

Orthopaedics Focus

Surgical Quarterly

Fall 2009

Dear Colleagues,

As Chairman of the Department of Surgery, I am proud to introduce to you our new Quarterly Department of Surgery Newsletter. We are producing and distributing this newsletter to make you and your patients aware of the services, quality initiatives and the providers available at Rutland Regional Medical Center's Department of Surgery.

Although this inaugural newsletter is focused on Orthopaedics, we offer services in General Surgery, including Breast Care, Colo/Rectal Services and Laparoscopic (*minimally invasive*) care of abdominal conditions, ENT, OB/GYN, Ophthalmology, Urology, Plastic Surgery, Oral Surgery and Podiatry Surgery. These services will be highlighted in other editions of this quarterly newsletter.

Our Department remains focused on patient safety and infection control initiatives. Although our infection rate at Rutland Regional is low, we continue to work as a team to minimize the chances of surgical infection and maximize patient safety.

Please read over this newsletter and offer feedback if you wish. I encourage you to contact me with any suggestions or concerns about the Department of Surgery at Rutland Regional Medical Center.

Sincerely,
Melbourne D. Boynton, MD
Vermont Orthopaedic Clinic
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A Quarterly Publication of Rutland Regional Medical Center's Surgical Department

Sports Injury Hotline and Urgent Evaluation

iSPORT, the sports medicine program at Vermont Orthopaedic Clinic, has established a sports injury hotline to facilitate urgent evaluation of injured athletes. As student athletes return to school, there is a rise in injuries that occur during sports and recreational activities.

Coaches, families, and sometimes physicians have a difficult time knowing when a student can return to play or continue to play after injury.

At iSPORT, we would like to help the athletes and their primary care physicians with these sometimes complex decisions. We realize there

is a lot of pressure on families to return an athlete to sports after injury. We have certified athletic trainers, supported by three sports medicine physicians to help with urgent evaluations of an injured athlete as well as return to play decisions. Our team can help to determine whether injury can be safely monitored and allow return to play or requires further evaluation.

The sports injury hotline phone number is 802.779.7571, which will reach an athletic trainer who can triage the injured person. Alternatively, patients or physicians can simply call our office directly at 802.775.2937.



Sports Injury Hotline

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Should you have any questions or concerns regarding Sports Medicine at Vermont Orthopaedic Clinic, please do not hesitate to contact us.

Sincerely,
Melbourne D. Boynton, MD
Matthew R. Gammons, MD
James A. Russell, MD

Sports Injury Hotline 802.779.7571

Orthopaedic Specialists:

David H. Bahnson, MD

Adult, Pediatric Surgery, Arthroscopy,
Total Joint & Trauma

Melbourne D. Boynton, MD

VOC Clinical Director, Knee & Shoulder Surgery,
Sports Medicine, Arthroscopy

Matthew R. Gammons, MD

Sports Medicine, Non-operative Musculoskeletal Care

William A. Lighthart, MD

Total Joints, Hip & Knee Surgery

Eric J. Marsh, MD

Trauma & Fracture Surgery, Total Joints

James A. Russell, MD

KMC Clinical Director, Emergency & Sports Medicine

Ann C. Stein, MD

Hand Surgery, Upper Extremity Surgery

Matthew G. Zmurko, MD

Spine Surgery

Orthopaedic Services:

Arthritis Care

Hand Injuries

Sports Injuries

Fracture Care Adult & Children

Joint Replacement

- Total & Partial Knee Replacements
- Total & Partial Hip Replacements
- Total & Partial Shoulder Replacements
- Hip Resurfacing
- Minimally Invasive Hip & Knee Replacements
- Revisions of Hip & Knee Replacements
- Computer Assisted Joint Replacement

Anterior Cruciate Ligament Reconstruction

Arthroscopy

Knee, Hip, Shoulder, Elbow, Wrist, Ankle

Repair of Ruptured Tendons including

- Rotator Cuff Tendons
- Biceps Tendon
- Quadriceps Tendon
- Patellar Tendon
- Achilles Tendon
- Finger Flexor & Extensor Tendons

Spine Care

Kyphoplasty

Reconstructive Surgery

Spinal Fusion

Disc Surgery Replacement & Removal

Carpal Tunnel Release

Work Related Injuries

Pediatric Orthopaedic Conditions

Reconstructive Trauma Care

Malunions, Nonunions, Osteotomy



Perioperative Eradication of Staph Aureus

The Vermont Orthopaedic Clinic has started a program to eradicate Staph aureus colonization in patients undergoing elective total joint procedures (*hips & knees*) as well as certain spine procedures. This is the first perioperative eradication program of its kind in the State of Vermont. The process is managed during the perioperative period by the surgeon, pre-op nurses and infection control. No follow-up is required by the patient's primary care provider.

The methods used are adapted from New England Baptist Hospital (*NEBH*) in Boston which performs more than 6,000 orthopaedic procedures each year. Following implementation, NEBH obtained 78% eradication of MRSA (*methicillin resistant Staphylococcus aureus*) prior to surgery and demonstrated a 50% reduction in surgical site infections due to Staph aureus.

