

Bulletin Board

Express hip replacements mean patients could be discharged within 2 days of surgery

US researchers implementing a 'Fast-Track' protocol for the total-hip replacement operation, report that a patient discharge time of only 2 days is both safe and achievable.

A new study conducted by a group at the Hospital for Special Surgery, NY, has found that patient discharge times could be reduced by up to 2 days, resulting in a reduced risk of infection in hospitalized patients whilst at the same time potentially reducing the costs of the procedure. The report, published in Springer's Hospital for Special Surgery Journal, was commissioned primarily in response to the requests of patients for reduced hospital stays.

The group finds that there are relatively few side effects to fast-tracking patients through their recovery when in comparison to the standard 4 days that is currently common practice in most medical institutions worldwide. Potential obstacles to implementing the express procedure included postoperative pain, nausea and dizziness. However, it was observed that when considering patient hip function 1 year after the operation, there was found to be no differences or complications between those individuals in the fast-track group and those in the control group.

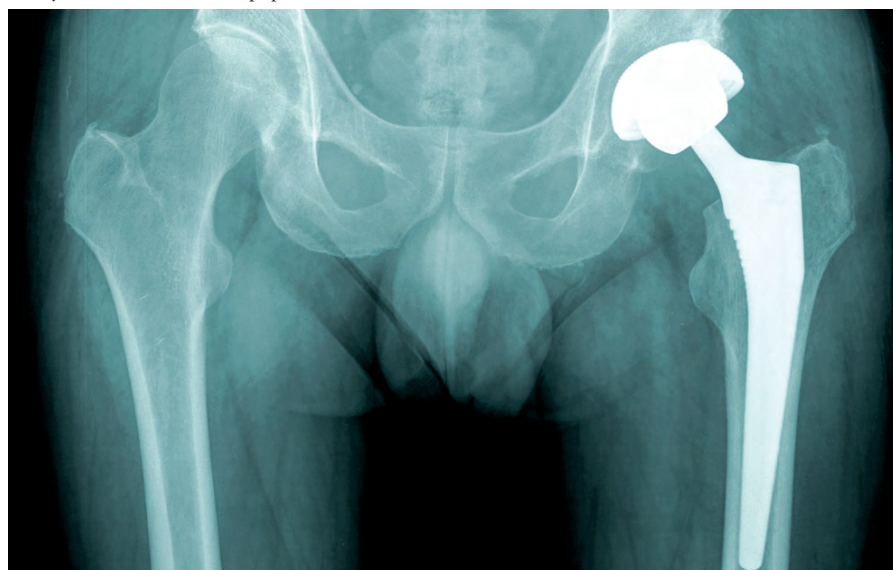
The Fast-Track procedure requires the patient to work harder to recover during their time spent in hospital. Patients are asked to become mobile faster than they normally would, whilst pain-relief medication is also stopped earlier. The protocol also involves the patient meeting with a physical therapist whilst they are recovering at home. Before the patients were allowed discharge, several key requirements had to be satisfied, including no postoperative nausea or dizziness.

On average the length of hospital stay decreased from 4.1 to 2.6 days. Patients with normal blood pressure responded best

to the new protocol, whilst those suffering from postoperative hypertension were often required to wait longer for discharge.

When asked about their group's findings, Dr Lawrence Gulotta of the Hospital for Special Surgery summarized that: "Since there were no differences in complication, readmission, and reoperation rates for the Fast-Track group compared with the control group in this study, we feel this proves that a 2-day discharge following uncomplicated total hip replacement in a select group of relatively healthy patients is safe. The program is effective at reducing hospital length of stay. What we cannot assess at this stage is whether we achieved any actual cost savings".

