

# 2011

SELECT SPECIALTY OUTCOMES MEASURES







To promote quality improvement, Cleveland Clinic Florida has created an Outcomes Book with content for select specialties. Designed for a physician audience, the Outcomes Book contains a summary of our surgical and medical trends and approaches and data on patient volumes and outcomes. Although we are unable to report all outcomes for all treatments provided at Cleveland Clinic Florida — omission of outcomes for a particular treatment does not necessarily mean we do not offer that treatment — our goal is to increase outcomes reporting each year. When outcomes for specific treatments are unavailable, we often report process measures associated with improved outcomes. When process measures are unavailable, we may report volume measures; a volume/outcome relationship has been demonstrated for many treatments, particularly those involving surgical techniques.

In addition to our internal efforts to measure clinical quality, Cleveland Clinic Florida supports transparent public reporting of healthcare quality data and participates in the following public reporting initiatives:

- Joint Commission Performance Measurement Initiative ([qualitycheck.org](http://qualitycheck.org))
- Centers for Medicare & Medicaid (CMS) Hospital Compare ([hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov))
- Agency for Healthcare Administration ([ahca.myflorida.com](http://ahca.myflorida.com))
- Centers for Disease Control and Prevention ([cdc.gov](http://cdc.gov))

Our commitment to providing accurate, timely information about patient care also will help patients and referring physicians make informed healthcare decisions.

We hope you find these data valuable.



October 2012

Dear Colleague:

On behalf of the Cleveland Clinic Florida family, I am pleased to present you with our 2011 Outcomes Book.

We are proud of our commitment to providing our patients with high-quality, cost effective, patient-centered care.

We have organized the information in the 2011 Outcomes Book by specialty areas through which we deliver clinical services. We are honored to work with you and hope the information presented here will assist you and your patients in making healthcare decisions.

In addition to outcomes, the 2011 Outcomes Book also includes volumes, publications and other data that I hope you find useful. We look forward to a long and successful partnership with you.

Sincerely,

A handwritten signature in black ink, appearing to read "Bernie Fernandez, Jr.", written in a cursive style.

Bernie Fernandez, Jr., MD  
Chief Executive Officer  
Cleveland Clinic Florida



October 2012

Dear Colleague:

In this book you will find the quality and outcomes results for Cleveland Clinic Florida. Every year we try to improve on our outcomes by tracking more of our efforts and providing more feedback to our physicians on how to excel. With each year we have more accurate data, and I am proud to say, better results to share with you. In addition, you will find patient volumes, innovations and selected publications by our staff, residents and fellows.

We aspire to put patients first and to be a valuable resource for our community. This book is done with the intent of transparency and represents contributions from the majority of our departments and our quality and outcomes group.

We hope that you find this information informative.

Sincerely,

A handwritten signature in black ink, appearing to read "Franck Rahaghi", written over a horizontal line.

Franck Rahaghi, MD, MHS  
Chair of Quality  
Cleveland Clinic Florida

# WHAT'S INSIDE

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## Cancer Institute



## CHAIRMAN'S MESSAGE

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I am pleased to present the 2011 overview of Cleveland Clinic Florida's Cancer Institute. This publication contains information about patient volumes, research and academic contributions, and future plans for the Institute.

Our greatest strength is the integrated approach across all disciplines to provide comprehensive care to patients with solid tumors and hematologic malignancies. Patients are evaluated by specialists in a timely and coordinated fashion to formulate a treatment plan that meets their individual needs.

Our program's structure is based on multidisciplinary disease-oriented teams, including breast, thoracic, gastrointestinal, genito-urinary, and hematology. These expert teams meet at regular conferences and share clinical protocols that provide our patients with state-of-the-art clinical care and access to cutting-edge clinical research.

The year 2011 was our busiest yet, both in terms of patient volume and enrollment in clinical trials. In addition to the main campus in Weston, the West Palm Beach facility has seen a substantial increase in volume and a full-time hematology-oncology specialist is available at this location.

We continue to strengthen our relationship with Cleveland Clinic's Taussig Cancer Institute in Cleveland, Ohio, a National Cancer Institute (NCI)-designated cancer center, which will help expand the array of services and research available at our institution.

We are proud to share our achievements and look forward to further success.

Sincerely,

A handwritten signature in black ink, appearing to read "Rogerio Lilenbaum". The signature is fluid and cursive.

Rogerio Lilenbaum, MD  
Chairman, Cancer Institute  
Cleveland Clinic Florida

## Department Overview

The Cancer Institute at Cleveland Clinic Florida offers comprehensive cancer care services and performs extensive clinical research including participation in trials sponsored by the National Cancer Institute (NCI) and selected trials of novel agents sponsored by pharmaceutical companies. The program includes specialists, medical oncologists, hematologists and a radiation oncologist. We work in multidisciplinary teams with surgeons, pathologists and radiologists to provide integrated and comprehensive oncology services.

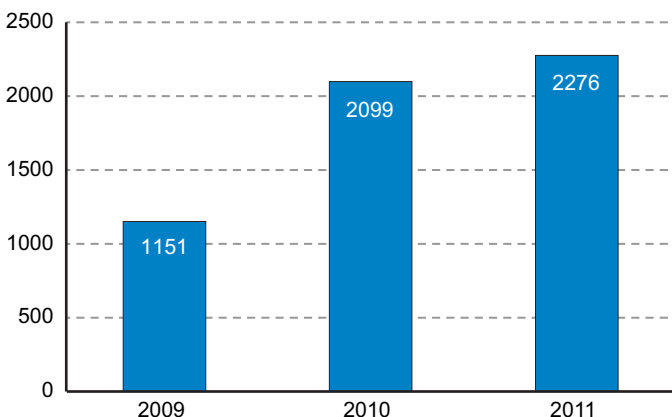
## Accreditation

In 2008, Cleveland Clinic Florida's cancer program received accreditation as a comprehensive cancer center from the Commission on Cancer (CoC). Established by the American College of Surgeons, the CoC sets standards for quality and multidisciplinary cancer patient care. Accredited institutions represent a broad based network of comprehensive cancer programs that offer the entire spectrum of cancer control activities, from prevention to long-term follow-up. It is estimated that accredited programs annually diagnose and treat 70 to 80 percent of all new cancer cases.

## New Clinic Visits

2009 – 2011

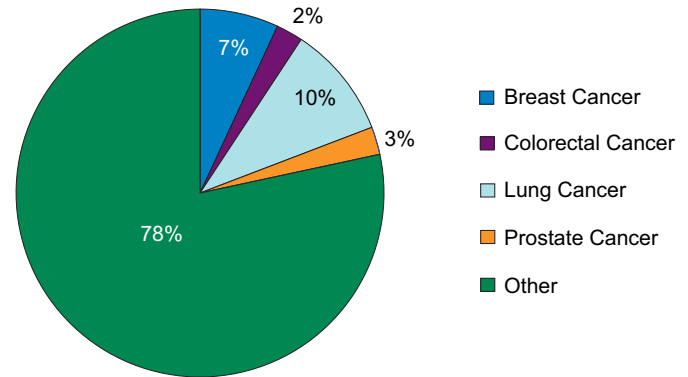
Patients



Source: Internal data

## Diagnosis Groups

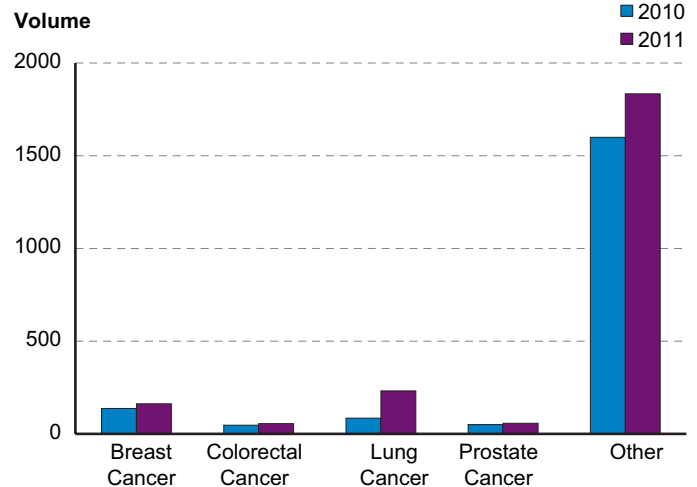
2011



Source: Internal data

## Diagnosis Groups

2010 – 2011



Source: Internal data

## Breast Program

We are one of few centers in the state of Florida to be distinguished with a nationally certified breast program. The goal of Cleveland Clinic Florida's Breast Program is to provide multidisciplinary care through a team, which includes dedicated breast surgeons, breast medical oncologists, radiation oncologists, breast radiologists, breast pathologists, and plastic surgeons. We provide comprehensive and personalized services for each

breast patient, including genetic counseling and testing, high risk assessment counseling, and the treatment of both benign and malignant breast diseases.



Both benign and malignant cases are discussed in a multimodality conference in which all members of the breast team are present to develop a comprehensive plan of care for the patient. Services provided include breast MRI and MRI-guided biopsy, ON-Q pump to deliver pain control for mastectomy patients, reconstructive options, MammoSite® radiation, and access to research trials.

We are also one of the few programs in the area to have a certified Breast Patient Navigator whose role is to help coordinate the care of each patient. Patients are encouraged to participate in a variety of support programs including the 4<sup>th</sup> Angel Program and the American Cancer Society's "Look Good...Feel Better" program. Additional encouragement is offered through our own unique breast cancer support group, The Breast Cancer Book Club.

### Gastrointestinal Cancer Program

The Gastrointestinal Cancer Program at Cleveland Clinic Florida offers comprehensive care of gastrointestinal malignancies including early and advanced stages

of colon, rectal, and anal cancer, stomach, esophageal, and pancreatic cancer, among others. Whether treating patients for cure, prolongation of life, or palliation of symptoms, the program is dedicated to providing the best available care to each cancer patient.

Patients with gastrointestinal cancers are evaluated and treated by a multidisciplinary team consisting of medical oncologists, a radiation oncologist, pathologists, gastrointestinal surgeons, interventional gastroenterologists, and radiologists. Our team meets on a regular basis during a dedicated multidisciplinary gastrointestinal conference to discuss optimal management strategies for patients. Having a group of experts working closely together ensures each patient receives the timely delivery of care that has been demonstrated to improve disease outcome.

### Services provided by the Gastrointestinal Cancer Program:

- Up-to-date chemotherapeutic regimens and targeted therapies
- Access to National Cancer Institute (NCI) and pharmaceutical sponsored clinical trials
- Diagnostic and therapeutic endoscopy for esophageal, pancreatic and bile duct cancers
- Minimally invasive surgeries for esophageal, gastric and colorectal cancer
- Liver resection, ablation and embolization for hepatocellular carcinoma, liver-limited metastatic colorectal cancer and carcinoid tumors
- Intensity-modulated radiation therapy and stereotactic radiosurgery
- Support services including psychological evaluation, oncology social work, genetic counseling, and cancer support groups

### Genitourinary Oncology Program

The Genitourinary Oncology Program is comprised of medical oncology, radiation oncology, and urology

experts who collaborate to create an individualized treatment plan that offers each patient a personalized and effective treatment plan.

Equipped with a state-of-the-art operating suite, we offer advanced robotic genitourinary cancer surgery, including prostatectomy, nephrectomy and cystectomy for prostate cancer, kidney cancer and bladder cancer respectively. This robotic operating suite is the first in Florida and the second in the country to combine magnified video projection and a 3-D robotic surgical system.

The Genitourinary Oncology Program offers the first and most comprehensive penile rehabilitation program in the region for the management of post-prostatectomy incontinence and erectile dysfunction, including an aggressive, multidisciplinary approach to improving quality of life and patient and partner satisfaction.

Our faculty members have strong academic credentials and significant experience in performing clinical trials. This allows our patients to have access to national genitourinary cancer clinical trials and cutting-edge urologic oncology care. We are continuing to expand our involvement in clinical trials of innovative therapies, including dietary intervention in patients with watchful-waiting prostate cancer, assessment of new therapies and projects that incorporate quality of life in patients with genitourinary cancer.

In collaboration with the American Cancer Society (ACS), we participate in the ACS Man to Man program to help men cope with prostate cancer by offering community-based education and support for patients and their family members. A core component of the program is self-help and/or group support. Volunteers organize free monthly meetings where speakers and participants learn and share information about prostate cancer, treatment, side effects, and how to cope with prostate cancer and its treatment.

## Hematology Program

The Hematology Program at Cleveland Clinic Florida is composed of dedicated clinical hematologists focused on a broad range of benign and malignant blood disorders, a dedicated hemato-pathologist and a variety of specialists who provide complete surgical and radiologic services.

We have been designated as a national center of expertise in amyloidosis, a rare disease for which few therapies are available. Additionally, we have significantly expanded our management options for patients with multiple myeloma. Our hematologists work closely with experts at the Taussig Cancer Institute in Cleveland, which is world renowned for treatment of blood disorders.



We are participating in cutting-edge clinical trials, which offer patients access to experimental therapies. We were involved in the pivotal study for paroxysmal nocturnal hemoglobinuria (PNH) and are now helping develop new treatments for myelodysplastic syndromes, leukemias and lymphomas.

## Thoracic Oncology

The Thoracic Oncology Program at Cleveland Clinic Florida includes specialists from the Cancer Institute

and the Departments of Pulmonary Medicine and Cardiothoracic Surgery. This multidisciplinary approach allows us to provide an integrated and comprehensive treatment plan for our patients.

Patients with lung cancer, mesothelioma, and tumors of the mediastinum are evaluated and their cases discussed at the multidisciplinary conference, with the support of specialized radiologists and pathologists.

Some of the innovative treatments offered by the Thoracic Oncology Program include: robotic-assisted minimally invasive surgery; navigational bronchoscopy; stereotactic radiosurgery; and access to cutting edge molecular targeted agents and clinical trials. For example, we are currently participating in late stage trials for three new treatments for lung cancer.

The Thoracic Oncology Program, in collaboration with radiology, has instituted a screening program for people at risk for lung cancer based on a recent national study, which demonstrates that early screening saves lives.

Additional services include pulmonary rehabilitation, pain management and smoking cessation. Interventional radiology physicians are available for complex diagnostic and therapeutic procedures, such as radiofrequency ablation.

## Radiation Therapy

Radiation Therapy at Cleveland Clinic Florida is conducted in conjunction with 21<sup>st</sup> Century Oncology, the nation's premier cancer treatment network and radiation therapy provider.

The equipment includes sophisticated cutting-edge state-of-the-art technology in comfortable patient-friendly surroundings. The latest technology includes Intensity Modulated Radiation Therapy (IMRT), which utilizes a highly precise radiation system to deliver carefully calculated beams of intense radiation directly into a cancer.

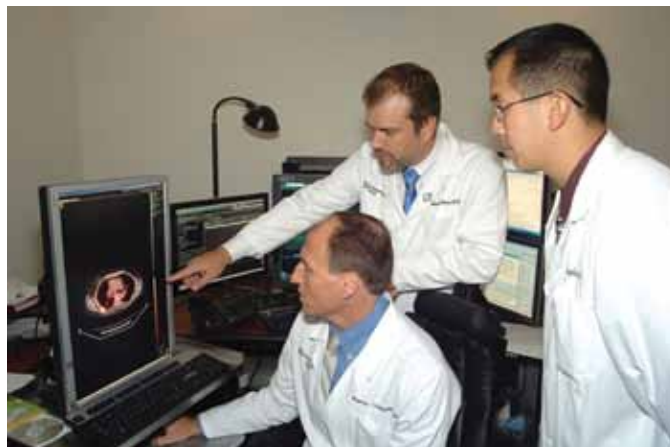


Image-guided radiation therapy, or IGRT as it is commonly known, evolved from IMRT. Computer-generated imaging of the exact location of the tumor within the patient allows the oncology team to calibrate the radiation beam therapy with an accuracy that has never before been available.

Stereotactic radiosurgery precisely delivers large radiation doses to tumors and other relevant anatomical targets in one to five treatments. The goal of this non-invasive procedure is to destroy or make inactive, the target anatomy while minimizing dose exposure to the surrounding healthy tissue. This technique began by treating targets in the brain and has now extended to targets in the spine and other organs in the body.

Brachytherapy treats cancer by placing radioactive sources directly into or next to the area requiring treatment. This enables clinicians to deliver a high dose with minimal impact on surrounding healthy tissues. Brachytherapy has proven to be a highly successful treatment for cancers of the prostate, cervix, uterus, and breast, among others.

The radiation oncologist works closely with all members of our multidisciplinary team, including the medical oncologists, surgeons, pathologists and radiologists to ensure the best quality of care.

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## Staff Listing

Rogerio Lilenbaum, MD, *Chair, Cancer Institute*

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### Oncology and Solid Tumors

Rogerio Lilenbaum, MD, *Chair, Cancer Institute, Oncologist*

Bruno Bastos, MD, *Solid Tumor Oncologist*

Elizabeth Stone, MD, *Oncologist*

Timmy Nguyen, MD, *Solid Tumor Oncologist*

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### Hematology and Blood Disorders

Maria Diacovo, MD, *Pathologist*

Chieh-Lin Fu, MD, *Hematologist*

James Hoffman, MD, *Oncologist*

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### Breast Cancer

Cassann Blake, MD, *Surgeon*

Jomarie Cortes-Santo, MD, *Radiologist*

Carmel Celestin, MD, *Vascular Medicine Specialist*

Margaret Gilot, MD, *Surgeon*

Elizabeth Stone, MD, *Oncologist*

Christopher Chen, MD, *Radiation Oncologist*

Martin Newman, MD, *Plastic Surgeon*

Michel Samson, MD, *Plastic Surgeon*

Maria Artze, MD, *Radiologist*

Diane Carlson, MD, *Pathologist*

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### Colon Cancer

Steven D. Wexner, MD, *Chairman, Department of Colorectal Surgery Chief Academic Officer*

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Juan J. Nogueras, MD, *Chief of Staff, Colorectal Surgeon*

Eric G. Weiss, MD, *Colorectal Surgeon*

David Maron, MD, *Colorectal Surgeon*

Lester Rosen, MD, *Colorectal Surgeon, West Palm Beach*

Dana Sands, MD, *Colorectal Surgeon*

Giovanna da Silva, MD, *Colorectal Surgeon*

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### Gastrointestinal Oncology

Roger Charles, MD, *Chairman, Department of Gastroenterology*

Fernando Castro, MD, *Gastroenterologist*

Tolga Erim, DO, *Gastroenterologist*

Luis Lara, MD, *Gastroenterologist*

Ronnie Pimentel, MD, *Gastroenterologist*

Nicole Palekar, MD, *Gastroenterologist*

Alison Schneider, MD, *Gastroenterologist*

Andrew Ukleja, MD, *Gastroenterologist*

Conrad Simpfendorfer, MD, *Surgeon*

Mark E. Sesto, MD, *Surgeon*

Raul Rosenthal, MD, *Surgeon*

Andreas G. Tzakis, MD, *Transplant Surgeon*

Timmy Nguyen MD, *Medical Oncologist*

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### Lung Cancer

Rogerio Lilenbaum, MD, *Chair, Cancer Institute, Oncologist*

Eduardo C. Oliveira, MD, *Section Head, Interventional Pulmonologist*

Edward Savage, MD, *Surgical Director, Lung Cancer Center, Cardiothoracic Surgeon*

Bruno Bastos, MD, *Oncologist*

Christopher Chen, MD, *Radiation Oncologist*

Maria Diacovo, MD, *Pathologist*

Felipe Martinez-Gonzalez, MD, *Radiologist*

Jacobo Kirsch, MD, *Radiologist*

Franck Rahaghi, MD, *Medical Director, Smoking Cessation Clinic, Pulmonologist*

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### Prostate Cancer

Nicolas Muruve, MD, *Urologist, Fellowship Program Director, Urologic Oncology*

Alok Shrivastava, MD, *Head, Section of Robotic and Urologic Oncology*

Lawrence Hakim, MD, *Chair, Department of Urology and Head, Section of Sexual Dysfunction*

Barbara Ercole, MD, *Urologist*

Richard J. Macchia, MD, *Urologist*

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### Radiation Oncology

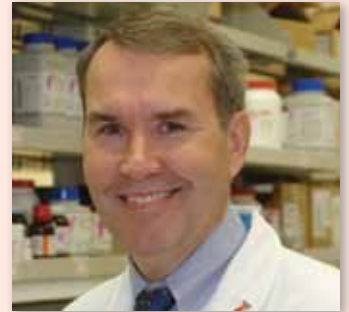
Christopher Chen, MD, *Radiation Oncologist*

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## Department of Cardiovascular Medicine



The Robert and Suzanne Tomsich Department of Cardiovascular Medicine provides comprehensive cardiovascular services. We are committed to not only providing the best outcomes, but also to sharing this information with the medical community and the public. This resource, which is a review of the department's outcomes, trends and treatment approaches, underscores the dedication and achievement of our many healthcare professionals and caregivers.



For the 18<sup>th</sup> consecutive year, Cleveland Clinic's heart program ranked as the best in the nation, in *U.S. News & World Report's* 2012 – 2013 'Best Hospitals' rankings. By adhering to the same mission statement and following similar protocols we deliver world class cardiovascular care in Florida through a seamless transfer of information and the benefit of cutting-edge technology shared through our combined services. Our Florida and Cleveland campuses are integrated to synergize collaborations and outcomes.

Increasingly, science and technology breakthroughs are transforming cardiovascular medicine and surgery. As the number of management options increase, patients benefit; however, choosing the best treatment can become a more difficult task. Our entire team is dedicated to determining the best strategy for each patient and to assuring the highest quality of care is provided. We hope you will find this information useful.

Sincerely,

A handwritten signature in black ink, reading "Randall C. Starling, MD, MPH". The signature is fluid and cursive.

Randall C. Starling MD, MPH, FACC  
Interim Chairman  
Department of Cardiovascular Medicine  
Cleveland Clinic Florida

## Department Overview

The Robert and Suzanne Tomsich Department of Cardiovascular Medicine is a national leader in the prevention, evaluation and treatment of cardiovascular disease. The department offers patients advanced diagnosis, innovative treatments and comprehensive management by expert cardiologists, collaborating among their areas of specialization to achieve excellent treatment outcomes and improved quality of life for our patients. All Cleveland Clinic cardiologists are subspecialty trained to effectively evaluate patients with specific cardiovascular concerns. Additionally, the department includes a section of Vascular Medicine. Vascular surgical specialists provide comprehensive surgical treatments in collaboration with cardiovascular medicine. The Robert and Suzanne Tomsich Department of Cardiothoracic Surgery also offers state-of-the-art cardiac and thoracic surgical treatment.

## Heart Failure

### National Hospital Quality Measures 2011

Heart failure care performance measures are available online at [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov), a consumer-oriented website hosted by Centers for Medicare and Medicaid Services (CMS).

### Process Measures ("Core" Measures)

Hospitals submit heart failure process-of-care data that shows how consistently recommended care was provided to adult patients, irrespective of the payer. Cleveland Clinic Florida's National Hospital Quality Measure heart failure data are shown below.

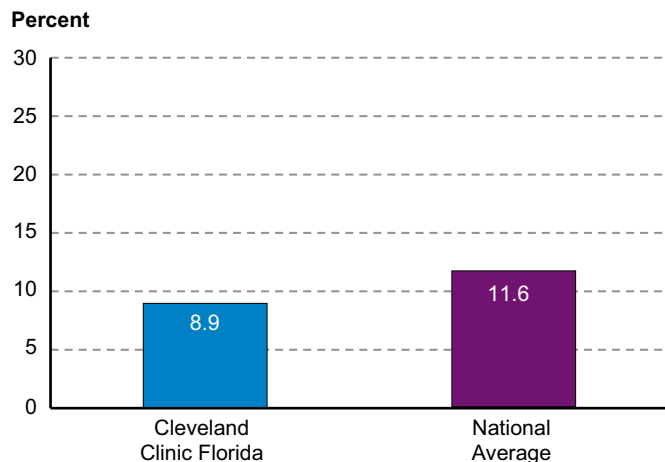
## Heart Failure Outcome Measures

CMS calculates two heart failure outcome measures: all cause mortality and all-cause readmission rates, each based on Medicare claims and enrollment information. Cleveland Clinic Florida's heart failure risk-adjusted 30-day mortality rate is below the national average.

In an effort to reduce readmission rates, transition-of-care strategies are being developed and deployed. These include pre-discharge needs assessment, improved discharge processes such as patient education, relay of discharge information to receiving providers and post-discharge follow-up including continued clinical management support.

### Heart Failure Mortality Rate

Rate Per 1,000 Discharges  
2011



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

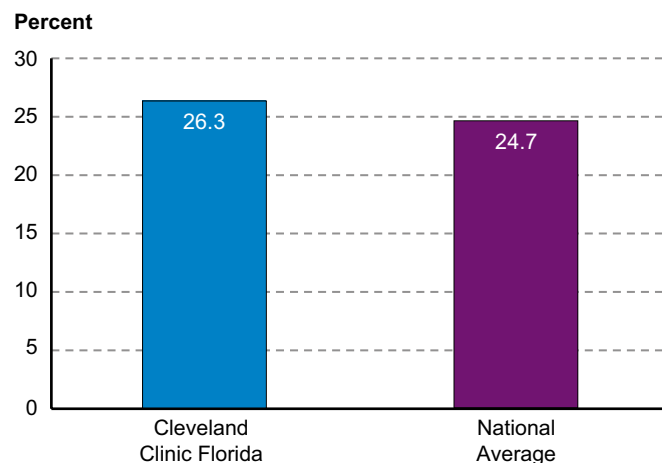
Heart Failure (HF) Process of Care Measures	National Average	Florida Average	Cleveland Clinic Florida
HF Patients Who Were Given Discharge Instructions	92%	93%	98%
HF Patients Given an Evaluation of Left Ventricular Systolic Dysfunction (LVSD)	98%	99%	100%
HF Patients given ACE Inhibitor or ARB for LVSD	96%	97%	97%
HF Patients Given Smoking Cessation Advice or Counseling	99%	100%	100%

Abbreviations: ACE = angiotensin converting enzyme; ARB = angiotensin receptor blocker

Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

## Heart Failure Readmission Rate

2011



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

For patients suffering from refractory heart failure, transplantation and mechanical circulatory support, there are alternative strategies offering relief from symptoms and excellent survival. The seamless integration with the Section of Heart Failure in Cleveland allows patients access to the full spectrum of therapies for this complex disease.



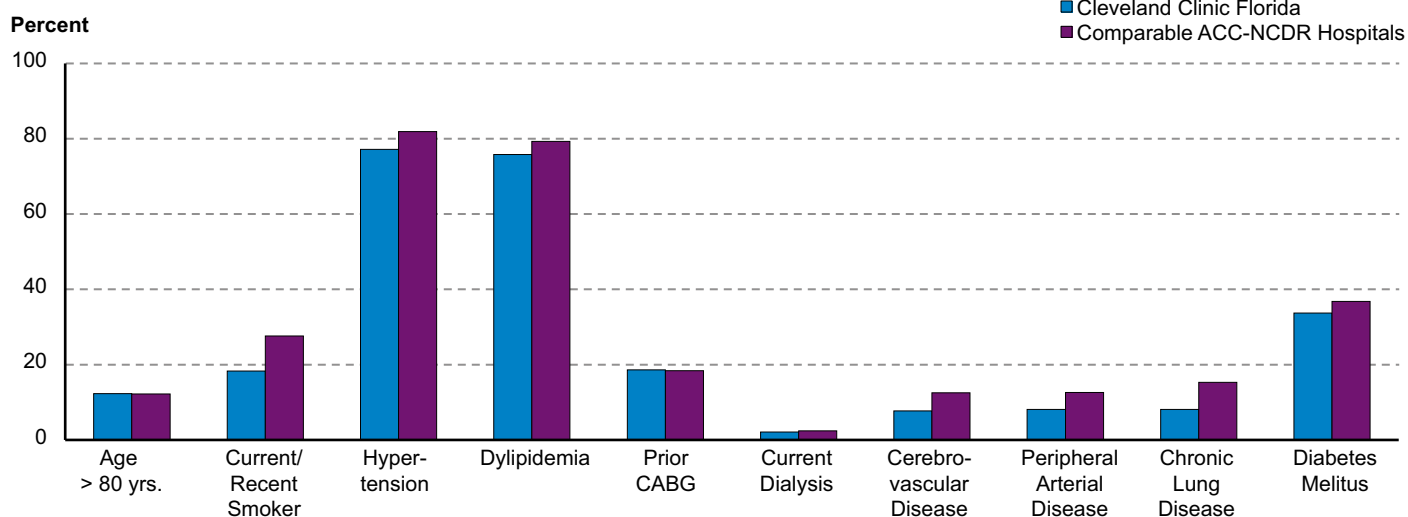
## Interventional Cardiology

Percutaneous cardiac intervention (PCI) is a treatment procedure that unblocks narrowed coronary arteries without performing surgery and may include balloon catheter angioplasty, stent placement and/or rotational atherectomy.

Patients who underwent PCI at Cleveland Clinic Florida in 2011 had similar medical co-morbidities to comparable hospitals.

## Risk Factors Among Patients Undergoing PCI Procedures (N = 285)

2011

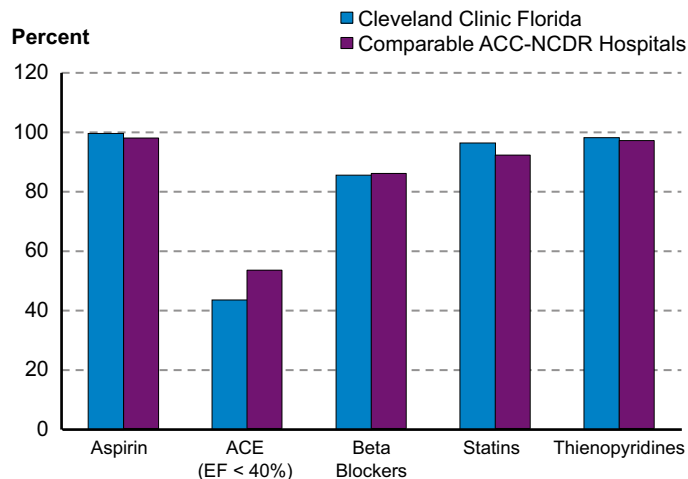


Source: American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR)

Appropriate adjunctive medications before and after PCI is considered a key performance measure by the American College of Cardiology.

### Use of Adjunctive Medications After PCI (N = 285)

2011



Abbreviations: ACE = angiotensin converting enzyme; EF = ejection fraction

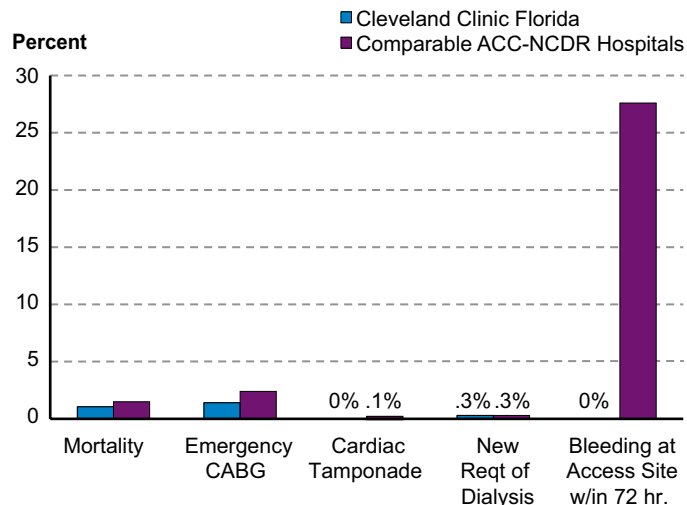
Source: American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR)



The rate of mortality, unplanned bypass surgery, cardiac tamponade, dialysis, and bleeding among patients undergoing PCI procedures at Cleveland Clinic Florida was at or below the 2011 national averages as reported by the American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR).

### PCI Complications

2011



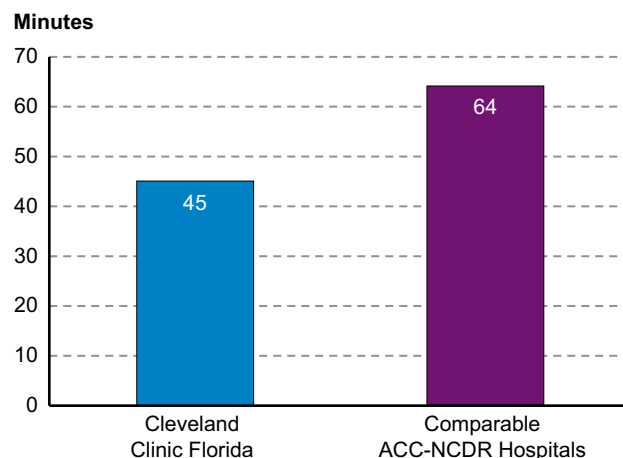
Abbreviation: CABG, coronary artery bypass grafting

Source: American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR)

It is recommended by the American College of Cardiology/American Heart Association (ACC/AHA) practice guidelines that patients with ST elevation acute myocardial infarction (STEMI) receive PCI balloon inflation within 90 minutes of arrival in the emergency department to reduce mortality and morbidity.

### Median Time to PCI for STEMI

2011

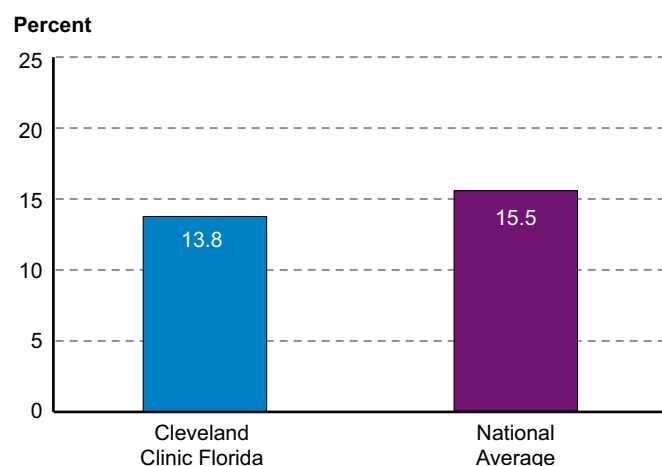


Source: American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR)

Cleveland Clinic Florida's acute myocardial infarction (AMI) risk adjusted all cause 30-day mortality rate is below the national average; our risk adjusted readmission rate is higher than the national average. To reduce this rate, transition of care strategies are being developed and deployed at Cleveland Clinic Florida. These include pre-discharge needs assessments, improved discharge processes such as patient education, relay of discharge information to receiving providers and post discharge follow up including continued clinical management support.

### Acute Myocardial Infarction Mortality Rate

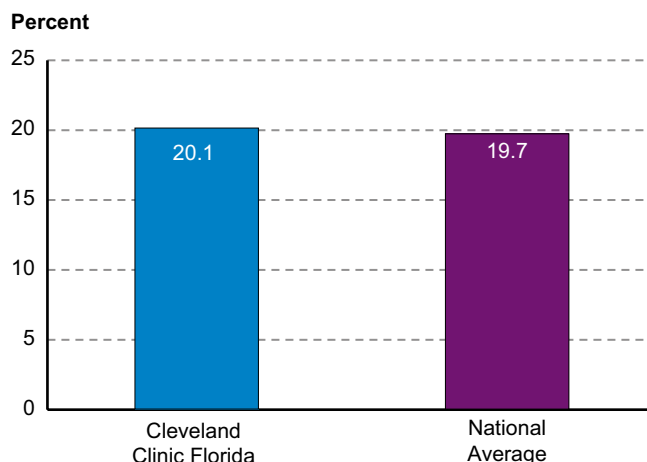
Data from 7/1/2008 – 6/30/2011



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

### Acute Myocardial Infarction Readmission Rate

Data from 7/1/2008 – 6/30/2011



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

### Acute Myocardial Infarction (AMI) National Quality Measures

Process Measures ("core" measures): hospitals submit AMI process of care data that show how consistently recommended care was provided to adult patients, irrespective of payer. Cleveland Clinic Florida's AMI National Quality Measure data appears below.