Our method includes pre-operative identification of Staph aureus and MRSA colonization by culturing the nares approximately two weeks prior to surgery. Patients with Staph aureus carriage will receive a five-day treatment course of

mupirocin and standard perioperative IV prophylaxis. Patients with MRSA carriage will receive a five-day treatment course of mupirocin and perioperative IV prophylaxis with Vancomycin or an agent with activity against MRSA. All patients will be instructed to bathe once a day for five days prior to surgery with chlorhexidine.

We have *not* had an issue with perioperative MRSA infection at Rutland Regional, however, we remain vigilant. At Vermont Orthopaedic Clinic we continually review our surgical management techniques to maintain the lowest possible infection rate. We will not cease our efforts until our infection rate is zero.

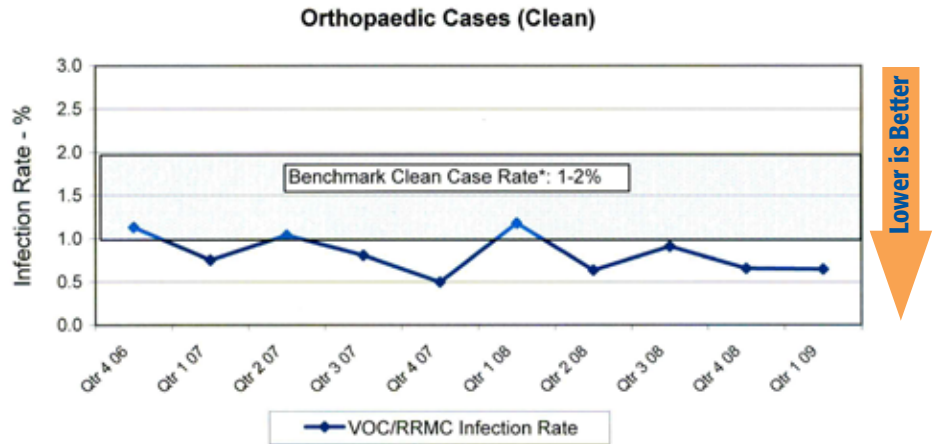
Did You Know?

From October 1, 2008 through September 30, 2009, our orthopaedic surgeons performed 2,046 surgeries – 406 of which were hip and knee replacements.

Orthopaedic Surgical Quality Indicator Results

Rutland Regional Medical Center/Vermont Orthopaedic Clinic's Clean Case Infection Rate is Low

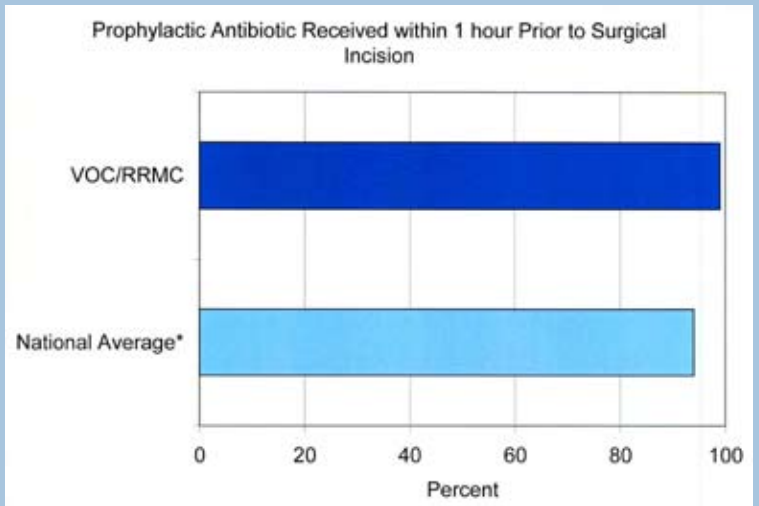
The surgical site infection rate for orthopaedic cases at Rutland Regional is 0.8%. This is lower than the benchmark rate of 1-2% for clean case infections reported in Surgical Infections and Antibiotics by D. Dunn, MD, PhD. As part of our commitment to work toward a zero percent infection rate, we are pleased to share our data with you.



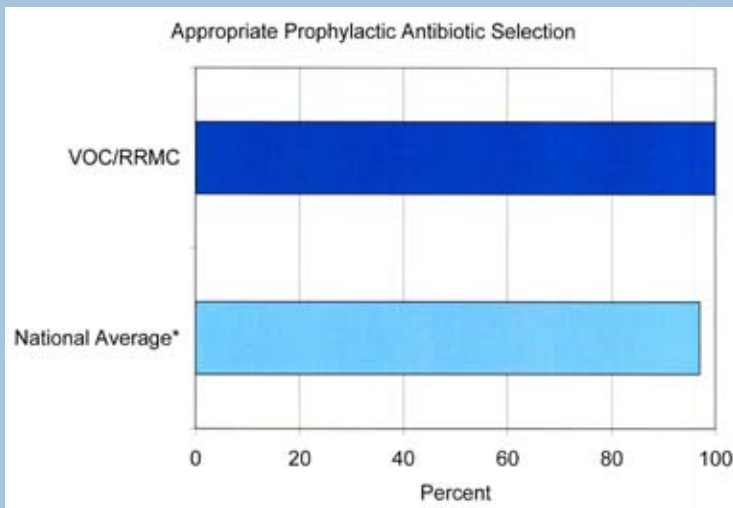
Reference: Dunn, DL, MD, Postoperative surgical wound infection. In: Cameron J, ed. Current Surgical Therapy. St Louis, Mo: Mosby-Year Book Inc.

