Endocrinology & Metabolism Institute

2011 Outcomes
To promote quality improvement, Cleveland Clinic has created a series of Outcomes books similar to this one for many of its institutes. Designed for a physician audience, the Outcomes books contain a summary of our surgical and medical trends and approaches, data on patient volumes and outcomes, and a review of new technologies and innovations.

Although we are unable to report all outcomes for all treatments provided at Cleveland Clinic — 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 a specific treatment 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 supports transparent public reporting of healthcare quality data and participates in the following public reporting initiatives:

- Joint Commission Performance Measurement Initiative (qualitycheck.org)
- Centers for Medicare & Medicaid Services (CMS) Hospital Compare (hospitalcompare.hhs.gov)
- Ohio Department of Health (ohiohospitalcompare.ohio.gov)
- Cleveland Clinic Quality Performance Report (clevelandclinic.org/QPR)

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, and we invite your feedback. Please send comments and suggestions to us at OutcomesBookFeedback@ccf.org. To view all our Outcomes books, please visit Cleveland Clinic’s Quality and Patient Safety website at clevelandclinic.org/outcomes.
Dear Colleague:

Welcome to Cleveland Clinic’s 2011 Outcomes books. They include data on clinical outcomes, patient volumes, innovations and publications. Cleveland Clinic pioneered the collection and annual publication of outcomes data. This initiative has become part of the national discussion on lowering costs and improving the quality of healthcare.

Cleveland Clinic uses data to manage outcomes across the full continuum of care. Clinical services are delivered through patient-centered institutes, each based around a single disease or organ system. Institutes combine medical and surgical services, along with research and education, under unified leadership. Each institute defines quality benchmarks for its specialty services and reports longitudinal progress.

Cleveland Clinic Outcomes books are available in print and online. Additional data is available through our online Quality Performance Report (clevelandclinic.org/QPR). The site offers data in advance of national and state public reporting sites in key areas, including heart attack, heart failure, stroke and infection prevention.

We hope you will find this information useful.

Sincerely,

Delos M. Cosgrove, MD
CEO and President
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Prefer an e-version?

Visit clevelandclinic.org/OutcomesOnline, and we’ll remove you from the hard copy mailing list and email you when next year’s books are online.
Dear Colleague:

On behalf of Cleveland Clinic’s Endocrinology & Metabolism Institute, I am pleased to share our 2011 Quality Outcomes book. Quality, patient safety, patient experience and employee engagement remain top priorities for us.

This past year our institute saw both growth and innovation.

In year two of our Diabetes Center’s operation, we educated more than 1,000 patients and conducted numerous research studies. Our main campus diabetes educators spearheaded the standardization of diabetes education across Cleveland Clinic. Diabetic educators across our health system worked together to develop one common curriculum.

We also began to offer bariatric surgeon consults in the Diabetes Center in 2011. Obese patients are counseled about the options for and timing of weight-loss surgery to control type 2 diabetes.

In 2011, we established an Endocrine Calcium Clinic to streamline the evaluation and treatment of patients with mineral abnormalities, bone loss, unexplained fractures and similar disorders. Bone density scans (DEXA) for osteoporosis, an on-site laboratory and an infusion center for bisphosphonates and other therapies are available.

In our Bariatric & Metabolic Institute’s Medical Weight Management Program, we began offering shared medical appointments for patients on the protein-sparing modified fast protocol. We also offered exercise coaching to enhance patients’ commitment to maintaining and improving fitness.

Research continues to be an important part of what we do every day in our institute. It keeps us and all who practice in our field on the cutting edge of treatment for obesity, liver/adrenal tumors, thyroid cancer, pituitary disorders and diabetes.

This past year, for example, our Bariatric & Metabolic Institute launched the NIH-funded STAMPEDE II trial to compare laparoscopic Roux-en-Y surgery with medical management options. The results of STAMPEDE I, which concluded recruitment in 2010, were published in the New England Journal of Medicine and were presented at the 2012 American College of Cardiology meeting.
Meanwhile, our endocrinologists and surgeons now offer care at 12 community locations, including a new Family Health and Surgery Center in Twinsburg, Ohio, the Ashtabula County Medical Center and Cleveland Clinic Florida in Weston. This helps to ensure patient access to high-quality endocrinologic and metabolic care across Northeast Ohio and in Florida.

The Endocrinology & Metabolism Institute continues to take on all of the clinical challenges that chronic disease management has to offer. We invite you, our colleagues, to review in detail the programs, projects and outcomes summarized in this text. We hope you find this booklet informative and applicable to your practice. We truly want to collaborate and develop a relationship with all providers for a healthier community.

James B. Young, MD
Chairman, Endocrinology & Metabolism Institute
Professor of Medicine and Executive Dean, Cleveland Clinic Lerner College of Medicine
The George M. and Linda H. Kaufman Chair in Cardiovascular Medicine
Institute Overview

Cleveland Clinic’s Endocrinology & Metabolism Institute is committed to providing the highest quality healthcare for patients with diabetes, endocrine and metabolic disorders, and obesity. Our staff is dedicated to exploring ways to improve the care of these patients and to teaching the best methods for treating them. Our diabetes and endocrinology services are ranked fifth in the nation by *U.S. News & World Report*.

Our institute’s caregivers work together to provide the finest care in the country. Thirty staff physicians, 18 fellows, and more than 80 nurses, medical assistants, diabetes educators, secretaries, patient service representatives, coders, administrators and managers work in our:

- Department of Endocrinology, Diabetes and Metabolism
- Diabetes Center
- Center for Endocrine Surgery
- Bariatric & Metabolic Institute
Department of Endocrinology, Diabetes and Metabolism

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endocrinology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Patient Visits</td>
<td>23,103</td>
<td>27,465</td>
<td>38,293</td>
</tr>
<tr>
<td>New Patient Visits</td>
<td>1,006</td>
<td>1,435</td>
<td>1,709</td>
</tr>
<tr>
<td>Total Fine Needle Aspirations</td>
<td>456</td>
<td>489</td>
<td>708</td>
</tr>
<tr>
<td>Diabetes Center</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Patient Visits</td>
<td>n/a</td>
<td>1,015</td>
<td>5,835</td>
</tr>
<tr>
<td>New Patient Visits</td>
<td>n/a</td>
<td>330</td>
<td>828</td>
</tr>
<tr>
<td>Education Visits</td>
<td>n/a</td>
<td>109</td>
<td>1,048</td>
</tr>
</tbody>
</table>

Diabetes Center

Cleveland Clinic’s Diabetes Center continues to optimize care for patients with Type 1 and Type 2 diabetes. The center’s caregivers are dedicated to diabetes care and include:

- Physicians
- Nurses and medical assistants
- Certified nurse practitioners
- Diabetes educators
- Registered dietitians
- Surgeons, including a bariatric surgeon who offers consults to obese patients on the advisability and timing of weight-loss surgery for diabetes control

Research studies on many new tools for managing diabetes are ongoing. Our inpatient multidisciplinary team contributes to the Diabetic Care Committee, addressing quality initiatives and the unique needs of diabetic patients throughout the hospital — from assessing patient knowledge of insulin pumps to optimal delivery of steroids.

