OUTCOMES
2008

DIVISION OF MEDICINE
Surgical Spine Care Center

Cleveland Clinic
Florida
Cleveland Clinic Florida’s medical staff are dedicated physicians who have joined the clinic as salaried doctors to practice a different kind of medicine: Where commitment to patients, providing expert innovative care, and involvement in medical education are the goals.

We work as a team, access the same electronic medical records, and cooperate to give our patients the best care.

Providing excellent care to our patients is why we are here.
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Staff

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Daniel Grobman, DO
Vinod Podichetty, MD, MS
Gary Saff, MD
Daniel Shedid, MD
David Westerdahl, MD
Too often activity is interpreted as success. In this inaugural year of Cleveland Clinic Florida’s Medical Interventional and Surgical Spine Care Center, there has been much activity, however far more important were the achievements. Strategic recruitment has established the core nucleus of a multi-disciplinary team including two medical spine physicians, one physiatrist, two pain anesthesiologists and three surgeons. The implementation of a dedicated data collection system, and the streamlined electronic health record, has facilitated improved patient care and research opportunities. The establishment of strategic niche programs including; 1) complex spine deformity surgery program, 2) revision spine surgery program, 3) osteoporosis compression fracture program, 4) spinal tumor surgery program, 5) adolescent spine care program, and 6) least invasive spine care program, fulfills the goals of providing diverse and comprehensive care for all our patients.

To this end, virtually every day brings news of a new, minimally invasive spinal treatment: a sophisticated surgical technique, a novel interventional procedure, and an innovative injection therapy or laser treatment. But at the Medical Interventional and Surgical Spine Care Center, minimally invasive or, to use our more preferred term, “least invasive,” spine care is more than a technique or a technology, it is a philosophy. Our most significant achievement to date has been the ability to provide our patients with the most appropriate, least invasive care, individually tailored for their unique needs, using a collaborative approach, which emphasizes cooperation among medical and surgical specialties. We have achieved a dynamic environment where patients receive individual attention from experts in every pertinent specialty, and where recommending the most appropriate treatment options and fostering innovation and advanced techniques are the guiding principles. We pledge to maintain this philosophy and strive to treat every patient like they are our only patient.

Isador H. Lieberman, MD, MBA, FRCSC
Chairman, Medical Interventional & Surgical Spine Center
GENERAL AND MEDICAL

Back and neck problems are common in the United States, affecting the quality of life of patients of all ages. We care for patients who face back and neck pain that requires comprehensive care and even possibly surgery.

The Medical, Interventional, and Surgical Spine Care Center provides careful and comprehensive treatment of all spine ailments and injuries. The physicians and surgeons are experienced in all manners of spine problems, including; degenerative disc disease, arthritis of the spine, herniated discs, spinal stenosis, tumors of the spine and nerves, deformities such as scoliosis and kyphosis in both adolescents and adults, and trauma. Our goal is to improve patients’ conditions and quality of life with the most appropriate, most advanced, and least invasive treatment available.

If indicated our surgeons use sophisticated surgical techniques for spinal fusions. These include instrumentation, reconstruction and fusion (including spinal cage fixation), using endoscopic, percutaneous or image guided and robotic techniques. Cleveland Clinic Medical, Interventional, and Surgical Spine Care Center surgeons are fully trained in both anterior (front) and posterior (back) surgical approaches to spinal surgery.

Unique to the Medical, Interventional, and Surgical Spine Care Center is the individual attention the physicians and therapists provide to patients. They not only take the time to discuss patients diagnosis and treatment plans but also personally direct the continued plan of care through to recovery (through rehabilitation) to ensure the best opportunity for a successful outcome. Our surgeons have an array of technology at their disposal that significantly increases surgical precision while minimizing the risk. The program also includes a distinct research and educational component. Our physicians contribute to major advances in the treatment of various spinal disorders through our participation in and contributions to various sponsored research and device investigation programs. The research and educational programs produced from our department has allowed us to excel at various national and international professional events.

