# Orthopaedic Institute











Overview and Outcomes Report 2012

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### Patient-centered Care with a Focus on Innovation

#### Dear colleagues:

At Abbott Northwestern's Orthopaedic Institute, innovation and a commitment to achieve excellent outcomes have helped us improve care and enhance the patient experience.

We've worked hard to provide comprehensive, patient-centered care through our Joint Replacement Center, and the successes achieved there are helping to drive new approaches for all orthopedic patients. Our efforts have been recognized regionally and nationally.

Providing the best possible care begins long before our patients arrive in the operating room. For example, our Joint Replacement Center patients receive extensive preoperative education, helping them prepare for surgery as well as recovery and rehabilitation. We also evaluate orthopedic patients in our Preoperative Clinic, an important tool in ensuring patient safety and preventing complications.



Because of the volume of cases we see, the Orthopaedic Institute surgeons and surgical staff have developed expertise in several specialty areas and draw on a wealth of experience to care for the most complex patients. Procedures like partial knee replacement, hip resurfacing, knee and hip revision, and shoulder replacement are done frequently at Abbott Northwestern, and our team includes physicians with advanced training in articular cartilage restoration and meniscal transplants. We also have the multidisciplinary resources to treat complex geriatric trauma.

The Orthopaedic Institute benefits from an exceptional nursing staff. They have completed significant training in orthopedic nursing care and have the experience required to care for complex patients.

Our team works collaboratively with anesthesiologists to address the unique pain management needs of orthopedic patients. As you'll read on page 13, the Acute Pain Service operated by the anesthesiology staff has championed new approaches for our patients that can minimize pain for 12 hours to four days after surgery.

We also work closely with the Penny George Institute for Health and Healing. Integrative therapy practitioners offer helpful alternatives for patients who do not tolerate pain medications or who want to explore other options for pain relief. We know that a patient's experience with pain greatly affects how they feel about their hospital stay, and we fully engage with our colleagues to help each patient manage pain effectively.

Courage Kenny Rehabilitation Institute, the rehabilitation service line of Allina Health, is another valued partner. It provides acute care rehabilitation services for our postoperative patients, offering individual and group therapy sessions.

We believe that our advanced capabilities, comprehensive services and dedication to providing patient-centered care offer distinct advantages to patients. Our goal is to continuing enhancing the patient experience, with careful attention to improving performance while lowering costs. We are confident that we can meet these challenges, and we look forward to working with you to provide the best possible care for orthopedic patients.

Scott D. Anseth, MD chairman, Orthopedic Department



*U.S. News and World Report* has named Abbott Northwestern as the #1 hospital in the metro area for overall quality of care and the 13th best hospital in the nation in the specialty of orthopedics.

### Joint Replacement Center achievements:

- the first in Minnesota to earn the Joint Commission's Gold Seal of Approval™ for hip and knee replacements by demonstrating compliance with the Joint Commission's national standards for health care quality and safety
- designated as a Blue Distinction Center for knee and hip replacement by Blue Cross Blue Shield for demonstrating expertise in quality care that results in better overall outcomes for patients
- awarded Magnet Recognition Program® status for demonstrating excellence in nursing practice.









# **Approach to Care**

The Orthopaedic Institute offers comprehensive and coordinated services that create highquality clinical programs, improve the patient experience, and foster teamwork among referring clinics, physicians and hospital staff.

With an integrated approach to preventing, diagnosing, treating and rehabilitating orthopedic conditions, the Orthopaedic Institute promotes collaboration and the use of best practices to drive optimal patient outcomes. Its team focus, involving surgeons, nurses, occupational and physical therapists, acute and chronic pain specialists, integrative medicine practitioners, surgical staff, and multidisciplinary staff from other hospital departments, is critical to its work as an Abbott Northwestern Center of Excellence.

#### Key features include:

- nationally recognized care in a healing environment
- clinical pathways designed to ensure consistency in quality and risk reduction for patients
- specialized orthopedic nursing care to help reduce the risk for complications
- preoperative patient education classes
- coordination of care to ensure continuity
- comprehensive and specialized programs
- integrative health therapies
- innovative pain management
- a Preoperative Clinic and operative/postoperative chart reviews to ensure long-term optimal patient outcomes.





# Our commitment to comprehensive care

- · Strong partnerships with primary care physicians and orthopedic surgeons to provide best-practice orthopedic care
- Special expertise in geriatric trauma

- Follow-up calls to patients at 48 hours and 30 days after discharge
- · Functional outcome surveys at six months and one year
- · Regular joint replacement patient reunions

**TRIAGE** 

POSTOPERATIVE RECOVERY AND FOLLOW UP PATIENT EDUCATION

**NAVIGATION** 

- Community education on preventing and managing orthopedic conditions
- Presurgery patient education informs patients about all aspects of their care experience
- Focused patient education materials enhance learning

Continuum of care

- Acute Pain Service optimizes peri- and postoperative pain management
- Specially trained orthopedic nurses and surgical staff
- Universal protocol Time
  Out ensures patient safety
- Advanced surgical technology and techniques

SURGERY

#### COMPREHENSIVE, SPECIALIZED PROGRAMS

- Specialized orthopedic nursing care helps reduce the risk of complications
- Nationally recognized care in a healing environment
- · Alternative medicine and integrative therapies
- · Innovative pain management
- Preoperative Clinic, surgical and postoperative chart reviews ensure long-term optimal patient outcomes
- Preoperative home assessments help create a safe recovery environment

- Coordination of care provides continuity and ensures quality
- · Clinical pathways ensure quality and reduce risks
- Individualized treatment plans facilitate quality patient care prior to admission through the recovery phase

# Foundation of Excellent Care





### Inpatient care

The Orthopaedic Institute offers comprehensive and coordinated services that are designed around the needs of orthopedic patients and their families. It partners with experts throughout Abbott Northwestern to ensure excellent outcomes and high patient satisfaction.

Orthopedic inpatients are cared for on orthopedic stations H7200 and H8200. This award-winning space provides a complete healing environment. Each unit has 18 private rooms with amenities for patients and visitors including a refrigerator, safe, DVD player, and a family area with a separate phone, wireless internet and a reading lamp. Visitor seating in patient rooms can be converted into a bed, allowing a family member to spend the night. For patient safety and comfort, each room has a ceiling lift that can be used, if needed, to reposition the patient or move the patient from the bed to the bathroom or chair. Each private bathroom

is equipped with grab bars, ADA accessible shower, shower chair and other safety features.

In addition, H7200 and H8200 each have an attractive lounge for patients and family members. The Solarium Lounges feature a fireplace, microwave oven, coffee maker, refrigerator and ample seating. The nearby Atrium Lounge offers a sense of tranquility and features a cascading water wall and spectacular views of Minneapolis.



#### Specialized nursing care

Registered nurses who staff the Orthopaedic Institute have received special training in caring for patients with orthopedic conditions. Nurses complete 200 hours of orientation

and participate in ongoing education and training.

In 2009, Abbott Northwestern's Nursing Department earned national recognition through its Magnet Designation by the American Nursing Credentialing Center (ANCC).



# Nationally recognized care in a healing environment

U.S. News and World Report has named Abbott Northwestern as the #1 hospital in the metro area for overall quality of care and the 13th best hospital in the nation in the specialty of orthopedics.

Nationwide, about six percent of hospitals have earned this distinction. According to the ANCC, Magnet hospitals consistently deliver better patient outcomes than non-Magnet hospitals, measured by more nursing time spent at the patient's bedside, shorter length of stays, lower mortality rates, higher patient satisfaction rates, and higher nurse retention, recruitment and job satisfaction rates.