Sources: Gulotta LV *et al.* Fast Track THR: one hospital's experience with a 2-day length of stay protocol for total hip replacement. *HSS J.* doi: 10.1007/s11420-011-9207-9202 (2011); www.medicalnewstoday.com/releases/230303.php



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Report finds high numbers of active US service members diagnosed with osteoarthritis

Osteoarthritis among active military personnel in the USA, has shown a high incidence rate of physicians diagnosing patients with the condition relative to the general population, with case numbers varying depending on the age, gender, race, service and rank of the individual.

A recent study into the susceptibility of osteoarthritis (OA) was carried out by the Department of Orthopedic Surgery, NY, USA in collaboration with the Department of Operations Research, CA. The study, published in the *Journal Arthritis & Rheumatism*, uses data taken from the Defence Medical Surveillance System (DMSS) between 1999 and 2008, and aims to consider both the demographic and occupational factors that contribute to the risk of OA in service members. The report quantifies the variable incidence rates for individual groups and finds that on average, women experienced a 20% increase in the number of cases over men during this period. Other high-risk groups included service members over the age of 40 years, who were found to have an incidence rate

approximately 19-times higher than those under 20 years, whereas black service members had an increased incidence rate over all other racial groups.

The cost of OA in the USA, both direct and indirect, is estimated to be US\$60 billion per annum, and accounts for 25% of all arthritis-related healthcare visits. Within the 9 year timeframe that the data was collected, there were 108,266 recorded cases of OA by the DMSS, with an overall incidence rate of 7.86 per 1000 person-years, the sum of the number of years that each member of the study population has been under observation.

Dr Kenneth Cameron, Director of Orthopaedic Research at Keller Army Hospital in West Point, NY, USA, summarized the findings; "Surprisingly, little is known about the OA incidence in

younger physically active populations. The active duty US military population provides an excellent opportunity to examine the incidence of OA in a young and physically active population that is regularly exposed to occupational activities with repetitive joint movements". When asked about future work in this field, he added that, "Further research is needed to determine the incidence of post-traumatic OA and to explore the risk factors associated with this condition among military personnel".

Sources: Cameron KL, Hsiao MS, Owens BD, Burks R, Svoboda SJ. Incidence of physician diagnosed osteoarthritis among active duty United States military service members. *Arthritis Rheum.* (2011) doi: 10.1002/art.30498 (Epub ahead of print); www.medicalnewstoday.com/releases/229977.php

Study finds that women may recover faster than men after knee replacement surgery

New research shows that women can often have increased knee function and feel less pain than men up to a period of 12 months after knee replacement surgery is performed.

Researchers from the Schleswig-Holstein Medical Centre in Germany have listed a range of factors that may contribute to this observed trend and are currently looking into which of these factors is the most important in determining the recovery rates of patients. The research was carried out in response to observations that many female patients undergoing surgery seemed to recover faster than males who had similar or better physical function preoperation and were also several years younger.

The study examined 494 patients who underwent a standard knee arthroplasty, comprising 141 men and 353 women across three separate, randomized controlled trials in Germany. The fact that women are on average slightly older than men having the surgery was reflected in the study, with the average age of female patients (70.8) exceeding that of male patients (67.8). Self reported knee function was recorded at intervals of 3, 6, 12 and 24 months postsurgery.

Patients from both genders were found to exhibit no further improvements in knee performance after 12 months. Improvements in knee function were measured using a multifaceted test comprising examinations in knee stiffness, pain scores and physical function.

On their findings, the authors of the study commented: "We do not know yet why women recover faster from surgery than men. It could be because of women's lower preoperative health-related quality

of life, whereby they have more to gain from surgery, or because of other speculative factors such as different postoperative activity levels, psychological factors, or different utilization of treatment. It is too early to say”.

Previous research has supported this view, by showing that a variety of factors could be responsible for the discrepancy in

recovery times, including anatomic, social and cultural influences.