Acute Myocardial Infarction (AMI) Process of Care Measures	National Average	Florida Average	Cleveland Clinic Florida
AMI Patients Who Were Given Aspirin on Arrival	99%	99%	100%
AMI Patients Who Were Given Aspirin on Discharge	99%	99%	100%
AMI Patients Given ACE Inhibitor or ARB for Left Ventricular Systolic Dysfunction	97%	97%	100%
AMI Patients Given Smoking Cessation advice or Counseling	100%	100%	100%
AMI Patients Given a Beta Blocker at Discharge	99%	99%	100%
AMI Patients Given Fibrinolytic Medication Within 30 minutes of Arrival	58%	29%	n/a
AMI Patients Given Percutaneous Coronary Intervention Within 90 minutes of Arrival	93%	95%	100%
AMI Patients Prescribed a Statin at Discharge	97%	98%	100%

Abbreviations: ACE = angiotensin converting enzyme; ARB = angiotensin receptor blocker

Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

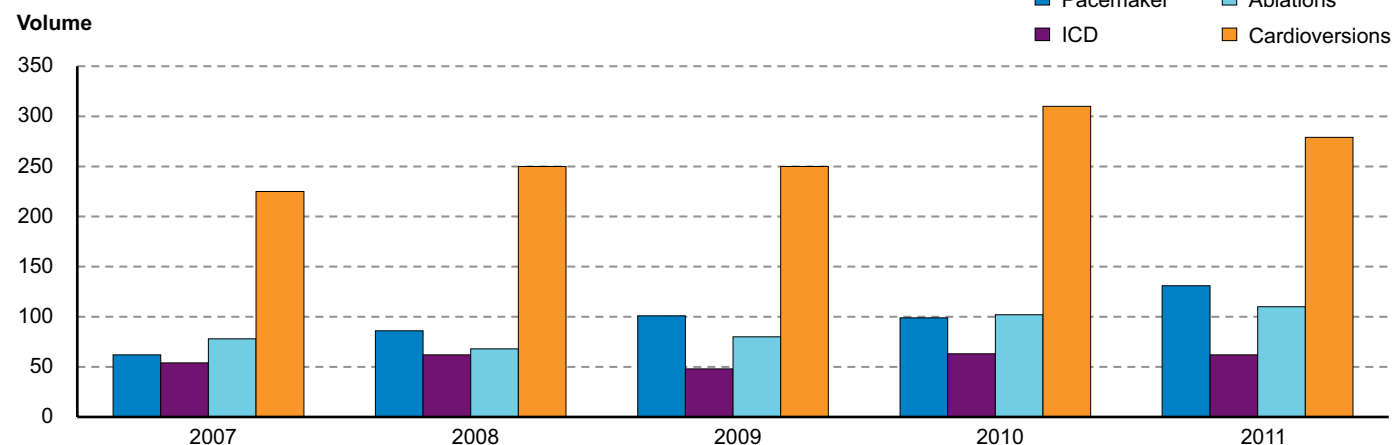
## Cardiac Rhythm Disorders

### Electrophysiology (EP) Laboratory Procedures 2011

Cleveland Clinic Florida's electrophysiologists use specialized approaches to diagnose and treat a wide variety of arrhythmias. Procedures performed from 2007 to 2011 are shown below. The total number of procedures includes some that are not detailed in the graph below.

#### Electrophysiology (EP) Laboratory Procedures

2007 – 2011



Abbreviation: ICD = implantable cardioverter defibrillator

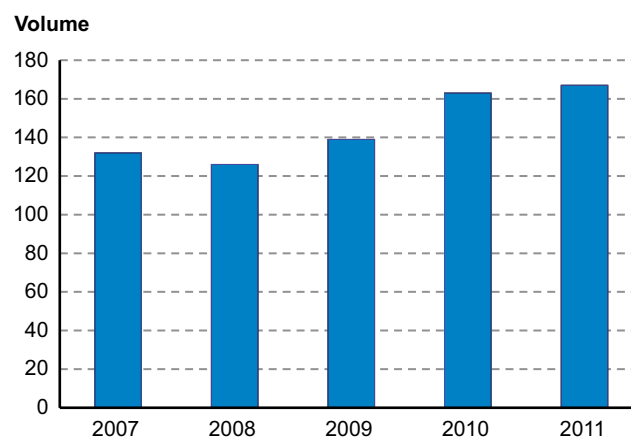
Source: Internal Data

### Pulmonary Vein Antrum Isolation Procedures (PVAI)

Pulmonary vein antrum isolation (PVAI) essentially disconnects the pathway of the abnormal heart rhythm and prevents atrial fibrillation. Cleveland Clinic Florida continues to be a leading center in performing non-surgical catheter based ablation therapies used to treat atrial fibrillation, atrial flutter and supraventricular tachycardia.

### Pulmonary Vein Antrum Isolation Procedures (PVAI)

2007 – 2011



Source: Internal Data

## Implantable Cardioverter Defibrillators Procedures 2011

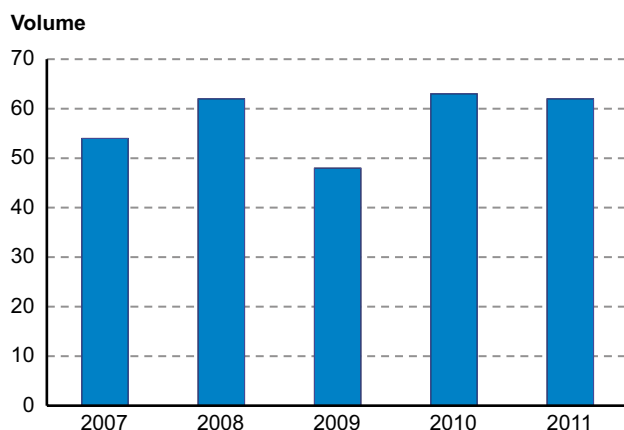
Implantable cardioverter defibrillators (ICD) help prevent sudden cardiac death. Biventricular ICD devices help prevent cardiac death and assist in the management of heart failure. Volumes noted are for both types of devices. At Cleveland Clinic Florida, there have been no documented cases of device pocket infection (either after initial implant, replacement,

revision or upgrade) since 2003. We believe this is a reflection of technique and the tight infection control measures in the hospital.

The Echocardiogram Laboratory at Cleveland Clinic Florida provides transthoracic, transesophageal and stress echocardiograms. More than 9,075 echocardiogram procedures were performed in 2011.

### Implantable Cardioverter Defibrillator (ICD)

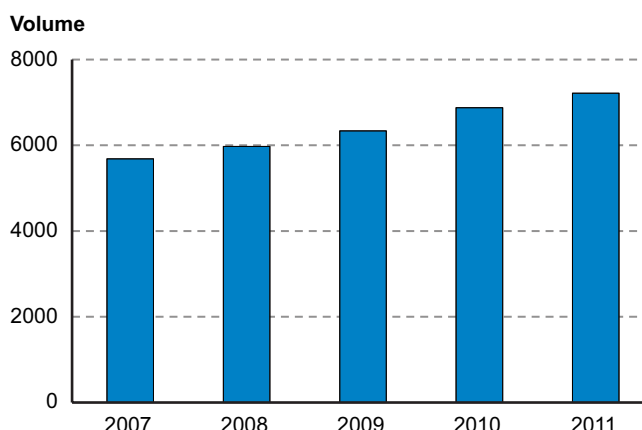
2007 – 2011



Source: Internal Data

### Echocardiograms Performed

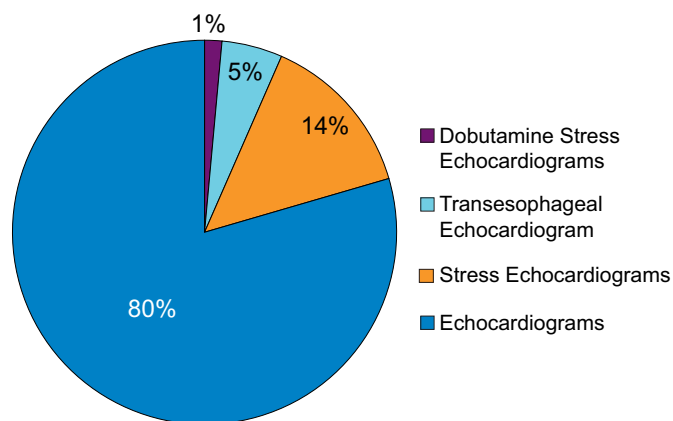
2007 – 2011



Source: Internal Data

### Cardiovascular Imaging

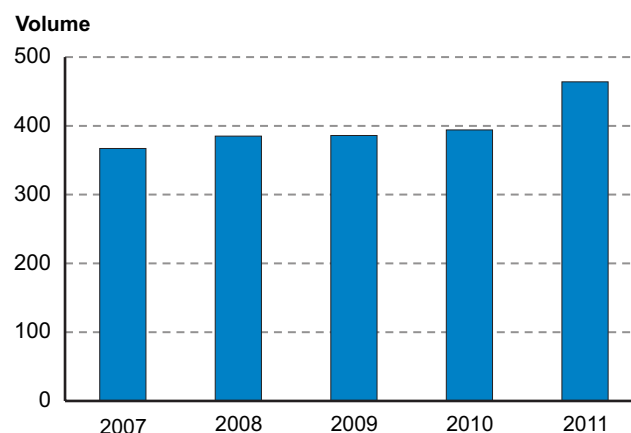
2011



Source: Internal Data

### Transesophageal Echocardiograms

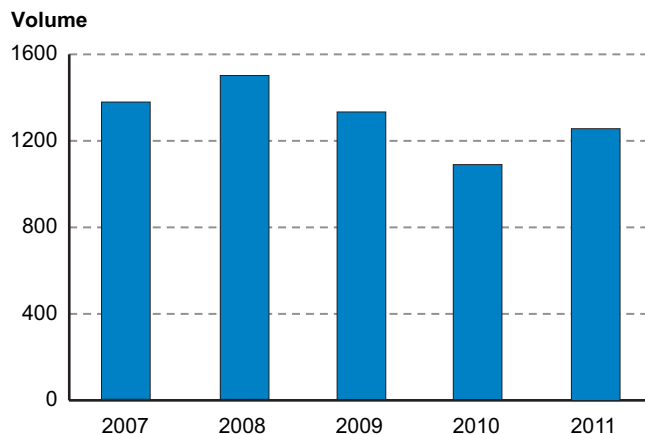
2007 – 2011



Source: Internal Data

## Stress Echocardiograms

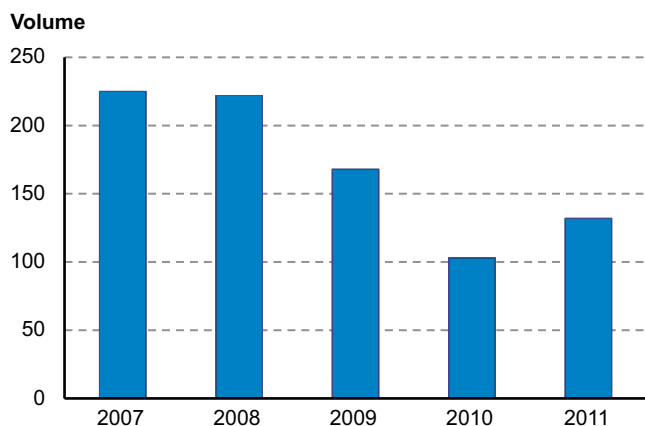
2007 – 2011



Source: Internal Data

## Dobutamine Stress Echocardiograms

2007 – 2011



Source: Internal Data

## Staff Listing

### Echocardiography

Gian Novaro, MD, *Director*

Marianela Areces, MD

Craig Asher, MD

Richard Adamick, MD

Darryl Miller, MD, West Palm Beach

### Cardiac Pacing and Electrophysiology

Sergio Pinski, MD, *Section Head*

Jose Baez-Escudero, MD

Marcelo Helguera, MD

### Invasive and Interventional Cardiology

Kenneth Fromkin, MD, *Director*

Howard Bush, MD, *Associate Chief of Staff*

### Cardiac Imaging, Nuclear Cardiology, CT Angiography

Michael Shen, MD, *Section Head*

David Wolinsky, MD, Weston and West Palm Beach

### Cardiothoracic Surgery

Edward B. Savage, MD, *Chair, Robert and Suzanne Tomsich Department of Cardiothoracic Surgery*

Nicolas Brozzi, MD

### Heart Failure

Viviana Navas, MD

### Vascular Medicine

Mehrdad Farid, MD

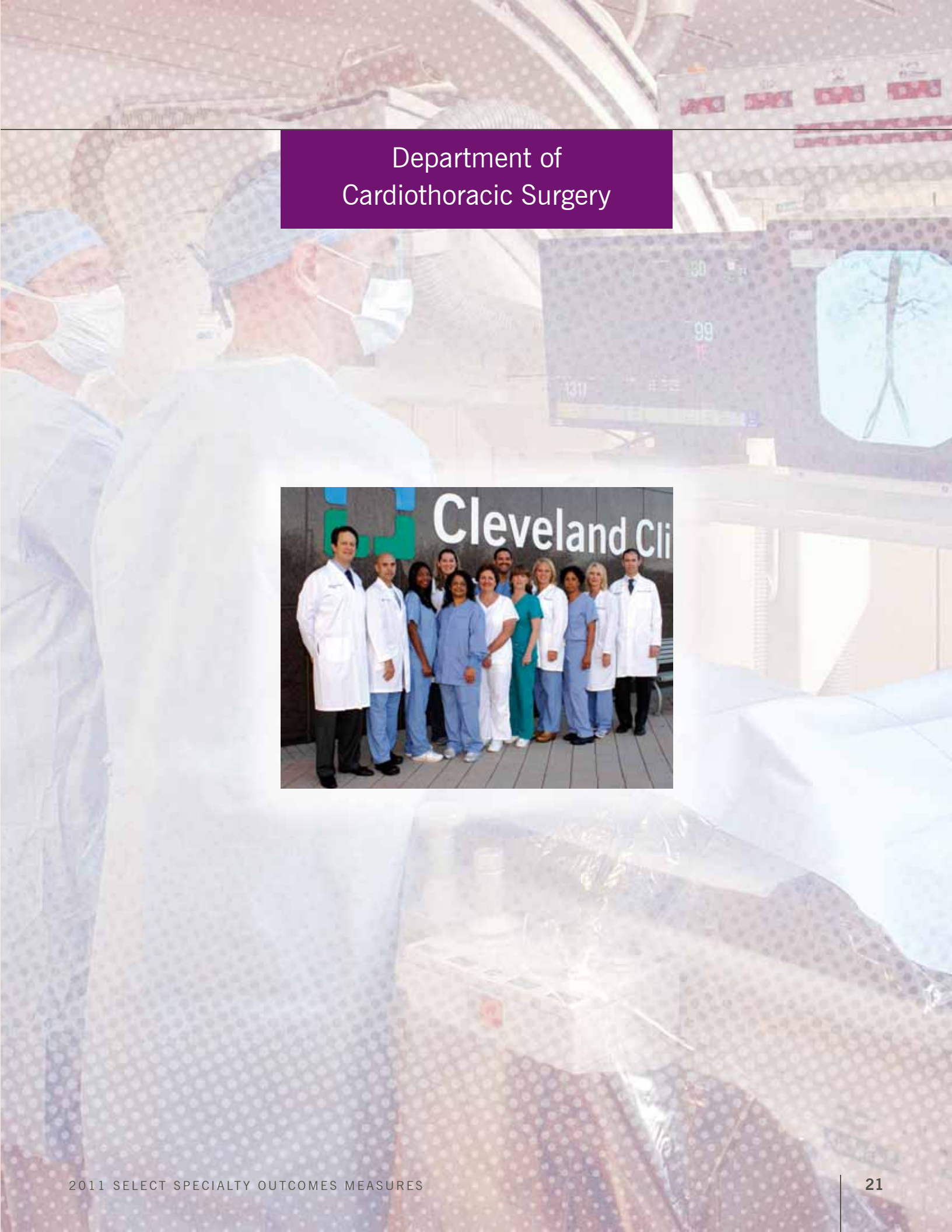
Bernardo Fernandez, MD, *CEO, Cleveland Clinic Florida*

Carmel Celestin, MD

### Vascular Surgery

Mark K. Grove, MD

Terry King, MD, *Chair, Division of Surgery*



## Department of Cardiothoracic Surgery



## CHAIRMAN'S MESSAGE

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The Robert and Suzanne Tomsich Department of Cardiothoracic Surgery at Cleveland Clinic Florida offers a broad range of surgical expertise to treat diseases of both the heart and other chest structures including the lungs and mediastinum.

We offer special skills in the area of valvular heart disease, including valve repair, multi-arterial coronary bypass grafting and aortic aneurysms of the chest. Many of our cases are performed through minimally invasive approaches, which speed recovery and return to work. For thoracic surgical patients, we offer minimally invasive approaches for lung resection and in many cases use a surgical robotic system. These approaches minimize pain and allow for a shorter hospital stay.

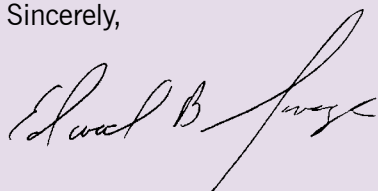
We recently welcomed Nicolas Brozzi, MD to our team. Dr. Brozzi spent the past 3 ½ years as a Clinical Associate at Cleveland Clinic's main campus in Ohio and has extensive experience in all aspects of heart surgery. He is highly skilled with endovascular aneurysm repair, cardiac transplantation and ventricular assisted devices.

The Department of Cardiothoracic Surgery is an efficiently run unit with two surgeons, three physician assistants and two nursing coordinators. We are supported by strong anesthesia and intensive care unit teams, which make our patients' transition through their hospitalization seamless, comfortable and personal. Our priority is to deliver excellent, personalized, patient-oriented care.

We are very proud of our outcomes as published here and recognize, as surgeons, that truly excellent outcomes can only be achieved by a strong team and support staff. We take this opportunity to personally thank them for their assistance.

If you have any questions about our department, your phone call is welcomed. We will be happy to help you obtain any information you need and help you through the process of referring your patients to Cleveland Clinic Florida.

Sincerely,

A handwritten signature in black ink, appearing to read "Edward B. Savage". The signature is fluid and cursive, with a large, sweeping "S" at the end.

Edward B. Savage, MD

Chairman, Robert and Suzanne Tomsich, Department of Cardiothoracic Surgery  
Cleveland Clinic Florida

## Department Outcomes

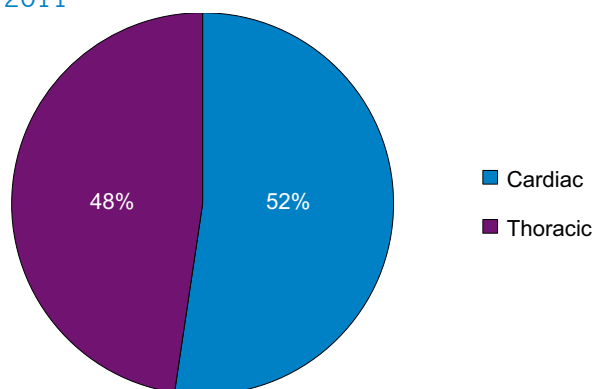
Cleveland Clinic Florida and Cleveland Clinic in Ohio's Department of Thoracic and Cardiovascular surgery have enjoyed a successful affiliation since 2011. This program allows patients of South Florida to receive Cleveland Clinic cardiothoracic surgical care with the same expertise and protocols close to home. Our program continues to thrive each year with more than 1,590 cardiac procedures to date.

## Cardiac Surgery

In 2011 the department performed 340 total cases, including 178 cardiac surgery cases.

## Case Distribution

2011



Source: Society of Thoracic Surgeons (STS)

## Cardiac Case Distribution

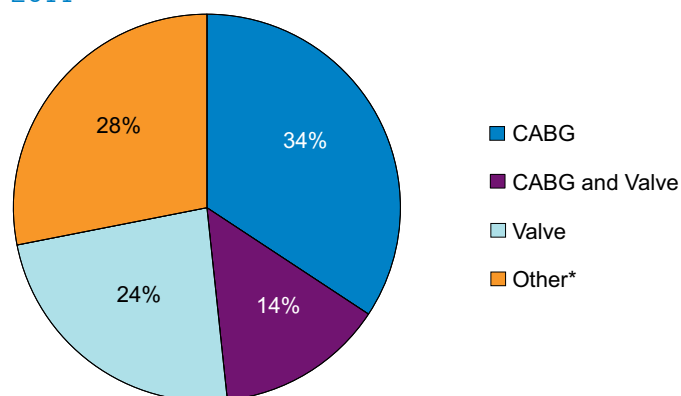
Cardiac artery bypass grafting (CABG) operations accounted for 34 percent of cardiac procedures in 2011. Valve and other procedures represented 66 percent.

## Age Distribution

Cleveland Clinic Florida treats a large number of elderly patients. Advanced age and associated medication conditions are known risk factors that can adversely affect cardiac surgical outcomes.

## Cardiac Case Distribution

2011

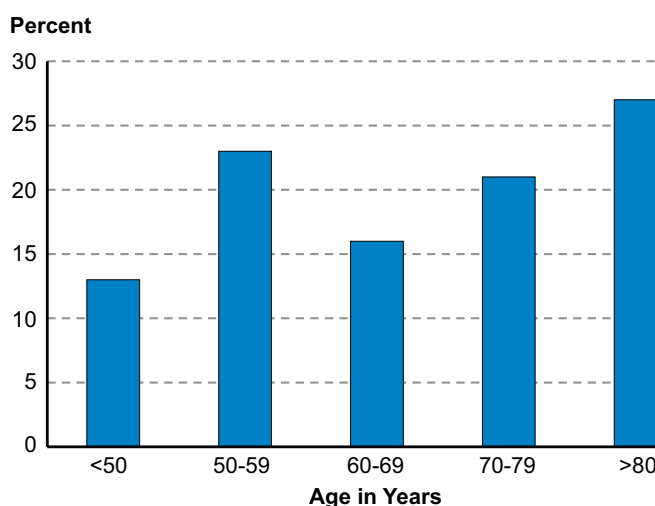


\*Other includes: Maze and CABG and/or valve procedures.

Source: Society of Thoracic Surgeons (STS)

## Age Distribution

2011



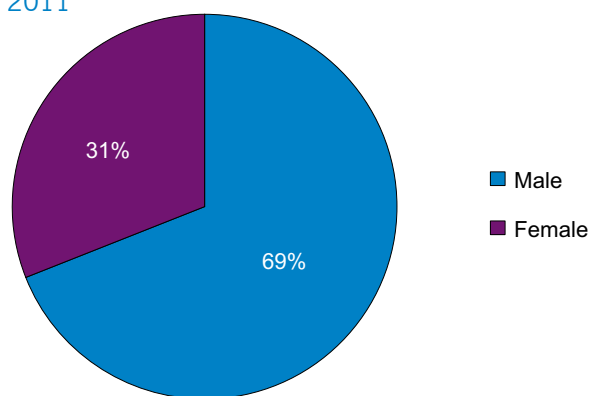
Source: Internal Data

## Gender

Gender is a known risk factor that has an adverse effect on surgical outcomes. Of all cardiac procedures, 69 percent of patients were men and 31 percent were women.

## Gender

2011



Source: Society of Thoracic Surgeons (STS)

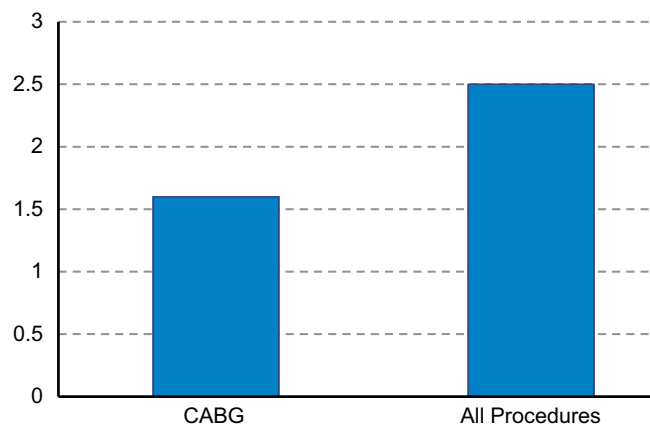
## Mortality by Procedure

In 2011, mortality for isolated revascularization was 1.6 percent.

## Mortality by Procedure

2011

Percent



Society of Thoracic Surgeons (STS)

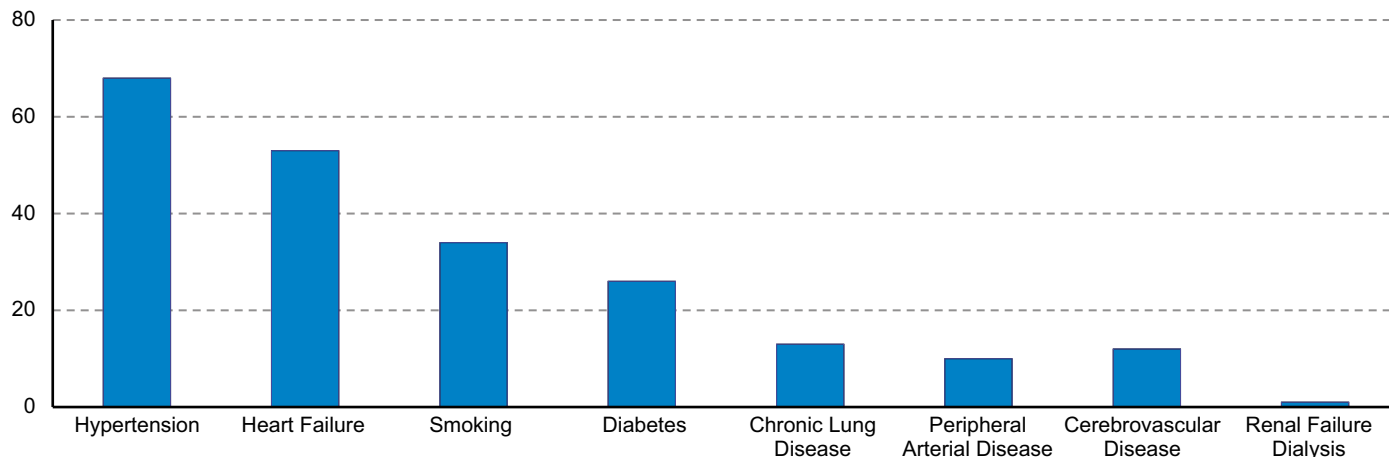
## Risk Factors

Although age and gender are known risk factors affecting outcomes for isolated revascularization, other factors may have an adverse effect as well. Risk factors in our patients are shown below:

## Risk Factors

2011

Percent



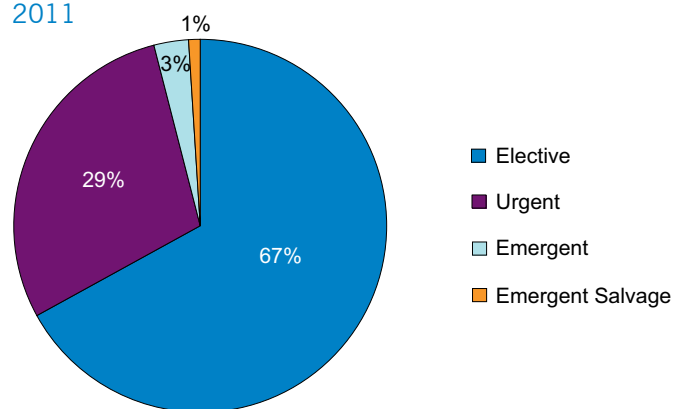
Source: Society of Thoracic Surgeons (STS)

## Status of Cardiac Cases

In 2011, 96 percent of all cardiac cases were non-emergent.

### Status of Cardiac Cases

2011



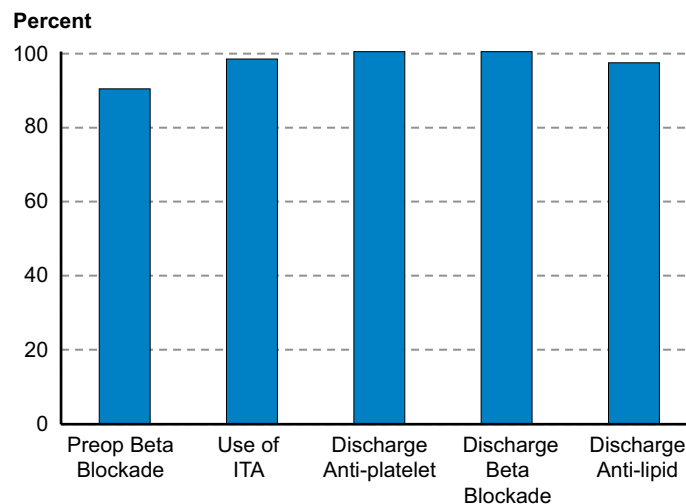
Source: Society of Thoracic Surgeons (STS)

## Perioperative Medications

The National Quality Forum has developed a set of standardized cardiac surgery performance indicators to measure the quality of care. At Cleveland Clinic Florida, compliance with discharge medication recommendations was 94 percent in eligible cases.

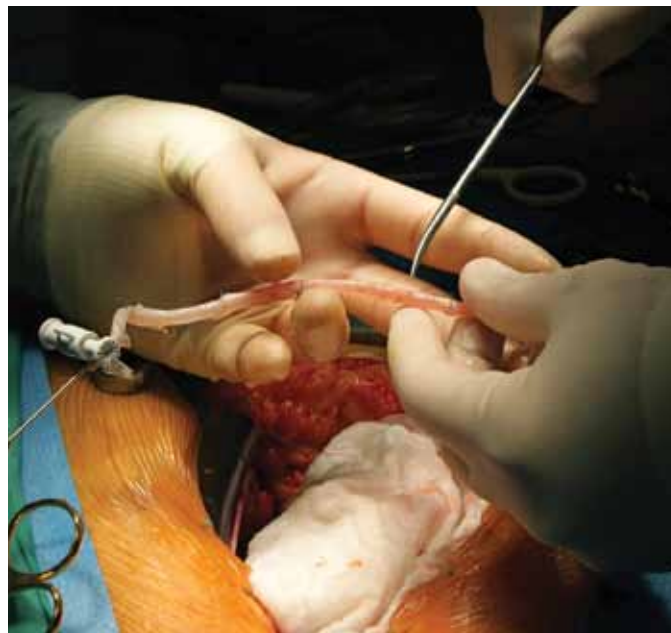
### Perioperative Medications

2011



Abbreviation: ITA = internal thoracic artery grafts

Source: Society of Thoracic Surgeons (STS)

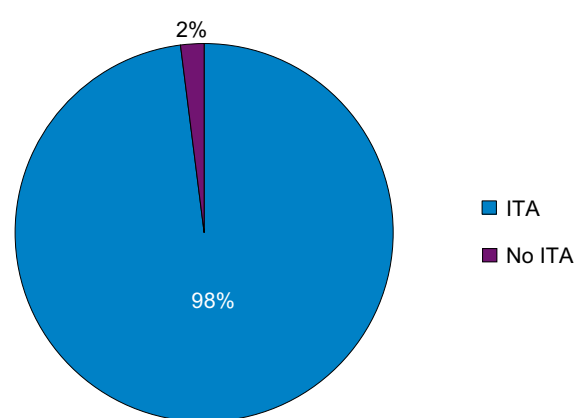


## Isolated Revascularization

In 2011, 98 percent of primary isolated revascularization patients received at least one internal thoracic arterial (ITA) graft. Arterial grafts are known for their excellent long-term patency and are conduits of choice for coronary revascularization.

### Isolated Revascularization

2011



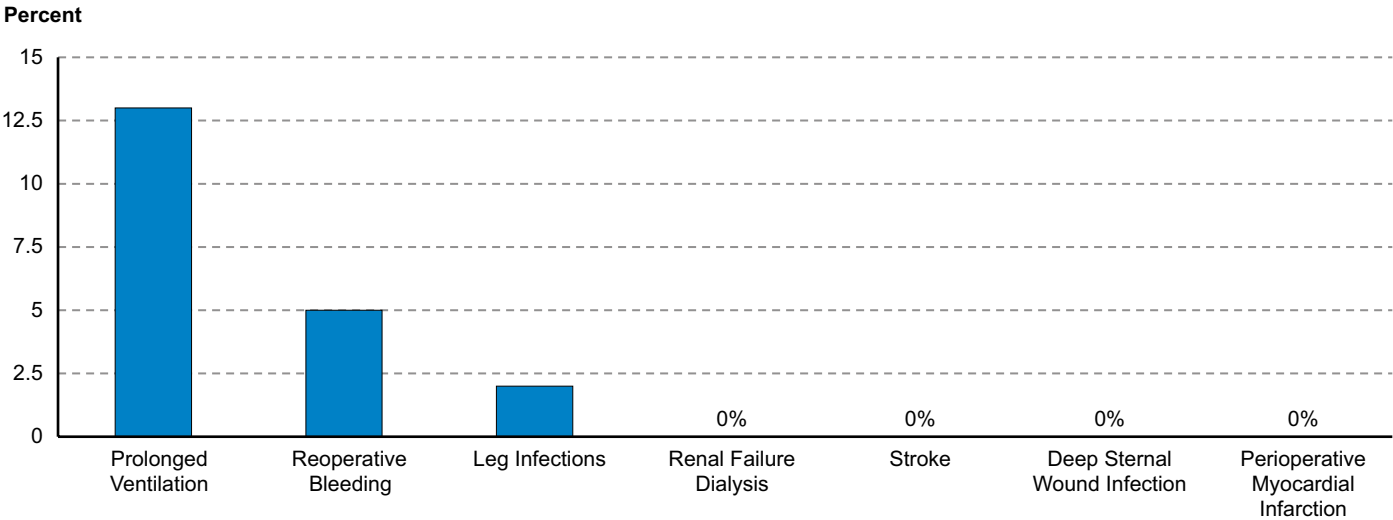
Source: Society of Thoracic Surgeons (STS)

Postoperative Complications

In 2011, there were no myocardial infarctions after isolated revascularization. Eighty-seven percent of our patients were on a ventilator less than 24 hours following surgery.

Perioperative Complications

2011



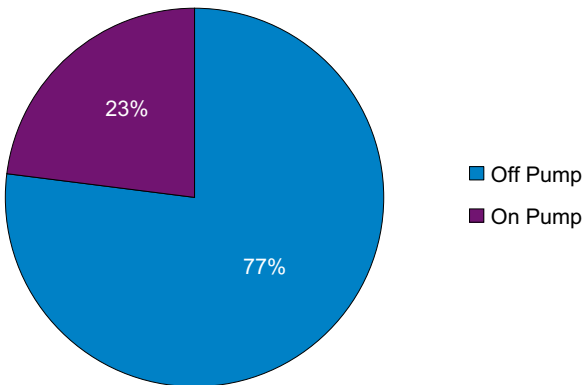
Source: Society of Thoracic Surgeons (STS)

Off-Pump Coronary Bypass Surgery

Off-pump bypass surgery may be ideal for certain patients who are at increased risk for complications. Cleveland Clinic Florida performed 77 percent of its coronary bypass surgeries off-pump in 2011.

Off-Pump Coronary Bypass Surgery

2011



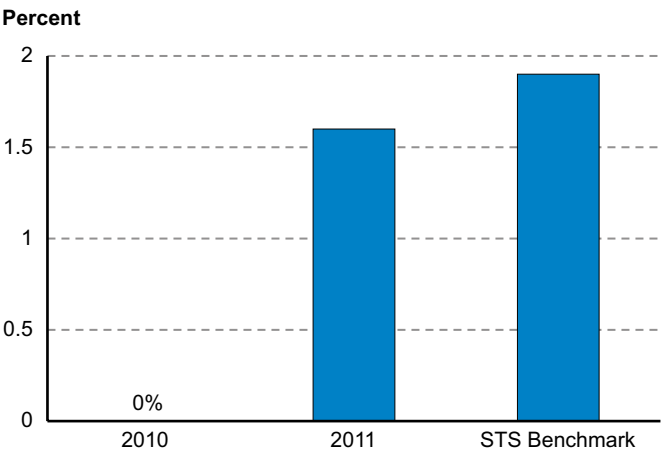
Source: Society of Thoracic Surgeons (STS)

CABG Mortality

Cleveland Clinic Florida has a 1.6 percent mortality rate for isolated revascularization procedures in 2011. This is well below the Society of Thoracic Surgeons (STS) benchmark of 1.9 percent.

CABG Mortality

2010 – 2011



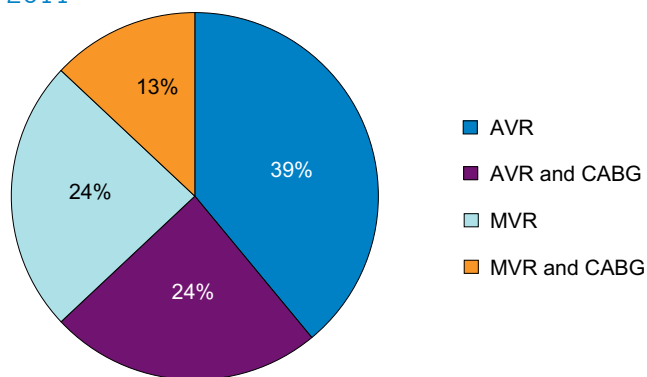
Source: Society of Thoracic Surgeons (STS)

## Distribution of Valve Procedures

Cleveland Clinic Florida performed 67 isolated valve procedures in 2011. The total number of unique valve operations performed on patients in conjunction with CABG and or other cardiac procedures in 2011 was 105.