#### Rehabilitation services provided by Courage Kenny Rehabilitation Institute

Courage Kenny Rehabilitation Institute, the Allina Health rehabilitation clinical service line, provides inpatient rehabilitation services (see page 16). Three rehabilitation areas are located on the inpatient unit to support early assessment and initiation of treatment. One of the areas, called the Pavilion, offers a positive, supportive atmosphere to encourage patients to participate in therapies. It has ample room for patients to participate in group therapy, a key component of the Joint Replacement Center's approach to care. Another rehabilitation area provides physical therapy mats, parallel bars, a car simulator and other equipment to help patients practice activities of daily living. The third area includes a simulated kitchen, bathroom and home environment.

#### Inpatient orthopedic surgical services

The exceptional care provided by Abbott Northwestern's orthopedic surgeons and surgical staff is reflected in the hospital's recent Best Hospitals ranking and recognition from the Joint Commission and Blue Cross Blue Shield for its joint care programs.

The orthopedic operating rooms are staffed by a specialty team of perioperative and operating room staff members. The team is highly experienced caring for patients during routine and complex orthopedic procedures.

Anesthesia providers offer advanced anesthetic techniques for orthopedic patients. A significant number of orthopedic patients receive regional anesthetic blocks. The Acute Pain Service, which is operated by anesthesiologists 24/7, provides ongoing monitoring and interventions to assist patients with continuous postoperative pain management. Anesthesia providers administer anesthetic for more than 4,500 orthopedic patients annually.

Six to eight operating rooms a day are scheduled with orthopedic procedures that include:

- trauma
- geriatric hip fractures
- difficult primary and revision total joint procedures
- hip resurfacing with navigation
- cartilage restoration
- complex hand and elbow procedures
- complex shoulder procedures, including primary, revision and reverse total shoulders.

Advanced technology in the operating rooms includes computerized navigation systems. The combination of experienced personnel and leading-edge technology allows orthopedic surgeons to offer patients the best possible care.

Infection rates for total joint procedures are among the lowest in the country.

# Outpatient orthopedic surgical services



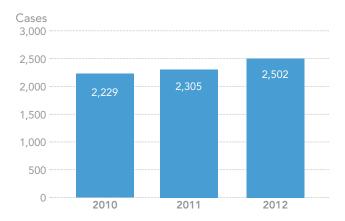
### Abbott Northwestern's Operating Room

Outpatient orthopedic surgical procedures are completed in the main Operating Room, which offers outpatient surgical patients the same level of expertise and technology as is provided during complex inpatient orthopedic procedures. Because of the proximity to specialized physicians, anesthesia providers, nursing staff and technology, outpatients are afforded the convenience of an outpatient surgery center, with the assurance that necessary resources are immediately available.

Anesthesia providers are skilled in the care of orthopedic patients, providing a range of options for outpatient orthopedic patients that include regional, general and sedative anesthesia techniques. The Acute Pain Service provides monitoring and interventions to help patients manage postoperative pain at home.

Outpatients are usually taken directly to the Outpatient Surgical Discharge Unit after their procedure. Patients spend 60 - 90 minutes in a private room seated in a comfortable recliner. Staff monitor their recovery, ensure that they can safely return home, and give final discharge instructions to patients and families.

#### **Outpatient orthopedic surgery** case volume





#### Center for Outpatient Care

The Orthopedic Institute Surgery Center (OISC), located at Abbott Northwestern's Center for Outpatient Care at I-494 and Highway 169 in Edina, Minn., is dedicated to outpatient orthopedic surgery. Unlike many surgery centers, the OISC only performs orthopedic cases, resulting in a highly specialized nursing team. Likewise, the anesthesiologists have extensive experience in managing anesthesia for orthopedic patients, completing thousands of cases every year. All OISC patients have private pre- and postoperative rooms, and 100 percent of patients surveyed indicated they would recommend the facility to family and friends.

The OISC is Joint Commission certified, indicating that it meets the highest care standards. Because of the rigorous standards maintained at the OISC, the postoperative infection rate in 2012 was less than 0.08 percent.

Shoulder and knee cases comprise more than 95 percent of surgical cases completed at the OISC. Procedures include both arthroscopic and open rotator cuff repair, as well as procedures to repair knee injuries including those affecting the anterior cruciate ligament and meniscus.

# Abbott Northwestern – WestHealth

Abbott Northwestern – WestHealth, located at I-494 and U.S. 55 in Plymouth, Minn., is home to a growing number of Allina Health specialty services and programs. It offers a variety of same-day orthopedic surgery procedures, including arthroscopic knee surgery, bunionectomy and carpal tunnel surgery. With access to experienced anesthesia staff, registered nurses and surgical technicians, surgeons appreciate Abbott Northwestern – WestHealth's reputation for surgical excellence, while patients value the

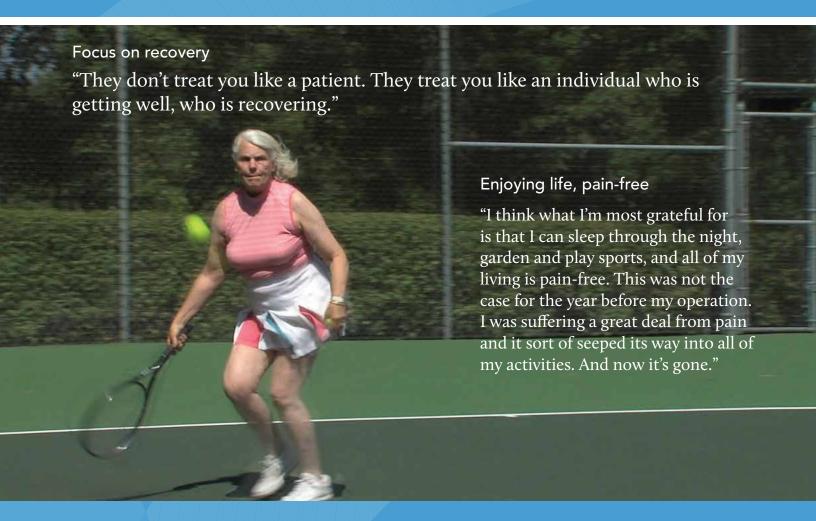


convenient location, ease of scheduling and attention to personal care and privacy. Abbott Northwestern – WestHealth is accredited by the Accreditation Association for Ambulatory Health Care, Inc.

### On-call service

To ensure excellent patient care, board-certified orthopedic surgeons are on-call 24 hours a day to manage a wide range of orthopedic needs. Certified orthopedic physician assistants complement the patient care team and work closely with surgeons to care for patients.

# **Comprehensive Programs**



### A welcoming place

"Everyone [at the Joint Replacement Center] has thought about the need for the patient to feel comfortable. Everyone is waiting for you to come and they're going to welcome you and help you get home as soon as possible."

### The value of group physical therapy

"You can immediately identify with other patients who have had surgery because you have just been through that experience. You can see each other's progress one day at a time, and I think that helps everybody. It's an exchange of confidence that it's getting better."

#### The care team

nursing team and everyone who comes in your room – even the man who brings your meal – they're all rooting for you to do a little better the next day."



Joint Replacement Center

The Joint Replacement Center is the first program in the state to earn The Joint Commission's Gold Seal of Approval<sup>™</sup> for hip and knee replacements by demonstrating compliance with national standards for health care quality and safety. Abbott Northwestern is also a Blue Distinction Center for Knee and Hip Replacement by Blue Cross Blue Shield.

The Joint Replacement Center has demonstrated expertise in joint care with excellent patient outcomes. It also meets objective clinical measures developed in collaboration with expert physician panels and national medical organizations. Typical procedures include: routine and complex total knee replacements, total hip replacements, hip resurfacing and revision procedures. The Joint Replacement Center physicians and staff are dedicated to supporting patients through each step of their joint replacement surgery and recovery.

Joint replacement patients are cared for by an experienced staff on a dedicated floor in Abbott Northwestern's Heart Hospital. This area has private rooms for all patients and a physical therapy center where patients participate in group activities and can share their experiences related to joint replacement and rehabilitation.