We proudly recognize (i) The Decade of the Spine 2001 – 2010 and its mission to improve the quality of spinal care worldwide; and (ii) Bone and Joint Decade 2002 – 2011 aiming to raise awareness and promote positive actions to combat the suffering and costs to society associated with musculoskeletal disorders such as joint diseases, osteoporosis, spinal disorders, severe trauma to the extremities and crippling diseases and deformities in children.
Mission Statement

To our patients, our business partners and our colleagues, the Medical, Interventional and Surgical Spine Care Center exists to provide the best possible preventative, medical and surgical care to our patients afflicted by spinal disorders, to innovate and advance spine treatment services, and to provide a fertile environment for research, education and collaborative patient care.

Vision Statement

The Center will be the recognized global leader in the medical, interventional and surgical treatment of spinal disorders.

Value Statement

Members of the Center will be relentless in their pursuit toward enriching the lives of our patients by providing the best possible care for the spinal disorders with which they present. We will never compromise on patient care, always use the most clinically effective methods, and foster collaborative relationships within the spine continuum of care, across all medical disciplines, to ensure optimal patient care.

Achievements Philosophy

In the Center we will fulfill our mission and pursue our vision and values; by fostering an environment of collaborative organ based (spinal) efforts, across surgical and medical disciplines, by eliminating inefficiencies and redundancies, by establishing an environment of accountability, and by pursuing fiscally responsible practices to maintain our own viability and eliminate undue stresses on our partner stakeholders (patients and business partners).

Services

Some of the treatments provided are:

- Minimally invasive spinal surgery and microdecompression
- Minimally invasive spinal fusions and reconstructions
- Cervical, thoracic and lumbar disc disease reconstructions
- Treatment for spinal tumors with radiosurgery
- Work injury rehabilitation
- Sport injury rehabilitation
- Vertebral augmentation (vertebroplasty and kyphoplasty) for compression fractures and tumors
- Cervical and lumbar spinal stenosis correction
- Assessment and treatment of scoliosis, kyphosis and spinal deformity in adolescents and adults
- Assessment and treatment of spinal trauma
- Assessment and treatment arthritic conditions of the spine
- Diagnostic and therapeutic injections including nerve blocks and epidural steroid injections
- Implantation of spinal stimulators and pain medication pumps
- Active physical therapy and rehabilitation
- Osteopathic manipulation
- Diagnostic EMG (electromyography)
Overview

In the year 2008, there were a total of 7115 patient visits (New=3962 and Former=3153) to the Medical Intervention and Surgical Spine Care Center. A total of 1596 interventional procedures were performed for diagnostic and therapeutic reasons in addition to 270 surgeries performed related to various spinal conditions.

Procedural Mix (Surgery)

Spinal fusion procedures (both lumbar and cervical) accounted for 40.7% of the total procedures while decompression (excision, exploration of the intervertebral disc) contributed 37.9% of the surgeries performed at the Spine Center. Vertebral Augmentation and Revision surgery accounted for 16% and 4.8% respectively of the total volume.

Case Distribution: Hospital Status

In 2008, 89.4% of the patients operated at the Spine Center were inpatient while 10.5% were outpatient.

Interventional Procedures

A total of 1596 interventional procedures were performed in the pain management center for spine related conditions accounting for 68% of the total volume of patients visiting two interventional specialists (N=2342)

Of these 36.3% (N=580) were transforaminal epidural nerve root block and 36.2% (N=578) were a combination of cervical and lumbar epidural injections. The remaining (N=438) included trigger injections (12.4%); facet joints (11.7%) and <3% of diskograms

Diagnostic Mix

Degenerative 72%
Fracture/ Trauma 12%
Deformity 2%
Infection 1%
Others 2%
Non-spine 1%
Demographics

Age Distribution

The Spine Care Center treats a large number of elderly patients. With advanced age, there is an increased risk of adverse outcomes after an operation. Age is an important variable affecting the outcome of surgery.

Payor Information

Among all spinal procedures performed in 2008, 38.5% of the patients were Medicare/Medicaid, 60.4% were private insurance payers and <1% were flat fee providers.