## Distribution of Valve Procedures

2011



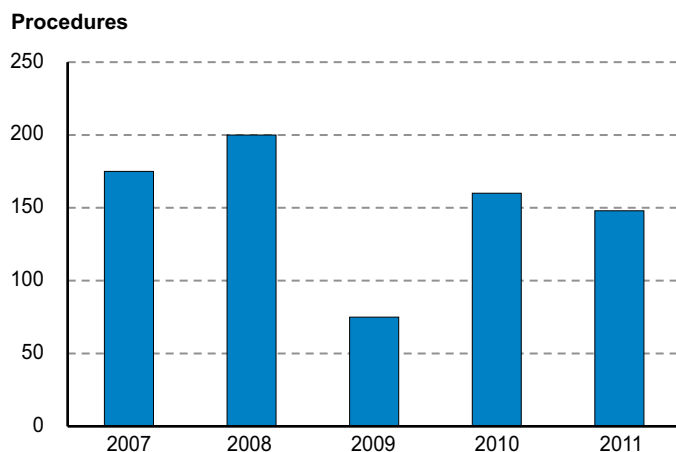
Abbreviations: MVR = mitral valve repair/replacement; AVR = aortic valve repair/replacement; CABG = coronary artery bypass grafting

Source: Society of Thoracic Surgeons (STS)

## Thoracic Surgery

### Thoracic Volume

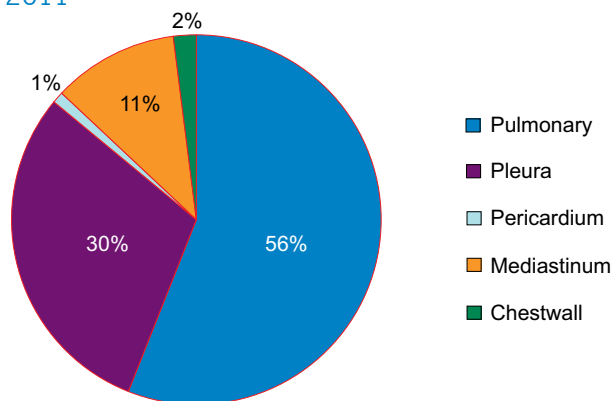
2007 – 2011



Source: Society of Thoracic Surgeons (STS)

## Distribution of Thoracic Procedures

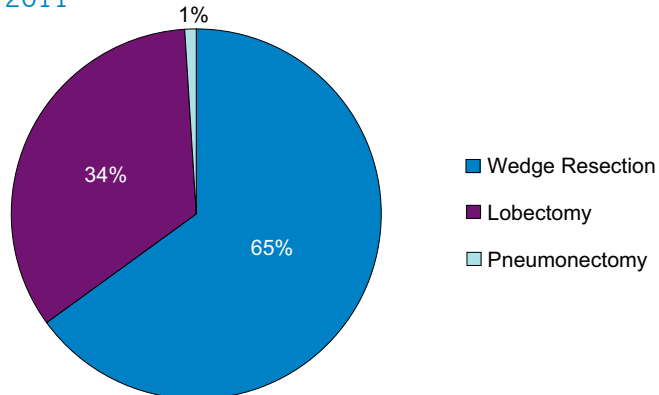
2011



Source: Society of Thoracic Surgeons (STS)

## Pulmonary Case Distribution

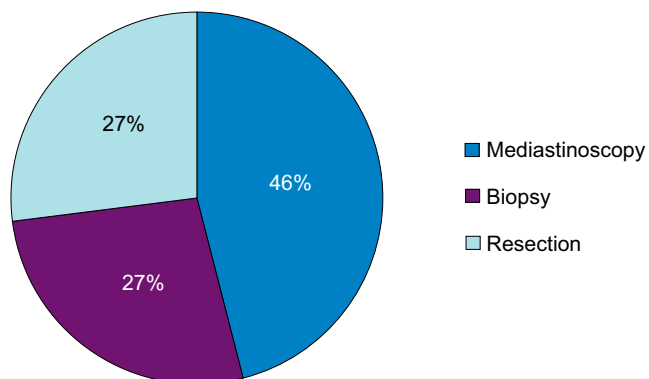
2011



Source: Society of Thoracic Surgeons (STS)

## Mediastinal Procedures

2011



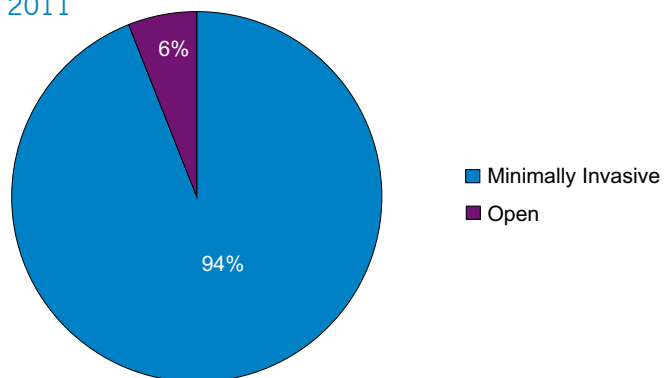
Source: Society of Thoracic Surgeons (STS)

## Minimally Invasive

In 2011, 94 percent of thoracic procedures were performed using a minimally invasive approach.

### Thoracic Procedures

2011



Source: Society of Thoracic Surgeons (STS)

## Staff Listing

Edward Savage, MD, *Chair, Robert and Suzanne Tomsich, Department of Cardiothoracic Surgery*

Nicolas Brozzi, MD, *Cardiothoracic Surgeon*



## Department of Colorectal Surgery



## CHAIRMAN'S MESSAGE

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Thank you for your interest in Cleveland Clinic Florida's Department of Colorectal Surgery 2011 outcomes. We are pleased to share our clinical outcomes and innovations with referring physicians, alumni, potential patients and other individuals around the country who are interested in the various types of digestive diseases we treat.

The Department of Colorectal Surgery is the epitome of growth. The department is internationally renowned for patient care, research and education, teaching, and training.

Our department has become a destination for both healthcare providers and patients from around the world. A large percentage of the patients seeking surgery live outside the five-county area of Monroe, Miami-Dade, Broward, Palm Beach, and Martin Counties. Patients are routinely referred to us from throughout Florida as well as from elsewhere in the Southeastern United States and the Caribbean. In addition, patients from the Midwestern and Northeastern United States, South America, Europe and the Middle East frequently seek care with us. A substantial number of patients present to us for reoperative surgery and/or for the surgical treatment of postoperative complications.

Additionally, hundreds of medical students, residents and fellows have furthered their education in colorectal diseases and have helped us conduct numerous clinical trials. They have helped us to continually improve and expedite methods of diagnosis, reduce the adverse side effects of treatment, improve the curability of our therapeutic modalities, reduce recurrence rates, and improve the quality of life of our patients.

None of the accomplishments in this department would have been possible without the participation of our patients who allow us to meet their healthcare needs. We could not have treated these patients had our colleagues from communities throughout the world not relied on us as a referral resource to manage their care.

I hope that you find the Department of Colorectal Surgery outcomes useful as both a reference book, as well as a testimony to our commitment to continuously raise the standards of our patient-centered care.

Sincerely,

A handwritten signature in black ink, appearing to read 'Steven D. Wexner'.

Steven D. Wexner, MD, Ph.D (Hon), FACS, FRCS, FRCS(Ed)  
Chief Academic Officer  
Chairman, Department of Colorectal Surgery  
Cleveland Clinic Florida

## Department Overview

As one of the largest colorectal surgery centers in the southeast, members of the Department of Colorectal Surgery diagnose and treat a broad array of diseases affecting the colon, rectum and anus. Our staff has pioneered improvements in patient care for rectal cancer, ulcerative colitis, familial adenomatous polyposis, Crohn's disease, fecal incontinence and hemorrhoids. In addition, we have developed or helped to develop numerous techniques including stimulated graciloplasty, sacral nerve stimulation, artificial bowel sphincter, adhesion barriers, reconstruction with colonic J-pouch following rectal cancer removal, and laparoscopic management of colorectal disorders.

## Laparoscopic Colorectal Surgery

Laparoscopy has significant proven benefits for the treatment of a wide array of benign and malignant disorders. Our surgeons were among the first in the world to gain international acclaim for their expertise in laparoscopic colorectal surgery. The number of laparoscopic procedures performed annually continues to rise.

## National Recognition

The department is world renowned in achieving excellent outcomes and for using innovative and state-of-the-art treatments for colorectal conditions. We also have the largest colorectal residency training program in North America, with graduates currently practicing and in leadership roles in more than 20 states and in major academic centers such as Johns Hopkins, Duke, Emory, University of California San Diego and New York University.

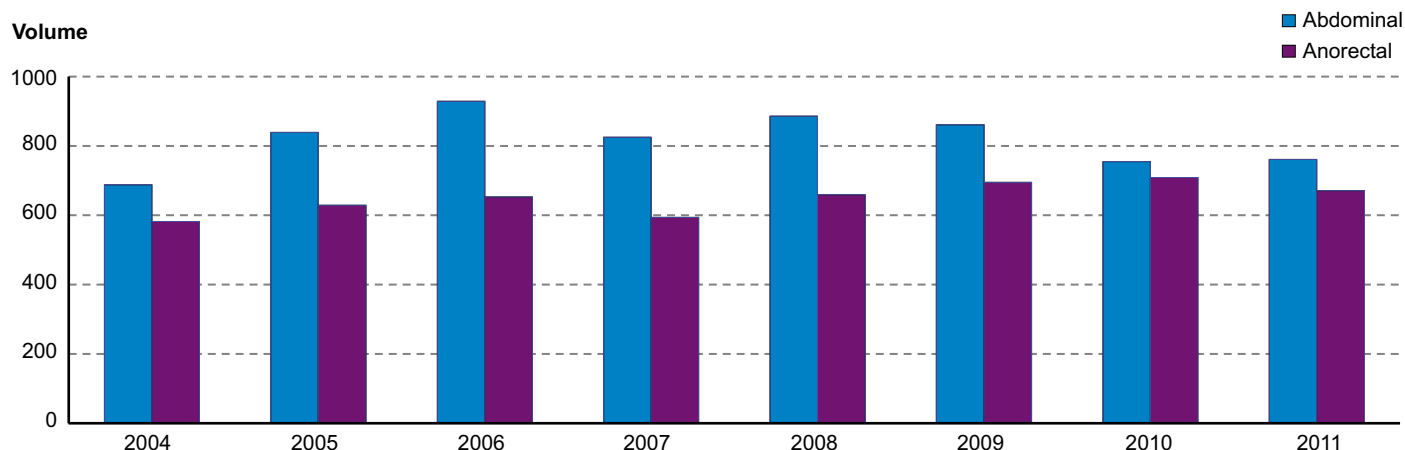
## International Colorectal Disease Symposium

Annually, the Department of Colorectal Surgery hosts the International Colorectal Disease Symposium. Attendance at the conference has steadily grown, with more than 500 healthcare providers having attended each of the last three years.

In 2012, we led the 23<sup>rd</sup> Annual International Colorectal Disease Symposium in conjunction with the 33<sup>rd</sup> Annual Turnbull Symposium. In addition to a live surgery day, the symposium included a trans-anal endoscopic microsurgery hands-on workshop, a sacral nerve stimulation workshop, and scientific

## Surgical Case Volume

2004 – 2011



Source: Truven Health Analytics Polaris® Suite

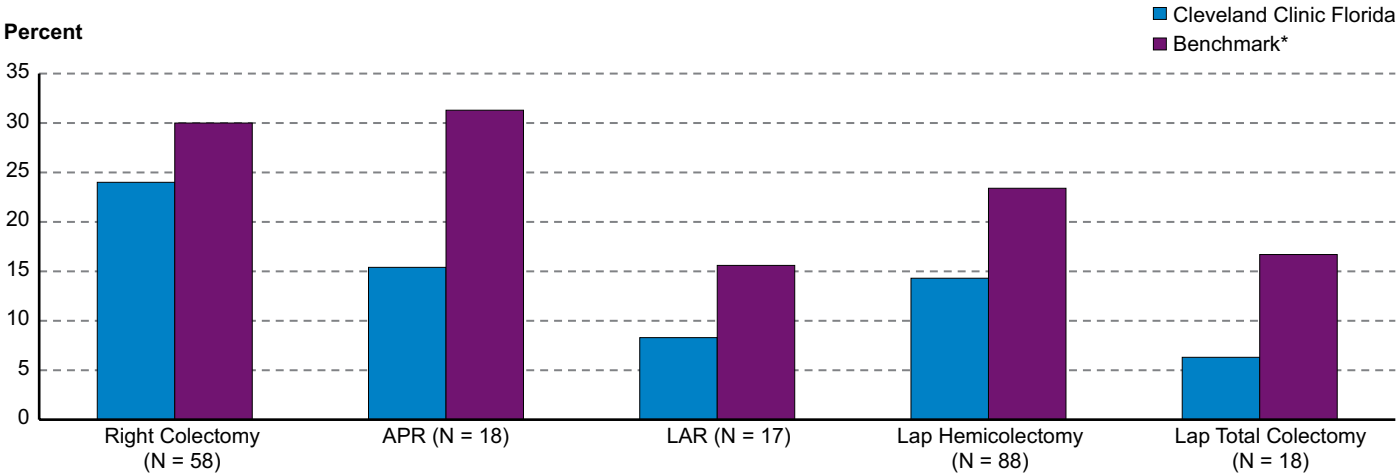
paper/poster presentations. The meeting was held over five days, three of which included more than 80 podium presentations and more than 10 hours of interactive panel discussions with questions and answers. The course provided the most current detailed and in-depth analysis of the status of colon and rectal surgery, including an evaluation of new technologies, new and emerging techniques, and presentation of data based upon peer-reviewed case series, meta-analysis and randomized controlled trials.

Each year, the Department of Colorectal Surgery performs more than 1,400 surgical procedures, including both inpatient abdominal procedures and outpatient anorectal operations. The majority of abdominal colorectal surgeries are performed in a minimally invasive manner (laparoscopic or robotic-assisted), and the percentage of cases performed by these techniques continues to rise annually.

The January-December 2011 complication and mortality rates following colorectal surgery at Cleveland Clinic Florida are consistently lower than the average rates of complication at similar-size healthcare centers.

### Surgical Complications

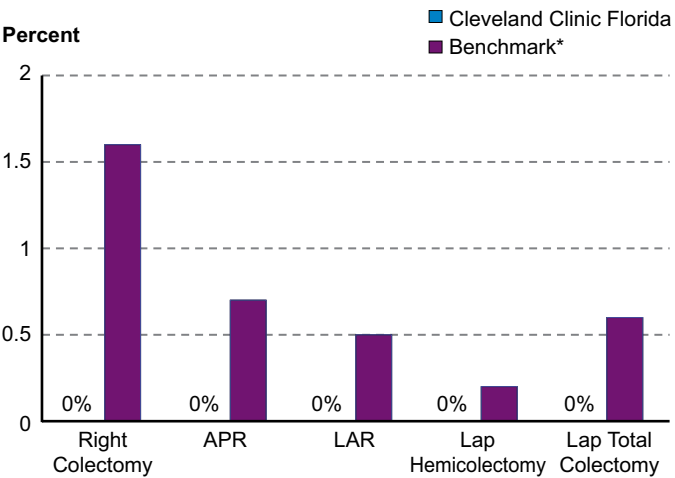
2011



\*Source: Truven Health Analytics Polaris® Suite

### Postoperative Mortality Rates

2011



Abbreviations: APR = abdominoperineal resection; LAR = low anterior resection

\*Source: Truven Health Analytics Polaris® Suite

### Innovations and Service Offerings

Cleveland Clinic Florida’s colorectal surgeons are highly trained in the latest techniques to treat the full spectrum of colorectal conditions. Some of our surgical innovations and treatments are described

below. Our staff have over 30 provisional patents and six utility, design or worldwide patents. Three of our innovative products have been commercialized and three more are being prepared for commercialization.

### **At the Forefront of J-Pouch Procedures**

Cleveland Clinic Florida's colorectal surgeons were the first in the United States to perform and publish on the double stapled J-pouch procedure, which has become the worldwide standard of care. We were also the first to perform and publish on the minimally invasive laparoscopic J-pouch procedure, a technique that has become widely adopted throughout the world.

We were the first surgeons in the United States to popularize and publish on the colonic J-pouch procedure, now an international standard of care. Additionally, we were the first surgeons to describe and publish on the use of the perineal J-pouch as part of perineal recto-sigmoidectomy for rectal prolapse.

### **Innovative Treatments for Fecal Incontinence**

We have performed the largest series of artificial bowel sphincters for fecal incontinence in the United States. Our highly trained surgeons are also the country's leaders in stimulated graciloplasty for fecal incontinence. In addition, we have completed the largest published experience of sacral nerve stimulation for fecal incontinence in the United States.

### **Additional "Firsts"**

- First in the world to describe hydrogen peroxide with anal ultrasound to delineate anal fistula tracts.
- Created and published the most widely used incontinence scoring and constipation scoring systems in the world.
- First in the world to describe the now universally used terms "reactive" and "preemptive" conversion for laparoscopy.
- First to perform and popularize totally laparoscopic restorative proctectomy with transanal specimen extraction and anastomosis.

### **Ongoing Research Trials**

A Multicenter, Double-Blind, Randomized, Phase 3 Study to Compare the Efficacy and Safety of Intravenous Cxa-201 with that of Meropenem in Complicated Intra-abdominal Infections

A Pain Relief Study Utilizing the Infiltration of a Multivesicular Liposome Formulation Of Bupivacaine, Exparel: A Phase 4 Health Economic Study in Adult Patients Undergoing Ileostomy Reversal (Improve – Ileostomy Reversal)

Does Nicotine Gum Enhance Bowel Recovery After Colorectal Surgery?

Total Anal Reconstruction with The American Medical Systems, Inc. Acticon Neosphincter Prosthesis After Abdominoperineal Resection Therapeutic/Diagnostic Protocol

ACOSOG Z6051: A Phase III Prospective Randomized Trial Comparing Laparoscopic-Assisted Resection Versus Open Resection for Rectal Cancer

A Randomized Controlled Trial to Compare the Functional Outcome and Quality of Life of Patients with Low Rectal Cancer Who Undergo a J-Pouch or a Side-To-End Coloanal Anastomosis

Laparoscopic Rectal Prolapse Surgery: An International Double Cohort Study to Compare Laparoscopic Ventral Rectopexy with Laparoscopic Resection Rectopexy

An Investigation of The Treatment of Fecal Incontinence Using the TOPAS Sling System for Women (TRANSFORM)

A Phase II, Double-Blind, Placebo-Controlled, Dose Finding Study to Evaluate the Safety and Efficacy of Ipamorelin Compared to Placebo for the Recovery of Gastrointestinal Function in Patients Following Small or Large Bowel Resection with Primary Anastomosis

### Recently Completed Research Trials

A Multi-Center, Prospective, Non-Randomized Study of the Renew [R] Insert Efficacy [E], Safety [S] and Tolerability [T] for the Management of Accidental Bowel Leakage Due to Bowel Incontinence [Renew REST]

A Phase III, Randomized, Double-Blind, Placebo-Controlled, Parallel-Treatment Group, Multicenter Efficacy and Safety Study of Intra-Anal Application of Iferanserine (10 mg) as a 0.5% Ointment in Subjects with Symptomatic Internal Hemorrhoids

A Prospective, Multi-Center, Randomized, Controlled, Third Party Blinded Study of Strattice Fascial Inlay for Parastomal Reinforcement in Patients Undergoing Surgery for Permanent Abdominal Wall Ostomies (PriSm)

### Selected Recent Publications

Bashankaev B, Baido S, Wexner SD. Review of available methods of simulation training to facilitate surgical education. *Surg Endosc*. 2011 Jan;25(1):28-35.

Beck DE, Roberts PL, Saclarides TJ, Senagore AJ, Stamos MJ, Wexner SD (Eds). The ASCRS Textbook of Colon and Rectal Surgery, 2nd Edition. New York: Springer; 2011.

Boutros M, Maron D. Inflammatory bowel disease in the obese patient. *Clin Colon Rectal Surg*. 2011 Dec;24(4):244-252.

Canedo J, Lee SH, Pinto R, Murad-Regadas S, Rosen L, Wexner SD. Surgical resection in Crohn's disease: is immunosuppressive medication associated with higher postoperative infection rates? *Colorectal Dis*. 2011 Nov;13(11):1294-1298.

Denoya P, Canedo J, Berho M, Allende DS, Bennett AE, Rosen L, Hull T, Wexner SD. Granulomas in Crohn's disease: does progression through the bowel layers affect presentation or predict recurrence? *Colorectal Dis*. 2011 Oct;13(10):1142-1147.

Hayden DM, Weiss EG. Fecal incontinence: Etiology, evaluation, and treatment. *Clin Colon Rectal Surg*. 2011;24(1):64-70.

Hiranyakas A, Bashankaev B, Seo CJ, Khaikin M, Wexner SD. Epidemiology, pathophysiology and medical management of postoperative ileus in the elderly. *Drugs Aging*. 2011 Feb 1;28(2):107-118.

Lee SH, Lakhtaria P, Canedo J, Lee YS, Wexner SD. Outcome of laparoscopic rectopexy versus perineal rectosigmoidectomy for full-thickness rectal prolapse in elderly patients. *Surg Endosc*. 2011 Aug;25(8):2699-2702.

Luo CH, Wexner SD, Liu QS, Li L, Weiss E, Zhao RH. The differences between American and Chinese patients with Crohn's disease. *Colorectal Dis*. 2011 Feb;13(2):166-170.

Mellgren A, Wexner SD, Collier JA, Devroede G, Lerew DR, Madoff RD, Hull T. Long-term efficacy and safety of sacral nerve stimulation for fecal incontinence. *Dis Colon Rectum*. 2011 Sep;54(9):1065-1075.

Pinto RA, Shawki S, Narita K, Weiss EG, Wexner SD. Laparoscopy for recurrent Crohn's disease: how do the results compare with the results for primary Crohn's disease? *Colorectal Dis*. 2011 Mar;13(3):302-307.

Pinto RA, Canedo J, Murad-Regadas S, Regadas SF, Weiss EG, Wexner SD. Ileal pouch-anal anastomosis in elderly patients: is there a difference in morbidity compared with younger patients? *Colorectal Dis*. 2011 Feb;13(2):177-183.

Pinto RA, Ruiz D, Edden Y, Weiss EG, Nogueras JJ, Wexner SD. How reliable is laparoscopic colorectal surgery compared with laparotomy for octogenarians? *Surg Endosc*. 2011 Aug;25(8):2692-2698.

Regadas FSP, Pinto RA, Murad-Regadas SM, Canedo JA, Leal M, Nogueras JJ, Wexner SD. Short-term outcome of infliximab and other medications on patients with inflammatory bowel disease undergoing ileostomy reversal. *Colorectal Dis*. 2011 May;13(5):555-560.

Regadas FSP, Haas EM, Abbas MA, Jorge JM, Habr-Gama A, Sands D, Wexner SD, Melo-Amaral I, Sardinias C, Lima DM, Sagae EU, Murad-Regadas SM. Prospective multicenter trial comparing echodefecography with defecography in the assessment of anorectal dysfunction in patients with obstructed defecation. *Dis Colon Rectum*. 2011 Jun;54(6):686-692.

Shawki S, Wexner SD. Idiopathic fistula-in-ano. *World J Gastroenterol*. 2011 Jul 28;17(28):3277-3285.

Tou S, Malik AI, Wexner SD, Nelson RL. Energy source instruments for laparoscopic colectomy. *Cochrane Database Syst Rev*. 2011;5:CD007886.

Wexner SD. Commentary on Experimental comparison of mesenteric vessel sealing and thermal damage between one bipolar and two ultrasonic shears devices (Br J Surg. 2011;98:797-800). *Br J Surg*. 2011 Jun;98(6):801.

Wexner SD. Sacral nerve stimulation: time for critical appraisal. *Ann Surg*. 2011 Jul;254(1):175-176.

## Staff Listing

Steven D. Wexner, MD, *Chief Academic Officer, Chair, Department of Colorectal Surgery*

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Juan J. Nogueras, MD, *Chief of Staff, Colorectal Surgeon*

---

Eric G. Weiss, MD, *Vice Chair, Department of Colorectal Surgery, Head, Section of Surgical Endoscopy*

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David Maron, MD, *Colorectal Surgeon*

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Lester Rosen, MD, *Colorectal Surgeon, West Palm Beach*

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Dana Sands, MD, *Colorectal Surgeon*

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Giovanna da Silva, MD, *Colorectal Surgeon*

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Wexner SD. Underutilization of minimally invasive surgery for colorectal cancer. *Ann Surg Oncol*. 2011 Jun;18(6):1518-1519.

Wexner SD. Commentary on Murad-Regadas et al. *Colorectal Dis*. 2011 Dec;13(12):1351-1352.

Wexner SD, Fleshman J (Eds). *Master Techniques in General Surgery: Colon and Rectal Surgery (Abdominal Operations and Anorectal Operations)*. Philadelphia: Wolters Kluwer Health/Lippincott Williams & Wilkins; 2011.

## Department of Gastroenterology



On behalf of Cleveland Clinic Florida's Department of Gastroenterology, I am pleased to share our 2011 quality outcomes. This document highlights the work of our department, which is a collaborative effort between the departments of colorectal, hepatobiliary and bariatric surgery. The goal of the gastroenterology department is to provide comprehensive, innovative, state-of-the-art, compassionate and effective care to improve the quality of life of our patients. In addition to the use of innovative diagnostic tools and treatment, such as endoscopic ultrasound, ablative techniques for Barrett's esophagus and SpyGlass® technology, we have the largest small bowel enteroscopy program in South Florida and one of the largest in the state.



Specialists in the medical and surgical treatment of gastrointestinal diseases work as one team at Cleveland Clinic Florida, and this close collaboration enables a seamless transition of care between departments as the patient's condition dictates. Our surgeons have excelled at every aspect of patient care, education, and research and have pioneered improvements in a wide variety of complex gastrointestinal disorders, which allows us to treat a large number of patients, both nationally and internationally.

The department is also actively involved in the education of the future generation of gastroenterologists. We have an Accreditation Council for Graduate Medical Education (ACGME)-accredited fellowship program and we lecture to colleagues at national and international meetings. Research is an integral part of our daily activities and we have a number of ongoing research trials all designed to improve the quality of our patient's lives.

On behalf of my colleagues, I hope you find this edition of the Department of Gastroenterology outcomes useful both as a reference as well as a testimony to our commitment to continuously raise the standards of our patient-centered care.

Sincerely,

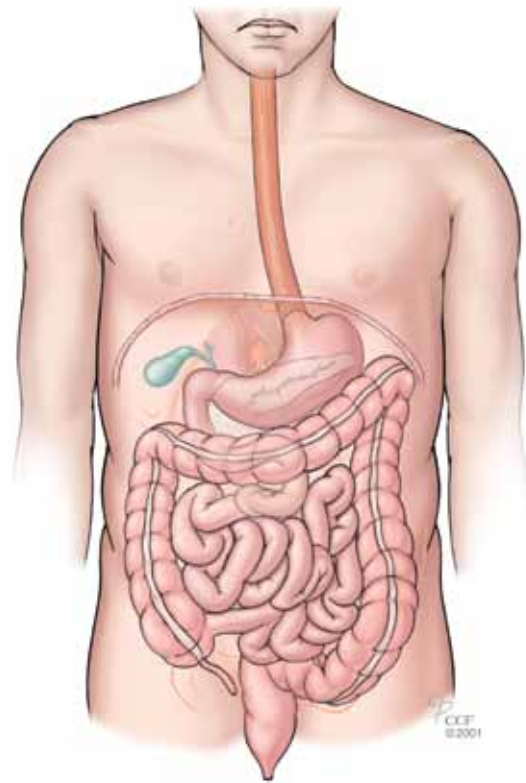
A handwritten signature in black ink, appearing to read 'Roger J. Charles'.

Roger J. Charles, MD  
Chairman, Department of Gastroenterology  
Cleveland Clinic Florida

Department Overview

As a top provider of gastroenterology care in the State of Florida, the Department of Gastroenterology is dedicated to using innovative diagnostic tools and treatments such as endoscopic ultrasound with fine needle aspiration, SpyGlass® technology and ablative techniques for Barrett’s esophagus. The department has one of the largest small bowel enteroscopy programs in Florida with specialists in the medical and surgical treatment of gastrointestinal diseases working as a team through close collaboration that enables a seamless transition between specialties.

This model of care also helps us offer the most advanced, safest and proven treatments performed in the most effective and patient-friendly way. By utilizing advanced and innovative technologies, Cleveland Clinic Florida’s gastroenterologists provide effective and compassionate care to improve our patients’ quality of life.

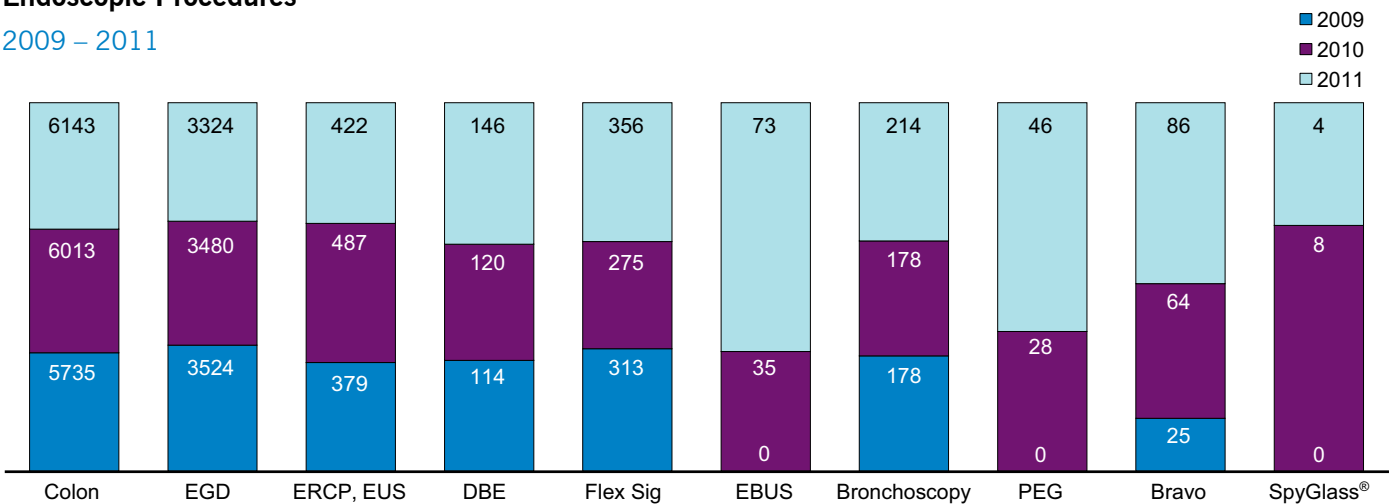


In 2011, the Department of Gastroenterology saw 5,550 new patients and performed a total of 10,864 procedures.

Cleveland Clinic Florida’s Department of Gastroenterology uses several types of endoscopic procedures to diagnose or treat conditions.

Endoscopic Procedures

2009 – 2011



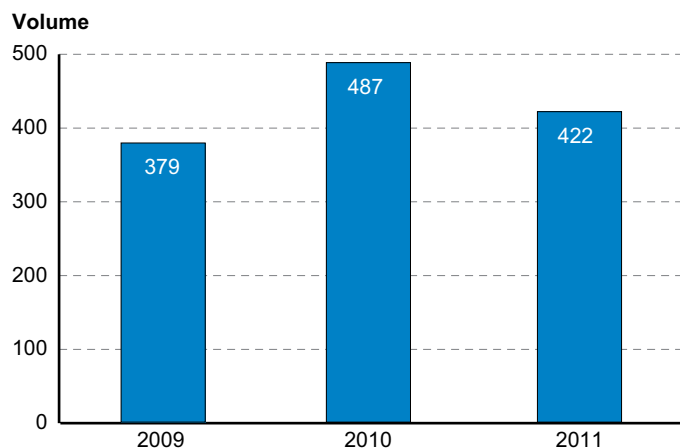
Abbreviations: EGD = esophagogastroduodenoscopy; ERCP = endoscopic retrograde cholangiopancreatography; EUS = endoscopic ultrasound; DBE = double balloon enteroscopy; Flex Sig = flexible sigmoidoscopy

Source: Internal Data

## Advanced Therapeutic Procedures (ERCP, EUS)

2009 – 2011

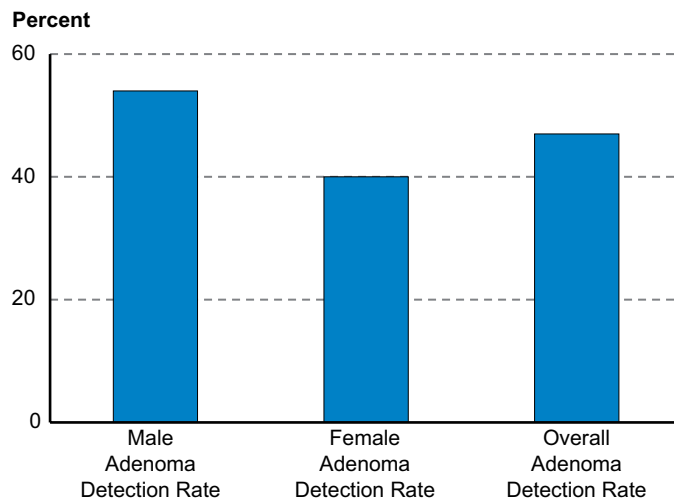
Advanced therapeutic procedures include endoscopic retrograde cholangiopancreatography (ERCP) and endoscopic ultrasound (EUS).



Source: Internal Data

## First Time Colonoscopy Screening

2011



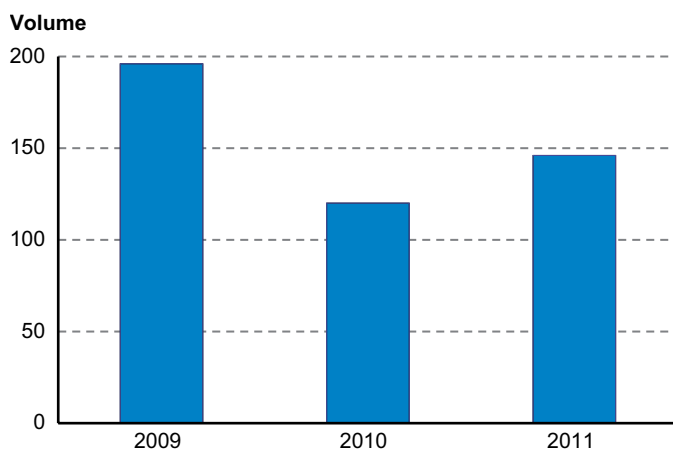
Excludes patients with poor bowel preparation and those in which the cecum was not reached.

Source: Internal Data

## Double Balloon Enteroscopy

2009 – 2011

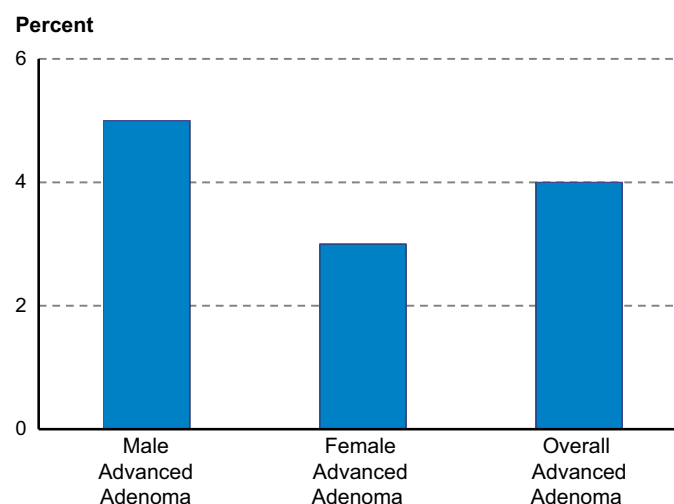
Double balloon enteroscopy (DBE) allows for the entire gastrointestinal tract to be visualized in real time.



Source: Internal Data

## Advanced Adenoma Detection

2011



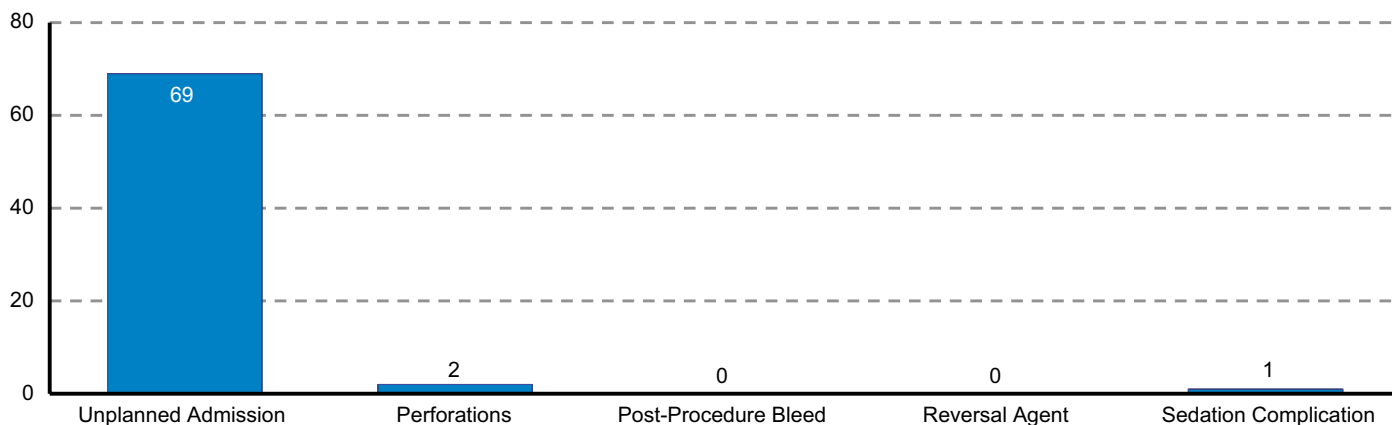
Excludes patients with poor bowel preparation and those in which the cecum was not reached.