#### Patient-centered care

Its patient-centered approach focuses on preparation and education, innovations in surgical techniques, multimodal pain control and accelerated postoperative rehabilitation through skilled and compassionate care.

Designated as a Blue stinction<sup>®</sup> for Knee and Hip Replacement





#### Coordinated services

The Joint Replacement Center offers comprehensive and coordinated services to better serve its patients. The Orthopaedic Program manager oversees day-to-day operations on the patient care unit, preoperative classes, community education programs and patient reunion events. This enhances continuity among key aspects of the patient experience.

Patients are encouraged to become fully engaged in surgery preparation, recovery and rehabilitation through comprehensive education, group support, practical advice and enjoyable activities. Patients scheduled for surgery attend a class approximately two weeks before their surgery. At the class, they learn how to prepare for surgery and what to expect before, during and after surgery.



### Team approach

The Joint Replacement Center values a team approach in which all disciplines involved in orthopedic care collaborate to provide the best possible experience for patients. This multidisciplinary team includes surgeons, anesthesiologists, hospitalists, physician assistants, nurses and physical therapists. The team meets monthly to evaluate strategies to improve the care of joint replacement patients.





# Shoulder Program

The Orthopaedic Institute's physicians and staff are well known for their care of patients with a variety of shoulder conditions. Physicians have advanced training and provide progressive care and innovative techniques in shoulder surgery. Shoulder procedures performed at Abbott Northwestern Hospital include, but are not limited to: total shoulder replacement, reverse shoulder replacement, revision shoulder replacement, arthroscopic and open rotator cuff repair, arthroscopic and open instability repair, and complex tendon transfers. Recent efforts have focused on increasing collaboration between physicians and staff to establish a comprehensive program for patients undergoing shoulder replacement. This new Total Shoulder Program will facilitate coordination of preoperative and postoperative care, enrich patient education and reduce length of hospital stay.

# Hip Fracture Program

The Orthopedic Institute is dedicated to providing the best possible care for hip fracture patients. Coordinated care and services begin prior to the patient's arrival in the Emergency Department and continue even after discharge from the hospital. The Orthopedic Institute partners with several

assisted living and skilled nursing facilities throughout the community to streamline the process of providing safe and efficient care for hip fracture patients. To minimize complications and get patients back into their own environment, the goal is for patients to undergo surgery within 24 hours when appropriate. By collaborating with the Acute Pain Service, the hip fracture team can offer options for anesthesia and pain management that help minimize complications such as delirium. Experienced nursing staff and Courage Kenny Rehabilitation Institute therapists care for patients recovering from hip fracture surgery on a designated unit. A multidisciplinary group of physicians and leaders meets monthly to review outcomes and implement process improvements.

# Women's Health Program

The Women's Health Program has experts who specialize in women's musculoskeletal injuries, health and rehabilitation. It serves active women of all ages, offering patient education, sensitivity to women's needs and access to a range of women's health experts. The medical staff and associates are committed to providing quality care to females at every level of activity, from youth sports participants and elite athletes to women with active lifestyles. The program provides exemplary care and a multidisciplinary approach to preventing, evaluating and managing female musculoskeletal injuries.

Key program components

- expertise in female musculoskeletal anatomy and conditions
- research on orthopedic issues affecting girls and women
- patient education designed for women
- sensitivity to women's needs and products designed for women.



# **Sports Medicine**

The sports medicine experts within the Orthopaedic Institute are highly regarded throughout Minnesota for their community outreach services, including free school sports physicals and medical coverage for more than 20 teams, clubs and programs. Teams and events covered in 2012 include:

#### **Professional**

Minnesota Twins

#### College

Macalester College

#### **Amateur**

Bloomington Bait Bucket Lacrosse Little Guy Racing Cycling Team Lovdahl Pitching Academy Metropolis Rugby Football Club Next Level Baseball Training Northern Lights Junior Olympic Volleyball North Shore Gymnastics Association TAGS Gymnastics

#### High school

Cretin-Derham Hall High School Eden Prairie High School Jefferson High School Minnetonka High School Orono High School Providence High School St. Thomas Academy High School Totino Grace High School Visitation High School Wayzata High School



#### **Events**

YWCA-Minneapolis Women's Triathlon Life Time Fitness Minneapolis Triathlon Minnesota Half Marathon

# **Orthopedic Specialties**

#### Hand treatment

Hand surgery is provided by orthopedic surgeons who have completed a year of specialized training. The complex interaction of blood vessels, bones, muscles, nerves and tendons in the hand requires a high level of surgical expertise. Conditions treated by these surgeons include arthritis of the hand and wrist, carpal tunnel syndrome, fractures, ganglion cyst removal, and repair of tendon and nerve injuries.

#### Foot and ankle care

Providers at Abbott Northwestern Hospital specialize in the care of foot and ankle conditions.

Podiatric care is provided by orthopedic surgeons with special training in managing foot conditions that can impair the ability to walk and run. Conditions treated include bunions, heel spurs, plantar fasciitis and posterior tibial tendon dysfunction. Treatments may begin with anti-inflammatory medications, bracing, elevation, ice, orthotics and rest, and later progress to surgical intervention when appropriate.

Orthopedic surgeons, podiatrists and vascular surgeons also work collaboratively to provide care for complex diabetic foot conditions.

Treatments for ankle pain range from conservative options to surgery. The goal is to relieve pain, optimize movement and improve quality of life. Physical therapy may be beneficial for some patients, however, when conservative treatments and other surgical options have been tried, ruled out or are not effective, total ankle replacement may be the best option.

Orthopaedic Institute surgeons use the latest generation of artificial joints and innovative surgical techniques, making total ankle replacement an option for patients with advanced arthritis or severe trauma to the ankle.

# Pain Management

### **Acute Pain Service**

Postoperative pain control is a critical factor in improving surgical outcomes, reducing complications, decreasing the hospital stay and reducing costs. To improve postoperative pain management, Abbott Northwestern uses an Acute Pain Service made up of anesthesiologists and nurses. This service partners with surgeons and other physicians to offer innovative pain management strategies for a variety of patient populations.

The most frequently used modalities for orthopedic patients are single shot and continuous peripheral nerve blocks. Initially, a strong numbing medication is injected near the nerves that supply feeling to the surgical site. Pain relief from this injection lasts 12-18 hours. To extend pain control, a continuous nerve block is used in some patients. For these patients, a small catheter is inserted and a disposable pump delivers numbing medication for several days after surgery. Patients go home with the catheter and disposable pump in place and remove it themselves. Patients report an overwhelmingly positive experience with this approach to acute postoperative pain management. High quality postoperative pain control has helped the Orthopaedic Institute achieve outstanding clinical outcomes.



Acute Pain Service staff use ultrasound to guide placement of a peripheral nerve catheter prior to surgery. Peripheral nerve blocks are used for pain

## Chronic Pain Service

Postoperative pain control can be challenging for patients with underlying chronic pain. The Chronic Pain Service provides evaluations to address issues related to chronic pain control and management after surgery. The Chronic Pain Service provides expert consultation from a pain management physician (with more than 30 years of experience), nurse practitioner and clinical nurse specialist with special training in chronic pain management. The Chronic Pain Service partners with the Penny George Institute for Health and Healing to provide an integrative approach to pain management. Services include assistance with assessment, management and triage of patients with acute or chronic pain, acupuncture, medication management, massage therapy and resources for discharge.

# **Partners in Quality Care**





# Penny George Institute for Health and Healing

The Penny George Institute for Health and Healing, part of Allina Health, is the largest integrative health center embedded in a health system in the country.

It is setting national standards for enhancing health care through an integrative health approach.