Our Diabetes Education Task Force has successfully implemented a single diabetes education system across the entire Cleveland Clinic system to ensure that patients with diabetes receive the same teaching at the location of their choice. Diabetes education now focuses on seven themes of care:

- Healthy eating
- Being active
- Glucose monitoring
- Taking medication
- Problem-solving
- Reducing risk
- Healthy coping

The Task Force also implemented a new single telephone number that will enable our patients to make one call to schedule their diabetes education classes at the most convenient location and time.
Institute Overview

**Calcium Clinic**

The Calcium Clinic based in our Department of Diabetes, Endocrinology and Metabolism streamlines the evaluation and treatment of mineral abnormalities, bone loss, unexplained fractures and similar conditions. The clinic benefits patients with:

- Common problems such as hypocalcemia, vitamin D deficiency, hyperparathyroidism, osteopenia, primary osteoporosis, renal stones and abnormal DEXA results
- Bone disorders such as Paget’s disease, secondary osteoporosis and other rare diseases
- Complex underlying problems that increase the risk of metabolic abnormalities, such as inflammatory bowel disease, cancer and renal failure
- Metabolic abnormalities that occur after bariatric surgery and organ transplantation

The Endocrinology & Metabolism Institute conducts many other disease-specific clinics for Type 1 and Type 2 diabetes, pituitary disorders, thyroid/parathyroid disorders, post-pancreas-transplant diabetes, and post-pancreas-transplant care, and liver/adrenal tumor care. We also offer a preventive cardiology clinic and a transition clinic for adolescents ready to move on to adult endocrine care.
Our endocrine surgery service has the most extensive experience in the world in the surgical care of thyroid, parathyroid, adrenal, endocrine and pancreas disorders. Advanced minimally invasive technology is often utilized:

- We perform robotic adrenalectomies, thyroidectomies and parathyroidectomies.
- We are one of the busiest centers in the country for laparoscopic radiofrequency thermal ablation of neuroendocrine tumors that metastasize to the liver.
- We offer a laparoscopic liver resection program.

Our endocrine surgery team's thyroid and parathyroid surgery case volume has more than quadrupled in the past 10 years. Patients are increasingly referred for complex conditions such as reoperative problems, advanced cancers and hereditary endocrine syndromes.
In this institute, our ultimate goal is to manage all degrees of obesity and its comorbidities. For patients with severe obesity, we offer various minimally invasive approaches to bariatric surgery. A large team of caregivers participates in patient care, teaching and research.

Ours is one of the few U.S. bariatric centers recognized as a Center of Excellence by both the American Society for Metabolic & Bariatric Surgery (ASMBS) and the American College of Surgeons (ACS). This designation is awarded only after independent program review and demonstration of the highest-quality patient management and outcomes.

Our state-of-the-art bariatric care facility includes an inpatient bariatric unit, an adjacent outpatient clinic, an endoscopy suite, patient waiting and conference rooms, and physician and support staff offices — all on one floor for patients’ convenience.
Basic and Clinical Research

The Metabolic Translational Research Center — formed in partnership with Cleveland Clinic’s Lerner Research Institute in 2010 — is based in the Endocrinology & Metabolism Institute. The center is designed to develop, promote, facilitate and support:

- Interdisciplinary basic and clinical translational research in obesity, endocrinology and metabolism
- Education and training in conducting endocrine and metabolic disease research for medical students, graduate students, residents, fellows and junior staff

Institute staff members are active not only in translational and basic research, but also in clinical research. On average, we actively enroll patients in about 20 trials at any given time. Our trials are sponsored by both government and industry.

Subspecialty Education

Cleveland Clinic Endocrinology & Metabolism Institute continuing education courses continue to be in demand. They include:

- Thyroid Expo: A Multidisciplinary Symposium on Thyroid Diseases and Thyroid Cancer
- Update on the Management of Adrenal Diseases and Lesions
- Update on Minimally Invasive Solid Organ Surgery
- Obesity Summit: Science and Practice of Obesity Management
- Annual Diabetes Day: Controversies in Diabetes for Healthcare Professionals
- Endocrinology, Metabolism and Diabetes Annual Board Review Course
- Contemporary Issues in Pituitary Disease: Case-based Management Update
- Advanced Practice Nursing Endocrine Review Day (First Annual Meeting in 2011)
Adrenalectomy Cases Mean Length of Stay
2009 – 2011

Days

Adrenalectomy Cases Requiring Intensive Care
2009 – 2011

Percent

Adrenalectomy Mortality
2009 – 2011

Percent

Over three years, on average, Cleveland Clinic’s mortality rate and percentage of cases requiring ICU stay were lower, and observed length of stay was shorter than both teaching and U.S. News Top 10 hospitals.

Source: University HealthSystem Consortium (UHC) Performance Accelerator Suite Program
Robotic adrenalectomy operative times were shorter than the laparoscopic approach.

