

CLINICAL PERFORMANCE IMPROVEMENT WEBINAR: Reducing Overutilization of Orthopedic Surgeries - Knee Replacement and Arthroscopy

For Hospital Groups, ASCs and Specialty Medical Facilities

Executive Summary

Knee problems are among the most common complaints at medical visits. While many of these problems may resolve with conservative treatments such as lifestyle modifications or the use of mechanical interventions, millions of individuals undergo surgery each year. The number of knee surgery procedures performed annually in the United States has increased significantly over the past 2 decades, and the introduction of new technologies continues to evolve the practice of orthopedic surgery. Surgical options for knee pain include arthroscopic surgery (arthroscopy), total knee replacement, unicompartmental knee replacement, and revision knee replacement.

Physicians face the constant challenge of keeping on top of continually evolving technologies and standards of care. Recent studies have shown that some types of knee surgeries may not provide additional benefit over optimized physical and medical therapy. Reducing the number of unnecessary surgeries can not only improve the efficacy of knee replacement and arthroscopy, but also prevent the significant potential risks and complications associated with the procedures. Optimal patient care relies on thorough documentation of knee problems and exam findings in the patient's medical record, which is also critical for reimbursement of procedures and to decrease risk of liability and malpractice claims.

External peer review allows hospitals to streamline the process of obtaining and evaluating information specific to individual physicians' credentials and privileges in order to assess their qualifications to safely deliver appropriate healthcare services and perform surgeries. Utilizing external peer review for monitoring both ongoing and sentinel events allows hospitals to ensure that procedures fall under the medical necessity category, and helps identify issues with overutilization and possible abuse or fraud before significant problems arise.

As the number of Americans who undergo knee surgery each year continues to increase, physicians and hospitals face the challenge of keeping up with the latest approved, as well as experimental, procedures and devices while providing patients with the highest quality of individualized care and reducing the risks that medical errors and substandard physician performance pose to hospitals.

Introduction

About 5 million people visit orthopedic surgeons each year because of knee problems. The American Academy of Orthopaedic Surgeons (AAOS) predicts that the number of knee replacement surgeries will continue to skyrocket, as it has in the past 10 years, with estimates projecting a 600% increase in the number of procedures performed annually by 2030. Factors driving this trend include increases in population and obesity prevalence, as well as an increasingly active population and expanded indications for surgery among a younger patient population.

Nearly 1 million people undergo arthroscopic surgery (arthroscopy) each year in the United States. Arthroscopy is widely used for osteoarthritis of the knee, but there is limited scientific evidence to support its efficacy. A study published in the New England Journal of Medicine in 2008 found that arthroscopy in addition to optimized physical and medical therapy for treatment of osteoarthritis of the knee did not result in greater improvement than physical and medical therapy alone.

Although many knee problems can be fixed with a conservative approach, some conditions (e.g., badly torn ligaments or cartilage) require surgical treatment such as total knee replacement. Physicians must thoroughly evaluate each individual patient and maintain proper documentation of these findings in order to determine the appropriate course of treatment.

Addressing Overutilization Issues in Knee Surgery

Emerging technologies aimed at improving clinical outcomes associated with knee surgery include minimally invasive surgical approaches, computer-aided navigation, and computer-aided robotic-assisted procedures. Other technologies such as custom-made knee replacement prostheses are being investigated. However, there is limited data evaluating these technologies and improved health outcomes in comparison with standard well-established approaches have yet to be demonstrated.

Assess Compliance with Evidence-Based Guidelines

Insurance companies often base coverage decisions on evidence-based clinical practice guidelines developed by professional societies, such as the AAOS. According to the AAOS, the first steps in treating knee arthritis are activity modification, regular exercise, and weight loss. The AAOS also recommends the use of mechanical interventions and pain relievers and anti-inflammatory medications. Knee replacement is recommended for knee arthritis if nonsurgical treatments have failed and the pain is limiting lifestyle and activities.