Source: Internal Data

## Complications (N = 10,864)

2011

Cases



Source: Internal Data

Unplanned Admission	0.0063%
Perforations	0.00018%
Post-Procedure Bleed	0%
Reversal Agent	0%
Sedation Complication	0.00009%

Cleveland Clinic Florida is proud of the 2011 low complication rates in 10,864 cases.

## Advanced Therapeutic Endoscopy Service Offerings

- Endoscopic ultrasound (EUS) guided fiducial placement
- Endoscopic ultrasound (EUS) guided celiac plexus neurolysis
- Cryospray ablation of Barrett's esophagus
- Cryospray ablation and debulking of GI tract tumors
- Endoscopic OTSC bear claw clip for hemostasis and mucosal defect closure
- Radiofrequency ablation of gastric antral vascular ectasia (GAVE) and radiation proctitis
- Holmium laser lithotripsy of biliary and pancreatic calculi
- Pancreatic function testing

- Double balloon enteroscopy assisted endoscopic retrograde cholangiopancreatography (ERCP) in Roux-en-Y gastric bypass patients
- Pancreatic islet cell transplant
- Endoscopic pancreatic function tests
- Secretin magnetic resonance cholangiopancreatography (MRCP)
- Endoluminal therapies for Barrett's esophagus:
  - BARRX radiofrequency ablation
  - Cryoblation
- External gastric pacing for patients with gastroparesis



## Selected Publications

Balderas V, Bhore R, Lara LF, Spesivtseva J, Rockey DC. The hematocrit level in upper gastrointestinal hemorrhage: Safety of endoscopy and outcomes. *Am J Med.* 2011;24:970-6.

Jimenez B, Palekar N, Schneider A. Issues related to colorectal cancer screening practices in women. *Gastroenterol Clin North America.* 2011 Jun;40(2):415-26.

Lurix E, Schneider A, Jagpal A, Reddy S. Great expectations: Questionnaire evaluation of irritable bowel syndrome patients outlook on diagnosis and treatment. *American Journal Gastro.* 2011;106(2):AB1309.

Erim T, Rivas J, Velis E, Castro FJ. Role of high definition colonoscopy in colorectal adenomatous polyp detection. *World J Gastroenterol.* 2011;17:3173-78.

Zapatier J, Kumar A, Perez A, Guevara R, Schneider A. Preferences for ethnicity and gender of endoscopists within a Hispanic population in the United States. *Gastroint Endosc.* 2011;73:89-94.

Singh S, Tang SJ, Sreenarasimhaiah J, Lara LF, Siddiqui A. The clinical utility and limitations of serum carbohydrate antigen (CA 19-9) as a diagnostic tool for pancreatic cancer and cholangiocarcinoma. *Dig Dis Sci.* 2011;56:2491-6.

Thoma MN, Castro F, Golawala M, Chen R. Detection of colorectal neoplasia by colonoscopy in average-risk patients age 40-49 versus 50-59 years. *Dig Dis Sci.* 2011;56:1503-1508.

## Staff Listing

Roger Charles, MD, *Chair, Department of Gastroenterology*

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Fernando Castro, MD, *Gastroenterologist*

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Tolga Erim, DO, *Gastroenterologist*

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Luis Lara, MD, *Gastroenterologist*

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Ronnie Pimentel, MD, *Gastroenterologist*

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Nicole Palekar, MD, *Gastroenterologist*

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Alison Schneider, MD, *Gastroenterologist*

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Andrew Ukleja, MD, *Gastroenterologist*

## Department of General Surgery



We are pleased to share with you Cleveland Clinic Florida's Department of General Surgery Outcomes for 2011. Established 24 years ago under the leadership of Mark Sesto, MD and Mark Grove, MD, our department has gained a national and international reputation. Surgeons in this department have pioneered and mastered minimally invasive surgical techniques achieving outcomes that are among the best in the United States.



The Department of General Surgery manages the most complex benign and malignant general surgical disease processes involving the esophagus, stomach, duodenum, liver, biliary tree, pancreas, thyroid, parathyroid and the abdominal wall. In addition, our Breast Center has a multidisciplinary team of breast surgeons, breast oncologists, breast radiologists and plastic surgeons that are experts in the early detection and management of benign and malignant diseases of the breast. Our volumes and results are above the national standards.

Due to our experience, patients, medical students, residents, and fellows come to our department from Europe, Asia, Latin America and the United States seeking expert treatment and an opportunity to participate in sophisticated research projects as well as to learn cutting edge surgical techniques.

I am privileged to be part of this team of exceptional surgeons that has become one of Cleveland Clinic Florida's leading departments. We look forward to continued growth and contributing to our institution's mission of putting our "patients first."

Sincerely,

A handwritten signature in black ink that reads "Raul Rosenthal". The signature is fluid and cursive.

Raul J. Rosenthal MD, FACS, FASMBS  
Chairman, Department of General Surgery  
Director, The Bariatric and Metabolic Institute and  
Fellowship in MIS/Bariatric Surgery  
Director, General Surgery Residency Program  
Cleveland Clinic Florida

## Department Overview

### Minimally Invasive Techniques Achieve National Recognition

As one of the leading departments of general surgery in the State of Florida, our center diagnoses and treats a broad array of diseases affecting the upper gastrointestinal tract, head and neck, abdominal wall and breast.

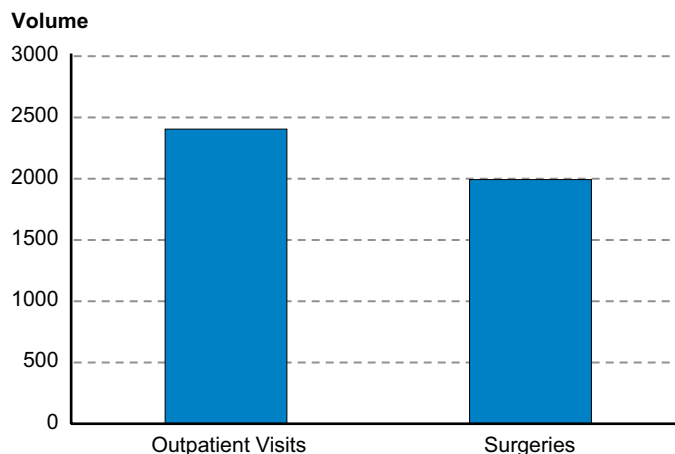
The development of optoelectronic instrumentation has allowed surgeons to perform surgical procedures minimizing the size of incisions. As a result, our patients have fewer complications, less pain, early discharge from the hospital and resume their daily activities sooner. In addition, these techniques offer a better cosmetic result.

### Annual Volumes of Consultations and Surgeries

In 2011, physicians in the Department of General Surgery had a total of 2,405 outpatient visits that resulted in 1,933 procedures including elective and emergency surgeries.



### Annual Volumes of Consultations and Surgeries 2011



Source: Internal Data

The above chart shows a breakdown of annual consultations and surgeries performed in the Department of General and Vascular Surgery.

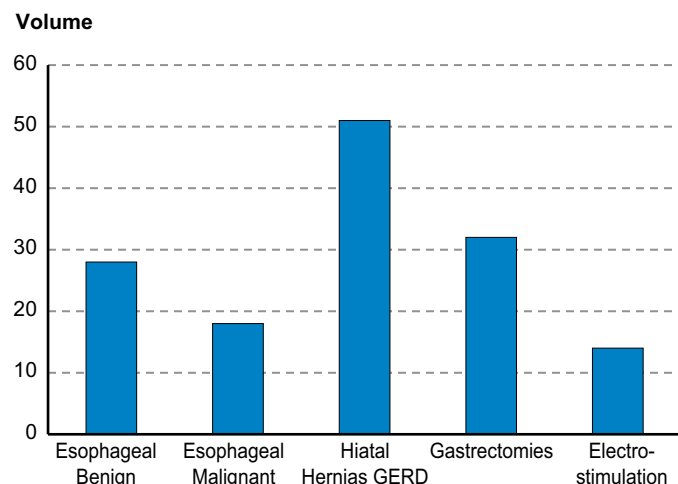
### Laparoscopic Surgery of Esophagus, Stomach and Duodenum

Using minimally invasive techniques, we conducted surgery for malignant disease of the esophagus including distal, mid and total esophagectomies. We also specialize in the treatment of benign disease processes such as hiatal hernia, gastroesophageal reflux disease, achalasia and gastroparesis. Our center conducts FDA (Food and Drug Administration) trials on electrostimulation for gastroparesis. In addition, an institutional review board (IRB) protocol explores gastric bypass as an alternative treatment modality for gastroparesis.

A total of 139 procedures for benign and malignant diseases of the esophagus, stomach and duodenum were performed in 2011.

## Laparoscopic Surgery

2011



Source: Internal Data

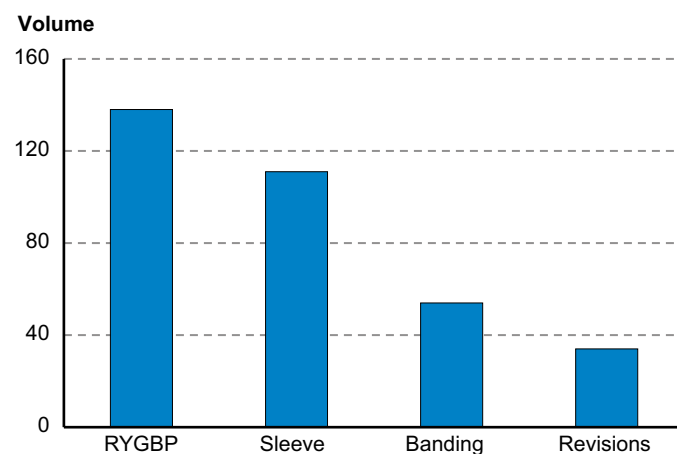
## The Bariatric and Metabolic Institute: National and International Recognition

The department has achieved a world-renowned reputation for achieving excellent outcomes for the use of innovative and state-of-the-art treatment modalities for patients with severe obesity and metabolic syndrome. It has been designated since 2005 as a Center of Excellence by the American College of Surgeons. New approaches for complicated cases have been pioneered at our Institute including the description of the techniques for remnant gastrectomy in patients with gastro-gastric fistulae and proximal gastrectomy for chronic staple line disruptions after sleeve gastrectomies. In 2011, our Institute conducted an International Consensus Conference in Coral Gables, Florida on sleeve gastrectomy with 22 of the most prestigious bariatric surgeons from the Asia Pacific region, Europe, Latin America and the United States. Our clinical and research work as well as our publications have been instrumental for the Center for Medicare & Medicaid Services (CMS) to approve some of the currently utilized bariatric procedures. FDA trials for adjustable gastric banding, vagal block and endo-barrier were conducted at our Institute.

A total of 337 cases were performed in 2011 with no mortality.

## Bariatric Surgery Procedures

2011



Abbreviation: RYGBP = Roux-en-Y gastric bypass

Source: Internal Data



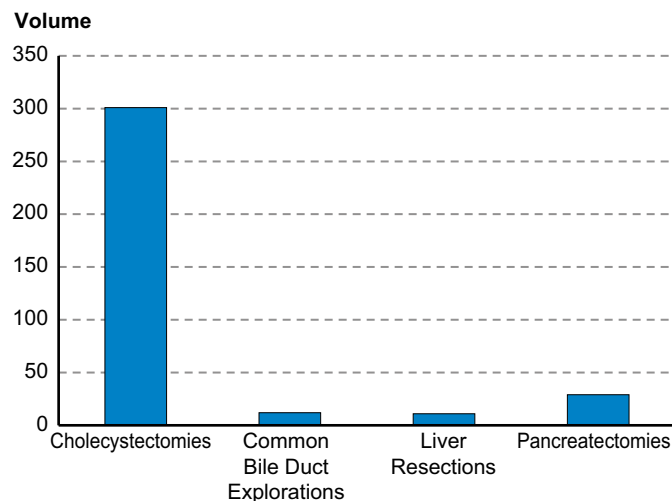
## Liver, Pancreatic, and Biliary Tract Surgery Program

By utilizing minimally invasive techniques in nearly 90 percent of cases, the department performed cholecystectomies, common bile duct explorations, resection of liver tumors, and resections of benign and malignant tumors of the pancreas and biliary tree.

A total of 353 surgeries of the liver, pancreas and biliary tree were conducted in 2011.

## Hepatobiliary Procedures

2011



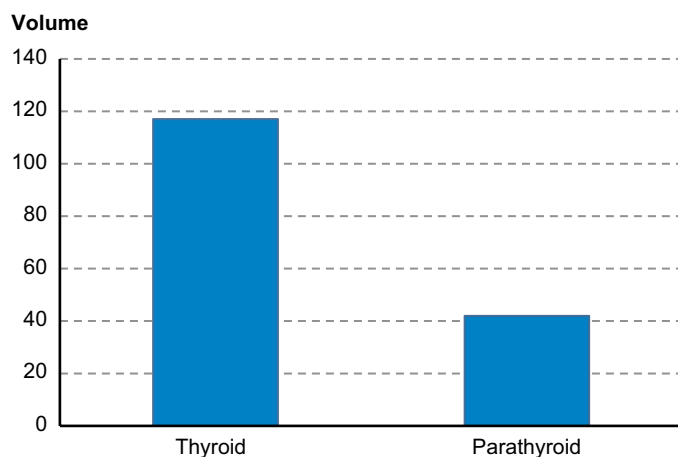
Source: Internal Data

## Surgery of the Thyroid and Parathyroid Glands

Endocrine surgery for neoplasms of the thyroid and parathyroid gland has been an area that Cleveland Clinic Florida has taken leadership of in Broward County. A total of 155 surgeries of the parathyroid and thyroid glands were conducted in 2011.

### Thyroid and Parathyroid Surgery

2011



Source: Internal Data

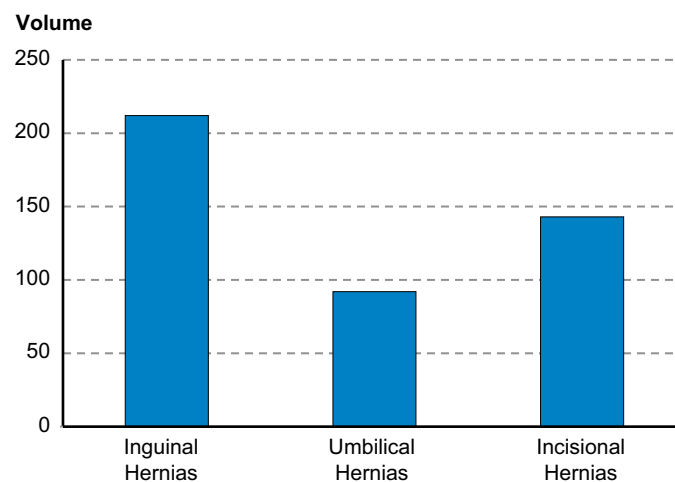
## Surgery of the Abdominal Wall

Ventral, incisional and inguinal hernias are common problems encountered in general surgery. Laparoscopic approaches to repair these problems have been pioneered by some of our team members.

A total number of 447 surgeries to repair abdominal wall defects were performed in 2011.

### Abdominal Wall Defects

2011



Source: Internal Data

## Surgery for Benign and Malignant Diseases of the Breast

Worldwide, breast cancer is by far the most frequent cancer among women with an estimated 1.59 million new cancer cases diagnosed in 2011. It is the most commonly diagnosed malignancy in U.S. women after non-melanomatous skin cancer, with 230,000 women and 2,140 men diagnosed with breast cancer in 2011. Breast cancer is the most common cancer treated in women at Cleveland Clinic Florida. We are the first hospital in Broward County to receive full accreditation from the National Accreditation Program for Breast Centers.

A range of treatment options is available to patients who have been diagnosed with breast cancer including surgery, radiation, hormone therapy, chemotherapy, and clinical trials, to name a few. Cleveland Clinic's team of breast care specialists help determine the best treatment plan based on type of breast cancer, size and location of the tumor, disease stage, lab test results and a patient's overall health.

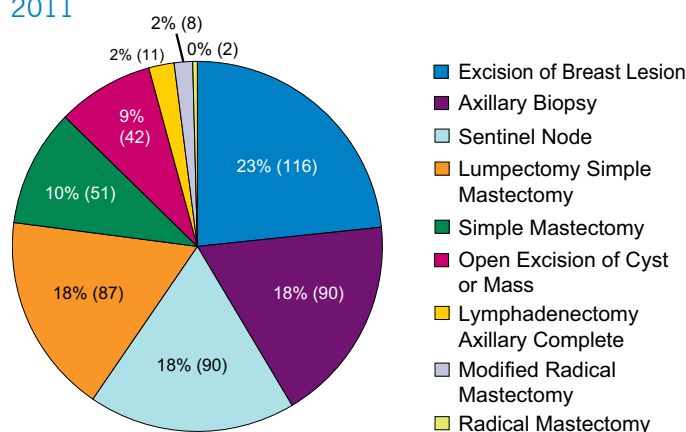
As part of the Breast Cancer Program, Cleveland Clinic Florida's accredited Women's Imaging Center provides state-of-the-art screening in a soothing environment. The imaging center makes early and accurate detection a priority, offering digital mammography, breast ultrasound, breast MRI and breast CAD (computer aided detection).

Our two locations at Weston and West Palm Beach have been designated Breast Imaging Centers of Excellence by the American College of Radiology (ACR). The Imaging Centers are part of an elite group of imaging centers in Florida to achieve this level of excellence. Only three percent of the state's nearly 500 ACR-accredited centers are recognized as breast imaging centers of excellence.

Cleveland Clinic has assembled a highly qualified and trained group of expert physicians who performed a total of 502 breast surgical procedures in 2011.

## Breast Procedures

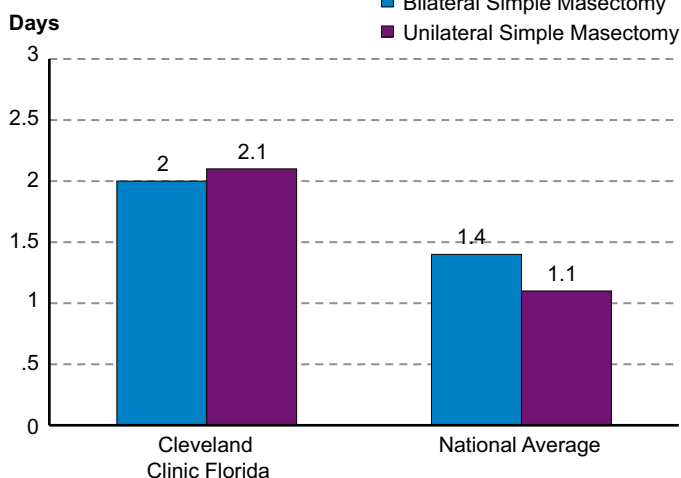
2011



Source: Truven Health Analytics Polaris® Suite

## Length of Stay – Inpatient Breast Surgery

2011



Source: Truven Health Analytics Polaris® Suite

## Vascular Surgery

The specialty of vascular surgery treats patients with arterial, venous and lymphatic disorders. Common arterial problems include carotid artery disease, aortic aneurysm disease, and occlusive disease of the aorta and lower extremities. We offer the full spectrum of vascular care, from standard open surgery to minimally invasive procedures and endovascular surgery.

Our most common aortic procedure is endovascular repair of abdominal aortic aneurysms. We are able to treat approximately 60 percent of aneurysms by endovascular repair, while 40 percent require open surgery. We completed 33 aortic surgeries in 2011.

Carotid artery stenting is available in our institution, but carotid endarterectomy is still the preferred treatment for critical stenosis. Our vascular surgeons performed 38 carotid endarterectomies in 2011, while our interventional radiologists completed two carotid stents in patients with "hostile" necks.

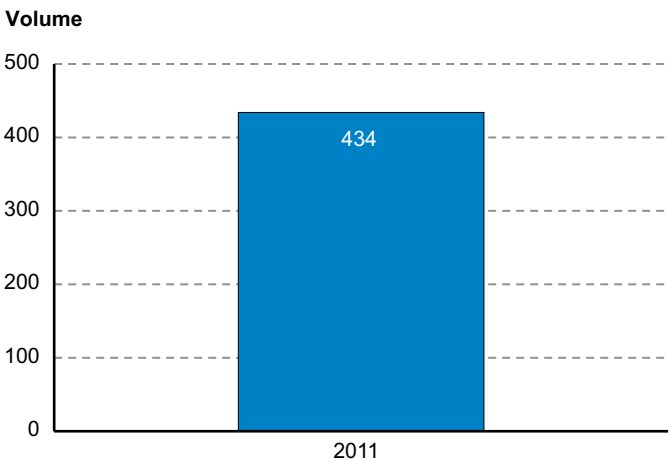
Lower extremity revascularization for ischemia is intended for limb salvage and to minimize risk of amputation. These patients tend to be the sickest in

our practice, with multiple co-morbidities. We take an “endo first” approach, using percutaneous endovascular techniques when possible to minimize procedural risk.

Venous disease affects approximately 35 to 40 percent of the adult population in the United States. There is a significant cost to society for the morbidity of venous disease, as it tends to affect younger and still working individuals. Venous disease is four to five times more common than PAD (peripheral arterial disease). The most common venous problem is varicose vein disease. We use minimally invasive endovenous ablation to treat the varicose saphenous vein, replacing the vein stripping of the past. Microphlebectomy and TIPP (transilluminated powered phlebectomy) are used to remove the secondary veins, providing patients with pain relief as well as an excellent cosmetic result. Further cosmetic improvement is achieved with adjunctive sclerotherapy. Varicose vein procedures are the most common surgery done by our vascular surgeons with 160 surgeries done in 2011.

Major Vascular Surgery Procedures

2011



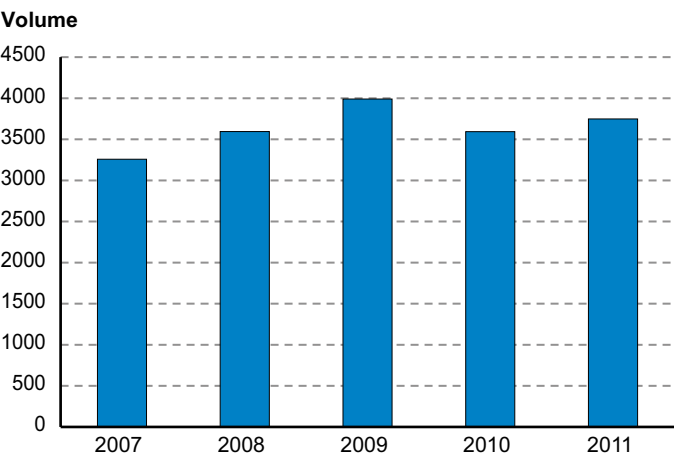
Source: Internal Data

Other services provided by the vascular surgery service include: AV (arteriovenous) fistula creation and AV graft placement surgeries for hemodialysis

patients; major and minor amputation for gangrene and intractable diabetic foot wounds; wound care for peripheral arterial disease (PAD) patients with chronic wounds; and deep vein thrombosis (DVT) pharmacomechanical thrombolysis.

Vascular Lab Studies

2007 – 2011



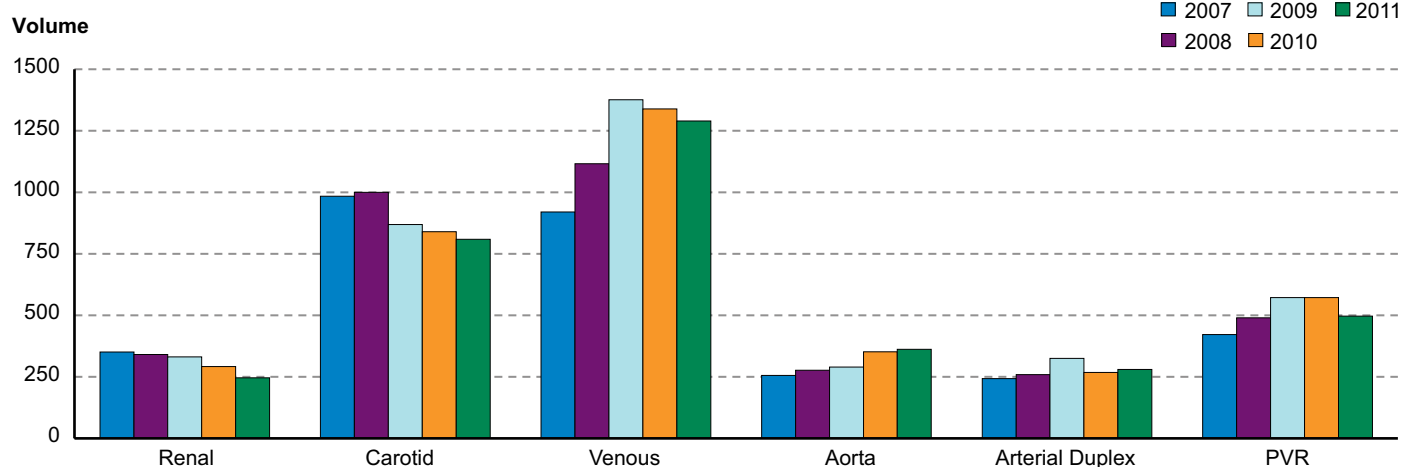
Source: Internal Data

The Noninvasive Vascular Laboratory plays an integral part in the diagnosis of patients with vascular disease of all types. Standard tests include the following:

- Carotid duplex scanning for stenoses
- Venous duplex scans for deep vein thrombosis (DVT) and varicose veins
- Aortoiliac duplex scans for aneurysm, occlusive disease and endograft surveillance
- Renal artery duplex scanning
- Vein mapping for arteriovenous (AV) access surgery
- Dialysis graft scans for failing grafts
- Lower extremity arterial scans for the diagnosis of peripheral arterial disease (PAD)
- Physiologic studies of the upper and lower extremities for the diagnosis of PAD

## Vascular Lab Studies By Type

2007 – 2011



Source: Internal Data

## Preventing Surgical Complications: The Surgical Care Improvement Project (SCIP) Process of Care Measures

Although some surgical complications are unavoidable, surgical care can be improved through adherence to evidence-based practice recommendations with redundant safeguards. The Surgical Care Improvement Project (SCIP) is a national quality partnership of organizations committed to improving the safety of surgical care through the reduction of postoperative complications. Cleveland Clinic Florida's surgeons, anesthesiologists, perioperative nurses, pharmacists, infection control professionals and hospital executives collaborate to make surgical care improvement a priority through the SCIP process of care measures.

Surgical Care Improvement Project Process of Care Measures (SCIP)	National Average	Florida Average	Cleveland Clinic Florida
Surgical patients who were taking beta blockers who were kept on beta blockers in the period just before and after their surgery	96%	97%	93%
Surgical patients who were given an antibiotic within 1 hour before surgery to help prevent infection	98%	99%	97%
Surgical patients who were given the correct kind of antibiotic to help prevent infection	98%	98%	100%
Surgical patients whose preventative antibiotics were stopped at the right time (within 24 hours after surgery)	97%	97%	95%
Cardiac surgery patients whose blood glucose was kept under control post-operatively	95%	96%	98%
Surgical patients needing hair removal from the surgical area before surgery, who had hair removed using a safer method (electric clippers or hair removal cream)	100%	100%	100%
Surgical patients whose urinary catheters were removed on the first or second day after surgery	93%	93%	94%
Surgical patients who were actively warmed in the operating room or whose body temperature was near normal by the end of surgery	99%	100%	97%
Surgical patients whose physician ordered treatments to prevent blood clots after certain types of surgery	97%	98%	96%
Patients received treatment at the right time (within 24 hours before or after their surgery) to help prevent blood clots after certain types of surgery	96%	97%	95%

Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

## Education and Research at the Department of General Surgery

### Largest Fellowship Training Program in Bariatric and Minimally Invasive Surgery

Since 1999, Cleveland Clinic Florida has developed one of the largest fellowship programs for surgeons that specialize in the field of bariatric and metabolic surgery. Fifty-three clinical and over 60 research fellows have been trained in our Department of General Surgery since 1999. We are thankful to all of them for their significant contributions, which have allowed us to achieve the reputation we have today.

### 11<sup>th</sup> International Surgery of the Foregut Symposium

Annually, the Department of General Surgery hosts an International Symposium with attendance growing to more than 280 healthcare providers in 2011. This four-day symposium is endorsed by the American College of Surgeons, the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES), the Federation of Latin American Surgeons, the European School of Laparoscopic Surgeons, the Latin American Association of Endoscopic Surgeons and the International Federation of Societies for Obesity Surgery.

### The General Surgery Residency Program (GSRP) at Cleveland Clinic Florida

After obtaining approval from the American Board of Surgery and with support of the Centers for Medicare & Medicaid Services (CMS), Cleveland Clinic Florida launched the General Surgery Residency Program (GSRP) in 2011. We conducted over 300 interviews out of 950 applicants. In July 2012, Cleveland Clinic started this new project with 18 outstanding residents from all over the United States seeking surgical education.

## Selected Publications

The Department of General Surgery staff has published over 300 peer-reviewed manuscripts, over 50 book chapters and over 80 educational video abstracts. Some of the most relevant publications in 2011 include:

Rosenthal RJ. International Sleeve Gastrectomy Consensus Panel. Experience with over 12,000 cases. *SOARD*. 2011.

Poggi L, Abdemur A, Gianos M, Gari V, Soto F, Szomstein S and Rosenthal RJ. Video: Revision of gastric bypass. Pouch and anastomosis trimming. 97<sup>th</sup> Annual Clinical Congress. *Journal of the American College of Surgeons*. 2011 October 23-27: 23.

Poggi L, Abdemur A, Fendrich I, Szomstein S and Rosenthal RJ. Video: Revision of recurrent hiatal hernia and conversion to a Roux-en-Y gastric bypass as a treatment option for intractable and recurrent GERD. 97<sup>th</sup> Annual Clinical Congress. *Journal of the American College of Surgeons*. 2011 October 23-27: 23.

Rosenthal RJ, Poggi L, Abdemur A, Fendrich I, and Szomstein S. Video: Laparoscopic conversion of obstructed LSG to RYGBP. 97<sup>th</sup> Annual Clinical Congress. *Journal of the American College of Surgeons*. 2011 October 23-27: 23.

Bernstheyn A, Fendrich I, Szomstein S, Rosenthal RJ. V018. Laparoscopic resection of the GE junction due to stricture post hiatal hernia repair with eroded biologic mesh. *Surgical Endoscopy*. 2011.

Terushkin S, Szomstein S, and Rosenthal RJ. Prevalence and management of staple line disruption after laparoscopic sleeve gastrectomy for morbid obesity. *Obes Surg*. 2011 (228); 21:1114.

Gianos M, Abdemur A, Fendrich I, Gari V, Szomstein S, Rosenthal RJ. Outcomes of bariatric surgery in patients with body mass index <35 kg/m(2). *Surg Obes Relat Dis*. 2011 Aug 27. [Epub ahead of print] PMID: 22019140 [PubMed - as supplied by publisher]

Li J, Rosenthal RJ, Roy M, Szomstein S, Sesto M. Experience of laparoscopic paraesophageal hernia repair at a single institution. *Am J Surg*. 2011 Oct 11. [Epub ahead of print] PMID: 21992807 [PubMed - as supplied by publisher]

Abdemur A, Fendrich I, Rosenthal RJ. Laparoscopic conversion of laparoscopic sleeve gastrectomy to gastric bypass for intractable gastroesophageal reflux disease. *Surg Obes Relat Dis*. 2011 Jun 17. [Epub ahead of print]

Higa G, Szomstein S, Rosenthal RJ. Stapling of orogastric tube during gastrojejunal anastomosis: an unusual complication after conversion of sleeve gastrectomy to laparoscopic Roux-en-Y gastric bypass. *Surg Obes Relat Dis*. 2011 Jun 12.

Rosenthal RJ. Comment on: Medical tourism and bariatric surgery. *Surg Obes Relat Dis*. 2011 Sep;7(5):654-5. Epub 2011 Jun 12.



## Staff Listing

Raul J. Rosenthal, MD, *Chair, Department of General Surgery, Director, Bariatric and Metabolic Institute*

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Cassann Blake, MD, *Breast Surgeon*

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Margaret Gilot, MD, *Breast Surgeon*

---

Mark K. Grove, MD, *Vascular Surgeon*

---

Terry King, MD, *Vascular Surgeon*

---

Emanuele Lo Menzo, MD, *General Surgeon*

---

Mark E. Sesto, MD, *General Surgeon*

---

Conrad Simpfendorfer, MD, *Section Head, Hepatopancreatic and Biliary Surgery*

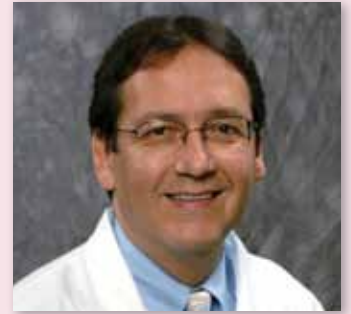
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Samuel Szomstein, MD, *Bariatric and Minimally Invasive Surgeon, Associate Director of Bariatric and Metabolic Institute and Section of Minimally Invasive Surgery*

## Department of Gynecology



It is with great pleasure that we present the highlights of clinical and academic activities of the Department of Gynecology for 2011. The department has seen great expansion of patient care activities, which have all occurred along state-of-the-art gynecologic practice standards. Our department's activities were the first at Cleveland Clinic Florida to receive national recognition by *U.S. News & World Report* in 2009, and the publication has ranked the gynecology program as a high performing specialty in the region in 2012/2013.



We continue to maintain our high standards and provide cutting-edge benign gynecological services to our patients, in addition to expanding services along perceived clinical needs. The department contributes to the education of clinicians at multiple levels through direct hands-on training as well as observerships and sponsored continuing medical education (CME) activities.

This report highlights our most common clinical services and lists our current providers. We hope this report will be useful for our referring physicians, current and future patients and other interested parties.

With great personal satisfaction,

A handwritten signature in black ink, appearing to read 'G. Davila', written in a cursive style.

G. Willy Davila, MD  
Chairman, Department of Gynecology  
Cleveland Clinic Florida

## Department Structure

The Department of Gynecology provides benign gynecologic services at our campus in Weston as well as our West Palm Beach location. The department is structured into the following three sections in order to better provide subspecialty care to our patients:

- Ambulatory Gynecology
- Minimally Invasive Gynecology
- Urogynecology and Reconstructive Pelvic Surgery

Each section provides specific clinical and surgical services along defined service lines as described below. All sections share the same administrative and nursing services.

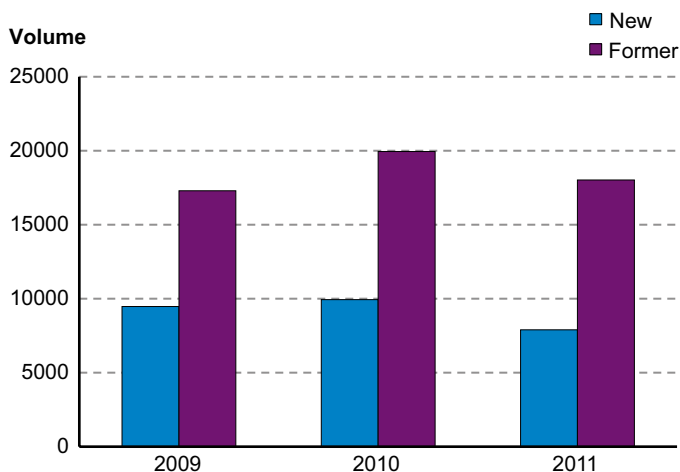
## Section Highlights

### Section of Ambulatory Gynecology

The Section of Ambulatory Gynecology provides in-office care for women's gynecologic problems, including health and reproductive maintenance to care for post-menopausal women. The members of the section are firm believers in providing state-of-the-art gynecologic care and education to their patients.

## Department of Gynecology Office Visits

2009 – 2011

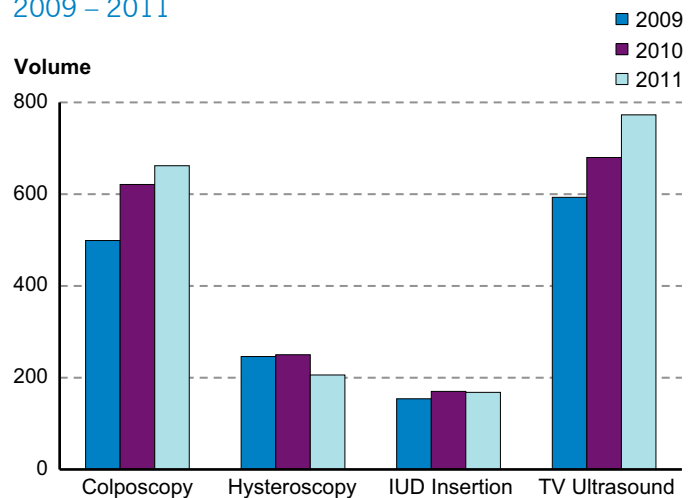


Source: Internal Data

This philosophy allows for care of routine as well as uncommon gynecologic problems, including: evaluation and management of abnormal pap smears; colposcopy; modern contraceptive techniques; abnormal bleeding; vaginal infections; menopause management; hormone replacement; reproductive health screening; mammograms; bone density testing; pelvic pain and fertility evaluation. Areas of special interest and expertise include consultation and management of vulvar diseases and pain, hormonal management after menopause, and sexual health/dysfunction.