#### This includes:

- blending complementary therapies, integrative medicine and conventional Western medicine
- providing services to inpatients and outpatients
- educating health care professionals
- teaching community members about health promotion and self-healing practices
- conducting research to identify best practices of integrative health and the impact of these services on health care costs.

#### Inpatient integrative services

Integrative services may be requested as part of an inpatient's care. A practitioner from the Penny George Institute visits the patient to determine which services are appropriate.

All complementary therapy services provided during the hospital stay are considered part of the patient's hospital care, and inpatients are not billed for these services.

#### Services include:

- acupressure
- acupuncture
- aromatherapy
- energy healing including Reiki and healing touch
- healing arts
- Korean hand therapy
- mind/body therapies including relaxation response, guided imagery and biofeedback
- music therapy
- reflexology
- therapeutic massage
- other relaxation and stress reduction therapies.

#### Acupuncture services for Joint Replacement Center patients

Acupuncture services are available to all patients who are admitted to the Joint Replacement Center. The orthopedic surgeons order acupuncture as part of their postoperative order set. Acupuncture is provided in a group setting immediately following group physical therapy treatment.

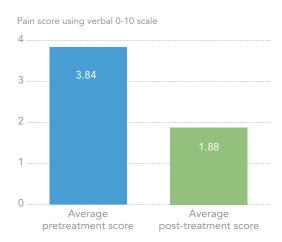
The following table illustrates the number of patients who were referred to the Penny George Institute for Health and Healing inpatient program for services during the first nine months of 2012. Eighty-four percent of referred patients were seen and provided acupuncture services. Patients who were not seen either declined services (37 percent or 270) or they had Friday surgeries and were discharged prior to the next treatment opportunity on Tuesdays. Patients who declined include those who declined on one occasion during admission but had also received at least one treatment. The average number of treatments was 1.78 per admission.

#### Volume and patient characteristics (Jan. 1-Sept. 30, 2012)

Admissions with referrals	757
Number referred that received services	637
Patients who declined	279
Patient visits with services	1,133
Patient visits with no services	505
Total visits attempted	1,638
Total patients treated	735
Females	473
Males	262
Total number of visits	1,133
Average length of treatment 35	minutes
Average number of treatments per admission	1.78

### Pre- and post-treatment pain scores

Jan. 1-Sept. 30, 2012 (n=689)



Pretreatment and post-treatment pain scores are collected using the verbal analog scale of 0-10 in common use in the hospital. Pain scores are the most accurate of the scores collected because the patients are familiar with the rating scale and the definition of the score value. Pain reduction after the acupuncture treatment is illustrated in the chart above. The post-treatment pain score decreased by almost 50 percent. There are other contributing factors to pain reduction in addition to acupuncture.

Anxiety and nausea scores are also collected. However, these scores tend to be less reliable because patients are less certain about how to rate anxiety and nausea on a numerical scale.



# Courage Kenny Rehabilitation Institute

Courage Kenny Rehabilitation Institute, the medical rehabilitation service line of Allina Health, is one of the leading providers of comprehensive integrated rehabilitation in the region. It delivers compassionate and skilled medical rehabilitation to people across the Upper Midwest. Services include acute physical, occupational and speech therapies for people who have experienced injury, pain or disease. The Institute has earned accreditation from the Commission on the Accreditation of Rehabilitation Facilities (CARF), having met the highest industry standards for quality care and service.

Courage Kenny Rehabilitation Institute's patient outcomes and satisfaction often exceed national averages. Inpatient rehabilitation is offered at Abbott

Northwestern and United hospitals; outpatient services are provided at all Allina Health hospitals. The goal is for every patient to achieve as much independence as possible - to do as much as they can physically and mentally, to stay connected to family and friends, and to continue to progress toward their personal best.

#### Hand therapy

Courage Kenny Rehabilitation Institute provides comprehensive evaluation and treatment for clients who have an injury or disease of the hand or arm. The staff includes certified hand therapists and occupational and physical therapists with specialized training and experience in hand rehabilitation.

### Courage Kenny Sports & Physical Therapy

Courage Kenny Sports & Physical Therapy is a network of 22 physical therapy clinics throughout Minnesota and western Wisconsin. Therapies for orthopedic patients include treatments to assist patients recovering from everything from a surgery to a sports-related injury. Each patient receives one-to-one care and individualized home exercise programs with an emphasis on active management of their condition. Courage Kenny Sports & Physical Therapy staff members collaborate with referring physicians to provide safe, timely and effective care. All tests, procedures and treatments are based on clinical standards of practice.

### Allina Health Transitions of Care

#### Allina Health Home Health

Allina Health Home & Community offers support, education and assistance to help postoperative patients achieve or maintain as much independence as possible while in the comfort of their own home. The care team takes a patient- and family-centered approach to care, respecting patient and family choices, caregiving and decision-making. Experienced nurse case managers visit each patient's home and coordinate care with the patient's physician, family and other health care professionals. Nurses provide assessment, teaching, medication management and skilled nursing procedures while evaluating progress.

#### SeniorCare Transitions

SeniorCare Transitions, part of Allina Health, works with patients and their families to streamline care transitions and manage medical care in these settings:

- transitional care units (short-term care)
- nursing homes (long-term care)
- senior communities.

On-site medical teams support healing and help prevent unnecessary trips to the clinic or hospital.

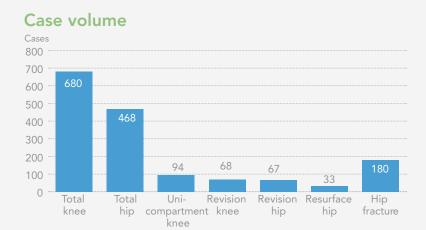
# Volume, Quality and Outcome Measures



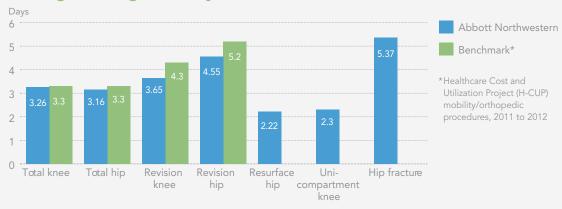


Improving quality of life

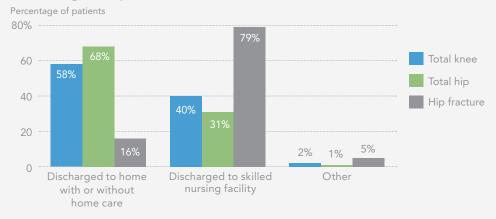
# Volume, length of stay and discharge disposition, 2012



### Average of length of stay



### Discharge disposition

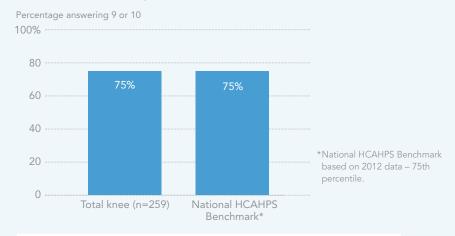


Unless otherwise indicated, all data are from the Allina Health Enterprise Data Warehouse.

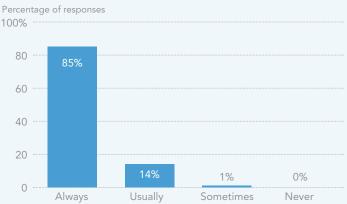
# Total knee replacement

#### Patient satisfaction, 2012

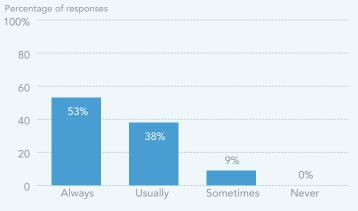
Using any number from 0-10, where 0 is the worst hospital  $\,$ possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?