Sources: Liebs TR, Herzberg W, Roth-Kroeger AM, Rütger W, Hassenpflug J. Women recover faster than men after standard knee arthroplasty. *Clin. Orthop. Relat. Res.* doi: 10.1007/s11999-011-1921-z (2011) (Epub ahead of print); www.medicalnewstoday.com/releases/230102.php

Drugs used to treat arthritis and psoriasis could reduce risk of diabetes in patients

A Boston-based research team have recently uncovered a possible relationship between DMARDs used in the treatment of rheumatoid arthritis and psoriasis with the risk of patients developing diabetes mellitus.

The group, based at the Department of Medicine at Brigham and Women's Hospital, Boston, USA, have announced that DMARDs may counteract the increased resistance to insulin that is sometimes observed in patients suffering from rheumatoid arthritis (RA) or psoriasis. The research, published in *JAMA*, was carried out in order to study which types of drugs are most effective at reducing a patient's predisposition to insulin resistance and thus were the most effective at preventing onset diabetes.

DMARDs are a class of drugs known as immunosuppressors, which aim to slow down the progression of a disease by targeting its cause. This is in contrast to other commonly used RA and psoriasis

treatments such as NSAIDs, which directly treat the inflammation itself.

The team used a study group of just under 14,000 individuals, each diagnosed with either RA or psoriasis. Several different DMARDs had been previously prescribed to these patients including TNFs, hydroxychloroquine and methotrexate.

The results, gathered over a period of 12 years, showed that hydroxychloroquine and TNFs were the most effective at reducing the risk of diabetes mellitus, relative to other DMARDs that had also been prescribed. On average, hydroxychloroquine gave a reduced risk of 46% compared with the alternative drugs, whilst TNFs and methotrexate were less effective at 38 and 23%, respectively.

The results obtained from this research agree with previous work in finding a link between the treatments of the two diseases. However, one obstacle to using DMARDs such as these to treat diabetes mellitus is the associated cost of using many of these drugs. Future work would also be needed to establish the pharmacokinetics of how these drugs act at the molecular level before they could be incorporated into future medicines.

Sources: Solomon DH, Massarotti E, Garg R, Liu J, Canning C, Schneeweiss S. Association between disease-modifying antirheumatic drugs and diabetes risk in patients with rheumatoid arthritis and psoriasis. *JAMA* 305(24), 2525–2531 (2011); www.medicalnewstoday.com/articles/229315.php

in brief...

A randomized, pilot trial of etanercept in dermatomyositis. The Muscle Study Group. *Ann Neurol.* doi: 10.1002/ana.22477 (2011) (Epub ahead of print).

A new study has found that etanercept could be used as an alternative to prednisone in the treatment of the systemic autoimmune disease Dermatomyositis (DM). Etanercept is viewed as a potentially more suitable option due to its specificity of inhibiting TNFs only, whereas Prednisone causes a larger immunoresponse that leaves the patient at risk of infection. The aim of this research was to firstly determine the safety and tolerability of using etanercept in the treatment of dermatomyositis whilst also considering the feasibility of weaning patients off prednisone. The group carried out a randomized, double-blind, placebo-controlled trial and administered patients etanercept whilst reducing their prescriptions of prednisone. Over the period of a year, the study found that half the group were successfully converted to using etanercept, and that there were no major safety concerns to implementing the drug in dermatomyositis treatment.

MHC region and risk of systemic lupus erythematosus in African-American women. Ruiz-Narvaez EA, Fraser PA, Palmer JR *et al.* *Hum. Genet.* doi: 10.1007/s00439-011-1045-1042 (2011) (Epub ahead of print).

Recent research into systemic lupus erythematosus (SLE) has shed new light on the genetic make-up of the MHC, found on chromosome 6p21. SLE is highly prevalent among African-Americans. In order to reflect this, the study used a control group made up of individuals participating in the Black Women's Health Study. The group screened the MHC region of 380 individuals and found a number of high-risk alleles that could be responsible for the genetic susceptibility of African-Americans to the disease. One of the strongest signals obtained, the rs9271366 SNP, had previously been linked with a higher risk of SLE in a Chinese genome-wide association study.