Hospital Compare: Surgical Care Improvement Project (SCIP)

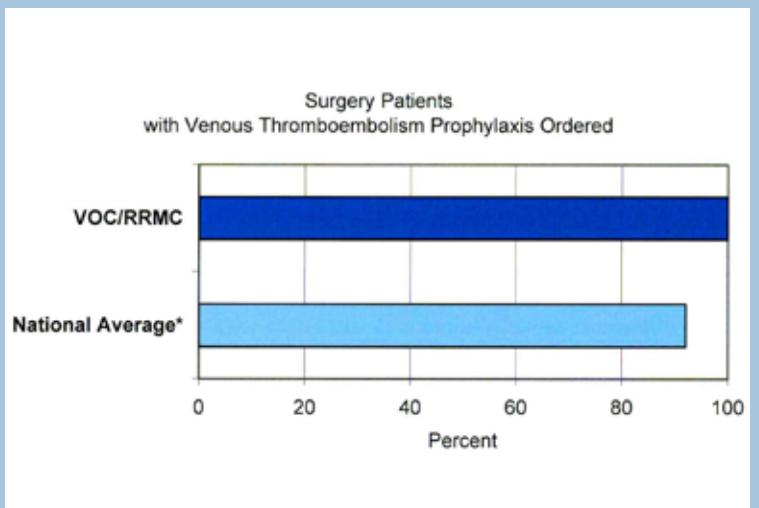
Rutland Regional Medical Center and Vermont Orthopaedic Clinic are proud to provide results of quality measures developed by CMS (*Centers for Medicare & Medicaid Services*). Our Surgical Care Improvement Project results place Vermont Orthopaedic Clinic at Rutland Regional in the top 10% of the Best Performing Hospitals in the country.



Reference: www.bishca.state.vt.us



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Reference: www.bishca.state.vt.us

New Treatment Option for Cervical Radiculopathy

Submitted by Matthew G. Zmurko, MD, Spine Surgeon, Vermont Orthopaedic Clinic, Rutland Regional Medical Center

Cervical radiculopathy is the irritation or compression of a cervical nerve root. The most common cause is a cervical disc herniation and this has approximately a 1% incidence. The classic clinical symptoms of cervical radiculopathy are dermatomal radiating pain, muscular weakness, paresthasias, and loss of reflex. Sensory deficits are more commonly experienced when compared to motor deficits. The good news is that approximately 50% of symptomatic patients improve with non-operative treatment within three months. Non-operative modalities may include physical therapy, traction, oral steroids, or epidural injections.

When non-operative treatments are not beneficial, the gold standard surgical procedure has been an anterior cervical discectomy and fusion. The goal of this surgery is to decompress the cervical nerve root by removing the offending disc material and then fusing the two bones together. This procedure was first described in the 1950s and has remained largely unchanged until the 1990s when cervical plates were introduced which help provide more stability. Multiple studies in the orthopaedic and neurosurgical literature have shown

anterior cervical discectomies and fusions repeatedly demonstrate good to excellent results in treating cervical radiculopathy. Despite being a very successful surgery, a single level fusion does alter the biomechanical stresses in the cervical



spine and may lead to adjacent level disease. Studies have demonstrated that approximately 20% of patients will develop symptomatic adjacent level disease 10 years after a single level fusion.

Cervical disc replacements have been available in Europe since the 1990s, but have only recently been approved for the treatment of cervical radiculopathy in the United States. The goal of cervical disc replacement is to allow the patient to maintain their physiologic motion at the diseased level and prevent the development of adjacent level disease in the future. (Figures 1 & 2) Several models of cervical

disc replacements are currently on the market with several more due to be released in the near future. Recent randomized controlled clinical studies have demonstrated improved outcomes with cervical disc replacement when compared to the gold standard cervical fusion with two-year follow-up. Patients who received disc replacements in these studies showed faster return to work and regular activities. The patients with disc replacements also had a lower reoperation rate at adjacent levels during the two years of follow-up when compared to patients with fusions.

In conclusion, many patients improve with conservative treatment for cervical radiculopathy. However, for younger patients with single level disease studies show that cervical disc replacements provide the benefits of neural decompression to alleviate the radiating pain, weakness, and numbness patients experience with the added benefit of maintaining the motion at the diseased disc level. Cervical disc replacements are a new technology that is offered to appropriate patients at Rutland Regional Medical Center through the Vermont Orthopaedic Clinic.



Rutland Regional Medical Center
Surgical Services



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802.775.2937

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802.422.6191