#### During this hospital stay, how often did doctors explain things in a way you could understand? (n=258)

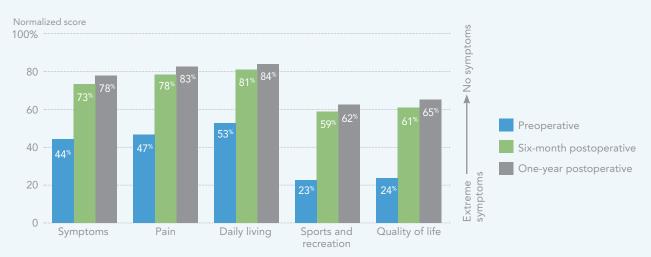


#### During this hospital stay, how often was your pain well-controlled? (n=256)



# Total knee replacement | Outcome scores, 2012

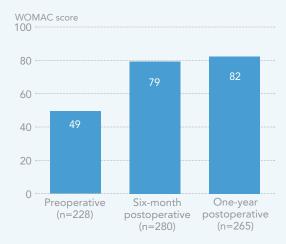
#### KOOS subscale overview



The Knee Injury and Osteoarthritis Outcome Score (KOOS) is a survey instrument designed to assess patients' opinions about their knee and associated problems. It is formatted as a brief, self-administered survey. It includes questions on five subscales: pain, other symptoms, function in daily living, function in sports and recreation, and knee-related quality of life. Numerical values are assigned to a series of response options, such as no pain, mild pain, moderate pain, severe pain and extreme pain, and mean scores are calculated using this data.

These data represent patients who were surveyed during 2012. It shows scores improved significantly from preoperative assessment to six-month postoperative assessment, and from preoperative assessment to one-year postoperative assessment. The scores from six-month postoperative assessment to one-year postoperative assessment showed no significant difference.

#### **WOMAC** knee score



The WOMAC™ Index is a self-administered questionnaire assessing the health status and health outcomes of patients with knee and/or hip osteoarthritis. Questions target areas of pain, stiffness and physical function. Higher scores indicate function that is closer to normal.

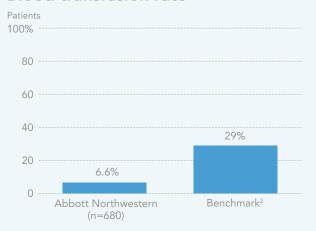
Minimum total score = 0Maximum total score = 96

# Total knee replacement | Complications, 2012

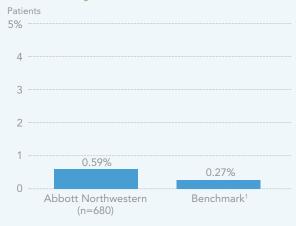
### Deep vein thrombosis rate



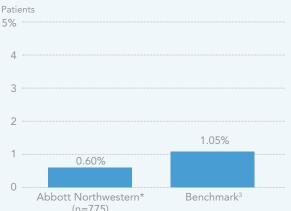
#### **Blood transfusion rate**



#### Pulmonary embolism rate



### Deep infection rate



<sup>&</sup>lt;sup>1</sup> Januel JM, Chen G, Ruffieux C, Quan H, Douketis JD, Crowther MA, Colin C, Ghali WA, Burnand B, IMECCHI Group. Symptomatic in-hospital deep vein thrombosis and pulmonary embolism following hip and knee arthroplasty among patients receiving recommended prophylaxis: a systematic review. JAMA. 2012 Jan 18;307 (3): 294-303.

<sup>&</sup>lt;sup>2</sup> Carson JL, Kuriyan M. What should trigger a transfusion? *Transfusion*. 2010 Oct;50(10):2073-5.

<sup>&</sup>lt;sup>3</sup> Phillips CB, et al. (2003) Journal of Bone and Joint Surgery, American Volume, Jan: Vol. 85-A (1) pp.20-6.

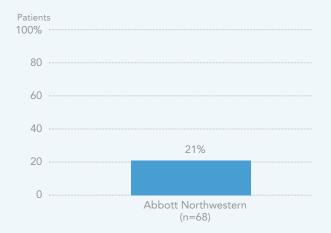
<sup>\*</sup>Data from the Abbott Northwestern Hospital Infection Prevention and Control Department.

# Revision knee replacement | Complications, 2012

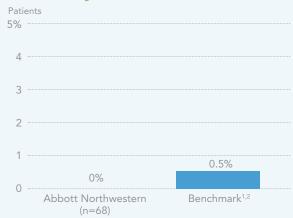
### Deep vein thrombosis rate



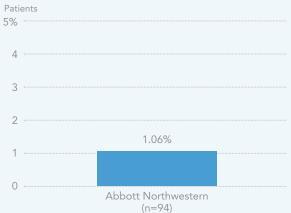
#### **Blood transfusion rate**



### Pulmonary embolism rate



# Deep infection rate



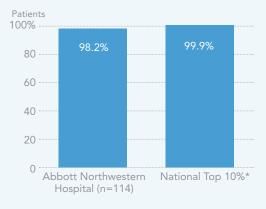
<sup>&</sup>lt;sup>1</sup> Pulido L, Parvizi J, et al. In hospital complication after total joint arthroplasty. J Arthroplasty. 2008 Sep; 23(6 Suppl 1): 139-45.

 $<sup>^{\</sup>rm 2}\,{\rm Mahomed},$  et al. Epidemiology of total knee replacement in the United States Medicare population. J Bone Joint Surg Am. 2005 Jun; 87(6).

# Total knee replacement

### **Surgical Care Improvement Project, 2012**

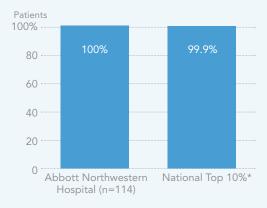
#### Prophylactic antibiotic received within one hour prior to surgical incision



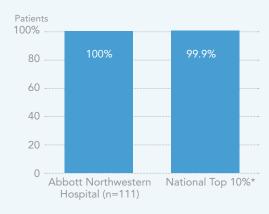
#### Surgery patients with recommended venous thromboembolism prophylaxis ordered



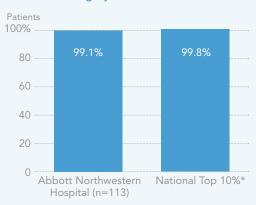
#### Appropriate prophylactic antibiotic selection for surgical patients



#### Surgery patients who received appropriate venous thromboembolism prophylaxis within 24 hours prior to surgery to 24 hours after surgery



#### Prophylactic antibiotics discontinued within 24 hours after surgery end time

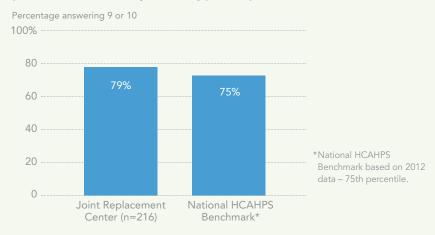


<sup>\*</sup>Benchmark data: Sample of SCIP cases abstracted. National Top 10% from first quarter 2012, which includes all surgery types.

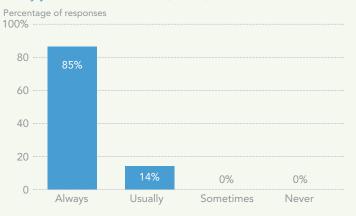
# Total hip replacement

#### Patient satisfaction, 2012

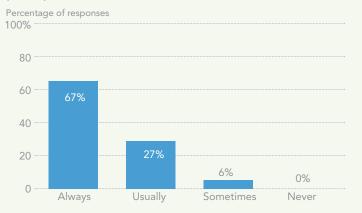
Using any number from 0-10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?



