



# 14<sup>th</sup> SINGAPORE PUBLIC HEALTH & OCCUPATIONAL MEDICINE CONFERENCE

15-16 October 2019 · Equarius Hotel

## PREVENTIVE HEALTH IN A CHANGING WORLD

### PREHABILITATION BEFORE COLORECTAL CANCER SURGERY AND PRE-DIALYSIS : A RAPID HEALTH TECHNOLOGY ASSESSMENT

Pwee Keng Ho<sup>1</sup>

<sup>1</sup> Changi General Hospital, 5 Tampines Central 1, Tampines Plaza, #08-01/05, 529541, Singapore

#### **Background**

It had been proposed to implement a multimodal prehabilitation framework for newly diagnosed colorectal cancer patients planned for curative surgery, where patients received individualised assessment and prescriptions in exercise, nutritional and psychological domains. The framework would also be applied to pre-dialysis advanced chronic kidney disease patients. Hospital management requested a rapid health technology assessment (HTA) on the safety and effectiveness of prehabilitation for these patients.

#### **Methods**

The HTA's PICO elements were:

Population- Colorectal cancer surgery patients / pre-dialysis patients

Intervention- Multimodal prehabilitation

Comparator- Conventional rehabilitation

Outcomes- Functional capacity (6-minute walk test), length of stay, post-operative complications, readmission rates, anxiety/depression, quality of life.

Bibliographic databases were searched for systematic reviews, HTA reports and clinical practice guidelines. A narrative synthesis was carried out on included studies.

#### **Results**

Randomised controlled trials and observational studies showed that prehabilitation improved functional capacity (measured by the 6-minute walking test) in colorectal cancer surgery patients. There was no consistent effect in terms of reducing length of stay (one systematic review found a reduction of 2 days, others did not find a difference) or post-operative complications. In chronic kidney disease, one non-systematic narrative review found no direct comparative evidence that exercise prehabilitation in pre-dialysis improved outcomes post-dialysis.

#### **Conclusion**

From the literature and local practice, prehabilitation is a widely used technology. The evidence of effectiveness is mainly in terms of improved functional capacity. As a complex multi-modal intervention, the main issue will be what combination of components will best suit CGH and whether the service will be sustainable and cost-effective.