made for us. It meant a

lot to us for she felt our love and yours during a scary time. God Bless you all



Excellence

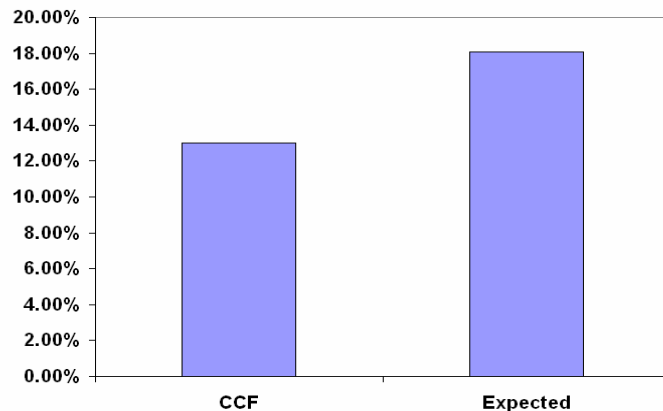
ICU Coverage

Multiple studies have demonstrated that Intensive Care Units where there is 24 hour in-house coverage have substantially lower mortality rates. Our hospital is one of few in Broward county with 24 hour coverage by fellowship trained and board certified intensivists. This is indeed reflected in our decreased mortality and average length of stay

ICU Quality markers

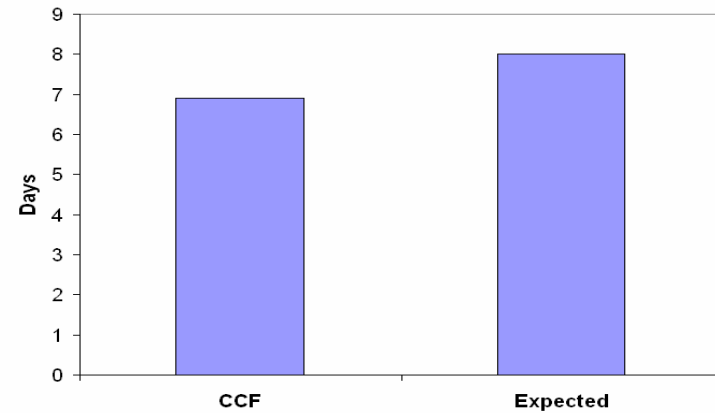
We simply provide better care. Lower mortality rates achieved in combination with decreased length of stay show our commitment to our patients:

ICU Mortality



The above graph shows a 30% decrease in mortality for CCF patients compared to US hospitals.

Average Length of Stay in the ICU



This represents a 14% decrease vs. the US average, all the same with decreased mortality.

Our ICU is recognized as fully dedicated to principles of Leapfrog initiative (a health care payer supported group that seeks to propagate quality care)



Nurse of the year

Rosanna Benavides, one of our clinic nurses, was selected the nurse of the year in 2007

We are very proud of her. She has consistently provided excellent care of her patients, with unequaled dedication and insight to our patients needs.

Care of Pneumonia Patients

The Center for Medicare and Medicaid Studies continuously monitors hospitals for their performance in the care of Pneumonia Patients. The following table is the most recent report of the Cleveland Clinic Florida, released in December of 2006

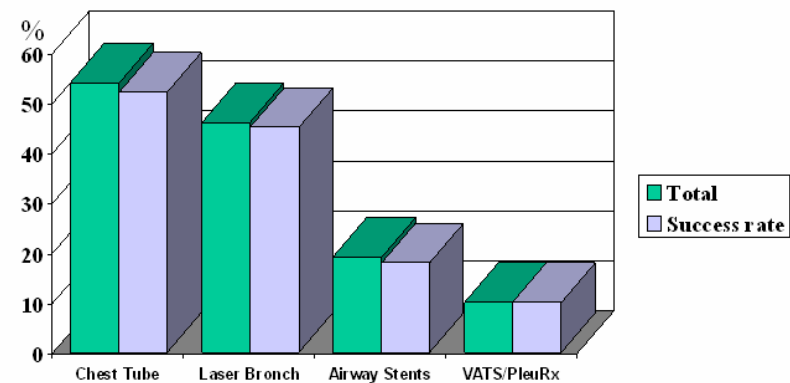
CMS Performance Measure	Florida top 10% Hospitals	Cleveland Clinic Florida
Pneumococcal Vaccination	87%	93%
Initial Antibiotics Given on time	86%	90%
Oxygen Assessment	100%	100%
Smoking Cessation	100%	100%
Appropriate Initial Antibiotic	90%	97%

Blood Culture before antibiotics	97%	95%
Influenza Vaccine for Pneumonia Patients	95%	96%

Cleveland Clinic Florida is number one in Florida in terms of Oxygen assessment of the patients, and we are in the top 10% in the United States in 4/6 qualifying categories, and in the top 10% in Florida in 6/7 Categories.