#### During this hospital stay, how often did doctors explain things in a way you could understand? (n=218)

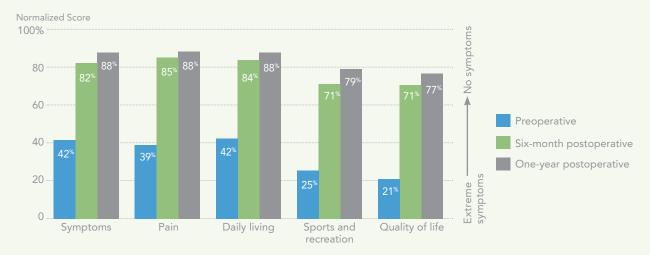


#### During this hospital stay, how often was your pain well-controlled? (n=207)



# Total hip replacement | Outcome scores, 2012

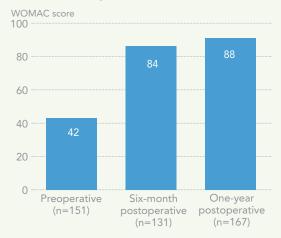
#### **HOOS** subscale overview



The Hip Injury and Osteoarthritis Outcome Score (HOOS) is a survey instrument designed to assess patients' opinions about their hip and associated problems. It is formatted as a brief, self-administered survey. It includes questions on five subscales: pain, other symptoms, function in daily living, function in sports and recreation, and knee-related quality of life. Numerical values are assigned to a series of response options, such as no pain, mild pain, moderate pain, severe pain and extreme pain, and mean scores are calculated using this data.

These data represent patients who were surveyed during 2012. It shows scores improved significantly from preoperative assessment to six-month postoperative assessment, and from preoperative assessment to one-year postoperative assessment. The scores from six-month postoperative assessment to one-year postoperative assessment showed no significant difference.

#### **WOMAC** hip score

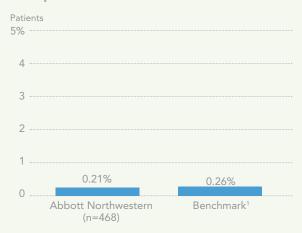


The WOMAC™ Index is a self-administered questionnaire assessing the health status and health outcomes of patients with knee and/or hip osteoarthritis. Questions target areas of pain, stiffness and physical function. Higher scores indicate function that is closer to normal.

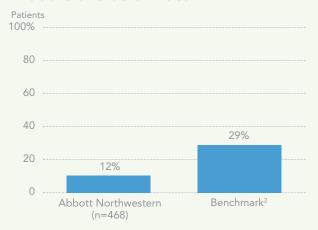
Minimum total score = 0Maximum total score = 96

# Total hip replacement | Complications, 2012

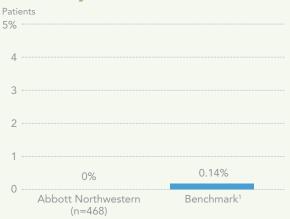
#### Deep vein thrombosis rate



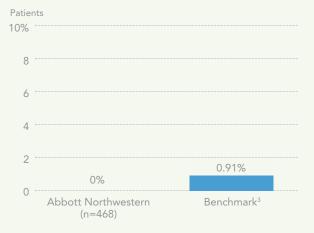
#### **Blood transfusion rate**



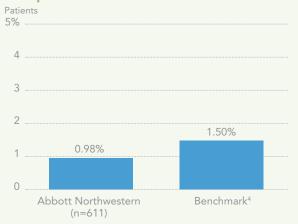
### Pulmonary embolism rate



#### Dislocation rate



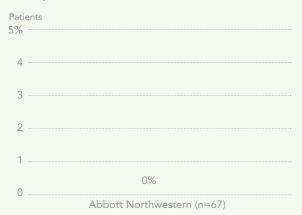
#### **Deep infection rate**



- <sup>1</sup> Januel JM, Chen G, Ruffieux C, Quan H, Douketis JD, Crowther MA, Colin C, Ghali WA, Burnand B, IMECCHI Group. Symptomatic in-hospital deep vein thrombosis and pulmonary embolism following hip and knee arthroplasty among patients receiving recommended prophylaxis: a systematic review. JAMA. 2012 Jan18;307 (3): 294-303.
- <sup>2</sup> Carson JL, Kuriyan M. What should trigger a transfusion? *Transfusion*. 2010 Oct;50(10):2073-5.
- $^{\rm 3}$  Pulido L, Parvizi J, et al. In hospital complication after total joint arthroplasty. JArthroplasty. 2008 Sep; 23(6 Suppl 1): 139-45.
- <sup>4</sup> Phillips CB, et al. (2003) Journal of Bone and Joint Surgery, American Volume, Jan: Vol. 85-A (1) pp.20-6.

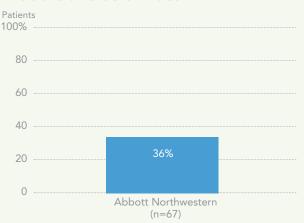
# Revision hip replacement | Complications, 2012

### Deep vein thrombosis rate

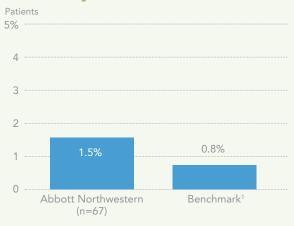


Benchmark not available.

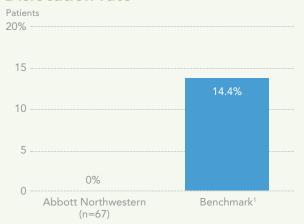
#### **Blood transfusion rate**



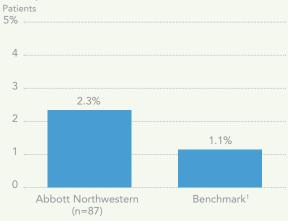
### Pulmonary embolism rate



#### **Dislocation rate**



### Deep infection rate



<sup>1</sup> Phillips CB, et al. (2003) Journal of Bone and Joint Surgery, American Volume, Jan: Vol. 85-A (1) pp.20-6.

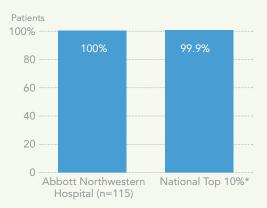
# Total hip replacement

### Surgical Care Improvement Project, 2012

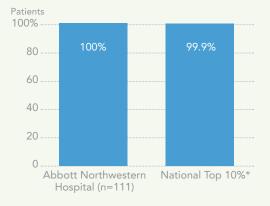
#### Prophylactic antibiotic received within one hour prior to surgical incision



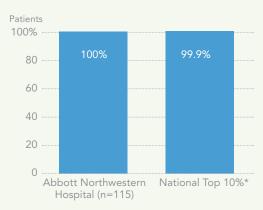
#### Surgery patients with recommended venous thromboembolism prophylaxis ordered



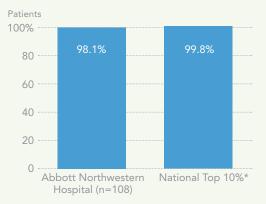
#### Appropriate prophylactic antibiotic selection for surgical patients



#### Surgery patients who received appropriate venous thromboembolism prophylaxis within 24 hours prior to surgery to 24 hours after surgery



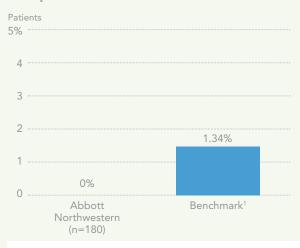
#### Prophylactic antibiotics discontinued within 24 hours after surgery end time



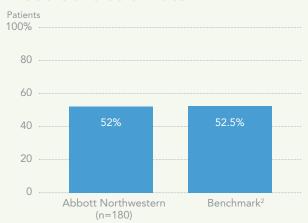
<sup>\*</sup>Benchmark data: Sample of SCIP cases abstracted. National Top 10% from first quarter 2012, which includes all surgery types.