The length of stay for robotic adrenalectomy was shorter than average and there were no complications compared to the laparoscopic surgical approach.
## Adrenal

<table>
<thead>
<tr>
<th>All Robotic Cases (Year Initiated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrenal 74 (2008)</td>
</tr>
<tr>
<td>Thyroid 21 (2009)</td>
</tr>
<tr>
<td>Liver 15 (2008)</td>
</tr>
<tr>
<td>Parathyroid 7 (2010)</td>
</tr>
</tbody>
</table>

## Surgery for Large (≥ 5 cm) Adrenal Tumors
Demographic and Clinical Parameters by Surgery Approach

<table>
<thead>
<tr>
<th>2000 – 2011 Parameters</th>
<th>Laparoscopic (N = 38)</th>
<th>Robotic (N = 24)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>52.5 ± 2.3</td>
<td>52.4 ± 2.9</td>
<td>0.987</td>
</tr>
<tr>
<td>Body Mass Index</td>
<td>30.2 ± 0.9</td>
<td>27.1 ± 0.8</td>
<td>0.029</td>
</tr>
<tr>
<td>Gender (female / male)</td>
<td>20 / 18</td>
<td>14 / 10</td>
<td>0.642</td>
</tr>
<tr>
<td>Tumor Size (cm) (range)</td>
<td>6.2 ± 0.3 (5 – 15)</td>
<td>6.5 ± 0.4 (5 – 10.2)</td>
<td>0.661</td>
</tr>
<tr>
<td>Previous Abdominal Surgery</td>
<td>10 (27%)</td>
<td>7 (29%)</td>
<td>0.932</td>
</tr>
<tr>
<td>Operative Time (minutes) (range)</td>
<td>187.2 ± 8.3 (85 – 290)</td>
<td>159.4 ± 13.4 (64 – 357)</td>
<td>0.043</td>
</tr>
<tr>
<td>Hospital Stay (days)</td>
<td>1.9 ± 0.1</td>
<td>1.4 ± 0.2</td>
<td>0.009</td>
</tr>
<tr>
<td>Conversion to Open Surgery</td>
<td>4</td>
<td>1</td>
<td>0.043</td>
</tr>
<tr>
<td>30-day Morbidity</td>
<td>3.7%</td>
<td>0%</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Robotic posterior retroperitoneal (PR) adrenalectomy is a relatively new surgical technique utilized by Cleveland Clinic surgeons since 2009 that has resulted in slightly shorter operative times and significantly less immediate postoperative pain ($P = 0.008$) compared with the laparoscopic PR surgical approach.

*Rating is based on Visual Analog Scale.
In September 2010, the Diabetes Center was established, and education visits have seen a steady increase in volume.

*In September 2010, the Diabetes Center was established, and education visits have seen a steady increase in volume.*

Diabetes Center and Main Campus Endocrinology
Outpatient Visits for Diabetes Mellitus
2010 – 2011

**Visits**

<table>
<thead>
<tr>
<th>Month</th>
<th>Education</th>
<th>Established</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Diabetes Center and Main Campus Endocrinology
New Diabetes Visits by Diagnosis (N = 1,203)
2010 – 2011

**Patients**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 2</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Type 1</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Pre-Diabetes</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>
Data were collected on new patients seen in Endocrinology and the Diabetes Center, which opened in September 2010. Changes in hemoglobin A1c values from baseline to last visit were compared (mean +/- SD).

**New Patients’ Change in Hemoglobin A1c Over Time**

2010 – 2011

**Percentage Points**

<table>
<thead>
<tr>
<th>Percentage Points</th>
<th>2</th>
<th>1</th>
<th>0</th>
<th>-1</th>
<th>-2</th>
<th>-3</th>
<th>-4</th>
<th>-5</th>
<th>-6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline A1c</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Patients</td>
<td>461</td>
<td>127</td>
<td>160</td>
<td>111</td>
<td>63</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;6.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5 – 8.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.1 – 10.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;10.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Data were collected on new patients seen in Endocrinology and the Diabetes Center, which opened in September 2010. Changes in hemoglobin A1c values from baseline to last visit were compared (mean +/- SD).

**Insulin Pump and Current HbA1c Values (N = 207)**

2011

**Percent**

<table>
<thead>
<tr>
<th>HbA1c</th>
<th>&lt; 7</th>
<th>7 – 9</th>
<th>&gt; 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>30</td>
<td>50</td>
<td>20</td>
</tr>
</tbody>
</table>

Data were collected on adult patients who were using an insulin pump to manage their Type 1 diabetes mellitus. Mean HbA1c was 8.5% (+/-SD 1.9%) (range 4.6 – 15.7%). The most recently collected HbA1c value was evaluated. Mean duration of insulin pump usage was 5.5 years (+/- SD 5.1 years), ranging from one to 20 years.
Radiofrequency Ablation of Neuroendocrine Tumors

From 2000 to 2010, Cleveland Clinic endocrine surgeons treated 68 patients with neuroendocrine liver metastases with radiofrequency ablation (RFA) as a first line of treatment. RFA was commonly used as an initial treatment compared with other modalities such as liver resection or embolization. Patients undergoing RFA had up to 15 discrete lesions.

Demographics and Clinical Information (N = 68)
2000 – 2010

<table>
<thead>
<tr>
<th>demographic</th>
<th>count/percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td>56.9 ± 1.5</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>27 (40%)</td>
</tr>
<tr>
<td>Male</td>
<td>41 (60%)</td>
</tr>
<tr>
<td><strong>Tumor Type</strong></td>
<td></td>
</tr>
<tr>
<td>Carcinoid</td>
<td>44 (65%)</td>
</tr>
<tr>
<td>Pancreatic Islet Cell</td>
<td>15 (22%)</td>
</tr>
<tr>
<td>Medullary Thyroid</td>
<td>9 (13%)</td>
</tr>
<tr>
<td><strong>Dominant Metastasis Size (cm)</strong></td>
<td>3.6 ± 0.2</td>
</tr>
<tr>
<td><strong>Number of Metastases</strong></td>
<td>6.7 ± 0.5</td>
</tr>
<tr>
<td><strong>Extrahepatic Disease</strong></td>
<td>23 (34%)</td>
</tr>
<tr>
<td><strong>Symptomatic</strong></td>
<td>37 (54%)</td>
</tr>
<tr>
<td><strong>Liver Metastasis</strong></td>
<td></td>
</tr>
<tr>
<td>Synchronous</td>
<td>25 (41%)</td>
</tr>
<tr>
<td>Metachronous</td>
<td>36 (59%)</td>
</tr>
<tr>
<td><strong>Chromogranin A (ng/ml)</strong>*</td>
<td>278 ± 129</td>
</tr>
<tr>
<td><strong>Primary Tumor</strong></td>
<td></td>
</tr>
<tr>
<td>Resected</td>
<td>53 (78%)</td>
</tr>
<tr>
<td>Nonresected</td>
<td>8 (12%)</td>
</tr>
<tr>
<td>Unknown</td>
<td>7 (10%)</td>
</tr>
<tr>
<td><strong>RFA</strong></td>
<td></td>
</tr>
<tr>
<td>Laparoscopic</td>
<td>67 (98.5%)</td>
</tr>
<tr>
<td>Open</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td><strong>Resection</strong></td>
<td></td>
</tr>
<tr>
<td>Wedge</td>
<td>8 (30%)</td>
</tr>
<tr>
<td>Segmentectomy</td>
<td>3 (11%)</td>
</tr>
<tr>
<td>Bisegmentectomy</td>
<td>6 (22%)</td>
</tr>
<tr>
<td>Hemihepatectomy</td>
<td>10 (37%)</td>
</tr>
<tr>
<td><strong>Embolization</strong></td>
<td></td>
</tr>
<tr>
<td>Chemoembolization</td>
<td>16 (57%)</td>
</tr>
<tr>
<td>Radioembolization</td>
<td>10 (36%)</td>
</tr>
<tr>
<td>Both</td>
<td>2 (7%)</td>
</tr>
</tbody>
</table>

