



ASO AUTHOR REFLECTIONS

## ASO Author Reflections: Perspectives on Prehabilitation in Surgical Oncology: Evidence and Future Directions

Xi Zhi Low, BEng<sup>1</sup>, Natalie Hann Soh, MBBS<sup>2</sup>, Charles Rong Zhang Yau, BBA<sup>1</sup>, and Jolene Si Min Wong, MBBS, MMed, FRCS, MPH<sup>2,3</sup>

<sup>1</sup>Duke-NUS Medical School, Singapore, Singapore; <sup>2</sup>Department of Sarcoma, Peritoneal and Rare Tumours (SPRinT), Division of Surgery and Surgical Oncology, National Cancer Centre Singapore and Singapore General Hospital, Singapore, Singapore; <sup>3</sup>SingHealth Duke-NUS Surgery Academic Clinical Program, Duke-NUS Medical School, Singapore, Singapore

### PAST

Prehabilitation interventions including structured exercise therapy, nutrition optimization and psychological support have gained popularity over the last decade. They have been shown to improve early postoperative outcomes including length of stay, postoperative complications, among others.<sup>1</sup> However, there is significant variation in implemented prehabilitation programs worldwide and no unified conclusion on approach, especially in the context of cancer surgery.

### PRESENT

In our meta-analysis, we examined the efficacy of prehabilitation for surgical oncology patients undergoing major abdominal surgery. We provided elaboration on the impact of approach, that is, uni-versus multimodal on functional capacity and postoperative outcomes. Regardless of approach, prehabilitation was associated with improvements in functional capacity and reduced postoperative complications. A multimodal approach

including (1) supervised aerobic and strength training, (2) personalized nutrition with caloric and protein supplementation, and (3) psychological interventions focused on stress reduction and emotional support was superior to unimodal programs. Our findings highlight the importance of a holistic prehabilitation program in improving outcomes for surgical oncology patients.

### FUTURE

Given the current evidence supporting the adoption of multimodal prehabilitation in cancer surgery, there is a need for the surgical oncology community to reach a consensus on the optimal prehabilitation protocol. This includes guidelines on duration, intensity, and type of exercise training, nutritional supplementation and psychological interventions.<sup>2</sup> It is also likely that the effect of prehabilitation on outcomes differ according to factors, such as cancer type, disease biology, prior neoadjuvant treatments, and extent of surgery.<sup>3</sup> As such, future studies delving into these factors and their interaction with prehabilitation interventions will be essential to facilitate the development of personalized prehabilitation programs.

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J. S. M. Wong, MBBS, MMed, FRCS, MPH  
e-mail: [jolene.wong.s.m@singhealth.com.sg](mailto:jolene.wong.s.m@singhealth.com.sg)

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