## Ambulatory GYN Procedures

2009 – 2011



Source: Internal Data

## Section of Minimally Invasive Gynecology (MIS)

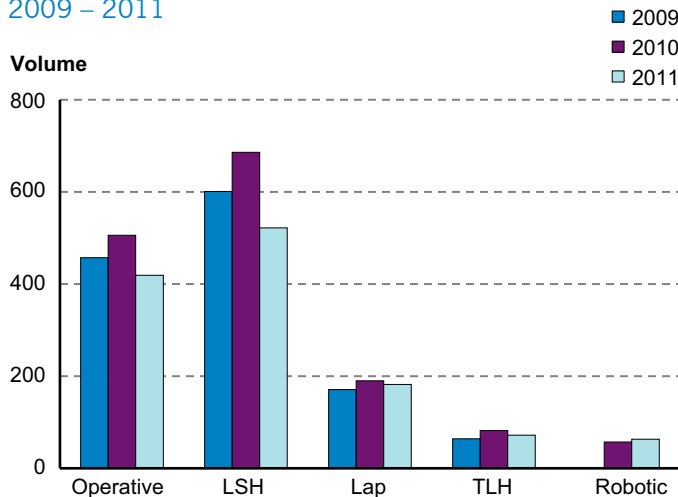
The Section of Minimally Invasive Gynecology provides a comprehensive array of all minimally invasive procedures and solutions to common benign gynecologic issues. We start with a thorough work-up of patient concerns, which frequently includes an in-office ultrasound. Based on these findings, all effective, safe and minimally invasive options are offered to each patient, leading to a collaborative treatment plan.

To highlight our emphasis on minimally invasive procedures, included here are statistics demonstrating our commitment to these advanced procedures including hysterectomy and myomectomy (removal of

fibroids) in particular. The vast majority of our surgical cases are accomplished with an outpatient procedure, resulting in the shortest, most painless recovery currently possible for each patient. This vast surgical experience allows us to perform advanced procedures with negligible complication rates.

### Minimally Invasive GYN Procedures

2009 – 2011

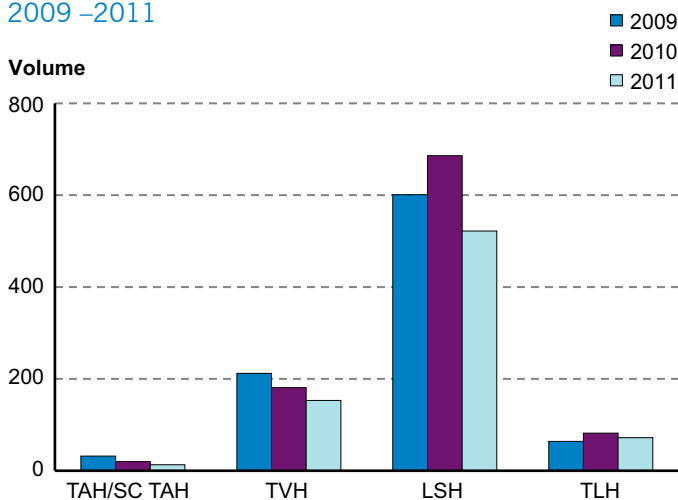


Abbreviations: LSH = laparoscopic supracervical hysterectomy; TLH = total laparoscopic hysterectomy

Source: Internal Data

### Hysterectomy Approaches

2009 – 2011

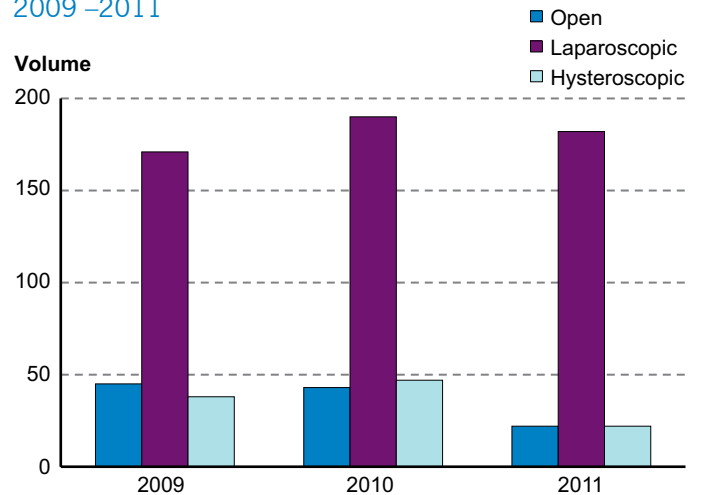


Abbreviations: TAH/SC = total abdominal hysterectomy; TVH = total vaginal hysterectomy/Burch procedure; LSH = laparoscopic supracervical hysterectomy; TLH = total laparoscopic hysterectomy

Source: Internal Data

### Myomectomy Approaches

2009 – 2011



Source: Internal Data

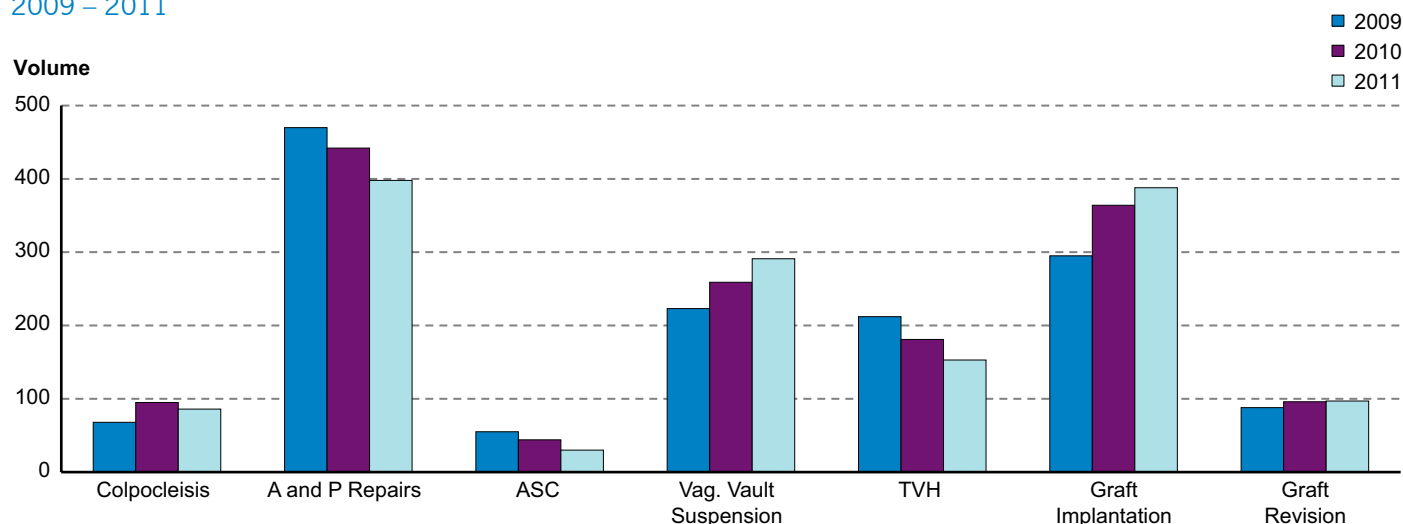
### Section of Urogynecology and Reconstructive Pelvic Surgery

The Section of Urogynecology and Reconstructive Pelvic Surgery serves as a regional and national referral center for women suffering from urinary incontinence (loss of bladder control) or pelvic organ prolapse (dropping of the bladder or uterus). The expansion of our clinical and surgical services has mirrored population demographic trends with increasing services as our population ages. Diagnostic services include evaluation of bladder function through urodynamics and cystoscopy. Therapeutic services include in-office treatment of stress incontinence as well as surgery for vaginal prolapse and urinary incontinence.

Our urogynecologic services have received national recognition as a Center of Excellence in Continence Care by the National Association for Continence in 2011. The urogynecology program is one of the few post-graduate fellowship programs in this field, and the oldest in Florida. The postgraduate fellows participate in the care of patients alongside staff physicians, but most importantly perform multiple research projects during their three-year tenure. Our treatment outcomes are reported at national and international meetings, and published in peer-reviewed medical journals and books.

## Urogynecology/Pelvic Organ Prolapse Surgeries

2009 – 2011



Abbreviations: ASC = abdominal sacral colpopexy; TVH = vaginal hysterectomy

Source: Internal Data

## Books Edited

von Theobald P, Zimmerman CW, Davila GW. *New Techniques in Genital Prolapse Surgery*. Springer, London. 2011

## Selected Publications

Karp DR, Peterson TV, Mahdy A, Ghoniem G, Aguilar VC, Davila GW. Biologic graft for cystocele repair: Does concomitant midline facial plication improve surgical outcome? *Int Urogynecol J*. 2011;22:985-990.

Zoulek E, Karp DR, Davila GW. Rectovaginal fistula as a complication to a Bartholin Gland excision. *Obstet Gynecol*. 2011;118:489-491.

Smith A, Davila GW. Surgical techniques: Take this simplified approach to correcting exposure of vaginal mesh. *OBG Management*. July 2011;23(7):29-40.

Gross C, Davila GW. Vaginal vault suspension. Medscape Reference (formerly EMedicine). 2011.

Davila GW. Nonsurgical therapies for the management of female stress urinary incontinence: Long term effectiveness and durability. *Advances in Urology*. 2011;ID 176498:1-14. doi:10.1155/2011/176498.

Karp DR, Rizvi TZ, Davila GW. Symptomatic vaginal enterocele associated with malfunctioning ventriculo-peritoneal shunt and cerebrospinal ascites. *Int Urogynecol J*. 2011;22:1189-91.

Smith A, Davila GW. Urinary incontinence in women. *BMJ Point of Care Topic* 169. January 2011.

Peterson TV, Karp DR, Aguilar VC, Davila GW. Primary versus recurrent prolapse surgery: Differences in outcomes. *Int Urogynecol J*. 2010;21:483-88.

Arias BE, Smith A, Raders J, Aguirre OA, Davila GW. An inexpensive polypropylene patch sling for the treatment of intrinsic sphincteric deficiency. *J Minimally Inv Gynecol*. 2010;17:526-30.

Karp DR, Peterson TV, Jean-Michel M, Lefevre R, Davila GW, Aguilar VC. "Eyeball" POP-Q examination: shortcut or valid assessment tool? *Int Urogynecol J*. 2010;21:1005-1009.

Peterson TV, Karp DR, Aguilar, VC, Davila GW. Validation of a global pelvic floor symptom bother questionnaire. *Int Urogynecol J*. 2010;21:1129-35. Epub 2010.

Connor VF. Contrast infusion sonography in the post-Essure setting. *Journal of Minimally Invasive Gynecology*. 2008; 15(1):56.

Connor VF. Essure: A review six years later. *Journal of Minimally Invasive Gynecology*. 2009; 16(3):282-290.

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Connor V. Clinical experience with contract infusion sonography as an Essure confirmation test. *J Ultrasound Med*. 2011;30:803-08.

Diaz, M, Davila GW. Gynecologic Diseases and Disorders. Chapter 51 in: Pompei P, Murphy JB, eds. *Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine*, 10th ed. New York, NY: American Geriatrics Society; 2011.



## Staff Listing

### Section of Ambulatory Gynecology

Maria Lina Diaz, MD, Head, Section of Ambulatory Gynecology

Tamilla Fork, MD, Gynecologist

Claudia Mason, MD, Gynecologist

Francoise Veneroni, MD, Gynecologist

Jay Trabin, MD, Gynecologist

### Section of Minimally Invasive Surgery

Stephen E. Zimberg, MD, Gynecologist, Head, Section of Minimally Invasive Gynecology

Viviane Connor, MD, Gynecologist, Medical Director, West Palm Beach

Michael Sprague, MD, Gynecologist

### Section of Urogynecology

G. Willy Davila, MD, Chair, Department of Gynecology

Vivian C. Aguilar, MD, Urogynecologist

Amie Kawasaki, MD, Urogynecologist

### West Palm Beach

Viviane Connor, MD, Gynecologist, Medical Director, West Palm Beach

Claudia Mason, MD, Gynecologist

## Department of Infectious Diseases



Infectious disease practitioners and physicians are dedicated to the investigation and treatment of illnesses related to microbes such as viruses, fungi, bacteria and atypical microorganism. At Cleveland Clinic Florida, our department's mission is to provide state-of-the-art and innovative care in a caring and compassionate environment. We are committed to a "patients first" philosophy and maintaining our well-recognized excellence in patient care and medical education. In addition, we complement our services with the support of infectious disease pharmacists and microbiologists.



Our continuous surveillance of hospital associated infections and community microbes allows us to assist with observing national patient safety goals in healthcare while working in unison with our infection preventionist. We are fully committed to placing the health of our patients as a priority in the pursuit of quality and excellence in care.

Sincerely,

A handwritten signature in black ink, reading "Lyssette L. Cardona MD". The signature is fluid and cursive.

Lyssette L. Cardona, MD, MPH, MsHA, AAHIVS  
Chair, Department of Infectious Diseases  
Cleveland Clinic Florida

## Department Overview

The Infectious Diseases Department is comprised of two board-certified adult infectious disease physicians who carry out a variety of clinical responsibilities and care for patients with serious, chronic and recurrent infections. Duties include both outpatient and inpatient infectious disease consulting services at Cleveland Clinic Florida. Our expertise includes: HIV/AIDS care; outpatient second opinion consultations; immunizations and advice for travel; maritime health consultations for the cruise lines; outpatient antimicrobial services and infusions; and inpatient care. The department is committed to the education of residents, fellows and medical students, physician assistants and nurses.

Diseases treated include HIV/AIDS, H1N1 swine flu, sexually transmitted diseases, viral infections, pneumonia, postsurgical infections, tuberculosis, meningitis, endocarditis, blood infections, parasitic diseases and viral infections. Infectious disease physicians collaborate across specialties in treating and preventing diseases.

## Maritime Health

The cruise line program provides and facilitates cruise line crew medical referrals. This program expedites patient care and provides an uneventful flow through the healthcare system to ensure world-class care for cruise line employees and their customers. Our physicians provide pertinent medical information to cruise line physicians in a timely manner and consultations are available 24 hours a day, seven days a week.

## Outpatient Services

Cleveland Clinic's board certified specialists in adult infectious disease provide outstanding, compassionate care for patients with serious, chronic and recurrent infections. The physicians see previously hospitalized patients and follow those requiring intravenous antibiotic therapy (OPAT) at home. They also manage adults with HIV/AIDS, and work closely with specialists for specific body sites. Our specialists are available to

provide continuity of care after hospital discharge to those on home intravenous antibiotic protocols.

## Travel Clinic

The Travel Clinic provides immunizations that business travelers or vacationing families or individuals may need when they go abroad. We are also a certified yellow fever vaccination center. At the Travel Clinic, patients are also given a customized report based on their itinerary with advice on how to avoid common traveler's woes as well as those that might aggravate an existing medical condition. Our physicians provide state-of-the-art treatment for all infectious diseases of bacterial, viral, parasitic, fungal and atypical origin in adults.

## Inpatient Services

Physicians in the Department of Infectious Diseases at Cleveland Clinic Florida see patients in the hospital for a variety of infectious disease conditions. They are also directly involved in working with and teaching residents and students. In addition, they are actively involved and participate in ongoing continuous quality improvement programs and aggressively promote the delivery of quality inpatient healthcare services with a cost effective approach.

National quality process of care measures indicate that patients who are admitted with pneumonia should be vaccinated with the pneumococcal vaccination and if the hospitalization occurs during the influenza season, also with the influenza vaccine. Cleveland Clinic Florida consistently scores near 100 percent compliance with the vaccinations.

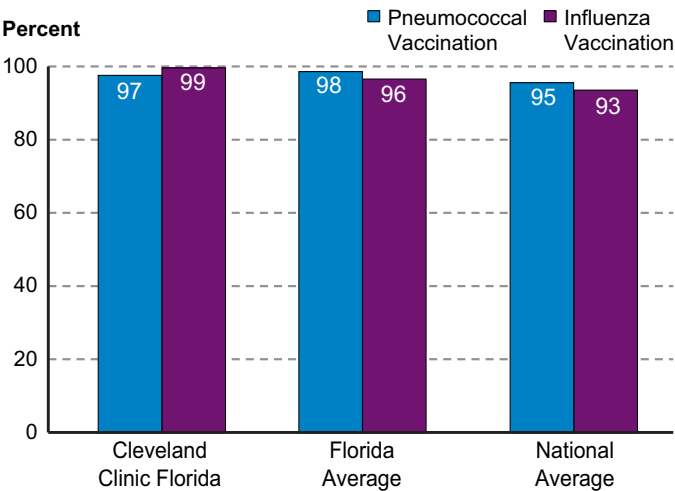
## Infection Prevention Measures

Within Cleveland Clinic Florida, we know that making hospital care safer and more comfortable for patients and their families begins with a culture of safety. Improving patient safety requires staff on all levels to have an understanding of what has been accomplished and what still must be done. We use

quality dashboards to share ongoing, concurrent and historic data with our physicians and staff regarding processes of care and outcomes. The organizational transparency includes readmissions, infections, complications and patient experience scores.

### Pneumococcal and Influenza Vaccination Rates

2011



Source [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

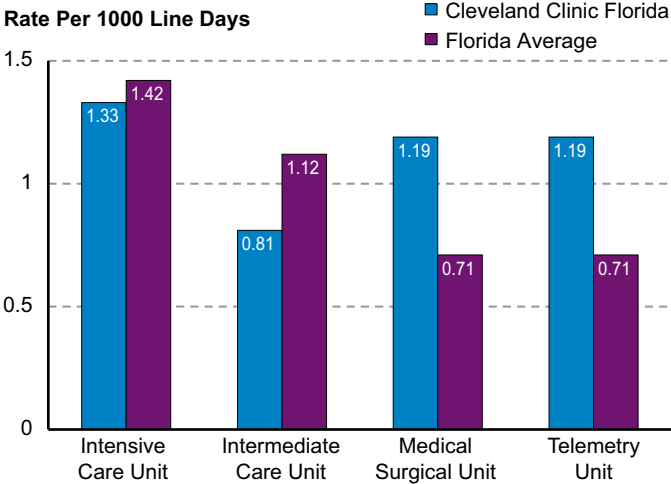
Several conditions tracked and trended for performance are related to hospital-associated infections such as catheter associated urinary tract infections, ventilator acquired pneumonias, vascular catheter associated infections, and surgical site infections. National best practice process measures and evidence based bundles of medical care have been shown to reduce hospital associated infection rates.



### Device Associated Infections

#### Central Line Blood Stream Infections

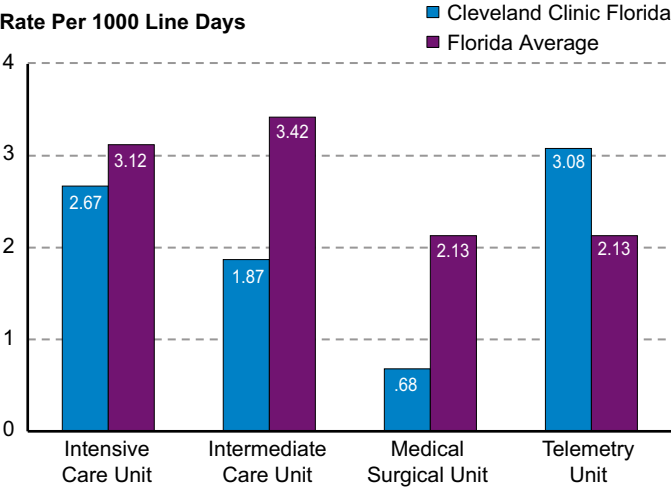
2011



Source: Internal NHSN Data

#### Catheter Associated Urinary Tract Infections

2011



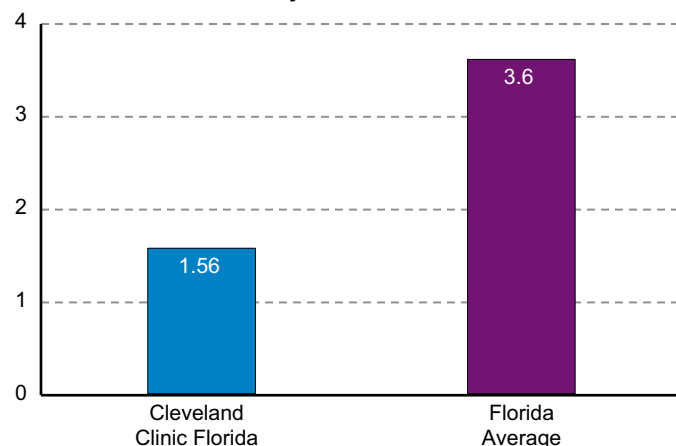
Source: Internal NHSN Data

Ventilator-associated pneumonia (VAP) is a sub-type of hospital-acquired pneumonia (HAP), which occurs in people who are receiving mechanical ventilation. Cleveland Clinic Florida's rate of VAP is well below the national average.

## Ventilator Associated Pneumonia

2011

Rate Per 1000 Ventilator Days



Source: Internal NHSN Data

## Selected Publications

Boykin K, Kernan W, Tarchini G, Lurix E. Neurotoxicity associated with standard doses of Valacyclovir in renal insufficiency. *Hosp Pharm.* 2011;46(10):774-778.

Tarchini G. Clostridium difficile disease and Vancomycin—questionable clinical superiority. *Clin Infect Dis.* 2011;53(2): 212.

Tarchini G. On a different level – Telavancin versus Vancomycin for hospital-acquired pneumonia. *Clin Infect Dis.* 2011; 52(11): 1390.

Mutnal A, Patel P, Cardona L, Suarez J. Periprosthetic propionibacterium granulosum joint infection after direct anterior total hip arthroplasty. *JBJS Case Connect.* 2011;01:e10.

## Staff Listing

Lyssette Cardona, MD, *Chair,*  
*Department of Infectious Diseases*

Giorgio Tarchini, MD

## Surgical Care Infection Prevention (SCIP) Core Process of Care Measures

Process Measure	National Average	Florida Average	Cleveland Clinic Florida
Surgical patients who were taking cardiac medications called beta blockers before coming to the hospital who were kept on the beta blockers during the time period just before and after their surgery	96%	97%	93%
Surgery patients who were given an antibiotic at the right time (within one hour before surgery) to help prevent infection	98%	99%	97%
Surgery patients who were give the right kind of antibiotic to help prevent infection	98%	98%	100%
Surgery patients whose preventative antibiotics were stopped at the right time (within 24 hours after surgery)	97%	97%	95%
Surgery patients needing hair removed from the surgical area before surgery, who had the hair removed using a safer method (electric clippers or hair removal cream — not a razor)	100%	100%	100%
Surgery patient whose urinary catheters were removed on the first or second day after surgery	93%	93%	94%
Patients who were ordered treatment at the right time (within 24 hours before or after their surgery) to help prevent blood clots after certain types of surgery	96%	97%	96%

Source [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

## Department of Neurology



## CHAIRMAN'S MESSAGE

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It is my pleasure to present the 2011 collection of outcomes from Cleveland Clinic Florida's Department of Neurology. This compilation of quality and outcome measurements is important to share with our patients, referring physicians and others who are interested in our activities.

The Department of Neurology provides consultation in all areas of neurology and has outstanding expertise in stroke, all areas of neuromuscular diseases, headache medicine, movement disorders, epilepsy and dementias. Brain tumors are addressed in a multidisciplinary fashion along with the Oncology, Radiotherapy and Neurosurgical Departments.

Our Epilepsy Monitoring Unit allows us to screen patients with epilepsy symptoms 24 hours a day, seven days a week and provide them with state-of-the-art diagnosis and treatment options.

Our department provides a multidisciplinary approach to the neurosciences, continuing neurological education and training of future neurologists and scientists. Our neurology residents and fellows consistently score above the 96<sup>th</sup> percentile in standardized testing when compared with the same group across the country.

We believe reporting outcomes assists referring physicians, patients, donors and friends of Cleveland Clinic Florida in making various decisions. We hope you find this outcomes summary useful and informative.

Sincerely,

A handwritten signature in black ink that reads "Nestor Galvez". The signature is fluid and cursive.

Nestor Galvez-Jimenez, MD, MSc, MHSA, FACP  
Chairman, Department of Neurology  
The Pauline M. Braathen Endowed Chair in Neurology  
Cleveland Clinic Florida

## Department Overview

The Department of Neurology at Cleveland Clinic Florida is an integral part of the renowned Cleveland Clinic Neurological Institute (NI) in Ohio. As a worldwide leader in neurology and neurosurgical care, the Neurological Institute has been ranked among the top 10 neurological programs in the United States for the past 16 years by *U.S. News & World Report*. In 2011 – 2012, Cleveland Clinic Florida's Department of Neurology was ranked as a high performing specialty in *U.S. News & World Report's* Miami-Fort Lauderdale metro ranking.

Our fellowship trained neurologists and neurosurgeons offer a high level of expertise and experience in the management of all common and rare neurological/neurosurgical conditions. Collaboration is a must in our daily practice, echoing Cleveland Clinic founders' call to "act as a unit" to evaluate the most complex medical and surgical conditions.

We offer state-of-the-art neurodiagnostics such as electromyography, nerve conduction studies, single fiber EMG, QSART (quantitative sudomotor axon reflex tests) and other autonomic testing. Additional services include: botulinum toxin therapy; transcranial Doppler ultrasonography; carotid ultrasound; digital video and remote electroencephalography (EEG); intensive care neurodiagnostic monitoring; state-of-the-art infusion therapy for immunosuppressants; and immunomodulators and chemotherapeutic agents. In addition, our multidisciplinary outpatient infusion center for headache management has been very successful for the evaluation and treatment of patients with severe headache and pain. Deep brain stimulation, evaluation, and programming and infusion of baclofen pumps are performed in our department on a routine basis.

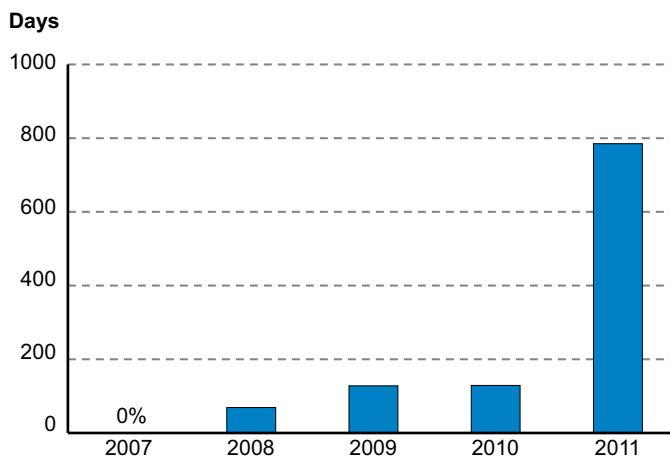
## The Neurology Department Programs

### Epilepsy

The epilepsy program offers comprehensive diagnosis and treatment for patients with seizures and epilepsy.

## Inpatient Monitored Days in EMU

2007 – 2011



Abbreviation: EMU = Epilepsy Monitoring Unit

Source: Internal Data

Our program is an integral part of the renowned Epilepsy Center in Cleveland. Epilepsy patients who require surgery are referred to Cleveland allowing us to provide them with access to cutting-edge surgical treatment.

### Movement Disorders

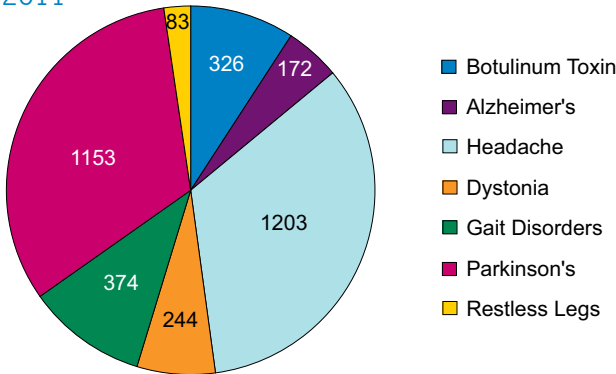
Cleveland Clinic Florida's movement disorders program, established in 1996, offers a multidisciplinary approach to the diagnosis and treatment of patients with all types of conditions affecting movement. Parkinson's disease, secondary Parkinsonism (multisystem atrophy (MSA), progressive supranuclear palsy (PSP), olivopontocerebellar atrophy (OPCA), mitochondrial myopathies, cerebellar ataxias, choreas, Tourette's Syndrome, restless legs, tremors, gait disorders and falls are some of the conditions we treat.

We have an active clinical trials program offering qualifying patients the most up-to-date treatment options. In addition, our program has a very active deep brain stimulation program, offering pre-surgical evaluation, programming and follow-up care for patients, particularly those with Parkinson's disease, tremor and dystonia. To enhance our services, we

work in close collaboration with Cleveland Clinic's Center for Neurological Restoration in Cleveland, Ohio.

### Movement Disorder Patients

2011



Source: Internal Data

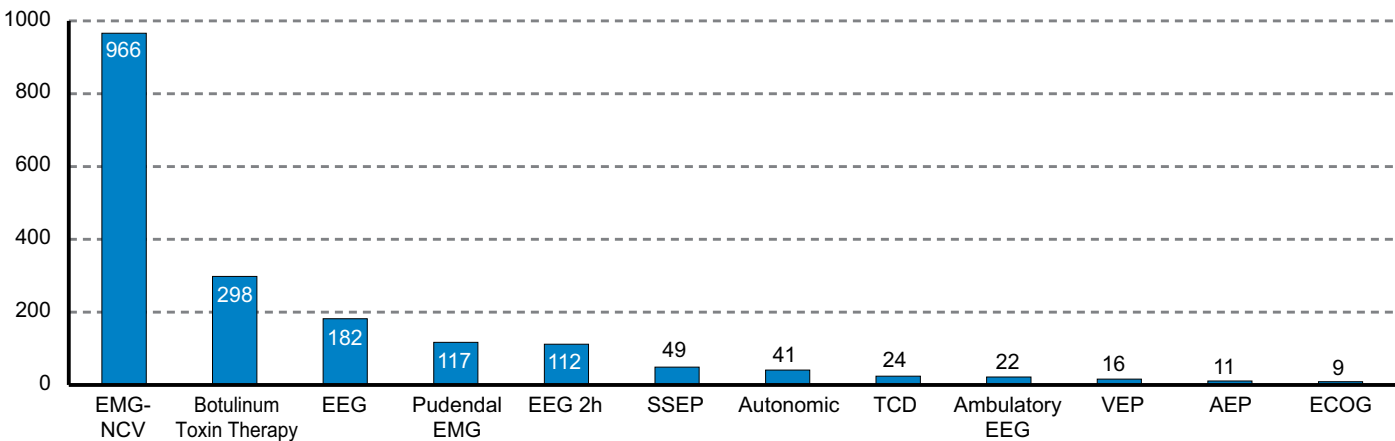
### Neurodiagnostic Laboratory

The Neurodiagnostic Laboratory provides comprehensive state-of-the-art evaluation for patients with a variety of neurological disorders such as epilepsy, stroke, neuromuscular disorders, motor control, imbalance and vertigo, sensory complaints and multiple sclerosis.

### Neurodiagnostic Volume

2011

Volume



Abbreviations: EMG-NCV = electromyography/nerve conduction velocity; EEG = electroencephalography; EMG = electromyography; SSEP = somatosensory evoked potential; VEP = visual evoked potential; AEP = auditory evoked potential; ECOG = electrocochleography

Source: Internal Data

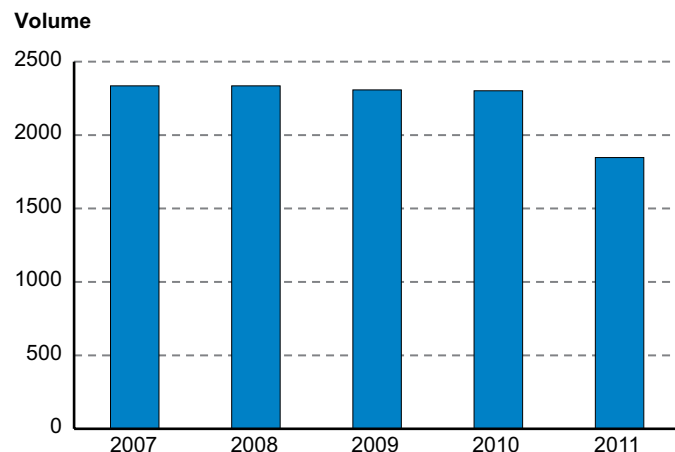
The studies performed at our laboratory include: electroencephalography (EEG); ambulatory EEG; visual evoked responses; somatosensory evoked responses; brainstem evoked responses; electrocochleography; transcranial Doppler ultrasonography; autonomic testing including the quantitative sudomotor axon reflex test (QSART); electromyography/nerve conduction studies (EMG/NCS); pudendal EMG; and botulinum toxin therapy.

### Neuromuscular Disease

The oldest of all programs within our department, the neuromuscular disease program runs one of the busiest electrodiagnostic laboratories in Broward and Palm Beach counties. Specialists in the program treat a variety of conditions including neuromuscular junction disorders such as: myasthenia gravis; Lambert Eaton myasthenic syndrome; motor neuron diseases; amyotrophic lateral sclerosis (ALS); primary lateral sclerosis; post polio syndrome; peripheral neuropathies; genetic disorders Charcot-Marie-Tooth disease; Dejerine-Sottas disease; and other HSM neuropathies and myopathies; compressive neuropathies; and degenerative spine-related conditions. An infusion for the treatment of patients with neuromuscular diseases is available on an outpatient basis for those who qualify for such form of treatment.

## Electrodiagnostic Test Volume

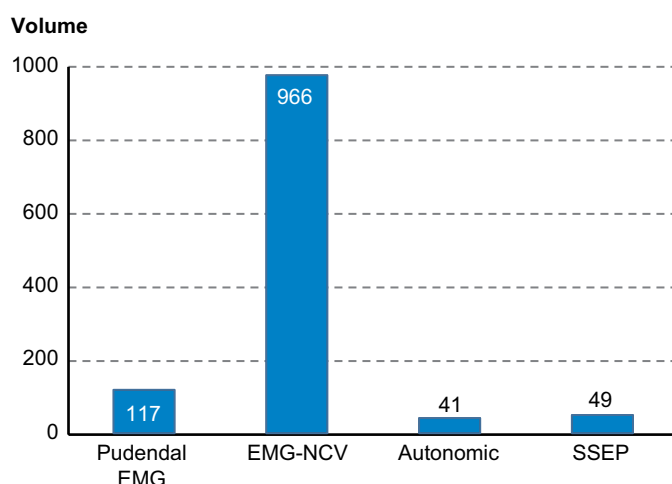
2007 – 2011



Source: Internal Data

## Electrodiagnostic Studies

2011



Abbreviations: EMG = electromyography; EMG-NCV = electromyography/ nerve conduction velocity; SSEP = somatosensory evoked potential

Source: Internal Data

## Stroke Program

According to the World Health Organization (WHO), stroke is the leading cause of neurological disability and death in the world. Many are due to embolic events from a diseased heart or arteries. Get With The Guidelines® (GWTG)

Clinical Measure	Description	GWTG Stroke Performance Award Goal	Cleveland Clinic Florida Performance
IV rt-PA arrive by 2 hours	Acute stroke patients who arrive at the hospital within 120 minutes (2 hours) of time last known well and for whom IV rt-PA was initiated at this hospital within 180 minutes (3 hours) of time last known well.	85%	86.7%
Early Antithrombotics	Patients with ischemic stroke or TIA who receive antithrombotic therapy by the end of hospital day 2.	85%	98%
Antithrombotics at discharge	Patients with ischemic stroke or TIA prescribed antithrombotic therapy at discharge (e.g. warfarin, aspirin, other antiplatelet drug)	85%	93%
Anticoagulation for Atrial Fibrillation/Atrial Flutter	Patients with ischemic stroke or TIA with atrial fibrillation/flutter who are discharged on anticoagulation therapy.	85%	98.5%
Venous Thromboembolism (VTE) Prophylaxis	Patients with ischemic stroke or TIA or a hemorrhagic stroke and who are non-ambulatory who receive VTE prophylaxis by end of hospital day 2.	85%	93%
Lipids Measure (Statins at Discharge)	Ischemic stroke or TIA patients with LDL > 100 or LDL not measured, or on cholesterol-reducer prior to admission, discharged on cholesterol-reducing drugs.	85%	97.3%
Smoking Cessation Counseling	Ischemic, TIA or hemorrhagic stroke with a history of smoking cigarettes, who are, or whose caregivers are, given smoking cessation counseling during hospital stay.	85%	100%
Dysphagia Screening	Patients with ischemic, TIA or hemorrhagic stroke who undergo screen for dysphagia with an evidence based bedside testing protocol approved by the hospital before being given any food, fluids or medications by mouth.	85%	85.9%
Stroke Education	Patients with ischemic, TIA or hemorrhagic stroke or their caregivers who were given education and/or educational materials during their hospital stay.	85%	100%
Rehabilitation Considered	Patients with ischemic or hemorrhagic stroke who were assessed for rehabilitation services.	85%	100%

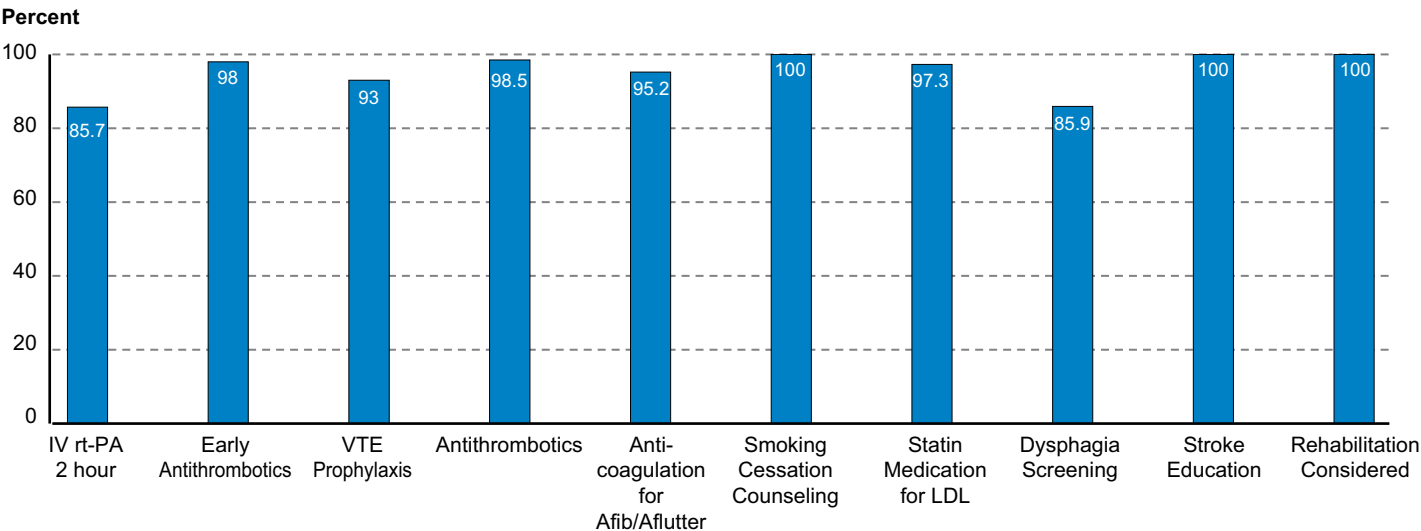
Source: Outcome Science

is the premier hospital-based quality improvement program for the American Heart Association and the American Stroke Association, empowering healthcare provider teams to consistently treat stroke patients using current evidence-based guidelines. Cleveland

Clinic Florida was a 2011 recipient of the GWTG Stroke Gold Plus Performance Achievement Award and uses the GWTG aggregate comparative data for internal quality improvement.