*Normal range for chromogranin A: 6 – 39 ng/ml
Periprocedural Outcomes, Survival and Pattern of Recurrence (N = 68) 2000 – 2010

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual Liver Tumor</td>
<td>24 (35%)</td>
</tr>
<tr>
<td>Symptom Relief</td>
<td>29 (78%)</td>
</tr>
<tr>
<td>Duration of Symptom Relief (months)</td>
<td>19.8 ± 4.3</td>
</tr>
<tr>
<td>Complication</td>
<td>7 (10%)</td>
</tr>
<tr>
<td>Length of Stay (days)*</td>
<td>1.0 ± 0.5</td>
</tr>
<tr>
<td>Follow-up (months)</td>
<td>22</td>
</tr>
<tr>
<td>Overall Survival (months)</td>
<td>73</td>
</tr>
<tr>
<td>Progression-Free Survival (months)</td>
<td>10.5</td>
</tr>
<tr>
<td>Local Liver Recurrence**</td>
<td>22%</td>
</tr>
<tr>
<td>New Liver Lesion</td>
<td>63%</td>
</tr>
<tr>
<td>New Extrahepatic Lesion</td>
<td>43%</td>
</tr>
</tbody>
</table>

*Median  
**Local recurrence is per patient, not per lesion.
Obesity/Metabolism

In 2011, Cleveland Clinic Bariatric & Metabolic Institute marked its seventh anniversary and continued to be accredited as a designated Bariatric Surgery Center of Excellence by the American Society for Metabolic & Bariatric Surgery and the American College of Surgeons. This designation is awarded to programs that meet high-quality standards and perform a minimum of 125 procedures annually.

Bariatric Cases by Type
2006 – 2011

Laparoscopic Roux-en-Y gastric bypass continues to be the predominant procedure at Cleveland Clinic. Due to patient preference, laparoscopic adjustable gastric banding has declined over the past two years.
Comorbidities at Baseline for Bariatric Surgery
2009 – 2011

For all comorbidities except smoking, Cleveland Clinic bariatric surgery patients were higher-risk at baseline compared with the American College of Surgeons Bariatric Surgery Database.

*As a Level 1A accredited American College of Surgeons (ACS) Bariatric Center, Cleveland Clinic participates in the ACS Bariatric Surgery Database, a national program that objectively measures and reports risk-adjusted surgical outcomes for 100 percent of bariatric surgery cases at participating facilities. Hospitals with the Level 1A certification are recognized for high-volume practices and management of the most challenging and complex patients.
Cleveland Clinic bariatric patients have higher-risk baseline demographics and comorbidities.
Laparoscopic Sleeve Gastrectomy Length of Stay
2009 – 2011

Days

<table>
<thead>
<tr>
<th></th>
<th>Cleveland Clinic</th>
<th>American College of Surgeons</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>52</td>
<td>4</td>
</tr>
<tr>
<td>2010</td>
<td>65</td>
<td>1,434</td>
</tr>
<tr>
<td>2011</td>
<td>79</td>
<td>4,669</td>
</tr>
</tbody>
</table>

N = *ACS =

Cleveland Clinic Source: Surgical Review Corporation:
Bariatric Outcomes Longitudinal Database

*ACS = American College of Surgeons Bariatric Surgery Database

Cleveland Clinic bariatric patients have higher-risk baseline demographics and comorbidities.
Cleveland Clinic bariatric surgery patients were higher risk at baseline compared with patients in the American College of Surgeons Bariatric Surgery Database.

**Bariatric Surgery Complications (30 Days, Non-risk Adjusted)**

*Laparoscopic Roux-en-Y (N = 1,186)*

2009 – 2011

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bleeding</td>
<td>1.5</td>
</tr>
<tr>
<td>Intestinal Obstruction</td>
<td>1.0</td>
</tr>
<tr>
<td>Anastomotic Leak</td>
<td>0.5</td>
</tr>
<tr>
<td>Wound Infection/ Evisceration</td>
<td>0.5</td>
</tr>
<tr>
<td>Pulmonary Embolism</td>
<td>0.3</td>
</tr>
<tr>
<td>Deep Vein Thrombosis</td>
<td>0.1</td>
</tr>
</tbody>
</table>

*Cleveland Clinic*

*ACS = American College of Surgeons Bariatric Surgery Database*
Bariatric Surgery Complications (30 Days, Non-risk Adjusted)
Laparoscopic Adjustable Gastric Band (N = 154)

2009 – 2011

Percent

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cleveland Clinic</th>
<th>*ACS Bariatric Comparison (N = 19,991)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wound Infection/Evisceration</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Band Port, Tubing or Band Problem</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Band Slippage/Prolapse</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*ACS = American College of Surgeons Bariatric Surgery Database

American College of Surgeons Bariatric Surgery Database comparisons showed that complications of laparoscopic gastric banding were low.
Despite the relatively high-risk patient population, 5 percent or less of bariatric procedures required postoperative ICU stays.
### 30-Day Bariatric Surgery (Non-risk Adjusted)

#### Percent Mortality

<table>
<thead>
<tr>
<th>2009 – 2011</th>
<th>Cleveland Clinic (# Cases; % All Operations)</th>
<th>*ACS Comparison (# Cases; % All Operations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Operations</td>
<td>0.3% (1,725; 100%)</td>
<td>0.1% (61,735; 100%)</td>
</tr>
<tr>
<td>Laparoscopic Roux-en-Y</td>
<td>0.4% (1,221; 70.8%)</td>
<td>0.1% (30,033; 48.6%)</td>
</tr>
<tr>
<td>Laparoscopic Gastric Banding</td>
<td>0.6% (162; 9.4%)</td>
<td>0.0% (19,274; 31.2%)</td>
</tr>
<tr>
<td>Laparoscopic Sleeve Gastrectomy</td>
<td>0.0% (124; 7.2%)</td>
<td>0.1% (5,816; 9.4%)</td>
</tr>
<tr>
<td>Other Bariatric Procedures</td>
<td>0.0% (217; 12.6%)</td>
<td>0.2% (6,667; 10.8%)</td>
</tr>
</tbody>
</table>

*American College of Surgeons Bariatric Surgery Database*
**Mean Percent Weight Loss Toward Ideal Body Mass Index (Non-risk Adjusted): 3-Year Follow-up**

2008 – 2011

**Weight Loss Formula:**

\[
\text{Weight Loss} = \frac{(\text{baseline BMI} - \text{follow-up BMI})}{(\text{baseline BMI} - \text{ideal BMI(25)})} \times 100
\]

*ACS = American College of Surgeons Bariatric Surgery Database

---

The Bariatric & Metabolic Institute’s Behavioral Health team examined why patients who begin the pre-operative bariatric surgery evaluation fail to complete surgery or drop out of bariatric programs.