Risk Factors (surgical patients)

The success of a procedure is directly dependent on the presence or absence of co-morbidities prior to a procedure. Distribution of co-morbidities in our surgical patient population is demonstrated below. (N=234)

Patient Outcomes Data

Pain Scale (VAS) measurement at initial visit and a mean follow-up of 3 months in surgical patients. (N = 81)

Data from July – Nov 2008

Percentage Change in Oswestry Disability Index (ODI) measurement at initial visit and a mean follow-up of 3 months in surgical patients. (N = 81)

Data from July – Nov 2008

Quality of life measurement as demonstrated by SF-36 at initial visit and a mean follow-up of 3 months in surgical patients. (N = 81)

Data from July – Nov 2008
Statistics

Length of Stay by DRG

Among all spinal surgeries (n=234) performed by two surgeons the average length of stay was 3.7 days.

Surgical Morbidity

Among all patients operated in 2008, 14 patients (5.9%) of 234 surgeries had morbidities. The most commonly occurring morbidity was wound infection (n=8), followed by drug reaction, retained disc fragment, hardware failure and redo surgery.
Patient Experience

Medical, Interventional & Surgical Spine Center in Excellence and Caring

Overall Quality of Care 2008

Recommended Provider 2008

Rating Quality of Care 2008

Doctor Spent Enough Time 2008

Rating of Provider 2008
Awards & Achievements

SCHOLARLY ACTIVITIES

ACADEMIC EDUCATION
Applicants from several countries seek to participate in the spine programs. We received a total of 177 applications worldwide in 2008 for our programs related to clinical fellowships, research fellowships and observerships.

CONTINUING MEDICAL EDUCATION

• Grand Rounds
  monthly conferences initiated
  (involves staff, residents, fellows, multispecialty)

• Comprehensive Orthopedic, Spinal and Neurosurgical
  Update Symposium
  1st Annual Symposium, September 2008

PUBLICATIONS


• Siemionow K., Lieberman I.H: Vertebral Augmentation in Osteoporosis and Bone Metastasis. In; Current Opinion in supportive and Palliative Care. 2008.


Awards & Achievements

INVITED LECTURES & PRESENTATIONS

- Orthopaedic Institute at Mercy Hospital; Miami Florida, March 2008. Contemporary Concepts in the Treatment of Metastatic Spine Disease

- AANS 2008 Annual Meeting. Chicago, IL. April 2008. Transfacet Technology; An Alternative to Pedicle Screw Fixation


- Innovative Techniques in Spine Surgery, Los Cabos, Mexico, June 2008. Freedom Lumbar Disc, Update Robotic Guidance, Enabling new Surgical Approaches, Moderator Minimally Invasive Spine Surgery Round Table


- Cleveland Clinic, Ethical Challenges in Surgical Innovation. May 2008 Moderator – Surgical Innovation and Ethical Dilemmas Panel Session


- Spinal Stenosis. Cleveland Clinic Florida. March 2008


Awards & Achievements

CLINICAL RESEARCH

Total IRB Projects = 6

• A prospective analysis of survival in patients with spinal metastases  
  (PI Initiated)  
  Lieberman I., Podichetty V.K.

• Effectiveness of lead-free radio protective drapes to protect surgeons from ionizing radiation during vertebral augmentation procedures  
  (Sponsored)  
  Lieberman I., Yamashita T., Podichetty V.K.

• Analysis of Computerized Electrophysiological Reconstructed Spinal Regions (CERSR) in Patients Undergoing Spine Surgery for the treatment of Lumbar Spinal Stenosis or Lumbar Disc Herniation  
  (Sponsored)  
  Lieberman I., Podichetty V.K., O'Connell J., Grobman D.

• A Randomized Prospective Study to Evaluate the Effectiveness of Orthopedic Spinal Supports in the Treatment of Low Back  
  (Sponsored)  
  Westerdahl D., Podichetty V.K., Grobman D.

• Effects of Assistive Devices (Walking Stick vs. Walker vs Cane) in Patients with Spinal Stenosis: A Prospective study  
  (PI Initiated)  
  Lieberman I., Podichetty V.K.

• The Relationship Between Quality of Science, Outcomes, and Conflict of Interest with Reference to Readership  
  (PI Initiated)  
  Podichetty V.K., Lieberman I.