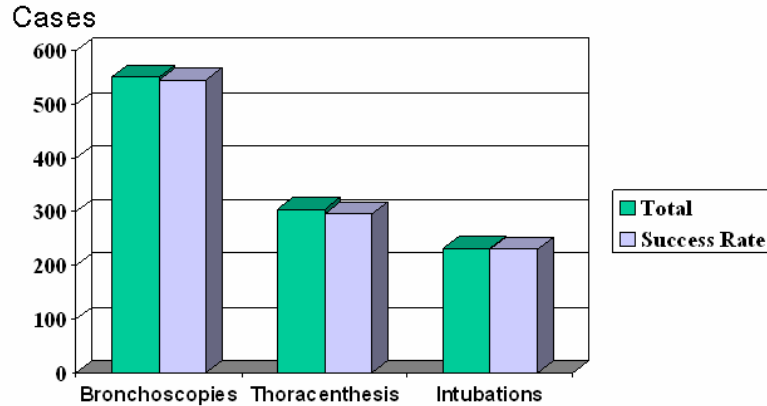
Interventional Pulmonology

Historically we have had excellent results in interventional procedures with exceptional success rates.

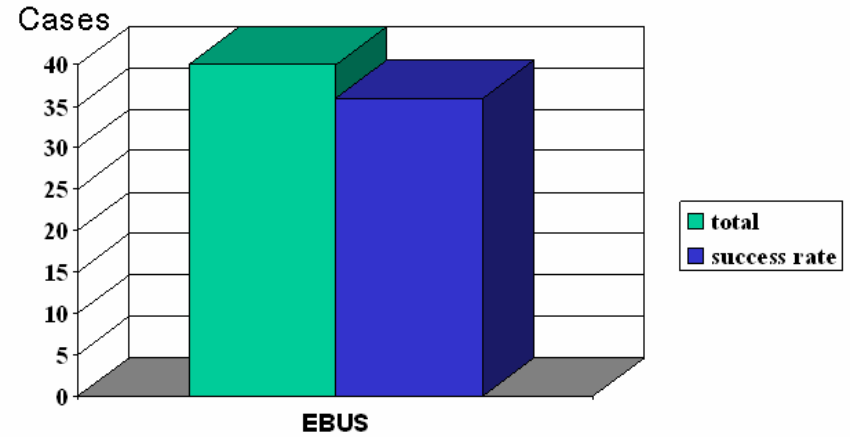


This year we have continued excellence in our outcomes:

2006/2007 Data

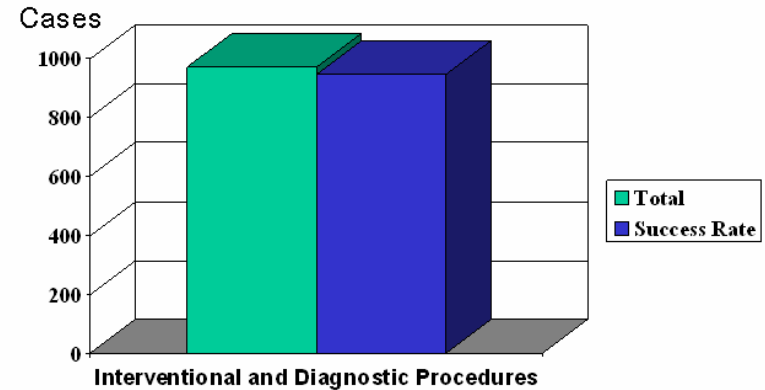


The EBUS procedure (Endotracheal Biopsy under UltraSound) performed at the Cleveland Clinic has been particularly successful in providing the referring physicians with a diagnosis on enlarged/ diseased lymph nodes.