**Most Common Reasons for Not Reaching Bariatric Surgery After 15 Months (N = 129)**

2011

Out of 518 patients evaluated, 129 did not receive surgery after 15 months. Patients with outstanding program requirements (either medical or psychological) were more likely to be involved in outpatient behavioral health programs, or taking psychotropic medication(s) or to have current or past alcohol abuse/dependence than patients who had not undergone surgery for other reasons.
Concerns have been raised about an increased incidence of substance abuse post-bariatric surgery. Alcohol use after surgery may be particularly problematic due to changes in patients' pharmacokinetics in relation to alcohol, leading to greater intoxication.

Cleveland Clinic Bariatric & Metabolic Institute has created the Substance Risk Reduction Group, a unique relapse prevention group for at-risk bariatric surgery candidates. The session includes education about the health effects of alcohol and other substances on outcomes, as well as ways to develop alternative coping strategies and identify warning signs of relapse and resources for treatment.

**Effect of a Single-Session Group Intervention on Knowledge Test Scores to Reduce Risk from Alcohol and Substances (N = 37)**

2011

<table>
<thead>
<tr>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
</tr>
<tr>
<td>80</td>
</tr>
<tr>
<td>60</td>
</tr>
<tr>
<td>40</td>
</tr>
<tr>
<td>20</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

![Bar Chart](Image)

Knowledge about Alcohol and Weight Loss Surgery

After the intervention, patients showed a significant increase in knowledge ($P < .0001$) regarding the negative effects of substance abuse after surgery and reported significantly healthier coping strategies ($P < .0001$). Patients also reported a lower intention of using alcohol post-surgery ($P < .01$).
Thyroidectomy Mean Length of Stay  
2009 – 2011

Thyroidectomy Cases Requiring ICU Stay  
2009 – 2011

Over three years, on average, Cleveland Clinic’s mortality and percentage of cases requiring ICU stay were lower, and observed length of stay was shorter than both teaching and U.S. News Top 10 hospitals.

Source: University HealthSystem Consortium (UHC) Performance Accelerator Suite Program

Thyroidectomy Mortality  
2009 – 2011

N = 504  
USNews Top 10  
Teaching Hospitals

N = 2,368  
9,157

N = 504  
USNews Top 10  
Teaching Hospitals

N = 2,368  
9,157
## Robotic-Assisted Transaxillary Thyroidectomy

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of Patients</strong></td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td><strong>Age Range (years)</strong></td>
<td>31 – 66</td>
<td>23 – 75</td>
</tr>
<tr>
<td><strong>Gender (female %)</strong></td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td><strong>BMI Range (kg/m^2)</strong></td>
<td>19.9 – 23.7</td>
<td>19.6 – 31.6</td>
</tr>
<tr>
<td><strong>Nodule Size Range (mm)</strong></td>
<td>10.2 – 31.9</td>
<td>9.0 – 39.0</td>
</tr>
<tr>
<td><strong>Operation Performed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Left Hemithyroidectomy</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Right Hemithyroidectomy</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total Thyroidectomy</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td><strong>Post-operative Histology</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benign</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Carcinoma</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td><strong>Operation Time (minutes)</strong></td>
<td>241.0 ± 61.8</td>
<td>140.6 ± 7.9</td>
</tr>
<tr>
<td><strong>Complications</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transient Hypocalcemia</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>
Over three years, on average, Cleveland Clinic's mortality and percentage of cases requiring ICU stay were lower, and observed length of stay was shorter than both teaching and *U.S. News* Top 10 hospitals.

Source: University HealthSystem Consortium (UHC) Performance Accelerator Suite Program
From 2000 to 2009, 203 patients with hyperparathyroidism were evaluated for reoperative neck surgery. Of these 203, 176 patients met criteria for reoperative parathyroid exploration. The information provided by localization studies and clinical history was applied in the stratification of patients by disease status and reoperative approach. The cure rate after reoperation was 96 percent.
National Surgical Quality Improvement Program

The American College of Surgeons' National Surgical Quality Improvement Program (NSQIP) objectively measures and reports risk-adjusted surgical outcomes based on a defined sampling and abstraction methodology. The outcome data below reflect Cleveland Clinic's surgical cases between July 1, 2010, and June 30, 2011.

Overall Multispecialty 30-Day Mortality (N = 4,643)

July 2010 – June 2011

Overall multispecialty mortality was lower than expected; the difference was statistically significant.
Surgical Care Improvement Program (SCIP) — Appropriateness of Care

This composite metric, based on 10 hospital surgical quality process measures developed by the Center for Medicare and Medicaid Services (CMS), shows the percentage of patients who received all of the recommended care for which they were eligible.

Surgical Appropriateness of Care

2010 – 2011

* Data source: University HealthSystem Consortium (UHC) Clinical Database
https://www.uhc.edu

Cleveland Clinic has set a target of UHC’s 90th percentile, and results are trending positively.
Cleveland Clinic is dedicated to delivering excellent clinical outcomes and the best possible experience for our patients and their families. Patient feedback is critical in driving priorities and assessing results. Based on this feedback, Cleveland Clinic’s Office of Patient Experience implements training programs to improve service and communication as well as educational initiatives to help patients understand what to expect when they are in our care.

Outpatient – Endocrinology & Metabolism Institute

Overall Rating of Outpatient Care and Services During Outpatient Visit
2010 – 2011

Source: Press Ganey, a national hospital survey vendor
Rating of Outpatient Care Provider
2010 – 2011

Source: Press Ganey, a national hospital survey vendor

Likelihood of Recommending Outpatient Care Provider
2010 – 2011

Source: Press Ganey, a national hospital survey vendor
Inpatient — Endocrinology & Metabolism Institute

The Centers for Medicare and Medicaid Services (CMS) requires U.S. hospitals that treat Medicare patients to participate in the national Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey, a standardized tool that measures patients’ perspectives of hospital care. Results collected for public reporting are available at hospitalcompare.hhs.gov.

