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CORR Insights®: Otto Aufranc Award: A Multicenter, Randomized Study of Outpatient versus Inpatient Total Hip Arthroplasty

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Where Are We Now?

Our experimentation with outpatient total joint arthroplasty derives from a number of factors, including our ability to implement better clinical pathways, the introduction of less-invasive surgical procedures, the use of regional anesthesia, and advances in multimodal pain management. We must not ignore the economic pressure on the healthcare community to reduce costs, nor our patients' desire for rapid recovery.

Though a growing trend, outpatient joint arthroplasty faces a number of challenges. This well-designed study by Goyal and colleagues clearly outlines that some patients are not candidates for outpatient joint arthroplasty, and of those who may be candidates, more than 20% may fail to be discharged on the same day of surgery. Of those who are discharged on the same day, some may endure a higher degree of pain, at least on the first postoperative day. According to Goyal and colleagues, these issues occur despite having veteran surgeons perform total joint arthroplasty through the direct anterior approach in high-volume centers that have an excellent infrastructure in place to execute this concept.

Where Do We Need To Go?

Outpatient total joint arthroplasty is here to stay. However, it is not, as it stands, for all. In fact, outpatient total joint replacement may never be for all. As the candidate list for outpatient arthroplasty grows, we need to better understand the issues that are in our way in making outpatient joint replacement a common procedure. Joint replacement needs to reach a landscape where patients can expect a predictable outcome of their surgery with a low likelihood of complications. Though we have made strides in reaching that goal, some issues remain. Some patients still experience severe pain, nausea and vomiting, and hypotensive episodes after surgery; others have difficulty simply accepting the concept of leaving for home the same day of their surgery. Executing an outpatient total joint arthroplasty requires an extensive and coordinated network that may in itself impart

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added cost to the episode of care and offset the potential cost savings associated with decreased length of hospital stay.

Further randomized, prospective studies, using different surgical approaches are needed to identify the major hurdles that remain. Does the type of surgical approach affect whether a patient can be discharged on the same day of the procedure? Should surgeons only use a direct anterior approach when performing an outpatient total joint arthroplasty?

How Do We Get There?

In the current study, the more than 20% of the patients scheduled for outpatient surgery who could not be discharged exhibited some unique characteristics that point to opportunities for improvement. Studies that evaluate the social circumstances of these patients need to be conducted. Perhaps future studies can implement preoperative home preparation steps that includes adjustments to the home environment to allow better stair climbing, for example, to determine if the social barriers can be removed.

The current study has shown that hypotensive episodes after surgery are important. Recently published studies [1, 2] have demonstrated that patients may not need to be "starved" prior to surgery. In fact, the paper by Steenhagen and colleagues [2], highlighted by the mass media, suggests that allowing patients to drink clear liquids up to their surgical procedure improved the outcome of surgery. Therefore, the role of preoperative and intraoperative hydration and the avoidance of drugs that could precipitate hypotension needs to be evaluated.

Further studies are needed to identify the most-important aspects of the care protocols that facilitate outpatient joint arthroplasty. The minimum measures needed to support the discharged patients, in particular, need to be identified.

Finally, future studies should measure the potential economic benefits of outpatient joint arthroplasty, both in terms of hospital gain and also to society more generally. It is clear that our specialty continues to evolve, and allowing our patients to enjoy the immediate benefits of total joint arthroplasty in their home environment remains appealing.

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