Stroke Measure Achievement

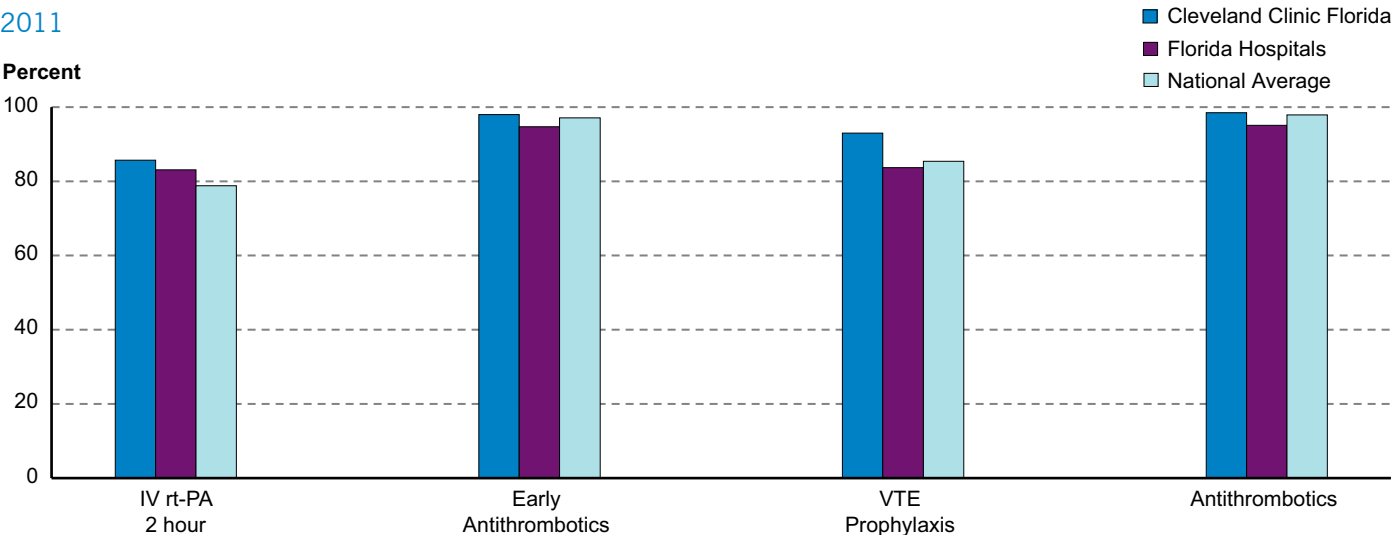
2011



Source: Outcome Science

Stroke Achievement Comparison

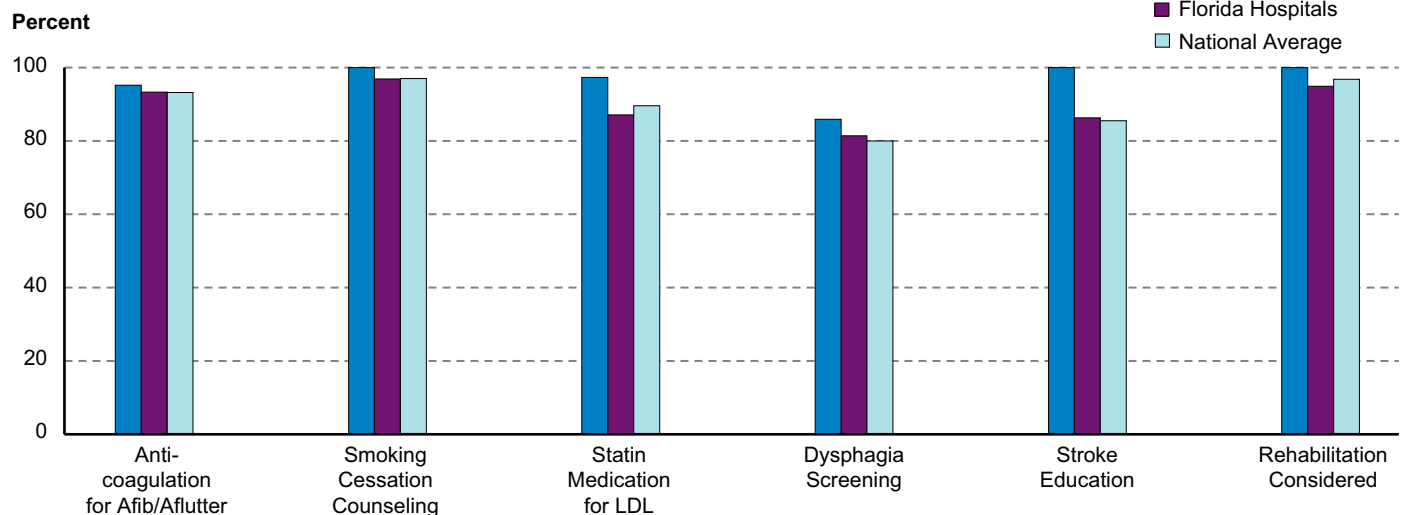
2011



Source: Outcome Science

## Stroke Achievement Comparison

2011



Source: Outcome Science

## Innovation in Education, Research and Patient Care

### Firsts

- First to report on the benefits of aspirin in combination with dipyridamole after 30 days in patients presenting with acute ischemic stroke
- In 1987, among the first centers offering deep brain stimulation for patients with Parkinson's disease, tremor and dystonia
- First observational and therapeutic studies on the relationship of cervical dystonia and chronic daily headaches
- First to report on the benefits of botulinum toxin therapy for the treatment of headaches associated with cervical dystonia
- First depiction on the benefits of topiramate for the treatment of essential tremor
- First account on the benefits of zonisamide for the treatment of essential tremor
- First comparison study on the benefits of pramipexole versus ropinirole for the treatment of restless legs syndrome

- First neurology residency training program north of Miami-Dade and south of Gainesville, Florida with full accreditation from the American Council of Graduate Medical Education
- First in offering education in the subspecialties of cerebrovascular diseases, neuromuscular disorders and electrodiagnostic medicine, and movement disorders north of Miami-Dade and south of Gainesville, Florida
- Among the first to report on the use of electrodiagnostic studies in the diagnosis of severe constipation



## Selected Publications

Dompenciel MM, Salanga VD. Cramps, contractures and myalgias: Twilight zone between movement disorders and neuromuscular diseases. In: N Galvez-Jimenez N, ed. *Uncommon Causes of Movement Disorders*. Cambridge. Cambridge, University Press. 2011. 237-244.

Jones, D, Galvez-Jimenez N. Hemifacial spasm: unusual causes and different diagnosis, In: Galvez-Jimenez N. ed. *Uncommon Causes of Movement Disorders*. Cambridge. Cambridge, University Press. 2011. 121-138.

Lugo R, Bower M, Khan T, Galvez-Jimenez N, ed. *Uncommon Causes of Movement Disorders*. Cambridge. Cambridge, University Press. 2011. 224-236.

Galvez-Jimenez N, Tuite P, Bhatia K, eds. *Uncommon Causes of Movement Disorders*. Cambridge. Cambridge, University Press. 2011. 346.

Govindarajan R, Galvez-Jimenez N. Awaji Island modified criteria for ALS-Increased sensitivity without change in specificity: are they really two sides of the same coin? *Muscle Nerve*. 2011 May; 43(5): 768-9.

Govindarajan R, Galvez-Jimenez N. Too much, too soon? (letter to the editor re: Repeated courses of granulocyte colony stimulating factor in amyotrophic lateral sclerosis: clinical and biological results from a prospective multicenter study). *Muscle Nerve*. 2011 July; 44(1) 149.

Marek K, Sibyl J, Eberly S, Oakes D et al. Clinical and imaging follow-up of SWEDD subjects in PRECEPT. [Nestor Galvez-Jimenez, Member of PSG-PRECEPT Investigators Group] *Ann Neurol*. 2011.

## Staff Listing

Nestor Galvez-Jimenez, MD, *Chair, Department of Neurology, Director, Movement Disorders Program and Parkinson's Disease Center*

---

Imad Najm, MD, *Director, Epilepsy Center*

---

Michelle Dompenciel, MD, *Neurologist, West Palm Beach*

---

Hubert Fernandez, MD, *Neurologist*

---

Tarannum Khan, MD, *Neurologist*

---

Ramon Lugo, MD, *Neurologist*

---

Chetan Malpe, MD, *Neurologist*

---

Megan R. Rahmlow, MD  
*Director, Multiple Sclerosis Program*

---

Adriana Rodriguez, MD, *Neurologist*

---

Virgilio D. Salanga, MD, *Director, Neuromuscular Program*

---

Efrain Salgado, MD, *Director, Stroke Center*

---

Po-Heng Tsai, MD, *Director, Alzheimer's Disease and Behavioral Health*

## Department of Ophthalmology



## CHAIRMAN'S MESSAGE

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The Department of Ophthalmology at Cleveland Clinic Florida is comprised of a team of physicians, surgeons, and ophthalmic technicians and staff who work together to provide clinical excellence with integrity and compassion.

We offer comprehensive eye care covering a wide range of diseases including dry eyes, diabetic eye disease, cataracts and glaucoma (medical and surgical). Over the past two years, we have broadened the scope of our subspecialty care to include laser vision correction (LASIK), advanced technology lens implants for cataract surgery, corneal transplants, surgical treatment for keratoconus, glaucoma filtration and drainage tube procedures, and newer glaucoma procedures such as canaloplasty.

Our department's mission is to provide world-class eye care representative of the latest advances in our field and to improve the quality of life of our patients. To help achieve that mission, attention to our surgical outcomes is critically important. Our department performs thousands of surgical procedures annually and we are committed to excellent outcomes. Part of this commitment involves ongoing monitoring of our surgical experience and results, which will be of interest to our patients and our referring physicians.

Sincerely,

A handwritten signature in black ink, appearing to read 'A. Caruana, Jr.', followed by a long horizontal flourish.

Albert Caruana, Jr., MD, FACS  
Chairman, Department of Ophthalmology  
Cleveland Clinic Florida

## Department Overview (2007 – 2011)

**Total Clinic Visits:** 57,378

**Total Surgical Procedures:** 4,059

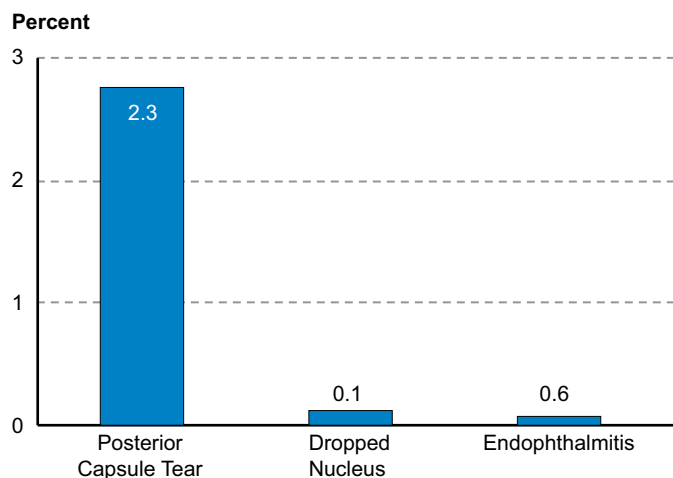
- Laser procedures:
  - YAG capsulotomies: 674
  - Glaucoma laser procedures: 30
  - Laser peripheral iridotomies: 254
- Cataract surgeries: 1,576
- Glaucoma surgeries: 82
- Corneal surgeries: 84
- Other procedures (eyelid, dry eye, external disease, trauma, etc.): 1,395

### Cataract Surgery

Cataract Surgery is the most common surgical procedure performed in the Ophthalmology Department at Cleveland Clinic Florida. From 2007 to present we performed 1,576 cataract surgeries with a success rate of over 99 percent in terms of improvement of vision.

### Cataract Case Complication Rate (N = 1,576)

2011



Source: Internal Data

In addition, we offer advanced intraocular lens implant technology, including astigmatism-correcting implants and multifocal implants. These technologies, combined with the availability of laser vision correction post-cataract surgery, have made it possible to grant patients remarkable freedom from eyeglasses for distance, intermediate, and reading vision. Many of our cataract surgery patients enjoy freedom from eyeglasses after surgery that they have never before known. The most common complication was posterior capsular tear, which was not vision threatening.

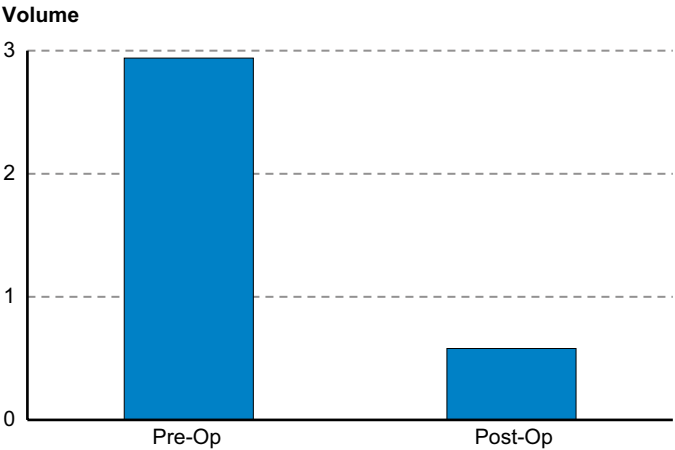
### Glaucoma Surgery

The Cleveland Clinic Florida Department of Ophthalmology provides both medical and surgical care of glaucoma, an eye disease associated with damage to the optic nerve and loss of vision (usually with elevated intraocular pressure). The purpose of glaucoma surgery is to help lower intraocular pressure and protect vision from deteriorating. Glaucoma surgical procedures performed at Cleveland Clinic Florida include trabeculectomy, placement of aqueous tube shunts, and laser trabeculoplasty. In 2012, our department began offering canaloplasty, a minimally invasive surgical procedure for glaucoma.

From 2008 – 2011, our department performed a total of 112 glaucoma procedures. Surgical outcome is often measured by the reduction in need for topical medications (e.g. glaucoma drops) after surgery. On average, patients were able to stop up to two glaucoma medications after trabeculectomy and up to one glaucoma medication after a glaucoma laser procedure.

**Glaucoma Medication Needed**

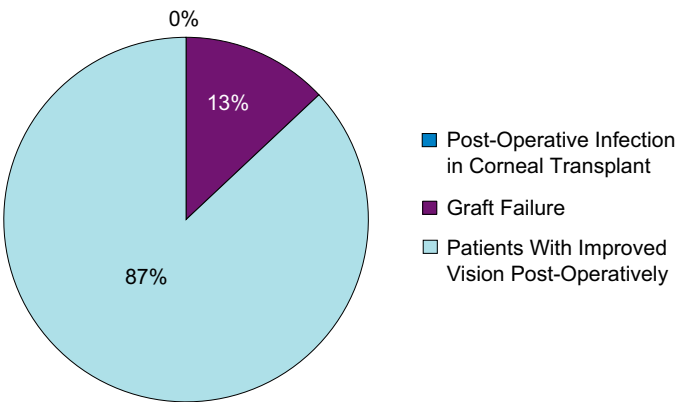
2011



Source: Internal Data

**Corneal and Refractive Surgery**

2011



Source: Internal Data

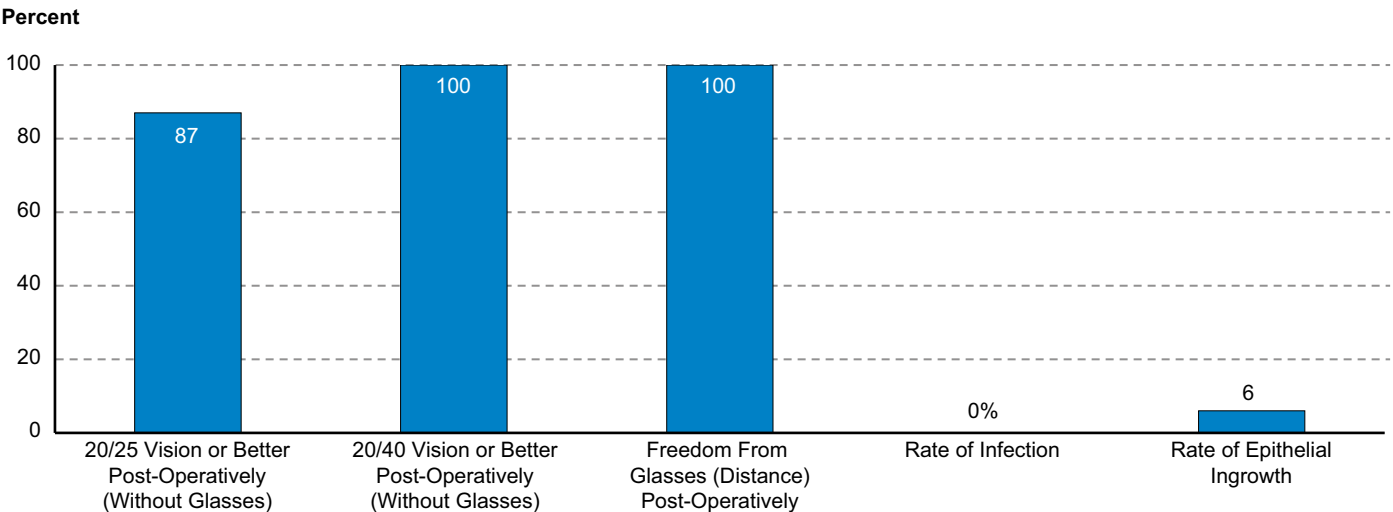
**Corneal and Refractive Surgery**

Cleveland Clinic Florida’s Department of Ophthalmology offers corneal, external disease and refractory surgery and specialty surgical care for corneal diseases such as pterygium. We also offer corneal transplants and LASIK.

Corneal transplants provide restoration of sight to patients who are blinded by diseases such as Fuchs’ dystrophy, keratoconus, or corneal scars. In addition, newer techniques for corneal transplant (called descemet’s stripping endothelial keratoplasty, DSEK) for certain conditions have resulted in shorter surgery and more rapid visual recovery post-operatively. Complications of corneal transplant surgery include infection and failure of the graft tissue.

**Laser Vision Correction**

2011



Source: Internal Data

Laser vision correction is now available at Cleveland Clinic Florida. Patients desiring freedom from glasses may be candidates for procedures such as LASIK or photorefractive keratectomy (PRK), which can correct nearsightedness (myopia), farsightedness (hyperopia) or astigmatism. A detailed eye exam is required to determine if a patient is a candidate for laser vision correction, which has a high success rate. Common complications include post-operative infection, epithelial ingrowth (a defect in healing of the wound) and failure to fully correct refractive error.

## Services Offered

### Cataract and Refractive Surgery

A cataract is a common condition in which the lens of the eye gradually becomes cloudy, blurring vision. It is correctable by outpatient surgery. The Department of Ophthalmology offers small incision, clear-corneal cataract surgery. This method is minimally invasive and vision recovery is rapid. In addition, we offer the latest technology in intraocular implants, making it possible for many patients to be free of glasses post-operatively. Some of these options include:

- Aspheric monofocal implants
- Toric implants for astigmatism
- Multifocal implants (ReSTOR® and TECNIS® Multifocal)

Our department also offers laser vision correction, including LASIK and PRK. This treatment corrects refractive error through reshaping the cornea. It is a brief outpatient procedure that allows many patients with nearsightedness, farsightedness, and/or astigmatism to restore their vision and be free of eyeglasses. For those who are not candidates for laser vision correction, phakic intraocular implants (Visian ICL) may be an appropriate alternative. This type of implant is designed to be surgically placed in front of the eye's natural lens. It corrects myopia and allows nearsighted patients to have excellent vision without the need for eyeglasses.

### Corneal and External Disease

Diseases of the cornea that we offer medical and/or surgical treatment for include:

- Corneal ulcers
- Fuchs' dystrophy
- Other corneal dystrophies (granular, anterior basement membrane, etc.)
- Dry eyes and Sjogren's Syndrome
- Pterygium
- Keratoconus
- Bullous keratopathy
- Corneal scars
- Infectious keratitis
- Chemical and thermal injuries

Surgical procedures offered include:

- Corneal transplantation
- Descemet's Stripping Endothelial Keratoplasty (DSEK)
- INTACS® for keratoconus
- Prokera
- Ocular surface reconstruction
- Superficial keratectomy
- Photo-therapeutic keratectomy (PRK)
- Punctal plug placement
- Biopsy of the cornea, conjunctiva or eyelid





## Glaucoma

All of our physicians provide routine care for glaucoma. This includes monitoring of glaucoma suspects, checking the intraocular pressure, imaging of the optic nerve, and visual field testing. All forms of glaucoma treated include:

- Chronic open angle glaucoma
- Narrow angles
- Angle closure glaucoma
- Pseudoexfoliation
- Pigment dispersion syndrome
- Low tension glaucoma
- Phacolytic glaucoma
- Neovascular glaucoma
- Inflammatory glaucoma
- Ocular hypertension
- Traumatic glaucoma

Surgical procedures offered for glaucoma include:

- Laser trabeculoplasty
- Laser peripheral iridotomy
- Trabeculectomy
- Glaucoma drainage device placement
- Canaloplasty

## General Ophthalmology

We offer comprehensive general eye care, including care for the following conditions:

- Diabetic eye disease
- Dry eyes
- Blepharitis
- Meibomian gland dysfunction
- Conjunctivitis
- Allergic eye disease
- Cataracts
- Ocular hypertension/glaucoma
- Chronic tearing
- Blepharospasm
- Other lesions/disorders of the eyelid
- Uveitis
- Macular degeneration (dry)
- Floaters/flashes
- Narrow angles
- Corneal abrasions
- Superficial foreign bodies of the eye
- Routine screening for patients on high-risk medications (e.g., hydroxychloroquine / Plaquenil)

## Neuroophthalmology

Neuroophthalmology services at Cleveland Clinic Florida include:

- Pseudotumor cerebri
- Papilledema
- Optic nerve disease
- Blepharospasm
- Hemifacial spasm
- Myasthenia gravis
- Tumors involving vision

- Ischemic optic neuropathy
- Thyroid eye disease
- Pupillary abnormalities
- Double vision and ocular motility disorders
- Cerebrovascular disorders (e.g., stroke) involving vision

### Patient Experience Surveys

Patient experience at Cleveland Clinic Florida's Department of Ophthalmology is extremely important to us. All caregivers, including the physicians, ophthalmic technicians, and coordinators, are committed to providing clinical excellence with integrity and compassion.

Our department participates in tracking outcomes with regard to patient satisfaction through Press Ganey surveys. The survey questions cover topics including:

- Friendliness of provider
- Time spent with the patient
- Explanation of the disease or condition provided by the physician
- Degree to which the patient's questions were addressed
- Patient confidence in their provider
- Likelihood of recommending the provider to others

Our department's physicians scored 87 percent overall on these measures, with 90 percent of patients recommending their provider to others. We continue to monitor these results and use them to improve the patient experience.

### Staff Listing

Albert Caruana, Jr., MD, *Chair, Department of Ophthalmology*

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Dean Mitchell, MD, *Ophthalmologist*

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Geetha Vedula, MD, *Ophthalmologist*

## Department of Orthopaedic Surgery



In the Department of Orthopaedics, we realize quality counts when making a decision to refer a patient to a hospital or physician. This outcome data contains a summary of our department's surgical and medical trends and approaches. Our department is complete with subspecialists who evaluate and treat all disorders of the musculoskeletal system at both the Weston and West Palm Beach locations. We are committed to enhancing care and achieving excellence for our patients and referring physicians.



Thank you for your interest in Cleveland Clinic Florida's Department of Orthopaedics 2011 outcomes.

Sincerely,

A handwritten signature in black ink that reads "Gilot". The signature is stylized, with the "G" being large and the "ilot" following in a cursive-like script.

Gregory J. Gilot, MD  
Chairman, Department of Orthopaedics  
Cleveland Clinic Florida

## Department Overview

Cleveland Clinic Florida's orthopaedic surgeons are highly trained in the latest techniques to treat the full spectrum of orthopaedic conditions, from simple fractures to sports injuries and joint replacement.

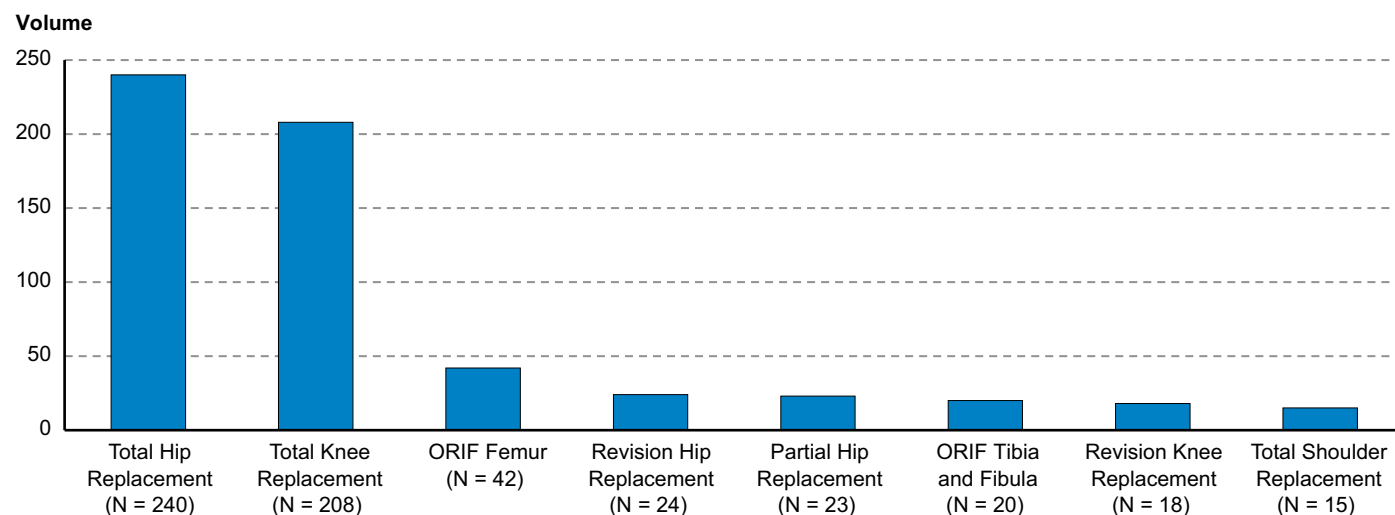
Our orthopaedic team focuses on diseases, injuries and conditions affecting the body's musculoskeletal system including the joints, ligaments and tendons. We achieve excellent medical outcomes by taking a multidisciplinary approach and by working closely with specialists from related departments.

The services we offer include complex primary and revision joint replacement including minimally invasive joint replacement surgery, reverse shoulder arthroplasty and minimally invasive direct anterior hip replacement surgery. Services also include advanced arthroscopic techniques of the hip, ankle, knee, shoulder and elbow.

**Total 2011 New Patient Clinic Visits: 7,059**

## Top Volume Procedures

2011

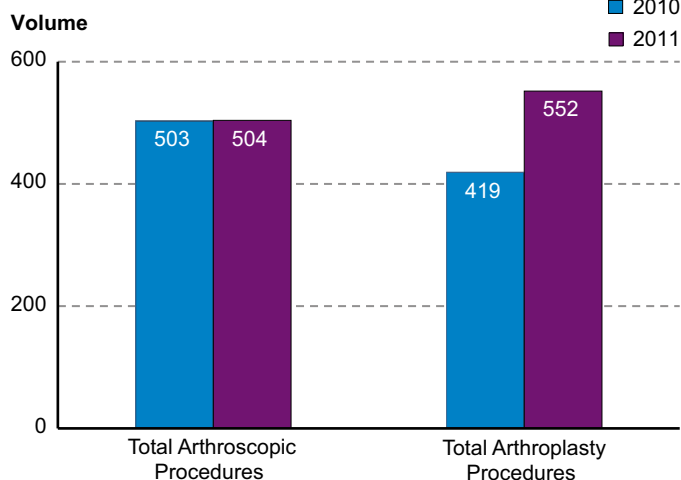


Abbreviation: ORIF = open reduction and internal fixation

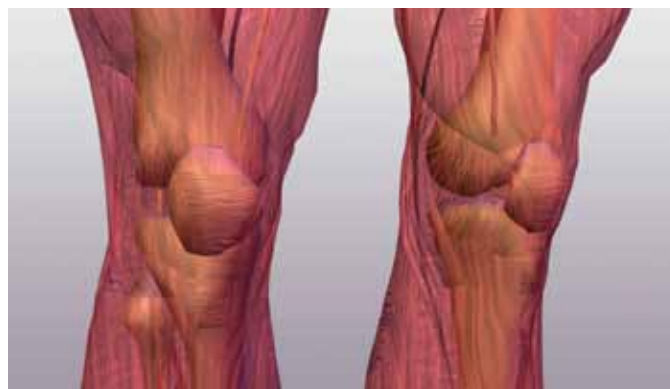
Source: Truven Health Analytics Polaris® Suite

## Surgical Volume

2010 – 2011



Source: Truven Health Analytics Polaris® Suite



## Minimally Invasive Direct Anterior Hip Replacement Surgery

Cleveland Clinic Florida is one of the only hospitals in the region to offer minimally invasive direct anterior hip replacement surgery, an advanced procedure involving no muscle cutting. The procedure spares any invasion into the large muscle or tendon groups around the hip and is usually done through a smaller incision. Minimally invasive direct anterior hip replacement surgery typically provides a shorter hospital stay, quicker recovery time, less pain and need for pain medication, less risk of discoloration and no need for postoperative restrictions in motion. The use of assistive devices such as a cane or walker postoperatively is usually decreased, and is typically necessary for only seven to 10 days following the procedure.

### Orthopaedic procedures include:

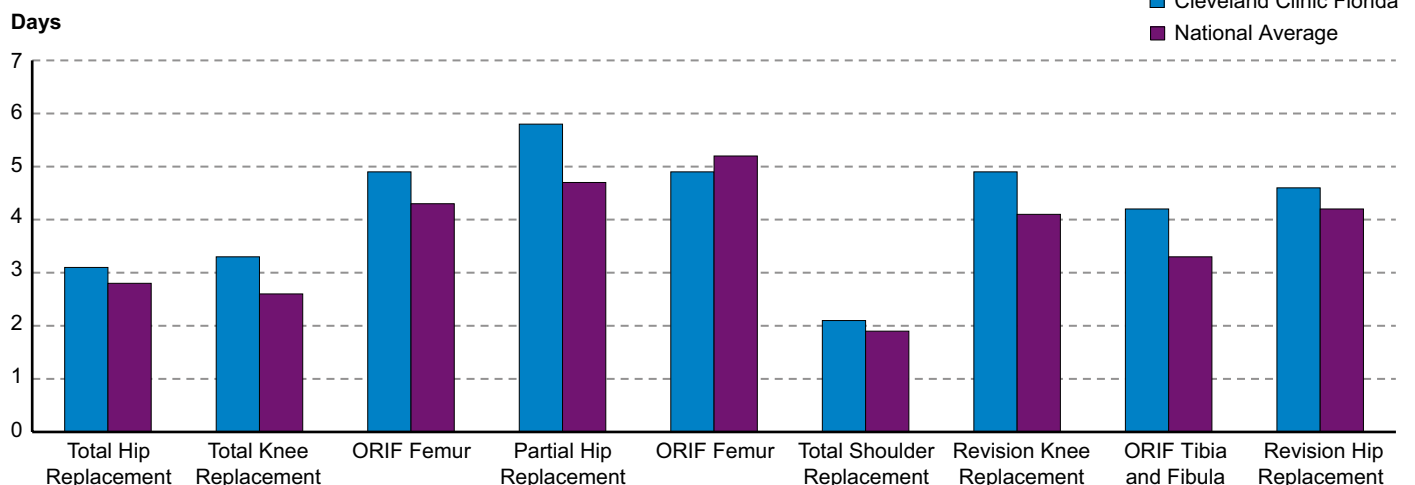
- Lower extremity joint replacement, including minimally invasive techniques

- Upper extremity joint replacement, including minimally invasive techniques
- Shoulder arthroscopic and reconstructive surgery
- Knee arthroscopic and reconstructive surgery
- Musculoskeletal tumor surgery
- Treatment of fractures
- Non-surgical podiatric management
- All-inside ACL (anterior cruciate ligament) reconstruction
- Hand surgery



## Average Length of Stay

2011



Abbreviation: ORIF = open reduction and internal fixation

Source: Truven Health Analytics Polaris® Suite

**Cleveland Clinic Florida's mortality rate was 0 for the following procedures:**

- Total hip replacement
- Total knee replacement
- ORIF femur
- Revision hip replacement
- Partial hip replacement
- ORIF tibia and fibula
- Revision knee replacement
- Total shoulder replacement



## Selected Publications

Mutnal A, Suarez J, Cardona L, Patel P. Periprosthetic propionibacterium granulosum joint infection after direct anterior total hip arthroplasty: A case report. *Journal of Bone and Joint Surgery Case Connector*. 2011; 01:e10.

Peck E, Finnoff JT, Smith J, Curtiss H, Muir J, Hollman JH. Accuracy of palpation-guided and ultrasound-guided needle tip placement into the deep and superficial posterior leg compartments. *Am J Sports Med*. 2011 Sep;39(9):1968-74. Epub 2011 May 26.

Curtiss HM, Finnoff JT, Peck E, Hollman J, Muir J, Smith J. Accuracy of ultrasound-guided and palpation-guided knee injections by an experienced and less-experienced injector using a superolateral approach: A cadaveric study. *PM R*. 2011 Jun;3(6):507-15.

Eric Thiel, MD, Amar Mutnal, MD, Gregory J. Gilot, MD. Surgical outcome following arthroscopic fixation of acromioclavicular joint disruption with the TightRope device. *Orthopedics*. 2011; 34(7):1-8.



## Staff Listing

Gregory Gilot, MD, *Chair, Department of Orthopaedic Surgery, Shoulder Reconstruction Specialist*

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Brian Leo, MD, *Orthopaedic Surgeon, Sports Medicine Surgery Specialist*

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Preetesh Patel, MD, *Orthopaedic Surgeon, Hip and Knee Reconstruction Specialist*

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Evan Peck, MD, *Sports Medicine Specialist, West Palm Beach*

---

Elizabeth Scheiber, DPM, *Podiatrist*

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Arjun Srinath, MD, *Orthopaedic Surgeon, Foot and Ankle Reconstruction Specialist*

---

Juan Suarez, MD, *Orthopaedic Surgeon, Hip and Knee Reconstruction Specialist*

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David Westerdahl, MD, *Sports Medicine Specialist*

Department of Plastic Surgery,  
Division of Hand Surgery



At Cleveland Clinic Florida's Department of Plastic Surgery and our Division of Hand and Upper Extremity Surgery, we continue to refine and improve our reconstructive and aesthetic procedures to bring state-of-the-art care to our patients. We hope that the information in this outcomes book will serve as a valuable tool and reinforce your confidence in the quality of care our institution offers.

