

## Fast-track programs help improve quality and efficiency of TJA

A growing body of evidence underlying the value of fast-track hip and knee replacement surgery and a suite of supportive tools have helped orthopaedists in Europe start to implement these comprehensive programs, while physicians who already use fast-track surgery programs for total joint arthroplasty (TJA) and other procedures continue to introduce its core principles to more surgical colleagues.

The goal of these programs is to reduce the negative impact of surgery by minimizing pain, managing risk factors and optimizing other areas of clinical practice.

“If we want to have a pain and risk-free operation, it is complicated; we need to control many factors to make the patient well immediately,” **Henrik Kehlet, MD, PhD**, professor of Perioperative Therapy at Copenhagen University, Denmark, said.

Pain relief is a central principle. With the interconnection between steps of the surgical pathway, for fast-track programs to be successful

**Henrik Kehlet, MD, PhD, of Copenhagen, said overall treatment costs may decrease by implementing fast-track protocols.**

Image: Biomet Europe BV



they must also encompass stress reduction, early mobilization, nutrition, and other aspects of care, he said.

### **Meeting the challenges**

These concepts are among the newer components of fast-track surgery addressed at a symposium held in London late last year. Kehlet and experts in orthopaedics, pain management, anesthesia and analgesia, and patient engagement participated in the 2-day meeting. They also discussed fast-track surgery and Biomet's Rapid Recovery program, specifically, and said it is a comprehensive approach that supports health care professionals to optimize and continuously improve the orthopaedic pathways.

According to the presenters, rapid recovery programs aim to overcome multiple hurdles at every level of an organization and facilitate delivery of optimal clinical outcomes, patient and staff satisfaction and efficiency. By implementing fast-track surgery programs, institutions can develop a solid reputation for excellence, they noted.

Attendees from 12 European countries were updated on the benefits of and how to implement fast-track TJA. Process optimization, anesthesia and analgesia issues, and the power of patient engagement in these processes were among the newest, most important fast-track surgery topics on the agenda.

### **Spread the word, garner support**

Presenters explained that in Europe adoption of fast-track programs is slower than expected. That is probably because it is hard to make the complex process changes that full fast-track total hip arthroplasty (THA) and total knee arthroplasty (TKA) implementation requires, they said.

In his opening address, Kehlet noted there must be better knowledge about the programs' organizational requirements and the help available before they are more widely adopted. However, he said

once they are successfully implemented, it is expected that overall treatment quality will improve and costs will decrease.

“Discharge criteria are unchanged. We just achieve them earlier,” Kehlet said.

### **Focus on process optimization**

“The whole thing is underpinned by process optimization. Do not start looking at surgical procedures without these processes in place or it will not work,” said **David Houlihan-Burne, FRCS (Orth)**, specialist lower limb arthroplasty and soft tissue knee surgeon at The Hillingdon Mount Vernon NHS Hospitals Trust, United Kingdom.

Houlihan-Burne discussed the stages of process optimization and said various support services are available to those who want to implement fast-track arthroplasty.

Although the evidence suggests that optimized pathways will improve medical outcomes, only 5% to 15% of hospitalized patients across all disciplines in Europe are now treated based on formal clinical pathways, according to **Joachim Kugler, MD, PhD**, professor for Health Sciences/Public Health, TU, in Dresden, Germany. This is despite the fact that studies show that clinical pathways improve quality of care, as well as efficiency.

Kugler said length of stay (LOS) across Europe is variable and countries with a longer LOS would benefit most from optimizing clinical pathways.

### **Patient as an active partner**

Experts in surgical research, physiotherapy and orthopaedic care addressed the topic of patient engagement to foster better outcomes.

“If a patient is better informed, he is more willing to play an active role in the rapid recovery pathway,” **Ad Vingerhoets, PhD**, of Tilburg University, the Netherlands, said.

Physicians should consider the patient’s background and their per-

spective in a holistic way since this kind of approach will also help patients better understand how outcomes are reached, Vingerhoets said.

### **Effective perioperative factors**

**Henrik Husted, MD**, of Hvidovre University Hospital, in Denmark, reviewed the latest evidence for perioperative practices and the need to move away from unproven traditions when the evidence supports such change. He gave examples, such as the use of plastic adhesive drapes that are shown to increase infection rates and tourniquets, which data suggest are associated with significant increases in blood loss and deep vein thrombosis (DVT).

**Johan Raeder, MD, PhD**, professor in Anesthesiology at University Hospital of Oslo, Kehlet and others discussed the evidence for using different anesthesia and analgesia techniques and drugs in orthopaedic surgery. Kehlet argued in favor of using multimodal opioid-sparing analgesia, for example.

“It is completely unacceptable to do a femoral nerve block, in my opinion, due to the risk of fall when we want to mobilize patients early,” Kehlet said.

**Michael Krimphove, MD**, consultant anesthetist at University Hospital Charité in Berlin, overviewed the risk factors and prophylaxis for DVT. He recommended balancing DVT prophylaxis use against bleeding risk. This is an essential perioperative treatment, he said.


Studies show DVT risk is lower in patients treated according to accepted protocols and guidelines, Krimphove said.

### **More evidence, studies needed**

The effectiveness of TJA thromboprophylaxis may be affected by immobilization, **Christoffer Calov Jørgensen, MD**, of Copenhagen University, Denmark, noted. Preliminary data from his research into thromboembolic events in fast-track surgery for 5,178 unselected patients undergoing primary TKA or THA showed 0.8% thrombo-

embolic event rates for a LOS less than or equal to 5 days, when patients received thromboprophylaxis throughout their hospitalization. However, when LOS exceeded 5 days, thromboembolic event rates increased to 4.8%.

“Fast-track surgery could reduce the need for prolonged thromboprophylaxis, but further studies are required to help identify high-risk patients,” Jørgensen said.


The symposium also addressed perioperative blood management, mobilization on the day of surgery, rehabilitation strategies, harnessing data to optimize outcomes, as well as the unique needs of patient subsets regarding fast-track surgery. – *by Deborah Burrage, PhD* 


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#### Reference:


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