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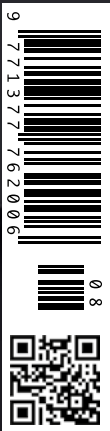
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Transforming Colorectal Surgery Outcomes

How End to End Enhanced Recovery and Prehabilitation Transformed Colorectal Surgery Outcomes



Dr. Gerrit Slooter
MD, PhD, Surgical Oncologist

Complications in all types of surgery place a significant burden on patients' quality of life and on all clinicians involved in the care pathway. In laparoscopic colorectal surgery, anastomotic leaks are of great concern to surgeons and can place considerable economic pressure on a hospital.

As a specialist center for colorectal surgeries in the Netherlands, the Máxima Medical Center (MMC) decided to face colorectal complications head on. In doing so they uncovered multilayer pressure being exerted on facilities with a three- to four-fold increase in the cost of care involving anastomotic leakage. Surgeons also reported a considerable mental burden associated with supporting patients and their caregivers through the complication.

Since 2004, MMC has been at the forefront of developments and quality assurance for colorectal surgery in the Netherlands as one of the country's first hospitals to offer a laparoscopic solution for all bowel operations. In the same year, they also introduced peri-operative care for laparoscopic colorectal surgery according to enhanced recovery principles, including Enhanced Recovery After Surgery (ERAS®) protocols.

To further elevate standards, in 2015 the center reflected on their results from the 2012–2014 National

Dutch Institute for Clinical Auditing. Although results were average, they wanted to optimize their care pathway and ERAS® compliance by taking a multidisciplinary, value-driven approach to revitalize ways of working.

Importantly, achieving sustainable results would only be possible through multidisciplinary stakeholders' involvement in and responsibility for designing improvements. So, in 2015, MMC convened 140 hospital department members in dedication to a new colorectal care pathway and renewed focus on compliance. This session served to both raise awareness and achieve alignment on the importance of a new pathway.

A fully integrated approach to pre-, peri-, and postoperative care resulted, and the Colorectal Care 2.0 program was born, shortly followed by Colorectal Care 3.0 in 2016 incorporating a 4-week period of prehabilitation. This four-pillar, multimodal program was designed to optimize treatment outcomes by preparing patients between diagnosis and surgery.

Implementation has quickly shown a marked improvement in patient outcomes. MMC results from the National Dutch Institute for Clinical Auditing for 2015–2017 versus 2012–2014, show reduced:

- median length of hospital stay down from eight days to four
- frequency of patient complications within 30 days post-surgery down from 26.5% to 11.9%
- mean comprehensive complication index (CCI) postoperative morbidity score down from 10 to six
- incidence of anastomotic leakage down from 8% to 2.5%.

In an international randomized controlled trial, four weeks after surgery,

86.0% of patients who underwent prehabilitation reached their pre-operative health status (as measured by six strength and fitness tests) compared with 40.0% of patients in the control group. In 2018 MMC, a national and international prehabilitation leader, began introducing prehabilitation into other care pathways including liver surgery, bladder surgery, and lung surgery, amongst others.

Dr. Gerrit Slooter, MD, PhD, Surgical Oncologist and team lead of this journey to excellence at MMC, shared: "The program was an integral part of the hospital's success in driving integration to deliver improved outcomes. Introducing this protocol ensured that the care pathway encompassed treatment from the point of diagnosis to the end of patient follow-up.

"It is the condition of the patient that determines the outcome and not the quality of the surgeon. Thus, focus on prehabilitation and enhanced recovery principles for laparoscopic surgery patients at MMC has elevated outcomes to the high standards expected of a specialist center."

To learn more about what was achieved at MMC via a white paper entitled *Improving Outcomes Through the Implementation of Enhanced Recovery and Prehabilitation in Colorectal Surgery*, or to contact the Johnson & Johnson CareAdvantage team about how you'd like to enhance value in healthcare, visit:

www.jnjmedicaldevices.com/en-EMEA/service/care-advantage.

Meet the CareAdvantage team on Stand 22 at the European Association of Hospital Managers (EAHM) congress in Ghent, Belgium, 11-14 September 2019 and sign up to attend one of two *Big Data and Digital Health* congress workshops. ■