Ensure Proper Documentation

Thorough physician documentation is critical for reimbursement of knee surgeries. The medical history should include information regarding the patient's general health and the extent of his or her knee pain and ability to function. The physical examination should assess knee motion, stability, strength, and overall leg alignment. In addition, there must be detailed documentation regarding the extent and response to conservative therapy, as well as radiology reports for any imaging studies. In addition to affecting reimbursement, incomplete documentation also can affect patient outcomes and may increase risk of liability and malpractice claims.

Identify Physicians' Knowledge, Attitudes and Competencies: Credentialing and Privileging

Credentialing physicians is an important step toward protecting patients from harm, while privileging physicians ensures that organizations have the most qualified and competent physicians on their medical staffs. Credentialing verifies that a physician meets standards as determined by an organization by reviewing information regarding the individual's license, experience, certification, education, training, malpractice and adverse clinical occurrences, clinical judgment, and character by investigation and observation; the process should also include conflict of interest questions in order to identify any potential financial incentives for performing more surgeries or using a particular device. Privileging defines a physician's scope of practice and the clinical services he or she may provide. Privileging is based on demonstrated competence and is a data-driven process.

Reducing the number of unnecessary surgeries can not only improve the efficacy of knee replacement and arthroscopy, but also prevent the significant potential risks and complications associated with the procedures.

Physician privileging involves gathering information with which to decide the types of care, treatment, and services or procedures that a practitioner will be authorized to perform in a specific setting (e.g., hospital), taking into consideration setting-specific characteristics, such as adequacy of the facilities, equipment, and number and type of qualified support personnel and resources. Other criteria that determine the practitioner's qualifications include the physician's educa-

tion, training (residency and/or fellowship), and clinical experience (number of procedures performed with satisfactory outcomes).

Credentialing and privileging require qualified and objective physician-controlled peer review, utilizing criteria that have been established through common legal, professional, and administrative practices, endorsed by a formal consensus process, and that are publicly available. These criteria must be directly related to quality of patient care, and documented physician performance should be measured against these criteria. Peer review decisions must be fair and without conflicts of interest and have dated detailed documentation, and should be confidential and protected.

Hospitals with a history or pattern of retaining or contracting with incompetent and low-quality providers may be subject to potential legal liability for any injuries to patients, exclusion from federal and state health benefit program participation, loss of commercial contracts, and loss of accreditation by healthcare standards organizations.

Measure Patient Outcomes

Looking at the postoperative length of stay for knee surgeries is one way of looking at both the efficacy and safety of care. A shorter average length of stay may indicate that patients are recovering more quickly and experiencing fewer complications. However, it is important to consider the nature and extent of the surgery being performed. Other factors to review to assess patient outcomes are complications arising from surgery and unplanned reoperations and readmissions.

Types of Knee Surgery

Knee Arthroscopy

Arthroscopy is a minimally invasive procedure that allows direct visualization of the interior of a joint. Knee arthroscopy allows orthopedic surgeons to assess and, in some cases, treat a range of conditions affecting the knee joint. Arthroscopy for the knee is most commonly used for:

- ▶ Removal or repair of torn meniscal cartilage
- ▶ Reconstruction of a torn anterior cruciate ligament (ACL)
- ▶ Trimming of torn pieces of articular cartilage
- ▶ Removal of loose fragments of bone or cartilage
- ▶ Removal of inflamed synovial tissue

Arthroscopy is done through small incisions and its advantages include faster healing, more rapid recovery, lower risk for complications, and less scarring. The procedure is often performed on an outpatient basis.

Total Knee Replacement

Total knee replacement, or total knee arthroplasty, involves resurfacing the worn out surfaces of the knee and replacing the lost cartilage and diseased bone with implants made from metal or plastic (prostheses). The implants are either fixed with bone cement or are cementless.

Primary total knee replacement is most commonly performed for knee joint failure caused by osteoarthritis, with the goal of relieving pain and improving function. In addition to osteoarthritis, advanced joint disease with destruction of cartilage often results from conditions such as inflammatory arthritis, rheumatoid arthritis, post-traumatic arthritis/ deformity, and osteonecrosis.

Most patients who undergo total knee replacement are between the ages of 60 and 80, but orthopedic surgeons evaluate patients individually. Recommendations for surgery are based on a patient's pain and disability, not age. Total knee replacements have been performed successfully in patients of all ages.