HCAHPS Overall Assessment
2010 – 2011

<table>
<thead>
<tr>
<th>Percent</th>
<th>Rate Hospital % 9 or 10 (0 – 10 scale)</th>
<th>Would Recommend % “definitely yes”</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 (N = 401)</td>
<td>70%</td>
<td>78%</td>
</tr>
<tr>
<td>2011 (N = 158)</td>
<td>75%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Source: Press Ganey, a national hospital survey vendor
HCAHPS Domains of Care
2010 – 2011

Source: Press Ganey, a national hospital survey vendor
Robotic Transaxillary Single-Incision Total Thyroidectomy

In 2009, one of the first robotic thyroidectomies in the U.S. was performed by surgeon Eren Berber, MD, who leads the endocrine robotic surgery program. In 2011, his team took this innovation to the next level by performing robotic total thyroidectomies through a single axillary incision (underarm surgery). Currently, Cleveland Clinic's Endocrine Surgery Department is the only program in Ohio offering robotic thyroid surgery.

Robotic Transaxillary Parathyroidectomy

Cleveland Clinic doctors have performed more than 115 robotic endocrine surgery cases since 2008. Additionally, our doctors performed one of the first robotic transaxillary parathyroidectomies in the world. Compared with the standard parathyroidectomy approach, transaxillary robotic surgery not only offers technical precision but leaves the patient without a neck scar.
**Best Practice Alert: BMI > 30**

The Best Practice Alert (BPA) was created to detect patients who were at high risk for increased obesity and obesity-related diseases. Within the EPIC electronic medical record, the BPA fires at a body mass index of 30 or higher and will fire every six months if the patient's excess weight has not been addressed. Through the alert, the provider can find a menu of programs to suggest to the patient, including those that fall under Preventive Cardiology, the Wellness Institute and the Bariatric & Metabolic Institute. The BPA will also serve as a tool to stimulate discussion regarding obesity between the patient and the provider.

**Preventing Avoidable Readmissions: Bariatric Rehydration Clinic**

The quality team within the Bariatric & Metabolic Institute identified patients’ lack of adherence to self-hydration following bariatric surgery to be a strong contributing factor to multiple hospital readmissions within 30 days of surgery.

A rehydration clinic was developed using the existing space and staff of the endoscopy suite. A specific patient care algorithm was developed to identify and treat patients with symptoms of dehydration. These patients may be discovered either during routine follow-up appointments, as a result of phone inquiries or during triage by the nurse on call. The process directs the patient to receive physician-directed IV fluids as an outpatient treatment, avoiding potential readmissions in most cases. Since the inception of the rehydration clinic in 2011, 32 patients were treated. Out of the 32 patients who received treatment, 91 percent (29) were discharged and sent home, avoiding hospital readmissions.

**Downloadable Resources for Relaxation and Coping**

The Bariatric Behavioral Health Team has long used relaxation CDs to aid patients in preparing for surgery and for the development of alternative coping skills. In 2011, the team expanded and updated these resources to include a variety of empirically validated relaxation techniques. Diaphragmatic breathing, progressive muscle relaxation and guided imagery, as well as strategies to improve mindfulness during eating, imagery, affirmations for healing and instructions on behavioral change are some of the techniques used. These programs will be made available as MP4 files in 2012 on the Bariatric & Metabolic Institute's website so patients can easily download files of interest at no charge.
Endocrinology & Metabolism Institute

staff authored more than 90 publications in 2011. For a complete list go to

clevelandclinic.org/outcomes.

Bariatric & Metabolic Institute


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Director of Clinical Research
Amir Hamrahian, MD

Patient Experience Officer
Kresmira (Mira) Milas, MD

Quality Improvement Officer
Christian Nasr, MD

Bariatric & Metabolic Institute
Philip Schauer, MD
Chairman
Kathleen Ashton, PhD
Stacy Brethauer, MD
Department Quality Improvement Officer
Derrick Cetin, DO
Bipan Chand, MD
Karen Cooper, DO
Leslie Heinberg, PhD
Matthew Kroh, MD
Julie Merrell, PhD
Tomasz Rogula, MD, PhD
Amy Windover, PhD

Department of Endocrinology, Diabetes and Metabolism
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Chairman
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Vice Chairman
Director, Cleveland Clinic Diabetes Center
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Mario Skugor, MD
Co-Director, Thyroid Center
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Department of Endocrine Surgery
Allan Siperstein, MD
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Eren Berber, MD
Director, Robotic Endocrine Surgery
Kresimira (Mira) Milas, MD
Co-Director, Thyroid Center
Jamie Mitchell, MD
Joyce J. Shin, MD

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Michelle Schweiger, DO

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Karen Steckner, MD
Section Head

Charanjit Bahniwal, MD
Tracy Dovich, MD
Alexandru Gottlieb, MD
Maria Inton-Santos, MD
Samuel Irefin, MD
Paul Kempen, MD

Surgical Intensive Care Unit
Marc Popovich, MD
Unit Director
Program Director, Critical Care Fellowship

Demetrios Bourdakos, MD
Onur Demirci, MD
Shahpour Esfandiari, MD
Faith Factora, MD
Samuel Irefin, MD
Ali Jahan, MD
Piyush Mathur, MD
Douglas Naylor Jr., MD
Nadeen Rahman, MD
Nicholas Russo, MD

Some physicians may practice in multiple locations. For a detailed list including staff photos, please visit clevelandclinic.org/staff.
Contact Information

**General Patient Referral**
24/7 hospital transfers or physician consults
800.553.5056

**Endocrinology, Diabetes and Metabolism Appointments/Referrals**
216.444.6568 or 800.223.2273, ext. 46568

**Endocrine Surgery Appointments/Referrals**
216.444.6568 or 800.223.2273, ext. 46568

**Bariatric Surgery Appointments/Referrals**
216.445.2224 or 800.223.2273, ext. 52224

On the Web at clevelandclinic.org/endo
and clevelandclinic.org/bariatric

**Additional Contact Information**

**General Information**
216.444.2200

**Hospital Patient Information**
216.444.2000

**General Patient Appointments**
216.444.2273 or 800.223.2273

**Request for Medical Records**
216.445.2547 or 800.223.2273, ext. 52547
Referring Physician Center and Hotline

Cleveland Clinic’s Referring Physician Center has established a 24/7 hotline — 855.REFER.123 (855.733.3712) — to streamline access to our array of medical services. Contact the Referring Physician Hotline for information on our clinical specialties and services, to schedule and confirm patient appointments, for assistance in resolving service-related issues, and to connect with Cleveland Clinic specialists.