# Hip fracture | Complications, 2012

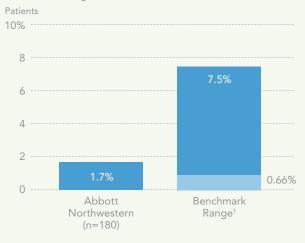
### Deep vein thrombosis rate



#### **Blood transfusion rate**

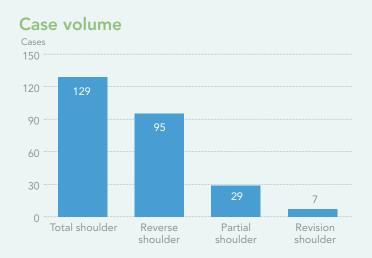


# Pulmonary embolism rate



- <sup>1</sup> Marsland D, Mears MC, Kates SL, Venous thromboembolic prophylaxis for hip fractures. Osteoporosis Int. 2010; 21(Suppl 4):S593-S604.
- <sup>2</sup> Garcia-Erce JA, et al. Efficacy of preoperative recombinant human erythropoietin administration for reducing transfusion requirements in patients undergoing surgery for hip fracture repair: An observational cohort study. VoxSanguinis The International Journal of Transfusion Medicine. 2009;97(3):260-267.

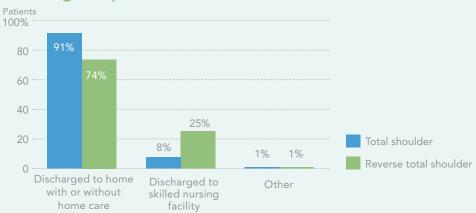
# Shoulder | Volume, length of stay and discharge disposition, 2012



### Average of length of stay

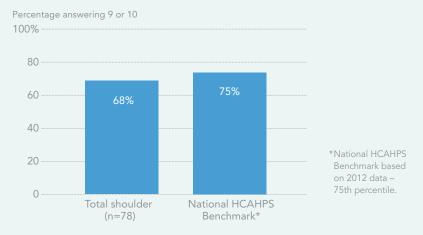


# Discharge disposition

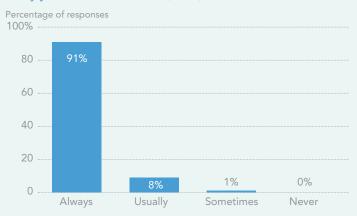


#### Patient satisfaction, 2012

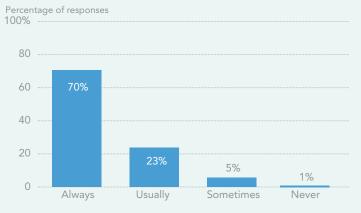
Using any number from 0-10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?



#### During this hospital stay, how often did doctors explain things in a way you could understand? (n=79)

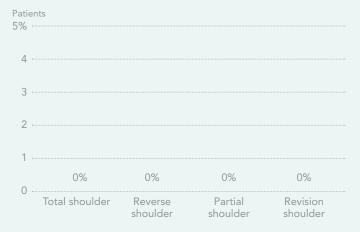


#### During this hospital stay, how often was your pain well-controlled? (n=77)



# Shoulder | Complications, 2012

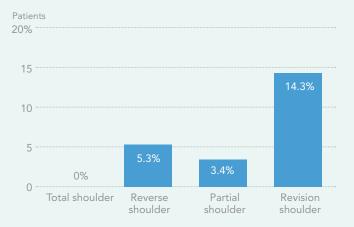
## Deep vein thrombosis rate



### Pulmonary embolism rate



#### **Transfusion rate**





# Publications and Presentations, 2008-12

#### Presentations

**Anseth S.** Hip arthritis. Presented at: 2012 Practical

Anseth S. Metal on metal total hip arthroplasty. Presented

Anseth S. Imaging of the knee. Presented at: 2011 Practical

Anseth S. Imaging of the hip and knee. Presented at: 2010

**Buss DD.** Complications associated with the use of bioabsorbable poly-l-lactic implants around the shoulder.

Buss DD, McCarty LP 3rd, Freehill MQ. Complications associated with the use of bioabsorbable implants about the

Codding J, Dahm D, McCarty LP 3rd, Morgan JA, Buss **DD.** Selective arthroscopic posterior inferior capsular release for symptomatic glenohumeral internal rotation deficiency in AOSSM Annual Meeting. Feb. 19, 2011. San Diego, Cal.

Dang VP. Shoulder instability. Presented at: Minnesota

**Freehill MQ.** Proximal humeral fractures – hemi vs reverse TSA in four-part fractures. Presented at: University of Minnesota 42nd Annual Orthopaedic and Trauma Seminar.

Gesenway D. Carpal tunnel and cubital tunnel syndromes.

**Gesenway D.** Common hand and wrist injuries. Presented at:

Gesenway D. Wrist, distal radius fractures. Presented at: 2010

**Hunt A.** Anterior knee pain. 2012 Practical Orthopedics for

**Klapach AS.** Pre-season physical assessment and screening in amateur overhead athletes. Presented at: Mid-America

McCarty LP 3rd, Buss DD, Klapach AS. Comparison pathology on non-arthrogram magnetic resonance imaging (ePoster). Presented at: 2012 Arthroscopy Association of North America Annual Meeting. May 17, 2012. Orlando, Fla.

McCarty LP 3rd, Buss DD. Correlation between strength

Norberg F. Impingement syndrome. 2012 Practical Orthopedics

Norberg F. Moderator: Elbow and shoulder. 2011 Practical

Norberg F. Elbow, olecranon bursitis and radial head fractures. 2010 Practical Orthopedics for Primary Care. Jan.

Riggi K. Unicompartmental knee arthroplasty. 2012 Practical

Riggi K. Meniscal injuries of the knee. 2011 Practical

Riggi K. Imaging of the shoulder. 2010 Practical Orthopedics

Sevilla M. Triathlon medicine. Presented at: 2012 Medicine of

Sevilla M. PRP injections. Presented at: 2012 MIAC Athletic

## **Publications**

Alpert JM, McCarty LP 3rd, Bach BR Jr. The direct posterior approach to the knee: surgical and anatomic approach. *J Knee Surg.* 2008; 21(1): 44 – 49.

Alpert JM, McCarty LP 3rd, Bach BR Jr. The posterolateral

Buss DD, Klapach AS. Management of the unstable Season, SLACK Inc., 2011.

Freehill MQ. Coracoid impingement: diagnosis and

Freehill MQ, Buss, DD, Marra, G. Typical and atypical and pitfalls. Instr Course Lect 2009; 58:447-457. American

Freehill MQ. How do you manage an axillary nerve palsy after a shoulder dislocation? Curbside Consultation of the Shoulder- 49 Clinical Questions, GP Nicholson, MT Provencher, (editors), SLACK Incorporated, USA., 2008.

Freehill MQ. What are the indications for a hemiarthroplasty lesion? Curbside Consultation of the Shoulder- 49 Clinical Questions, GP Nicholson, MT Provencher, (editors), SLACK Incorporated, USA., 2008.

Freehill MQ. What are the indications for manipulation under anesthesia versus arthroscopic release in a patient with stiffness after rotator cuff repair? And when do you consider operative intervention in a patient with idiopathic adhesive

Izquierdo R, Voloshin I, Edwards S, Freehill MQ, Stanwood

Izquierdo R, Voloshin I, Edwards S, Freehill MQ, Stanwood Jan: 93(2) 203-05.

Klapach AS, McCarty LP 3rd. What surgical options are Consultation of the ACL: 49 Clinical Questions, SLACK

Lattermann C, Romeo AA, Anbari A, Meininger AK, McCarty LP 3rd, Cole BJ, Cohen MS. Arthroscopic debridement epicondylitis. J Shoulder Elbow Surg. 2010 Jul: 19(5):651-6.

