Total Joint Replacement and Fast Track Discharge

Editorial

Between one and two million total joint replacements will be performed this year, and the numbers are calculated to increase arithmetically each year thereafter. Within the next 5-10 years the combined total hip and knee Arthroplasties will rise 100 to 150 percent per annum. Due to the volume, the trend in total joint replacement has been focused on shorter hospital stays as a way to diminish costs and exceed standards set by insurers.

The Question Today is How? And How Safely?

One solution that has been proposed is the use of FTD (Fast track discharge, i.e., 48 to 60 hours after surgery). However, there are neither yet few large scale studies published on the subject - nor there are many on what the practice may evoke. Nonetheless logical and practical surgical experience infers some reasonable answers can be posited. For the younger group of total joint replacements -and those who have minimal or no comorbid medical problems, (no obesity, uncomplicated joint pathology) as well as, participation in an effective pre-surgical physical therapy program, pre-surgical total joint education, and one who can be discharged to a place with consistent rehab and competent help after surgery - these patients may be good candidates for FTD.

Certainly one unalloyed advantage of FTD is it serves to get such patients out of the nosocomial hazard of hospital born and/or resistant infections. It also appears to diminish the cost of the hospital stay for a total joint replacement. There is even talk of same day discharge. The mandatory assumptions behind such a policy are many; the post-operative vital signs must be entirely stable, wound site clear, Hgb and electrolytes within normal range, independent ambulatory control proven, physical and mental stability restored, and no signs of infection. Moreover, post-operative nausea and dizziness secondary to post-surgical analgesics must be in control and also proven complicated surgical pathology and therefore complex procedures would be a relative contradiction to FTD. Finally, the medical facility should have a well-developed program to handle, and document early discharge both in hospital and out. By and large the group who may qualify for FTD considering the above criteria is small compared to the total patient group undergoing total joint replacement.

Many patients, especially those over 65 who make up the majority of total hip replacements and many total knees, may not ‘recover’ full mental and physical equilibrium even after the use of the most current anesthetic agents within 24 to 48 hours of surgery. Their ability to begin physical therapy within hours of surgery, and their progress to independence with lateral support may not occur within the first 48 to 60 hours. Not yet available for consistent report is also the relationship of FTD for THRs and TKRs, to hospital re-admissions. One might suspect it might be higher than for the more standard 3 to 5 day hospital stay.

The subject of surgical technique and practice has been mentioned as having an inferred bearing on FTD. Specifically, there is a major study that suggests that the ‘two incision surgical approach’ and possibly the Anterior Incision helps enable recovery and supports early discharge. The presumption being these techniques diminish surgical times and minimize soft tissue collaterally affected. Nothing is written about the effect or absence of post-op wound drainage, the use of segmental limb compression, continuous passive joint motion and/or blood augmentation or replacement.

To the practicing clinical orthopedic surgeon the post-surgical use of these last devices may be of great importance, and have a direct positive impact on the safety and success of the total joint. The use of these may prolong the need for in-hospital care to the more traditional 3 to 5 day period. There is another element that occurs however difficult to quantify, but easily recognizable by most experienced clinicians. If the patient thinks he will be in the hospital for only 48 hours - he - is likely to think the surgery is less ‘problematic, of little risk, or not ‘major’. After all, it will only take 2 days or less in the hospital. And there is yet another problem with FTD- we are asking the patient to evaluate his own immediate post-surgical status, rather than have a trained professional (MD, RN or resident) assess him. Early signs and symptoms of post-surgical complications may be missed by such a biased, non-medical observer.

In my opinion, at present FTD may expose most hospitals and patients to undue risk. More study is clearly needed before it can safely be universally emplaced.