Medical Concierge

For complimentary assistance for out-of-state patients and families
800.223.2273, ext. 55580, or email medicalconcierge@ccf.org

Global Patient Services

Complimentary assistance for international patients and families
001.216.444.8184 or visit clevelandclinic.org/gps

Cleveland Clinic Florida

Toll-free 866.293.7866

For address corrections or changes, please call
800.890.2467
Institute Locations

Cleveland Clinic Main Campus
Endocrinology, Diabetes and Metabolism/F20
Endocrine Surgery/F20
Bariatrics/M61
9500 Euclid Ave.
Cleveland, OH 44195
216.444.6568 or 800.223.2273, ext. 46568

Diabetes Center
10685 Carnegie Ave./X20
Cleveland, OH 44106
216.444.6568 or 800.223.2273, ext. 46568

Ashtabula County Medical Center
2420 Lake Ave.
Ashtabula, OH 44004
440.997.2262

Beachwood Family Health and Surgery Center
26900 Cedar Road
Beachwood, OH 44122
216.839.3000

Cleveland Clinic Florida
2950 Cleveland Clinic Blvd.
Weston, FL 33331
877.463.2010

Independence Family Health Center
Crown Centre II
5001 Rockside Road
Independence, OH 44131
216.986.4000

Lakewood Hospital Professional Building
14601 Detroit Road
Lakewood, OH 44107
216.529.5300

Lorain Family Health and Surgery Center
5700 Cooper Foster Park Road
Lorain, OH 44053
440.204.7400

Medina Hospital Professional Building
4087 Medina Road, Suite 400
Medina, OH 44256
330.725.3713

Solon Family Health Center
29800 Bainbridge Road
Solon, OH 44139
440.519.6800
South Pointe Charles Miner Medical Building
20600 Harvard Road
Warrensville Heights, OH 44122
216.295.1010

Stephanie Tubbs Jones Health Center
13944 Euclid Ave.
East Cleveland, OH 44112
216.767.4242

Strongsville Family Health and Surgery Center
16761 SouthPark Center
Strongsville, OH 44136
440.878.2500

Twinsburg Family Health and Surgery Center
8701 Darrow Road
Twinsburg, OH 44087
330.888.4000

Willoughby Hills Family Health Center
2570 SOM Center Road
Willoughby Hills, OH 44094
440.943.2500

Wooster Family Health Center
1740 Cleveland Road
Wooster, OH 44691
330.287.4500
Overview

Cleveland Clinic uses a scorecard approach to measure quality, safety and patient experience. In addition, real-time dashboard data are leveraged to drive performance improvement. Although not an exact match to publicly reported data, more timely internal data provide transparency for leaders at all levels of the organization to support improved care in their clinical locations. The following are examples of Cleveland Clinic’s 2011 focus areas and main campus results.

Appropriateness of Care
2010 – 2011

Mortality
2010 – 2011

Cleveland Clinic’s goal is for all patients to receive all the recommended care for which they are eligible. An aggregated “all or nothing” measurement approach to monitoring multiple publicly reported process-of-care measures for heart failure, acute myocardial infarction, pneumonia and surgical patients is trending positively.

Cleveland Clinic’s observed/expected (O/E) mortality ratio outperformed the University HealthSystem Consortium (UHC) academic medical center 50th percentile throughout 2011.

*Source: Performance Accelerator Suite Program maintained by the University HealthSystem Consortium (UHC) https://www.uhc.edu/
Cleveland Clinic established a 2011 target ICU surveillance rate of 1.33 central line-associated bloodstream infections (CLABSIs) per 1,000 central line days, with the goal of reducing our rate by an additional 50 percent over the 2010 results. This 2011 target was met by the end of the year.

Cleveland Clinic focused on reducing the incidence of 10 Agency for Healthcare Research and Quality PSIs. Cleveland Clinic achieved a reduction of more than 60 percent in the total number of these PSIs in 2011 through a combination of clinical and documentation improvement activities.

* PSI 3 Stage III/IV Pressure Ulcers, PSI 6 Iatrogenic Pneumothorax, PSI 7 CLABSI, PSI 8 Post-Op Hip Fracture, PSI 9 Post-Op Hemorrhage/Hematoma, PSI 11 Post-Op Respiratory Failure, PSI 12 Post-Op PE or DVT, PSI 13 Post-Op Sepsis, PSI 14 Post-Op Wound Dehiscence, PSI 15 Accidental Puncture/Laceration
Hospital-acquired pressure ulcers in Cleveland Clinic ICU patients were below the national average in 2010 and 2011.

Falls in Cleveland Clinic stepdown unit patients were below the national average for most of 2010 and 2011. In 2011, Cleveland Clinic supplemented proactive falls-reduction strategies with after-event huddles to evaluate causality and develop prevention strategies.
Critical Response Outcomes

Medical Emergency Team Event Volume*
2009 – 2011

[Bar chart showing event volume for 2009, 2010, and 2011, with a note: *Excluding events originating in ORs and ICUs.]

Percent of Medical Emergency Team Events Resulting in ICU Transfer
2009 – 2011

[Bar chart showing percent for 2009, 2010, and 2011.]

Medical Emergency Teams (METs) bring critical care experience to patients across the hospital and provide early intervention that can prevent unplanned transfers to ICUs. As adult MET activations increased from 2009 through 2011, post-event adult ICU transfers decreased.
**Patient Experience — Cleveland Clinic**

The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey is the standard national tool for measuring patients' perspectives of hospital care. Results are available at hospitalcompare.hhs.gov.

**HCAHPS Rate and Recommend Hospital**

2010 – 2011

**Percent (Best Response)**

- **Rate Hospital**
  - % 9 or 10 (0 – 10 scale)
- **Would Recommend Hospital**
  - % “definitely yes”

**HCAHPS Hospital Domain Scores**

2010 – 2011

**Percent (Best Response)**

- Nurse Communication
- Responsiveness to Needs
- Doctor Communication
- Room Clean
- Quiet at Night
- Pain Management
- New Medications Communication
- Discharge Information Given

*Source: Press Ganey, a national hospital survey vendor

*Cleveland Clinic 2010*

*Cleveland Clinic 2011*

National Average 7/1/2010 – 6/30/2011

Source: hospitalcompare.hhs.gov.