The complication rate following total knee replacement is low. Serious complications, such as a knee joint infection, occur in less than 2% of patients. Major medical complications (e.g., heart attack, stroke) occur even less frequently. Blood clots in the leg veins, which are the most common complication of knee replacement surgery, may be prevented by periodically elevating the legs, increasing circulation with lower leg exercises, wearing support stockings, and using blood-thinning medications.

Unicompartmental Knee Replacement

Unicompartmental knee replacement involves replacing only part of the knee joint—only the bony area in the single damaged compartment needs to be resurfaced and only a single compartment is replaced. The procedure is typically recommended for individuals with less severe disease, and who have better knee function. Unicompartmental knee replacement may be performed through standard exposure or utilizing minimally invasive surgery with modified instruments.

Revision of Total Knee Replacement

Knee prostheses are generally very durable and have been associated with good to excellent clinical outcomes. In some cases, however, revision of a total knee replacement becomes necessary due to failure. Conditions that contribute to the need for revision of total knee replacement include disabling pain, stiffness, and functional limitations unrelieved by appropriate nonsurgical management and lifestyle changes. Evidence of progressive and substantial bone loss alone is considered sufficient reason to consider revision in advance of prosthesis failure. Other common reasons for total knee revision include fracture or dislocation of the patella, instability of the components or aseptic loosening, infection, and periprosthetic fractures.

Role of External Peer Review in Ensuring Quality of Patient Care and Safety

Ongoing evaluation of hospital practitioners ensures excellence in physician performance and the highest standard of care for patients. External peer review allows hospitals to perform not only in-depth evaluation of sentinel events, but also (re)credentialing, (re)privileging, proctoring, and ongoing measurement and monitoring of physician performance.

Peer review committees composed primarily of in-house hospital personnel often lack the resources to help the hospital achieve their performance improvement goals, and social and professional relationships lead to conflicts of interest. External peer review avoids conflicts of interest that can arise from economic, professional, or social ties among physicians within a single institution. It may also be an effective solution for hospitals that lack adequate physician resources to conduct timely performance analyses.

When properly executed, external peer review can reduce medical errors through objective evaluations performed in a nonpunitive, educational context that supports a healthy culture of continuous improvement. This results from physicians knowing that board-certified specialists with the same credentials and from similar practice settings will objectively evaluate their work at regular intervals, thereby leading to improved quality of care and patient safety. Ongoing evaluation of physicians can also uncover problematic practice patterns, as well as physician- and hospital-level issues that need to be addressed.

External peer review can also play a key role in reducing or eliminating risks associated with malpractice claims. Unlike internal peer review, which only looks at sentinel events, external peer review can help hospitals to discover, highlight,

and deal with physician performance issues quickly and efficiently before they turn into claims.

Conclusions

As the number of Americans who undergo knee surgery each year continues to increase, physicians and hospitals face the challenge of keeping up with the latest approved, as well as experimental, procedures and devices while providing patients with the highest quality of individualized care and reducing the risks that medical errors and substandard physician performance pose to hospitals.

External peer review facilitates regular assessment of high-risk procedures such as orthopedic surgeries, allowing risk avoidance through prevention. Rather than taking a reactive approach and reviewing only sentinel events, external peer review focuses on promoting a proactive culture of investing in loss prevention. Limiting its vulnerabilities allows a hospital to prevent, monitor, and control areas of potential liability exposure. When properly executed, external peer review can reduce medical errors and the number of unnecessary procedures by consistently providing objective feedback to physicians and by identifying performance-enhancing corrective actions for them and for hospital operating and/or training processes.

The board-certified physician specialists who work with independent review organizations keep up-to-date with the latest medical research literature and the latest standard of care. This is especially important as knee surgeries continue to undergo scrutiny as technology evolves and as treatments frequently go from being experimental/investigational to the standard of care. External peer review allows hospitals to perform not only in-depth evaluation of sentinel events, but also (re)credentialing, (re)privileging, proctoring, and ongoing measurement and monitoring of physician performance, all in a timely manner that avoids conflicts of interest and promotes a culture of continuous improvement.

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