Lewis PB, McCarty LP 3rd, Yao JQ, Williams JM, Kang R,

McCarty LP 3rd. Arthroscopic rotator cuff repair: single-row technique. Cole BJ and Seikya JK (eds). Surgical Techniques

McCarty LP 3rd, Buss DD, Datta MW, Freehill MQ, Giveans, MR. Complications observed following labral or rotator cuff

McCarty LP 3rd, Buss DD. Non-operative treatment of

McCarty LP 3rd, Buss DD. Open anterior stabilization. In Reider B, Terry MA and Provencher MT (eds.). Sports Medicine Surgery, Saunders Elsevier, Philadelphia, PA, 2010.

McCarty LP 3rd, Buss DD. Open anterior stabilization. In Reider B, Terry MA and Provencher MT (eds.). Sports

McCarty LP 3rd. Arthroscopic anterior stabilization of the

McCarty LP 3rd, Klapach AS. How do you evaluate tunnel position in the revision setting? In Bach BR and Verma

McCarty LP 3rd, Alpert JM, Bush-Joseph C. Reconstruction of

McCarty LP 3rd, Cole BJ. Nonarthroplasty options for glenohumeral arthritis: meniscal allograft resurfacing. In Cole BJ and Sekiya JK (eds.). Surgical Techniques of the Shoulder, 297-308, 2008.

McCarty LP 3rd. Primary repair of osteochondritis dissecans in the knee. In Cole BJ and Sekiya JK (eds.). Surgical

# Physicians and Leadership Team



#### Orthopaedic Institute physicians

Top row, left to right: Aimee Klapach, MD; Robert Tuttle, MD; L. Pierce McCarty III, MD; Kayvon Riggi, MD; Frank Norberg, MD; Jay Johnson, MD; Douglas Becker, MD; Douglas Drake, MD; Michael Freehill, MD; Scott Anseth, MD.

Bottom row, left to right: Tilok Ghose, MD; James Larson, MD; Allan Hunt, MD.

# Physicians and Leadership Team

# Physicians

Allina Health Bloomington Clinic Tilok Ghose, MD

Hennepin County Medical Center - Orthopedics Richard F. Kyle, MD

Minneapolis Orthopedics Ltd. Douglas A. Becker, MD

Orthopedic Specialists, PA Mark C. Engasser, MD

Sports and Orthopaedic Specialists, P.A. Daniel D. Buss, MD Michael Q. Freehill, MD

Aimee S. Klapach, MD James Larson, MD

L. Pearce McCarty III, MD

**Twin Cities Orthopedics** Scott D. Anseth, MD

Douglas A. Drake, MD

David Gesensway, MD

Allan H. Hunt, MD

Jay S. Johnson, MD John R. Kearns, MD

Desiree M. Kempcke, MD

Thomas J. Nelson, MD

Frank B. Norberg, MD

Kayvon S. Riggi, MD

Robert W. Tuttle, MD

Loren N. Vorlicky, MD

Wayzata Orthopedics PA

Thomas F. Varecka, MD

# **Podiatrists**

Allina Health Bandana **Square Clinic** 

Maren E. Elze, DPM Steven R. Kiester, DPM

Allina Health Bloomington Clinic Heather Jensen, DPM

Allina Health Inver Grove Heights Clinic

Mindy L. Benton, DPM

Allina Medical Clinic -Forest Lake Sharilyn K. Moore, DPM

Allina Medical Clinic -Nicollet Mall

Todd A. Shea, DPM

Allina Medical Clinic -Shakopee

Timothy J. Szopa, DPM

Allina Medical Clinic -West St. Paul

Eugene L. Dela Cruz, DPM

**Downtown Skyway Foot Specialists** 

William B. Lockner, DPM

Kari Prescott, DPM Kari E. Prescott, DPM

# Leadership Team

Scott D. Anseth, MD

chairman, Orthopedic Department medical director, Joint Replacement Center

Tony S. LaCroix-Dalluhn, RN director, Orthopaedic Institute,

**Emergency Department** 

Traci Dedor, MPA, MPM

business development manager Abbott Northwestern Hospital

Heidi Menard, BSN, RN

patient care manager H7200, H8200

Stephanie Eller, RN, ONC manager, Orthopaedic Program

Cathy Vanous, BSN, RN, CPHQ Quality and Patient Safety

Department

# **About Abbott Northwestern Hospital**





Abbott Northwestern Hospital is the largest not-for-profit hospital in the Twin Cities area, with 633 available beds and 65 bassinets. Each year, the hospital provides comprehensive health care for more than 200,000 patients and their families from the Twin Cities area and throughout the Upper Midwest. More than 5,000 employees, 1,600 physicians and 550 volunteers work as a team for the benefit of each patient served.

Abbott Northwestern Hospital is a part of Allina Health, a family of hospitals, clinics and care services in Minnesota and Western Wisconsin.

For more than 125 years, Abbott Northwestern has had a reputation for quality services. The hospital is well known for its centers of excellence:

- cardiovascular services in partnership with the Minneapolis Heart Institute®
- Mental Health Services
- medical/surgical services
- Neuroscience Institute
- Orthopaedic Institute
- Penny George™ Institute for Health and Healing
- physical rehabilitation through the Courage Kenny Rehabilitation Institute™
- Spine Institute
- Virginia Piper Cancer Institute®
- The Mother Baby Center at Abbott Northwestern Hospital and Children's - Minneapolis.

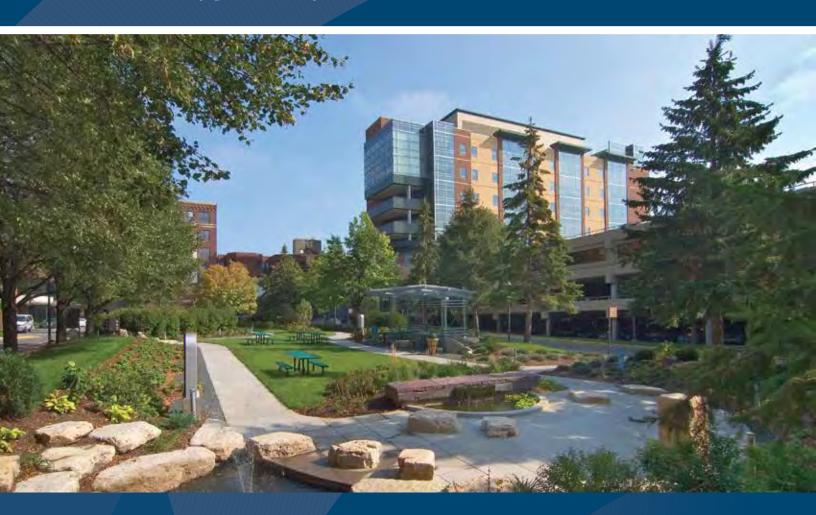
Abbott Northwestern and its Medical Staff are dedicated to providing outstanding care and service to patients and their families. It offers the community exceptional physicians, nurses and support staff; a commitment to research, education and outcomes; a foundation of clinical partnerships that span the region; and a cultural enthusiasm for growth and improvement. Brought together in one institution, these factors create an energetic and sophisticated environment that inspires caregivers to collaborate in new ways for the benefit of patients.

Abbott Northwestern's passion for finding new and better approaches to care drives extensive research efforts in clinical areas across the hospital. This ensures that new treatment advances benefit patients as quickly as possible, supports a dynamic environment for medical and nursing education, and is the catalyst for its outcomes measurement program.



Abbott Northwestern Hospital

# **One Call Transfer Center**



Cardiovascular transfers: 612-863-3911

All other transfers: 612-863-1000

Fax: 888-764-8218

To learn more about Abbott Northwestern Hospital, visit abbottnorthwestern.com or call 612-863-4000.





Orthopaedic Institute 800 East 28th Street Minneapolis, MN 55407-3799 NON PROFIT ORG US POSTAGE PAID ALLINA HEALTH SYSTEM