We consider you a partner in the care of your patients and will continue to improve our communications regarding your patients' diagnosis, treatment options and outcomes.

Sincerely,



David W. Friedman, MD, FACS  
Chairman, Department of Plastic Surgery  
Head, Section of Hand Surgery  
Cleveland Clinic Florida



## Department Overview

Plastic surgeons at Cleveland Clinic Florida offer a wide range of cosmetic and reconstructive surgery services. Most of our surgeons are double-board certified and many have completed additional training in various fellowships and subspecialties.

Cleveland Clinic's plastic surgeons are experts in breast reconstruction and work as a team in collaboration with oncologists and general surgeons to achieve the best possible results using innovative technology. Cleveland Clinic Florida's Department of Plastic Surgery is extremely proud of our groundbreaking work in intra-operative imaging and success in complex abdominal wall reconstruction.

Cleveland Clinic Florida was the first to incorporate laser-imaging technology in breast reconstruction with Drs. Martin Newman and Michel Samson pioneering the use of laser angiography in the operating room. By breaking new ground, they were the first surgeons in the world to demonstrate the benefits of assessing tissue perfusion in breast reconstruction and flap design with this technology. With the department lighting the way, over 200 hospitals across the country have adopted this technology and now offer their patients the benefits of laser angiography as introduced at Cleveland Clinic Florida.

Complex abdominal wall reconstruction has been a very successful focus of the department. Like many major centers, plastic surgeons at Cleveland Clinic Florida are often asked to assist other surgical specialties with the rebuilding of the abdominal wall in patients who have undergone surgeries for cancers and non-malignant disease processes. Recently, Drs. Newman and Samson presented their experience at the American College of Surgeons South Florida Scientific Meeting, which demonstrated that by applying their surgical techniques and reconstructive strategies, a three-fold reduction in recurrence and major complications could be achieved.



## Hand and Upper Extremity Surgery

The Section of Hand and Upper Extremity Surgery at Cleveland Clinic Florida provides a multidisciplinary approach for the comprehensive care of individuals with injuries and/or disorders of the hand, wrist and forearm, including the elbow. Physicians from multiple disciplines collaborate to provide the best possible treatment options and outcomes for patients with all conditions involving the upper extremity.

Working in close collaboration with the Departments of Plastic Surgery, Orthopaedic Surgery, Neurology, Rheumatology, Radiology, and Physical and Occupational Therapy, we provide evaluation, treatment and rehabilitative care for a wide variety of injuries and disorders, such as arthritis, tumors, fractures and vascular concerns. Our goal is to help individuals return to pain free, functional lives.

### Total 2011 New Patient Clinic Visits:

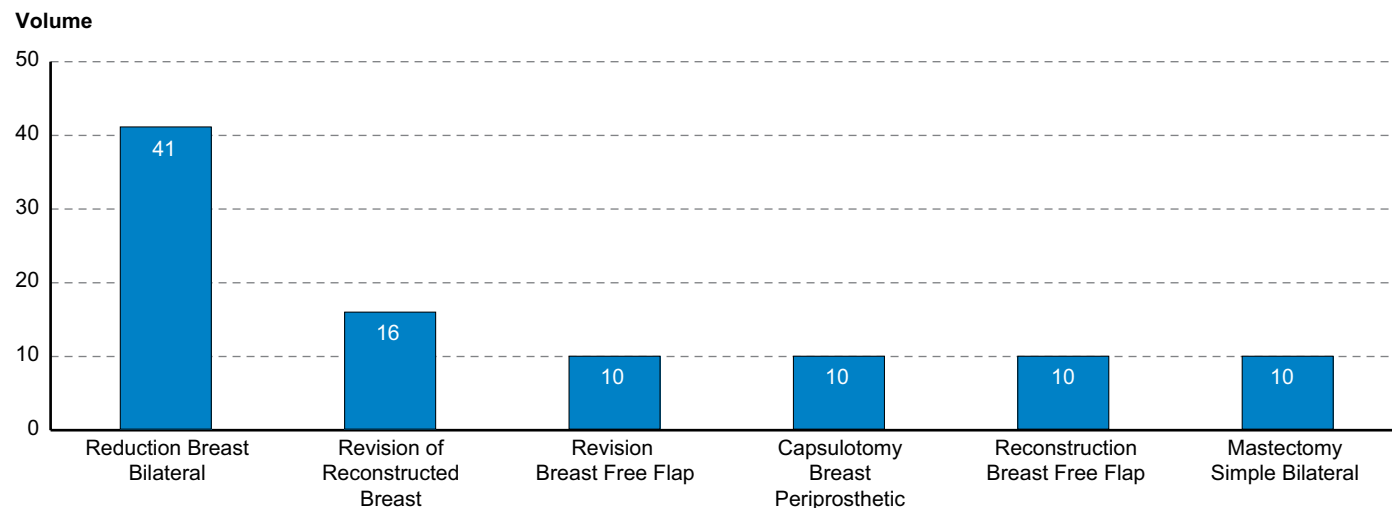
- Plastic Surgery = 1,216
- Hand Surgery = 2,117

### Total Surgical Procedures:

- Plastic Surgery = 408
- Hand Surgery = 665

## Top Plastic Surgery Breast Procedures

2011



Source: Truven Health Analytics Polaris® Suite

### Plastic Reconstructive Services Include:

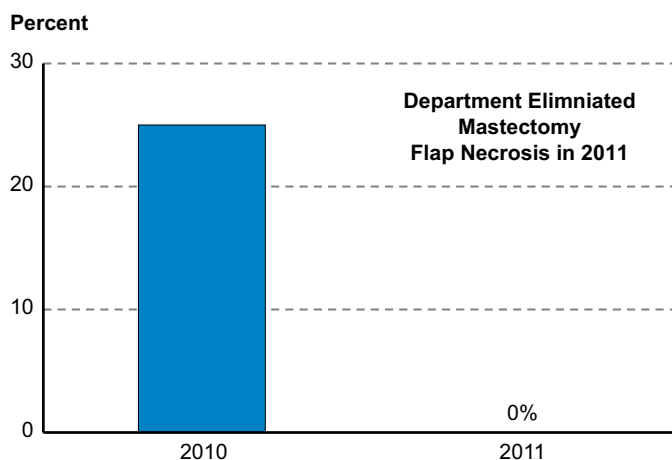
- Breast reconstruction
- Breast reduction
- Breast deformity correction
- Abdominal wall reconstruction
- Lipoma surgery
- Lower extremity reconstruction
- Melanoma reconstruction
- GYN reconstruction
- Scar revision
- Skin cancer removal and reconstruction
- Mohs surgery reconstruction

### Cosmetic Procedure Services Include:

- Bariatric body contouring surgery
- Cosmetic surgery
- Non-invasive cosmetic procedures
- Facial rejuvenation

## Mastectomy Flap Necrosis

2010 – 2011



Source: Internal Data

## Plastic Surgery Residency

Cleveland Clinic Florida offers several graduate medical education training programs including a fully accredited three-year, independent plastic surgery residency. The program accepts candidates who are board eligible in general surgery or in various subspecialties such as orthopaedics, otolaryngology, oral surgery and urology. Cleveland Clinic Florida's Plastic

Surgery Residency Program was initiated in 2004 after receiving accreditation by the Accreditation Council for Graduate Medical Education (ACGME) Residency Review Committee. Many of the twelve graduates have continued training in prestigious fellowships and now practice in eight different states.

### Innovative Treatments

- First in the world to incorporate laser imaging SPY® system technology in breast surgery, pioneering this technique
- Pioneers in innovative surgical and non-invasive cosmetic procedures
- DIEP (deep inferior epigastric perforator) reconstruction, where a person's own abdominal tissue is used in breast reconstruction
- Collaborative team approach with Cleveland Clinic Florida's Bariatric Center of Excellence in maximizing results with body contouring following bariatric surgery and weight loss.



SPY® Elite Device

### Hand Procedures

Hand and Upper Extremity Services Include:

- Arthritis
- Distal radius and forearm fractures
- Fractures of the hand, forearm and elbow
- Microsurgery
- Nerve compressions
- Repetitive stress disorders
- Sports related and other injuries
- Trauma and reconstruction
- Tumors
- Vascular conditions
- Aging and cosmetic concerns of the hand and arm

### Institutional Review Board Approved, Ongoing Studies

Newman MI. IRB #9328. The Financial Cost Associated with Flap Necrosis Complicating Breast Reconstruction. July 2011 – present.

Jack MC, Samson MC, Newman MI. IRB #EX007-11. National Survey of Lower Extremity Flaps at Plastic Surgery Programs. July 2011 – present.

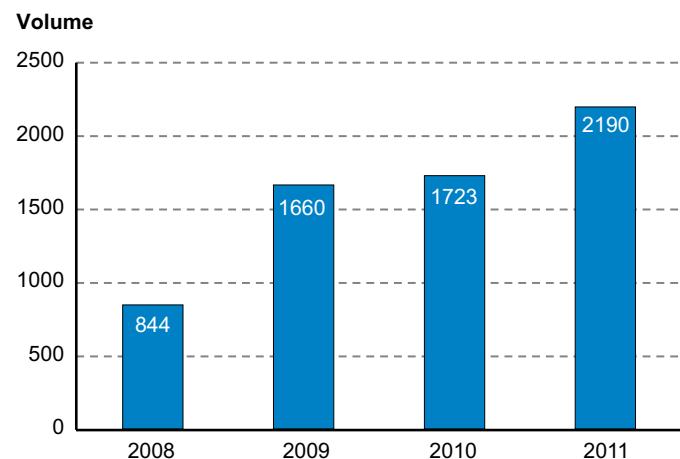
Newman MI, Samson MC. IRB #9225. Reconstruction following Abdominal Perineal Resection. Cleveland Clinic Florida, Weston, FL. July 2010 – present.

Newman MI, Samson MC. IRB #9228. Abdominal Wall Reconstruction. Cleveland Clinic Florida, Weston, FL. July 2010 – present.

Newman MI, Samson MC. IRB #9225. Breast Reconstruction with and without Biomesch. Cleveland Clinic Florida, Weston, FL. July 2010 – present.

## New Outpatient Visits – Hand

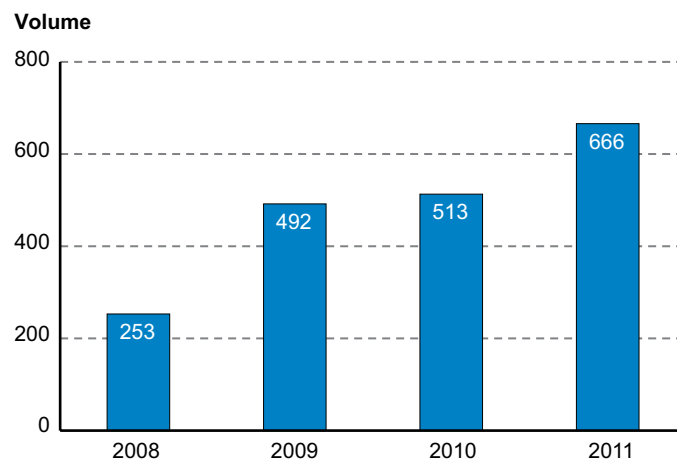
2008 – 2011



Source: Internal Data

## Hand Procedures

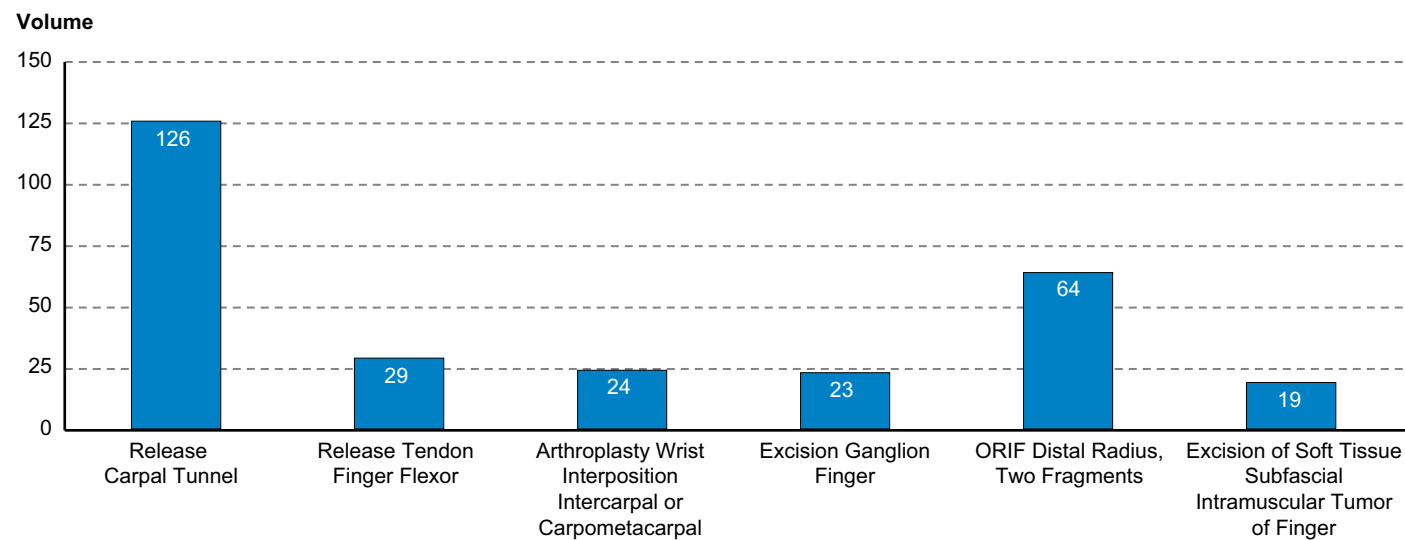
2008 – 2011



Source: Truven Health Analytics Polaris® Suite

## Top Volume Hand Procedures

2011



Source: Truven Health Analytics Polaris® Suite

Newman MI, Samson MC. IRB #8860. The Application of Laser-Assisted Indocyanine Green Fluorescent Dye Angiography in Microsurgical Breast Reconstruction. Cleveland Clinic Florida, Weston, FL. September 2006 – present.

Samson MC, Newman MI. IRB #8250 Mentor H/S Silicone Gel-Filled Mammary Prosthesis Post-Approval Research Study. Cleveland Clinic Florida, Weston, FL. March 2007 – present.

### 2011 Publications and Presentations

Earle SA. The evolution of surgical education. Plastic Surgery Grand Rounds, Duke University, Durham, NC, March 2011.

Earle SA, Hollenbeck ST, Erdmann D, Levin LS. Unique challenges and outcomes of 34 free tissue transfers to the knee. Poster presentation, 54<sup>th</sup> Annual Scientific Meeting of the Southeastern Society of Plastic and Reconstructive Surgeons, Naples, FL, June 2011.

Erdmann D, Earle SA. Use of Talon® closure device in combination with a pectoralis turnover muscle flap for sternum non-union." *J Plast Reconstr Surg*. 2011 Mar;127(3):67e-69e.

Kiefer J, Hollenbeck ST, Woo S, Earle SA, Erdmann D, Levin LS. Impact of systemic injury on free flap outcomes in trauma patients. Oral presentation, 3<sup>rd</sup> Annual European Plastic Surgery Research Council, Hamburg, Germany, August 2011.

Brunworth LS, Samson MC, Newman MI, et al. Nipple-areola complex evaluation in long pedicled breast reductions with real-time fluorescent videoangiography. *Plast Recon Surgery*. 2011 Aug;128(2):585-6.

Newman MI. Abdominal wall reconstruction in the massive weight loss patient. *Bariatric Times*. 2011 April. 14-15.

### Staff Listing

David W. Friedman, MD, *Chair, Department of Plastic Surgery, Head, Section of Hand Surgery*, Weston and West Palm Beach

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Christopher Litts, MD, *Hand Surgeon*, Weston and West Palm Beach

---

Martin Newman, MD, *Plastic Surgeon*, Weston

---

Michel C. Samson, MD, *Plastic Surgeon*, Weston and West Palm Beach

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S. Alexander Earle, MD, *Plastic Surgeon*, Weston

Jack MC, Barnavon Y, Newman MI. Response: Islanded posterior tibial artery perforator flap for lower limb reconstruction: Review of lower leg anatomy. *Plast Recon Surgery*. 2011 Feb;127(2):1014-5.

Newman MI, Samson MC, Tamburrino JF, Swartz KA. An investigation of the application of laser-assisted indocyanine green fluorescent dye angiography in pedicle tram breast reconstruction. *Canadian JI of Plastic Surg*. Spring 2011; Volume 19 Issue 1: e 1-e 5.

Newman MI, Swartz KA, Samson MC, Mahoney CB, Diab K. The true incidence of near-term postoperative complications in prosthetic breast reconstruction utilizing human acellular dermal matrices: A meta-analysis. *Aesthetic Plastic Surgery*. 2011 Feb;35(1):100-6.



## Department of Pulmonary Medicine

## CHAIRMAN'S MESSAGE

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We are happy to share important and useful information regarding our special services with our referring physicians, training program alumni, potential patients and other individuals interested in respiratory or sleep-related diseases. Our department specializes in the diagnosis and treatment of patients with illnesses that affect the lungs, breathing and sleep. Cleveland Clinic Florida's board-certified pulmonologists diagnose and treat diseases such as: asthma; bronchitis; emphysema; various interstitial lung diseases such as hypersensitivity or usual interstitial pneumonitis; vasculitides; lung infections; bronchiectasis; pulmonary hypertension; and sleep disorders, such as sleep apnea and narcolepsy. Our pulmonologists closely collaborate with colleagues in cardiothoracic surgery, cardiology, thoracic oncology, infectious diseases, otolaryngology, rheumatology, allergy and immunology to provide comprehensive and effective treatment for our patients. We provide the most modern methods based on scientific evidence.

In 2011, we enjoyed ongoing expansion of our clinical programs in terms of special offerings including innovative technologies for diagnosis and treatment. We are very proud of our accomplishments and grateful to all those who have helped us achieve success and those who have trusted us with their healthcare needs. We are passionately committed to continued excellence in clinical care. Close and frequent communication is maintained with physicians who refer patients from outside Cleveland Clinic Florida for advanced treatment.

The following few pages will provide a focused overview of our clinical activities and programs, including some highlights of clinical volumes and patient outcomes.

Sincerely,

A handwritten signature in black ink that reads "L.A. Smolley, M.D.". The signature is written in a cursive, flowing style.

Laurence A. Smolley, MD

Chairman, Department of Pulmonary Disease, Critical Care and Sleep Medicine

Medical Director, Sleep Disorders Center

Program Director, Pulmonary Fellowship Program

Cleveland Clinic Florida

## Department Overview

There are nine fellowship trained physicians certified by the American Board of Internal Medicine in pulmonary disease and critical care medicine comprising our departmental team. We share most of our clinical responsibilities in a defined rotation. Each individual physician has a specific area of interest and expertise, and some are also board-certified in sleep medicine.

## Pulmonary Outpatient Clinic and Hospital Consultation Service

Pulmonary outpatient clinic and hospital consultation service is our primary focus. We provide initial evaluation and management of patients suffering from a broad-spectrum of respiratory or sleep related illnesses. Evaluation and management begins in these settings while ongoing care is directed to appropriate subspecialists within the Pulmonary Department and/or throughout Cleveland Clinic Florida. On occasion, patients are referred to Cleveland Clinic's main campus in Cleveland for necessary unique care.

## Medical-Surgical Intensive Care Units

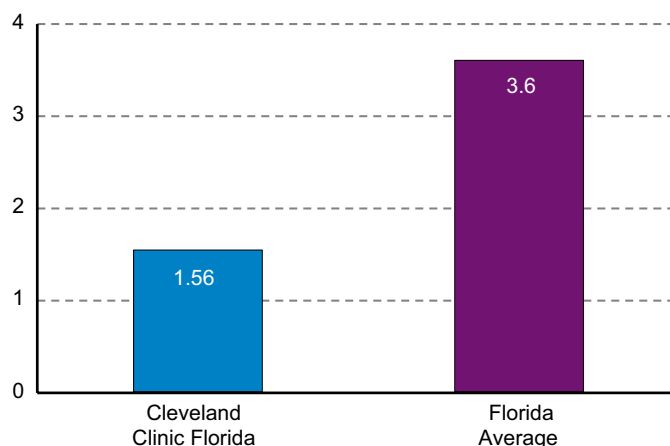
Our physicians supervise and assist multidisciplinary teams in critical care units for the sickest patients in the hospital. We adhere to guidelines for evidence-based best practice for mechanical ventilation, septic shock, heart failure and the full spectrum of critical illness. We provide coverage of the units with a doctor on site, 24 hours a day, seven days a week. We accept transfers of profoundly ill patients from outside hospitals, including those from the entire Caribbean basin. We are very proud of our outcomes including length of stay on respirators, incidence of infection, such as ventilator-associated pneumonia (VAP) or intravenous line-related infections as well as length of stay in the intensive care units.

In 2011, Cleveland Clinic Florida's rate of VAP was lower than the state of Florida average.

## Ventilator Associated Pneumonia

2011

Rate Per 1000 Ventilator Days



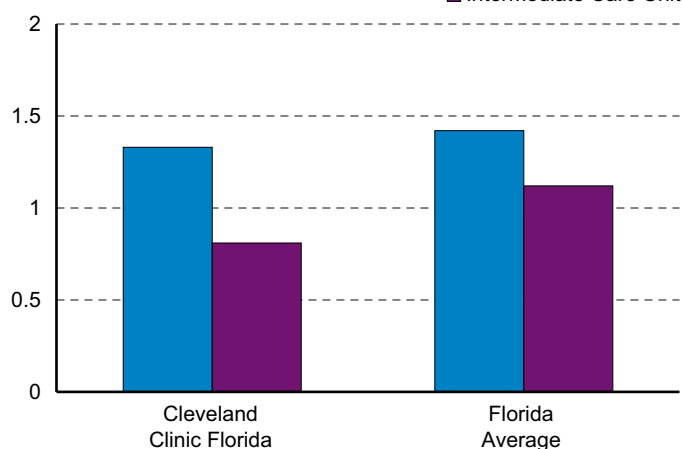
Source: National Healthcare Safety Network

Ventilator-associated pneumonia (VAP) is a sub-type of hospital-acquired pneumonia (HAP), which occurs in people who are receiving mechanical ventilation.

## Central Line Blood Stream Infection Rates

2011

Rate Per 1000 Ventilator Days



Source: NHSN Data

In 2011, Cleveland Clinic Florida demonstrated fewer central line bloodstream infection (CLABSI) rates per 1,000 line days than the State of Florida average.

### Pulmonary Hypertension Clinic

Two members of our team oversee state-of-the-art diagnosis and specific application of the most advanced medical therapy available as indicated for patients with pulmonary hypertension. Education and screening opportunities for enrollment after informed consent in clinical trials is also available. We have several ongoing investigations of new medications for the treatment of this difficult illness as well as studies of best modalities for monitoring the response to medications.

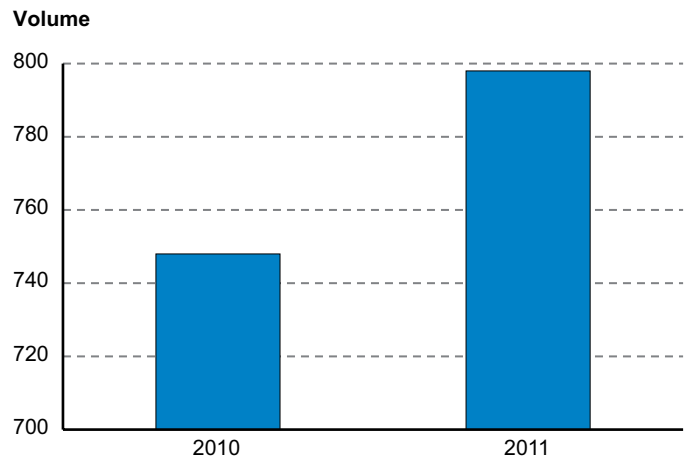
### Interventional Pulmonology: Advanced Diagnostics and Therapeutics

Our Interventional Pulmonology Program, founded in 2001, is one of the top interventional programs in the State of Florida. We provide the most modern techniques available for diagnosis and management of difficult problems related to lung cancer and benign conditions of the lung. We provide advanced diagnostic techniques including endobronchial ultrasound (EBUS) and computer directed electro-bronchoscopy (ENB). These methods are designed to reduce the need for more invasive surgical operations such as mediastinoscopy or radiological techniques such as needle biopsy with much less risk of complications. Our diagnostic yields have been excellent and meet or exceed benchmarks published in medical literature.

Advanced therapeutic techniques include: bronchial stent installations for the treatment of atelectasis; endobronchial valves for management of selected patients with prolonged airleaks from lung after lobectomy; segmentectomy or lung volume reduction surgery; and bronchopleural fistula (off label HUD indication). We also offer bronchial thermoplasty for certain patients with severe asthma which is poorly controlled by medications.

### Bronchoscopies Performed

2010 – 2011



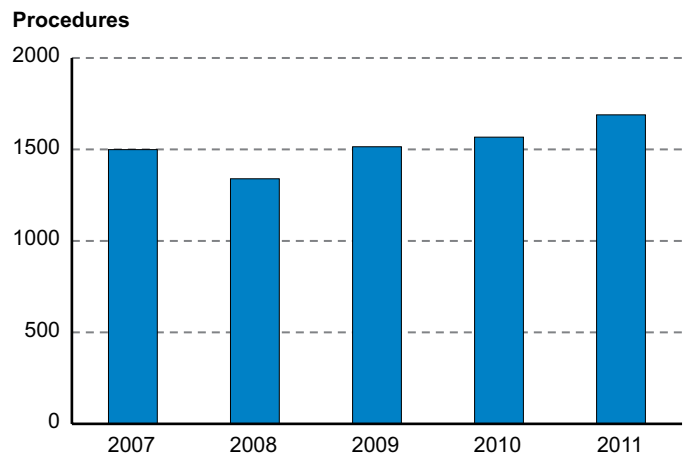
Source: Internal Data

### Sleep Disorders Center

Our Sleep Disorders Center established in 1996 is fully accredited by the American Academy of Sleep Medicine (AASM). The medical director is dual certified by the AASM and the American Board of Internal Medicine while supervising physicians are also board certified. Our modern sleep laboratory is

### Sleep Lab Volume

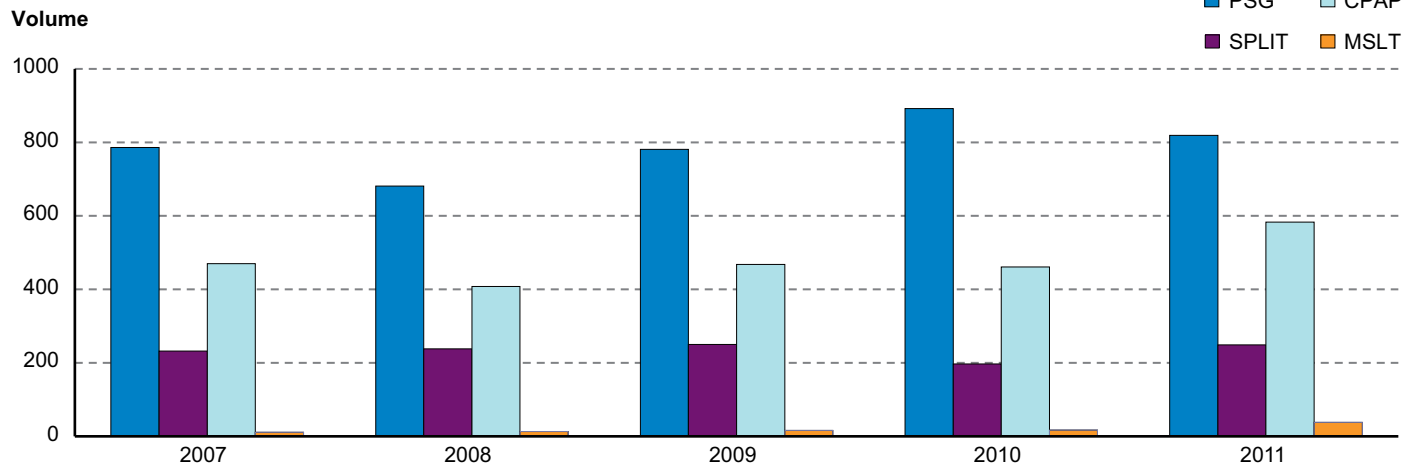
2007 – 2011



Source: Internal Data

## Sleep Lab Assessments

2007 – 2011



Abbreviations: PSG = polysomnogram diagnostic study; SPLIT-Combined PSG and CPAP; CPAP = continuous positive airway pressure; MSLT = multi-sleep latency test.

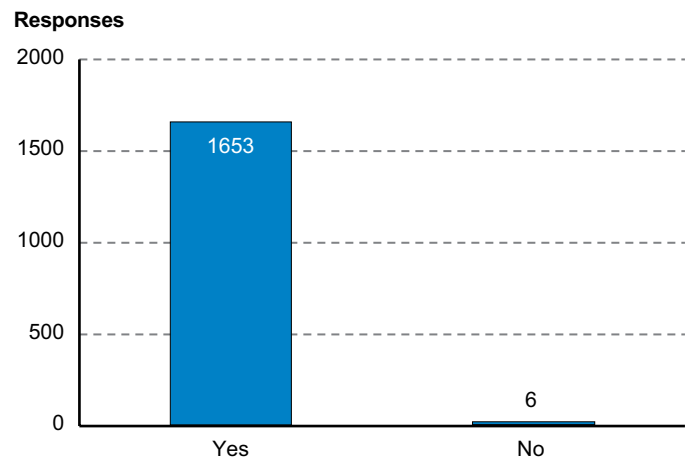
Source: Internal Data

in an extremely comfortable hotel setting in Weston that is more conducive to evaluation of sleep for our patients. We apply a multidisciplinary approach involving sleep specialists, ear, nose and throat (ENT) specialists as well as psychologists and/or psychiatrists for the management of our patients. We have the resources, including adapto-servo-ventilation, to care for the most difficult sleep disorders including complex sleep apnea (the emergence of central sleep apnea during the application of CPAP in patients with heart disease or requiring narcotic analgesics), narcolepsy or various parasomnias. Our volume of patients and number of studies has grown remarkably over recent years. We have an excellent track record of patient satisfaction with the laboratory and with treatments provided.

Sleep Lab patients were surveyed on their experience. Of the 1,659 surveyed, 1,629 responded and 99 percent would recommend the Sleep Lab at Cleveland Clinic Florida.

## Would You Recommend Our Sleep Lab? (N = 1,629)

2011

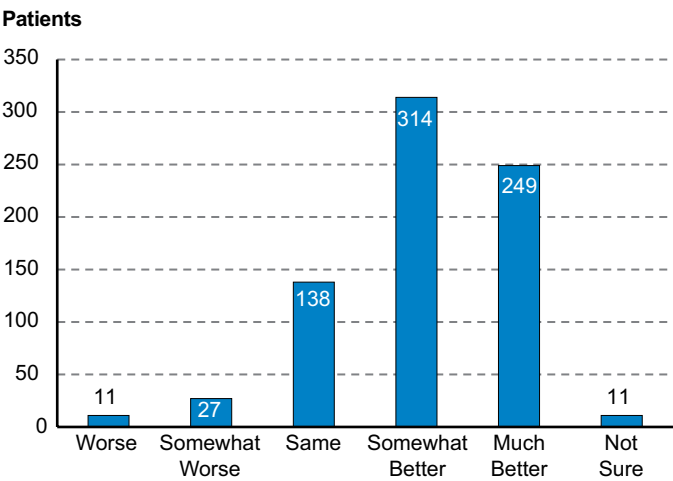


Source: Internal Data

Cleveland Clinic Florida surveyed 739 patients following the use of continuous positive airway pressure (CPAP) and more than 76 percent indicated they felt somewhat or much better.

**How Do Patients Feel After Using CPAP?**

2011

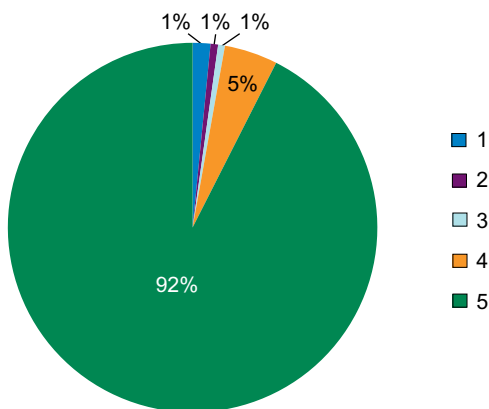


Source: Internal Data

A 2011 survey of 1,692 sleep lab patients yielded 1,655 responses. Ninety two percent of respondents rated our sleep lab technicians as a 5 (1 being the worst and 5 being the best).

**Sleep Lab Technician Professionalism Rating**

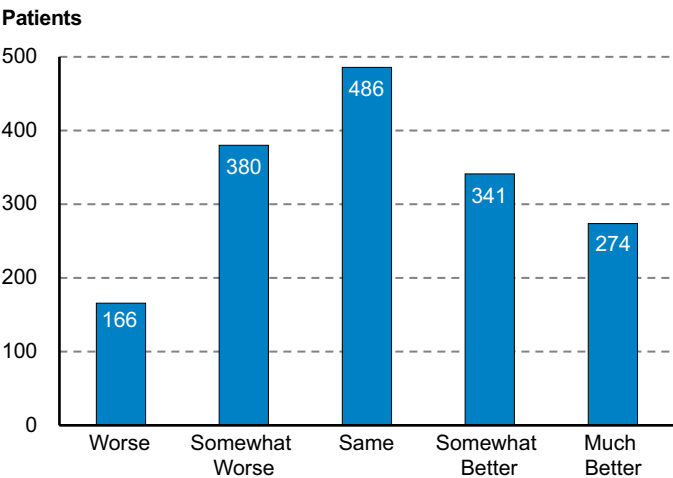
2011



Source: Internal Data

**Sleep Comparison: Lab vs. Home (N = 1,647)**

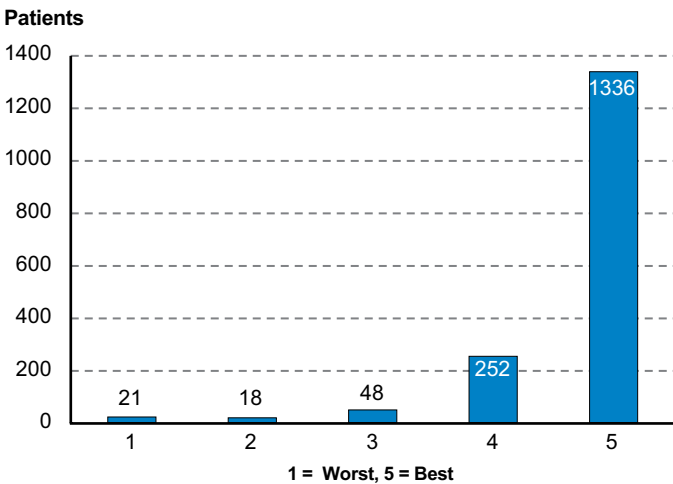
2011



Source: Internal Data

**Bed Comfort (N = 1,675)**

2011



Source: Internal Data

**Interstitial and Granulomatous Lung Disease and Cough Clinic**

Several of our doctors have special interest and expertise in this field. We deal with patients with long-standing difficult to control cough or shortness of breath. Our staff and a multidisciplinary team includes thoracic radiologists, thoracic surgeons, lung pathologists

and microbiologists. We diagnose and manage a wide variety of lung diseases including vasculitis, pulmonary fibrosis, sarcoidosis and atypical mycobacterial infections such as mycobacterium avium complex (MAC). Our Cough Clinic uses advanced methods including digital laryngoscopy and exhaled nitric oxide assays (FeNO) to clarify the cause of the patient's cough in order to apply appropriate therapy.

### Cystic Fibrosis (CF) and Non-CF Bronchiectasis Clinic

At Cleveland Clinic Florida's Bronchiectasis Care Center, we offer a comprehensive program to diagnose, evaluate and treat patients with bronchiectasis. Since its inception, 107 patients have benefited from the multidisciplinary approach to treatment for this chronic airway disease. These include individualized sessions of airway clearance therapy education on various methods such as airway oscillating devices, postural drainage, high frequency chest wall compression (HFCWC) vests and manual chest physiotherapy. All patients receive as indicated full immunologic evaluation, sputum microbiology testing, pulmonary function test and high resolution CT scans. Advanced testing for CF gene mutations is

offered when indicated. The Center is an active site of research for using inhaled antibiotics in patients with CF and non-CF bronchiectasis that aim at improving our patients' quality of life, decreasing the frequency of exacerbations, avoiding dependence on oral or intravenous antibiotics and finally preventing hospitalizations.