Overall, in the last year we have had great results with our interventional and diagnostics procedures:

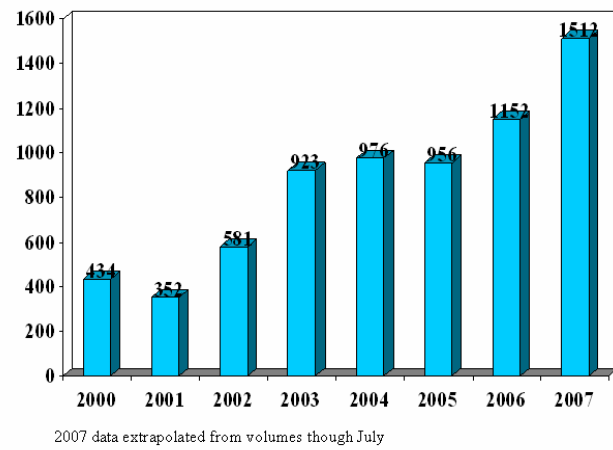
Total Interventional and Diagnostic Procedures 2006/2007



- **Sleep Center**

Our sleep center, now located atop the Marriott hotel in Weston, offers state of the art facilities designed both for accuracy and comfort. The number of patients going through the center is continuously increasing.

Sleep Studies 2000-2007

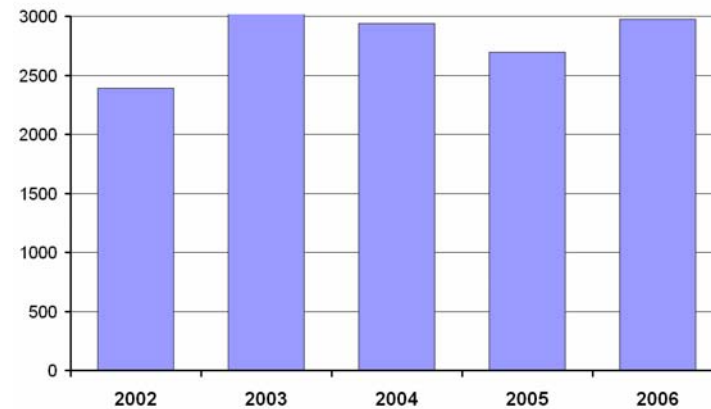


- **Pulmonary Function Laboratory**

Our comprehensive Pulmonary Function lab is equipped with a Body Box set-up that allows more accurate lung volume measurements,

and allows for flight simulation in patients with borderline respiratory status pre-flight. The volume of the pulmonary function tests has been robust over the years.

Pulmonary Function Laboratory Studies

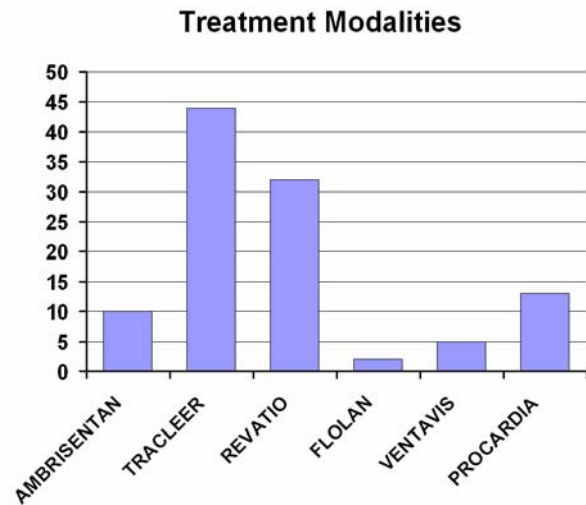


- **Pulmonary Hypertension Clinic**

The Pulmonary Hypertension Clinic has evolved into the busiest such practice in the counties of Broward, Palm Beaches and Collier, serving the Major Cities of Fort Lauderdale, Boca Raton, Palm Beaches and Naples:

Our center is recognized by the Pulmonary Hypertension Association and featured on their web page.

Active treatment: 85 patients by July 2007



- **Overall Care of Pulmonary Patient**

Health Grades, a leading independent health care ratings company gave us a 5 star rating in the management of Pulmonary Diseases:



- Five Star Rated Overall Pulmonary Program
- Rated Amongst the Top 5% in the US
- 2008 Specialty Excellence Award Recipient