"Patients First" is the guiding principle of Cleveland Clinic, which was among the first major academic medical centers to make improving the patient experience a strategic goal. The Office of Patient Experience collaborates with physician and nursing leadership to establish best practices and implement standardized protocols that ensure delivery of patient-centered care. Campus-wide HCAHPS survey results are trending favorably in every domain.
Overview

Cleveland Clinic is a nonprofit multispecialty academic medical center that integrates clinical and hospital care with research and education. Across the health system, 2,800 Cleveland Clinic physicians and scientists practice in 120 medical specialties and subspecialties, annually recording more than 4.6 million physician visits and nearly 188,000 surgeries. Patients come for treatment from every state and from more than 125 countries annually.

Cleveland Clinic’s main campus, with 50 buildings on 180 acres in Cleveland, Ohio, includes a 1,400-bed hospital, outpatient clinic, specialty institutes, and supporting labs and facilities. The hospital currently has the highest CMS case-mix index in America. Cleveland Clinic also operates 18 family health centers, eight community hospitals, one affiliate hospital, a rehabilitation hospital for children, Cleveland Clinic Florida, Cleveland Clinic Lou Ruvo Center for Brain Health in Las Vegas, Cleveland Clinic Canada, and Sheikh Khalifa Medical City. Cleveland Clinic Abu Dhabi (United Arab Emirates), a multispecialty care hospital and clinic, is scheduled to open in 2013. With 41,000 employees, Cleveland Clinic is the second largest employer in Ohio and is responsible for an estimated $9 billion of economic activity every year.

The Cleveland Clinic Model

Cleveland Clinic was founded in 1921 by four physicians who had served in World War I and hoped to replicate the organizational efficiency of military medicine. The organization has grown through the years by adhering to the model set forth by the founders. All Cleveland Clinic staff physicians receive a straight salary with no bonuses or other financial incentives. The hospital and physicians share a financial interest in controlling costs, and profits are reinvested in research and education.

In 2007, Cleveland Clinic restructured its practice, bundling all clinical specialties into integrated practice units called institutes. An institute combines all the specialties surrounding a specific organ or disease system under a single roof. Each institute has a single leader and focuses the energies of multiple professionals on the patient. Institutes are improving the patient experience at Cleveland Clinic.
Cleveland Clinic Lerner Research Institute

At the Lerner Research Institute, hundreds of principal investigators, project scientists, research associates and postdoctoral fellows are involved in laboratory-based, translational and clinical research. Total research expenditures from external and internal sources exceeded $240 million in 2010. Research programs include cardiovascular, cancer, neuralgic, musculoskeletal, allergic and immunologic, eye, metabolic, and infectious diseases.

Cleveland Clinic Lerner College of Medicine

Celebrating its 10th anniversary in 2012, the Lerner College of Medicine of Case Western Reserve University is known for its small class size, unique curriculum and full-tuition scholarships for all students. The program graduated 31 students as physician investigators in 2011.

Graduate Medical Education

In 2011, nearly 1,800 residents and fellows trained at Cleveland Clinic and Cleveland Clinic Florida, the most ever hosted by Cleveland Clinic and part of a continuing upward trend.

U.S. News & World Report Ranking

Cleveland Clinic is consistently ranked among the top hospitals in America by U.S. News & World Report, and our heart and heart surgery program has been ranked No. 1 since 1995.

For more information about Cleveland Clinic, please visit clevelandclinic.org.
Referring Physician Center and Hotline

Cleveland Clinic’s Referring Physician Center has established a 24/7 hotline – 855.REFER.123 (855.733.3712) – to streamline access to our array of medical services. Contact the Referring Physician Hotline for information on our clinical specialties and services, to schedule and confirm patient appointments, for assistance in resolving service-related issues, and to connect with Cleveland Clinic specialists.

Remote Consults

Online medical second opinions from Cleveland Clinic’s MyConsult are particularly valuable for patients who wish to avoid the time and expense of travel. Cleveland Clinic offers online medical second opinions for more than 1,000 life-threatening and life-altering diagnoses. For more information, visit clevelandclinic.org/myconsult, email eclevelandclinic@ccf.org or call 800.223.2273, ext. 43223.

Request Medical Records

216.444.2640 or 800.223.2273, ext. 42640

Track Your Patient’s Care Online

DrConnect offers referring physicians secure access to their patients’ treatment progress while at Cleveland Clinic. To establish a DrConnect account, visit clevelandclinic.org/drconnect or email drconnect@ccf.org.

Medical Records Online

Cleveland Clinic continues to expand and improve electronic medical records (EMRs) to provide faster, more efficient and accurate care by sharing patient data through a highly secure network. Patients using MyChart can renew prescriptions and review test results and medications from their personal computers. MyChart provides a link to Microsoft HealthVault, a free online service that helps patients securely gather and store health information. It connects to Cleveland Clinic’s social media and Internet site, currently the most visited hospital website in America. For more information, visit clevelandclinic.org/mychart.

Critical Care Transport Worldwide

Cleveland Clinic’s critical care transport team and fleet of mobile ICU vehicles, helicopters and fixed-wing aircraft serve critically ill and highly complex patients across the globe. To arrange a transfer for STEMI (ST elevated myocardial infarction), acute stroke, ICH (intracerebral hemorrhage), SAH (subarachnoid hemorrhage) or aortic syndrome, call toll-free 877.379.CODE (2633).

For all other critical care transfers, call 216.444.8302 or 800.553.5056.

CME Opportunities: Live and Online

Cleveland Clinic’s Center for Continuing Education operates one of the largest and most successful CME programs in the country. The Center’s website (ccfcmce.com) is an educational resource for healthcare providers and the public. Available 24/7, it houses programs that cover topics in 30 areas – if not from A to Z, at least from Allergy to Wellness – with a worldwide reach. Among other resources, the website contains a virtual textbook of medicine (Disease Management Project) and myCME, a system for physicians to manage their CME portfolios. Live courses, however, remain the backbone of the Center’s CME operation. Most live courses are held in Cleveland, but outreach plans are under way. In 2011, the Center offered 15 simultaneous courses at Arab Health, a major world healthcare forum.
This project would not have been possible without the commitment and expertise of a team led by Christian Nasr, MD, and Ronald R. Gambino, RN, MPA.