### Pulmonary Education, Comprehensive Rehabilitation and Smoking Cessation Clinic

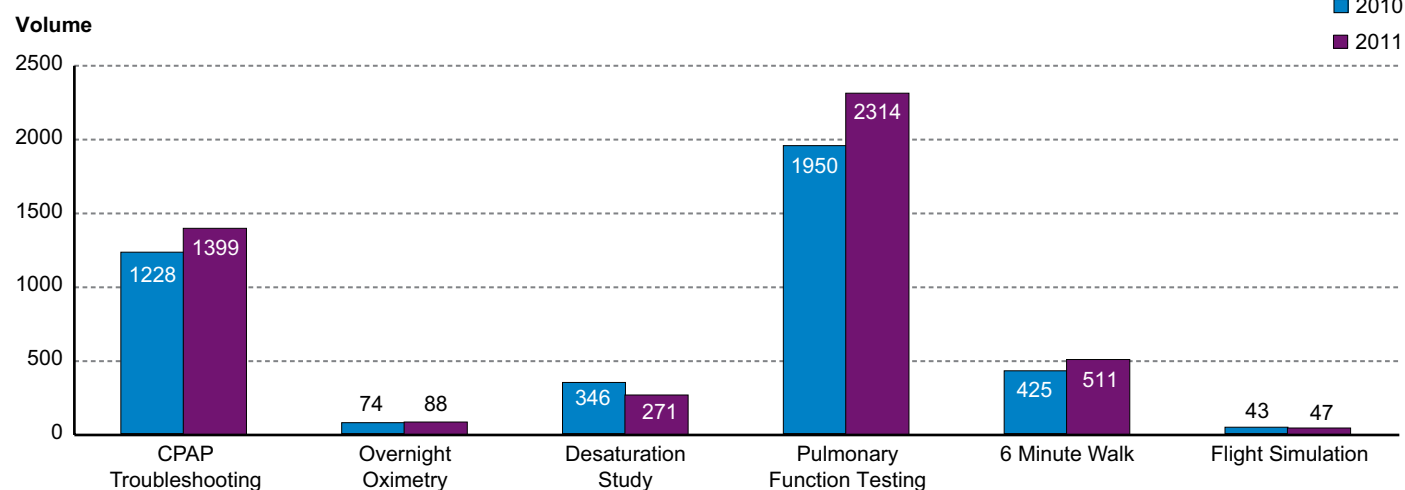
We offer our patients with chronic lung disease an easily accessible outpatient service to help them develop a healthier lifestyle and increased levels of activity. Modalities include physical therapy, smoking cessation and pulmonary toilet. We also provide preoperative incentive spirometry training for selected patients.

### Pulmonary Function and Cardiopulmonary Exercise Testing Laboratory

We have state-of-the-art equipment and resources for the comprehensive evaluation and analysis of pulmonary function and the physiology of exercise to better evaluate our patients who have shortness of breath. Our laboratory can perform flight simulation to assess the need for supplemental oxygen at high-altitude for all patients with serious chronic lung disease.

### Pulmonary Lab Volume

2010 – 2011



Source: Internal Data

Pneumonia (PN) Process of Care Measures	National Average	Florida Average	Cleveland Clinic Florida
PN Patients Assessed and Given the Pneumococcal Vaccination	95%	98%	97%
PN Patients' Initial ED Blood Culture Performed Prior to Administration of Initial Antibiotic	97%	97%	98%
PN Patients Given Smoking Cessation Advice or Counseling	98%	99%	100%
PN Patients Given Initial Antibiotic Within 6 Hours After Arrival	96%	96%	100%
PN Patients Given the Most Appropriate Initial Antibiotic	94%	97%	99%
PN Patients Assessed and Given Influenza Vaccination	93%	96%	99%

Source: [hospitalcompare.hhs.gov](https://hospitalcompare.hhs.gov)

## Pneumonia Process of Care Measures

Cleveland Clinic Florida exceeds the national comparison for process of care measures when treating inpatients with a diagnosis of pneumonia.

## Selected Publications

Tofts RP, Ferrer G, Oliveira E. How should one investigate a chronic cough? *Cleve Clin J Med*. 2011 Feb;78(2):84-5, 89.

Smolley L, Ramirez J. Adult Polysomnography in Encyclopedia of Sleep Edited by Clete Kushida. ELSEVIER Oxford, UK. In press 2011.

Ramirez J, Smolley L. Overview of Objective Tests to Assess Sleepiness and Alertness in Encyclopedia of Sleep Edited by Clete Kushida. ELSEVIER Oxford, UK. In press 2011.

Rahaghi F, Sandhaus R, Strange C, Hogarth D, Eden E, Stocks JM, Krowka MJ, and Stoller JK. The Prevalence of Alpha-1 Antitrypsin Deficiency Among Patients Found to Have Airflow Obstruction. *Journal of COPD*. 2012;9:352–358.

## Staff Listing

Laurence A. Smolley, MD, *Chair, Department of Pulmonary Medicine, Medical Director, Sleep Disorders Center*

Eduardo Oliveira, MD, *Chair, Division of Medicine, Director, ICU, Head, Section of Interventional Pulmonology*

Franck Rahaghi, MD, *Director, Pulmonary Hypertension Clinic*

Sam Faradyan, MD, *Pulmonary Disease Specialist, West Palm Beach*

Gustavo Ferrer, MD, *Pulmonary Disease Specialist*

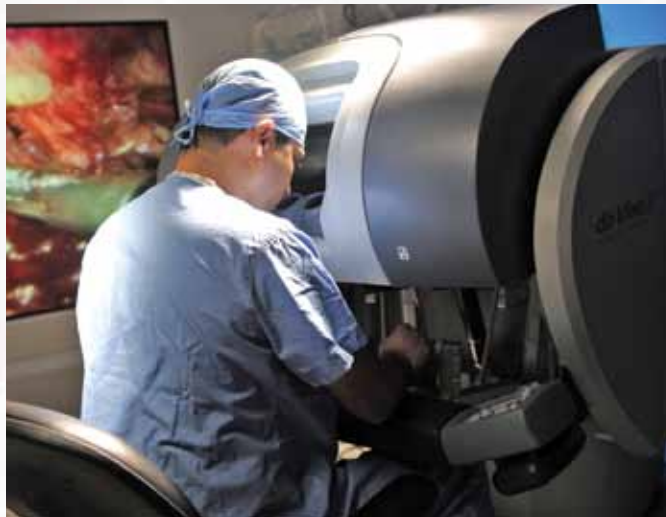
Anas Hadeh, MD, *Pulmonary Disease and Sleep Medicine Specialist*

Jinesh Mehta, MD, *Pulmonary Disease Specialist*

Jose F. Ramirez, MD, *Pulmonary Disease and Sleep Medicine Specialist*

Nydia Martinez, MD, *Pulmonary Disease Specialist*

## Department of Urology



## CHAIRMAN'S MESSAGE

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It is my pleasure to present the 2011 collection of outcomes from Cleveland Clinic Florida's Department of Urology. This compilation of quality and outcome measurements is important to share with our patients, referring physicians and others who are interested in our medical and surgical activities.

Our physicians are an integral part of the renowned Glickman Urological & Kidney Institute at Cleveland Clinic in Ohio, whose urology program has been ranked number one in the nation and has been among the top urologic programs for more than a decade. Our fellowship-trained physicians subspecialize in many areas of urologic care including urologic cancers, diseases of the prostate, male and female sexual dysfunction, Peyronie's disease, advanced prosthetics, urinary incontinence and voiding dysfunction, pelvic floor reconstruction, stone disease and infertility.

Our surgeons have continued to be at the forefront of innovations in urology. Among the exciting activities of 2011 was the continued pioneering of advanced urologic prosthetic techniques and further development of a state-of-the-art operating suite equipped for advanced robotic surgery, including prostatectomy, nephrectomy and cystectomy. This robotic operating suite is the first in Florida and the second in the country to combine magnified video projection and a 3-D robotic surgical system, allowing the entire surgical team to view the patient in the same way as the surgeon sitting at the robotic console. Through advancements such as this, along with excellence in clinical practice and innovative research, we are dedicated to providing excellent, high quality care to all of our patients.

We hope you find this outcomes summary useful and informative.

Sincerely,

A handwritten signature in black ink, appearing to read 'L. Hakim', with a large, stylized loop at the beginning.

Lawrence S. Hakim, MD, FACS  
Chairman, Department of Urology  
Cleveland Clinic Florida

## Department Overview

The Department of Urology at Cleveland Clinic Florida is an integral part of the Glickman Urological & Kidney Institute in Cleveland, a worldwide leader in urology whose program has been ranked No. 1 in the nation by *U.S. News & World Report*, 2012-2013.

Our fellowship-trained physicians offer a high level of expertise and experience in the management of all common and rare urologic and kidney disorders including: urologic cancers of the prostate, kidneys, ureters, bladder, penis and testes; benign prostatic hypertrophy (BPH) and diseases of the prostate; male and female sexual dysfunction; advanced prosthetics, penile rehabilitation and restoration following prostate cancer therapy; testosterone deficiency; Peyronie's disease; urinary incontinence and voiding dysfunction; complex pelvic floor reconstruction; kidney stones; urethral stricture disease; fistula repair; and male infertility.

The Urology Department continues to expand with the recent adjunct of additional fellowship-trained staff urologists in the areas of urologic oncology and robotics, female urology and voiding dysfunction and minimally invasive surgery. Our specialists provide state-of-the-art treatment for the full range of cancers found in the kidney, bladder, prostate, testes and penis as well as female urology, voiding dysfunction and pelvic reconstruction. We offer a variety of diagnostic and therapeutic options, including neuromodulation, biofeedback, urologic slings and prosthetics, bladder pacemakers (InterStim® therapy), continent urinary diversion, augmentation cystoplasty, urethroplasty, urinary fistulae repair and pelvic prolapse repair.

The full range of diagnostic testing and state-of-the-art treatment options for complex urologic diseases is available at Cleveland Clinic Florida's Weston campus.

## Clinical Centers of Excellence

The clinical expertise and academic pursuits of our staff at Cleveland Clinic Florida is exceptional. In keeping with the new paradigm of the Glickman Urological & Kidney Institute, which is organized around organ and disease systems, we are dedicated to the development of world-class urologic centers of excellence within the Department of Urology at Cleveland Clinic Florida.

### Robotics and Urologic Oncology Center of Excellence

Based on a foundation of collaboration with Cleveland Clinic Florida's Comprehensive Cancer Center, we have developed the Robotics and Urologic Oncology Center of Excellence at Cleveland Clinic Florida, under the direction of Nicolas Muruve, MD, Alok Shrivastava, MD, and Barbara Ercole, MD. This center of excellence is the first in the region to incorporate a comprehensive cancer center and fellowship training program, offering a complete arsenal of medical and surgical management options, including robotic prostatectomy, using Cleveland Clinic's model of collaboration among specialties and assuring that our patients continue to have access to world-class care in urologic disease.

### Men's Health and Wellness Center of Excellence

It has been clearly demonstrated that sexual health and performance are directly tied to overall well-being and good health. In fact, erectile dysfunction (ED) is often the first sign or 'marker' of other disease states, such as hypertension, prostate disease, heart disease, atherosclerosis, metabolic syndrome and diabetes. During the past 10 years, we have developed one of the most active programs in the region for the management of sexual dysfunction in men and women, testosterone deficiency, benign prostatic hypertrophy (BPH), male infertility and male incontinence. This program thrives under the direction of Lawrence S. Hakim, MD, FACS, the current President-Elect of the

Sexual Medicine Society of North America (SMSNA), the premier organization in the world in the field of men's health and sexual function.

Along with a state-of-the-art diagnostic center for female and male sexual dysfunction, including hemodynamic testing, we are the major regional referral center for all penile prosthetic surgery (with special emphasis on reoperation, corporoplasty and "difficult" implant surgery), the medical and surgical treatment of Peyronie's disease, penile revascularization, male incontinence slings and artificial sphincters and the surgical management of male factor infertility.

For many men suffering from prostate cancer, treatment may lead to changes in sexual function and urinary continence, directly impacting quality of life. Our Men's Health and Wellness Center of Excellence offers the first and most comprehensive penile rehabilitation program in the region for the management of post-prostatectomy incontinence and ED, offering an aggressive, multidisciplinary approach to improving quality of life and patient and partner satisfaction.

The Men's Health and Wellness Center of Excellence is uniquely differentiated by its world-class staff, geographic location, multispecialty approach and subspecialty care in internal medicine, endocrinology, cardiology and plastic surgery. With a psychologist and sex therapist as part of our team, we offer our patients the best in care while addressing all aspects of men's sexual health and wellness.

### **Center of Excellence for Stone Disease**

In collaboration with nephrology, we have developed a Stone Disease Center under the direction of Nicolas Muruve, MD. This center is the first in the region to incorporate comprehensive medical and metabolic evaluation, complete laboratory and radiographic evaluation and a complete arsenal of medical and surgical management options for the treatment of urologic stone disease. The Center uses the Cleveland

Clinic model of collaboration among specialties, assuring that our patients continue to have access to world-class care in stone disease.

### **Center of Excellence for Female Urology, Reconstruction and Voiding Dysfunction**

Under the direction of Sneha Vaish, MD, the Center of Excellence for Female Urology, Reconstruction and Voiding Dysfunction offers diagnostic and therapeutic management for patients with voiding dysfunction and incontinence, as well as reconstruction of complex urethral strictures and urologic fistulae. This program has an integrated post-graduate fellowship-training program and works closely with the Department of Gynecology (based in our direct clinical area), using Cleveland Clinic's model of collaboration among specialties, offering patients access to world-class care.

### **Commitment to Education**

The continuing education of our patients, our colleagues and ourselves is the cornerstone of our mission at Cleveland Clinic Florida and will help us achieve our goal of becoming the destination for urological healthcare in South Florida and the Southeastern United States.

Our commitment to graduate medical education has led to the development of post-graduate fellowship training programs within the Department of Urology in the areas of oncology, minimally invasive therapy and robotics, urologic stone disease, female urology, voiding dysfunction and reconstruction, men's health, sexual medicine and surgery and Andrology. Our renowned post-graduate fellowship program continues to train young urologic surgeons for careers in both academics and private clinical practice.

By utilizing the vast resources of the Glickman Urological & Kidney Institute, we have begun developing an infrastructure within Cleveland Clinic Florida's Department of Urology that provides educational

resources and access to clinical research for both patients and physicians. Our faculty supports various educational programs including regular community awareness and continuing medical education (CME) programs in areas such as prostate cancer, stone disease, men's health issues and female urology.

### Commitment to Research

In order to achieve our vision of continued clinical excellence in patient care, we continue to improve our practice through innovation and clinical-based research.

Our staff's commitment to research and publication in peer-reviewed journals has given them national and international standing and earned them a reputation as one of the finest urological departments in the Southeastern United States. As leaders in the field, our faculty has been invited to present research at numerous national and international scientific meetings. Many of our distinguished faculty serve on the editorial boards of leading peer-reviewed journals in the field of urology, in addition to the executive boards of the most prestigious organizations in urology and have served as chairs of important national meetings.

Our senior faculty members, as well as our new staff, have strong academic credentials and significant experience in performing clinical trials. This allows our patients to have access to cutting-edge urologic care. We are continuing to expand our involvement in clinical trials of innovative therapies as well as clinical reviews of our outcomes data.

### Innovations

Among the most exciting innovations at Cleveland Clinic Florida during 2011 was development of a state-of-the-art augmented reality robotic surgical suite equipped for advanced urologic robotic surgery, including prostatectomy, nephrectomy and cystectomy. This augmented reality robotic surgical suite was conceived and designed by Alok Shrivastava, MD, Head of Robotic Urologic Oncology, making this

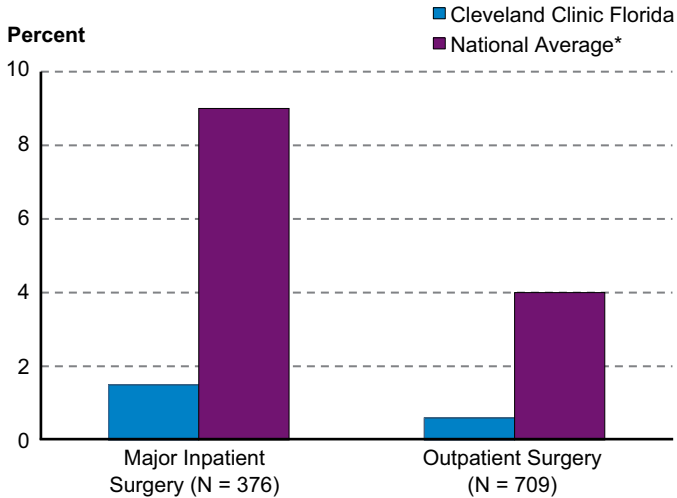
the world's first second generation augmented reality robotic surgical room for surgery, training and mentoring. This system is the first in Florida and second in the country to combine magnified video projection and a 3-D robotic surgical system, allowing the entire surgical team to view the patient in the same way as the surgeon sitting at the robotic console.

Additionally, we continue to pioneer advanced urologic prosthetic techniques. In 2011, the Department of Urology was the first site in the United States to implant the new Conceal Prosthetic Reservoir, an innovative device, which enhances our ability to help the millions of men suffering from erectile dysfunction following prostate cancer surgery. The device helps restore men's sexual function and significantly improves their quality of life with their partner.



## Postoperative Complication Rate

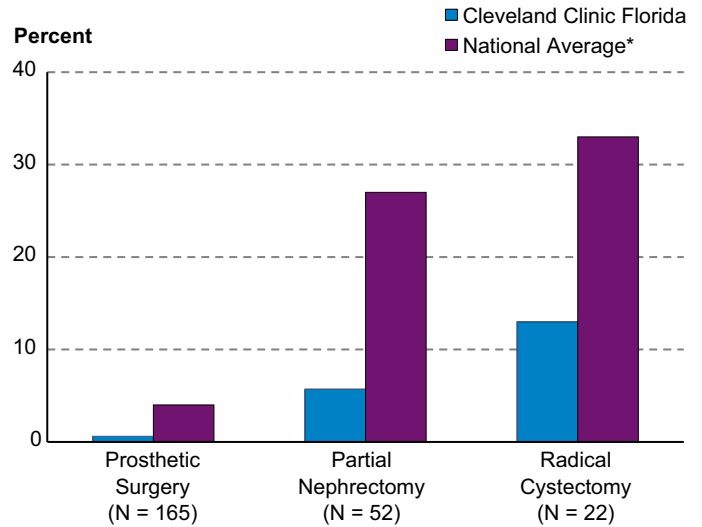
2011



\*Source: National database of Thomson Reuters (using Polaris Suite® software)

## Postoperative Complication Rate by Procedure Type

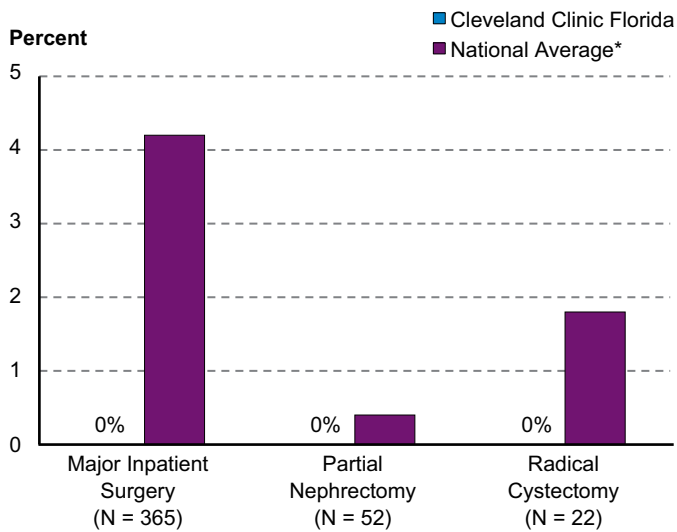
2011



\*Source: National database of Thomson Reuters (using Polaris Suite® software)

## Postoperative Mortality Rate

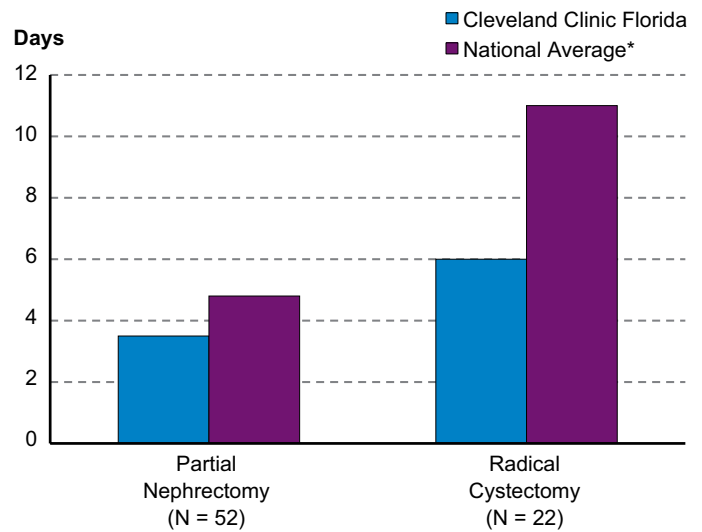
2011



\*Source: National database of Thomson Reuters (using Polaris Suite® software).

## Length of Stay

2011



\*Source: National database of Thomson Reuters (using Polaris Suite® software)

## Selected Publications

Ercole B, Parekh DJ. Active surveillance: pitfalls to consider. *Arch Esp Urol*. 2011 Oct;64(8):695-702. Review.

Hilton WM, Ercole B, Parekh DJ, Sonpavde G, Ghosh R, Svatek RS. Efficacy of combined intravesical immunotherapy and chemotherapy for non-muscle invasive bladder cancer. *Expert Rev Anticancer Ther*. 2011 Jun;11(6):949-57.

Ercole B, Parekh DJ. Methods to predict and lower the risk of prostate cancer. *Scientific World Journal*. 2011 Apr 5; 11:742-8.

Liang Y, Ankerst DP, Ketchum NS, Ercole B, Shah G, Shaughnessy JD Jr, Leach RJ, Thompson IM. Prospective evaluation of operating characteristics of prostate cancer detection biomarkers. *J Urol*. 2011 Jan; 185(1):104-10.

Sankin A, Cohen J, Wang H, Macchia RJ, Karanikolas N. Rate of renal cell carcinoma subtypes in different races. *Int Braz J Urol*. 2011 Jan-Feb; 37(1):29-32;discussion 33-4.

## Staff Listing

Lawrence S. Hakim, MD, FACS, *Chair, Department of Urology, Head, Section of Sexual Dysfunction*

Barbara Ercole, MD, *Urologist, Section of Urologic Oncology*

William H. Gans, MD, *Urologist, Director, West Palm Beach Urology Program*

Richard J. Macchia, MD, FACS, *Urologist*

Nicolas Muruve, MD, *Urologist, Head, Section of Urologic Oncology*

Alok Shrivastava, MD, *Urologist, Head, Section of Robotic Urologic Oncology*

Sneha Vaish, MD, *Urologist, Head, Section of Female Urology and Voiding Dysfunction*



# OVERALL PATIENT EXPERIENCE

Cleveland Clinic Florida is committed to providing patients with the highest quality care in a pleasing and comfortable environment. Housed in patient-friendly facilities, our staff consistently provides a wonderful and safe patient experience.

Hospitals ask their patients to rate their hospital stay or office visits. Cleveland Clinic Florida employs Press Ganey to survey patients on a multitude of questions; including if they would recommend the hospital, how they were treated by staff and if their pain was managed appropriately. Patient satisfaction measures are often based on the patient’s hospital experience and quality of care they receive. In 2011, over 82 percent of our patients indicated that our physicians “always communicated well,” exceeding state and national averages.

At Cleveland Clinic Florida, we value our patients’ feedback and share positive survey scores and written compliments with our dedicated staff to reassure

them in their daily efforts. We continually review opportunities to improve the patient experience.

## How We Measure Patient Experience

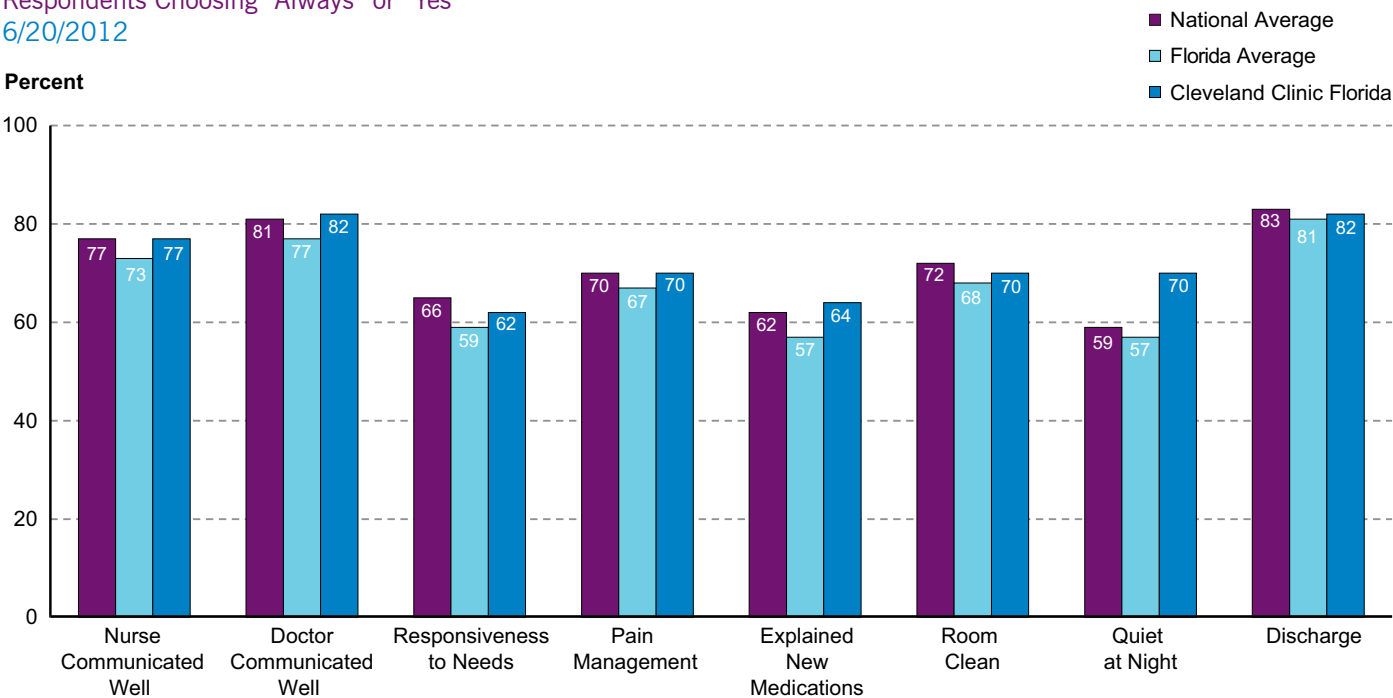
All acute care hospitals throughout the United States participate in a patient survey process designed and regulated by the Centers for Medicare & Medicaid Services (CMS). This HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey measures patients’ perspectives of their hospital care.

Public results are available at [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov). Eligible adult patients are surveyed after hospital discharge and results displayed represent four consecutive calendar quarters.

Cleveland Clinic Florida is proud that our scores surpass the national average for “Would definitely recommend” and “Rating” the hospital on a score of 1-10.

## Survey of Patients’ Hospital Experiences

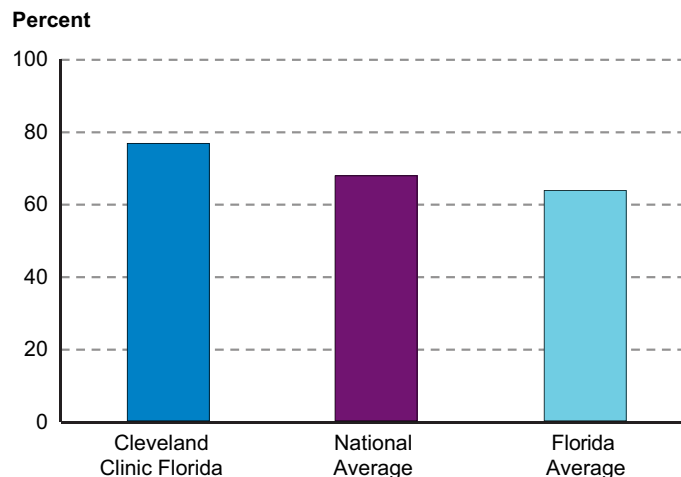
Respondents Choosing “Always” or “Yes”  
6/20/2012



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

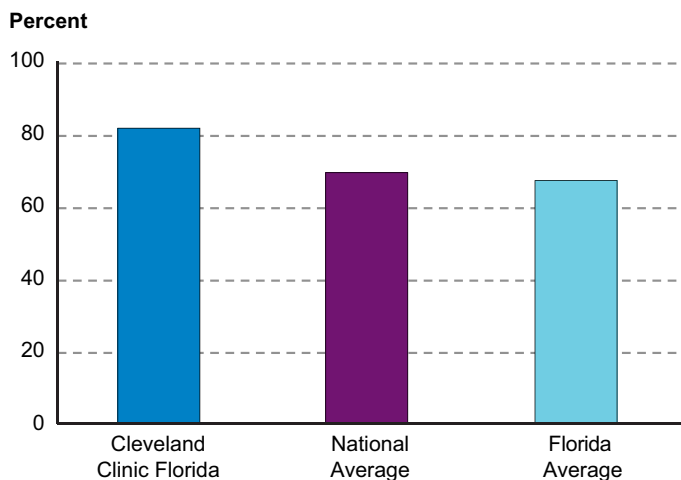
## Patients Rated the Hospital 9 or 10

Scale of 1 = Lowest and 10 = Highest



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

## Patients Reported They Would "Definitely Recommend" Hospital



Source: [hospitalcompare.hhs.gov](http://hospitalcompare.hhs.gov)

## What Cleveland Clinic Florida Patients Are Saying

“

“This hospital is the best, I loved it.”

– May 2011

“The nurses were fantastic. They were so kind, polite and friendly to me and my family. I would have loved to take them home, and I cannot say enough nice things.” – May 2011

“The doctors are amazing! I have only had the best of experiences. It is so apparent they love their work and perform at such a high level of skill with great knowledge.”

– July 2011

“The doctors are truly amazing, understanding and caring. They listened, responded and explained everything in detail before and after surgery with good nature and unending patience.”

– September 2011

“They kept my room clean and tidy.

I thought I was in a hotel.” – May 2011

”

## CONTACT INFORMATION AND LOCATIONS

### General Patient Referral

24/7 hospital transfer or physician consults  
954.689.5150

### General Patient Information

Toll-free: 877.463.2010

### Referring Physician Center

For help with service issues, information  
about clinical specialists and services,  
details about CME opportunities and more:  
954.659.5162  
[physicianrelations@ccf.org](mailto:physicianrelations@ccf.org)

### Global Patient Services

Patient Services Center  
954.659.5080  
Toll-free: 877.463.2010  
[flgps@ccf.org](mailto:flgps@ccf.org)

### Weston Campus

2950 Cleveland Clinic Blvd.  
Weston, FL 33331  
Clinic: 954.659.5000  
Hospital: 954.689.5000

### Weston Family Health Center

1825 North Corporate Lakes Blvd.  
Weston, FL 33326  
954.349.1111

### West Palm Beach

CityPlace Tower  
525 Okeechobee Blvd.  
West Palm Beach, FL 33401  
Toll-free: 877.463.2010

### Krupa Center

3250 Meridian Parkway  
Weston, FL 33331  
954.659.5000



### eCleveland Clinic

eCleveland Clinic uses state-of-the-art digital information systems to offer several services, including remote second medical opinions to patients around the world; personalized medical record access for patients; patient treatment progress for referring physicians; and imaging interpretations by our subspecialty trained radiologists. For more information, please visit [eclevelandclinic.org](http://eclevelandclinic.org).

### DrConnect

Whether you are referring from near or far, DrConnect can streamline communication from Cleveland Clinic physicians to your office. This online tool offers you secure access to your patient's treatment progress at Cleveland Clinic. With one-click convenience, you can track your patient's care using the secure DrConnect website. To establish a DrConnect account, visit [eclevelandclinic.org](http://eclevelandclinic.org) or email [drconnect@ccf.org](mailto:drconnect@ccf.org).

### MyConsult

MyConsult Remote Second Medical Opinion is a secure online service providing specialist consultations and remote second opinions for more than 1,000 life-threatening and life-altering diagnoses. The MyConsult service is particularly valuable for people who wish to avoid the time and expense of travel. For more information, visit [eclevelandclinic.org/myconsult](http://eclevelandclinic.org/myconsult), email [eclevelandclinic.org](mailto:eclevelandclinic.org), or call 800.223.2273, ext. 43223.

### MyChart

This secure online tool connects patients to their own health information from the privacy of their home any time, day or night. Some features include renewing prescriptions, reviewing test results and viewing medications, all online. For the convenience of physicians and patients across the country, MyChart now offers a secure connection to Google™ Health. Google Health users can securely share personal health information with Cleveland Clinic, and record and share the details of their Cleveland Clinic treatment with the physicians and healthcare providers of their choice. To establish a MyChart account, visit [clevelandclinic.org/mychart](http://clevelandclinic.org/mychart).

### Continuing Medical Education (CME) Opportunities

Cleveland Clinic Florida is dedicated to advancing medical knowledge through continuing education. Our CME program provides educational opportunities of high quality and a wide variety to physicians, nurses and other healthcare professionals. Our mission is to develop educational programs of an appropriate scope and depth to satisfy the need for knowledge and skill development of the learner. CME activities include didactic lectures, live surgery presentations, hands on workshops and audience participation. Interactivity between faculty and participants is emphasized. All activities are designed to maintain, develop or increase knowledge, competence or professional performance with the intended result of improving patient care and reducing disease impact.

For a program schedule and more information, visit: [clevelandclinic.org/florida](http://clevelandclinic.org/florida) and click on "Education" at the top of the page.

# GRADUATE MEDICAL EDUCATION

Cleveland Clinic Florida is a leader in graduate medical education (GME) and undergraduate medical education. Medical students, from multiple medical schools rotate through 33 departments and specialties annually.

A total of 85 residents and fellows participated in Cleveland Clinic Florida’s GME programs in 2011. Accredited residency and fellowship programs include:

- Colorectal Surgery
- Internal Medicine
- Neurology
- Cardiology
- Gastroenterology
- Geriatrics
- Nephrology
- Plastic Surgery
- Pulmonary
- General Surgery
- Female Pelvic Floor Medicine and Reconstructive Surgery
- Minimally Invasive/Bariatric Surgery

Over the past three years, the pass rate for the American Board of Internal Medicine certifying examination for Cleveland Clinic Florida’s internal medicine residents has been 97 percent, one of the highest in the country. Many other Cleveland Clinic Florida programs have similar pass rates for their graduates.

In July 2012, Cleveland Clinic Florida began its general surgery residency program. Eighteen residents currently, and 21 residents in the future will train to become general surgeons over a five-year period.

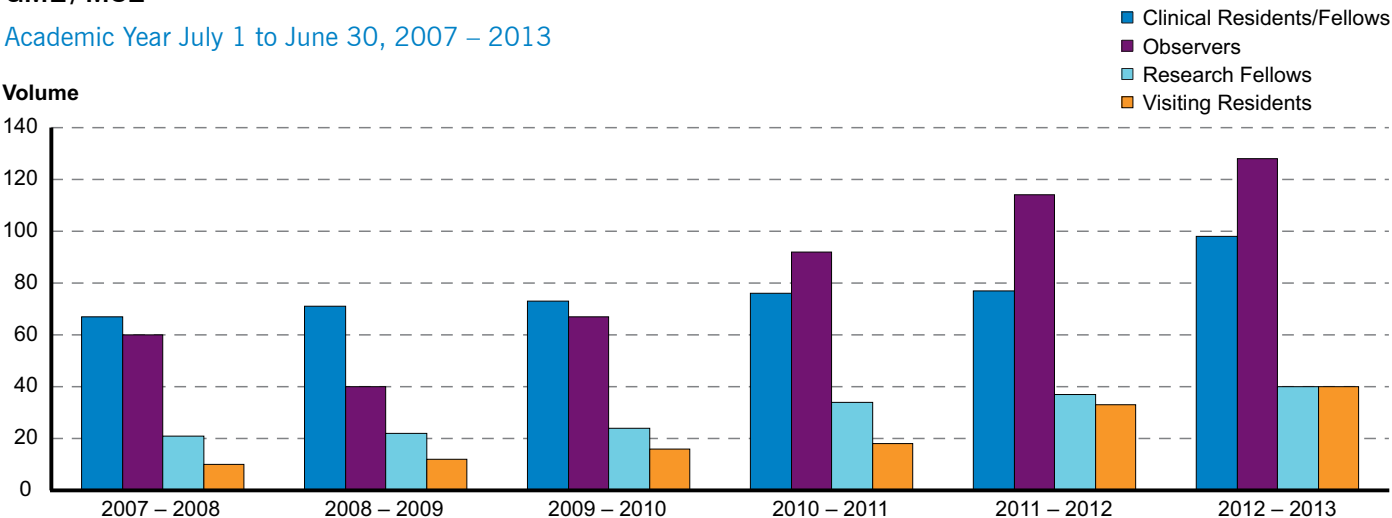
Cleveland Clinic Florida also has an active clinical research program with 70 research fellows participating in 196 active research studies in 2011.

We also serve as a resource for observers and visiting residents. In 2011, Cleveland Clinic Florida had 120 observers from 22 international countries.

Cleveland Clinic Florida provides continuing medical education programs and courses for local, regional, national and international physicians.

## GME / MSE

Academic Year July 1 to June 30, 2007 – 2013



Abbreviations: GME = graduate medical education; MSE = medical student education

Source: Internal Data

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