

Adapting evidence-based peri-discharge interventions for reducing 30-day hospital readmissions among COPD patients in Hong Kong: A Delphi study using GRADE Evidence-to-Decision Framework

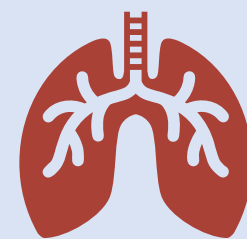
Claire CW Zhong^{1*}, Charlene HL Wong¹, Chi Tim Hung¹, Eng-kiong Yeoh¹, Eliza LY Wong¹, Vincent CH Chung^{1,2}

1. Jockey Club School of Public Health and Primary Care, The Chinese University of Hong Kong, Shatin, Hong Kong
2. School of Chinese Medicine, The Chinese University of Hong Kong, Shatin, Hong Kong *Presenting author: chenwenzhong@link.cuhk.edu.hk



Background

- Avoidable 30-day hospital readmission is a key policy problem among health systems globally, including Hong Kong.
- Among all health conditions, chronic Obstructive Pulmonary Disease (COPD) is the leading cause for such readmissions.
- Effectiveness of peri-discharge interventions for reducing 30-day hospital readmissions among COPD patients has been synthesized in previous network meta-analyses (NMAs).
- However, as the benefits of interventions may vary across health system contexts, these interventions should be adapted before implementation in local health system context.



Aims

- To translate evidence-based peri-discharge interventions into stakeholder consensus-based intervention options for reducing 30-day hospital readmissions among COPD patients in Hong Kong, guided by the GRADE Evidence to Decision(EtD) framework.

Methods

- An 18-participant panel was constructed to carry out a two-step process.
- In Step 1, participants were invited to prioritize NMA-supported peri-discharge interventions and suggest important combinations of different complex interventions.
- In Step 2, based on this priority list, participants were invited to conduct a two-round Delphi study for generating a list of consensus-based peri-discharge interventions for reducing 30-day hospital readmissions among COPD patients.
- GRADE EtD framework was used to guide the decision-making process, taking into consideration benefits, harms, values and preferences, equity, acceptability, and feasibility.

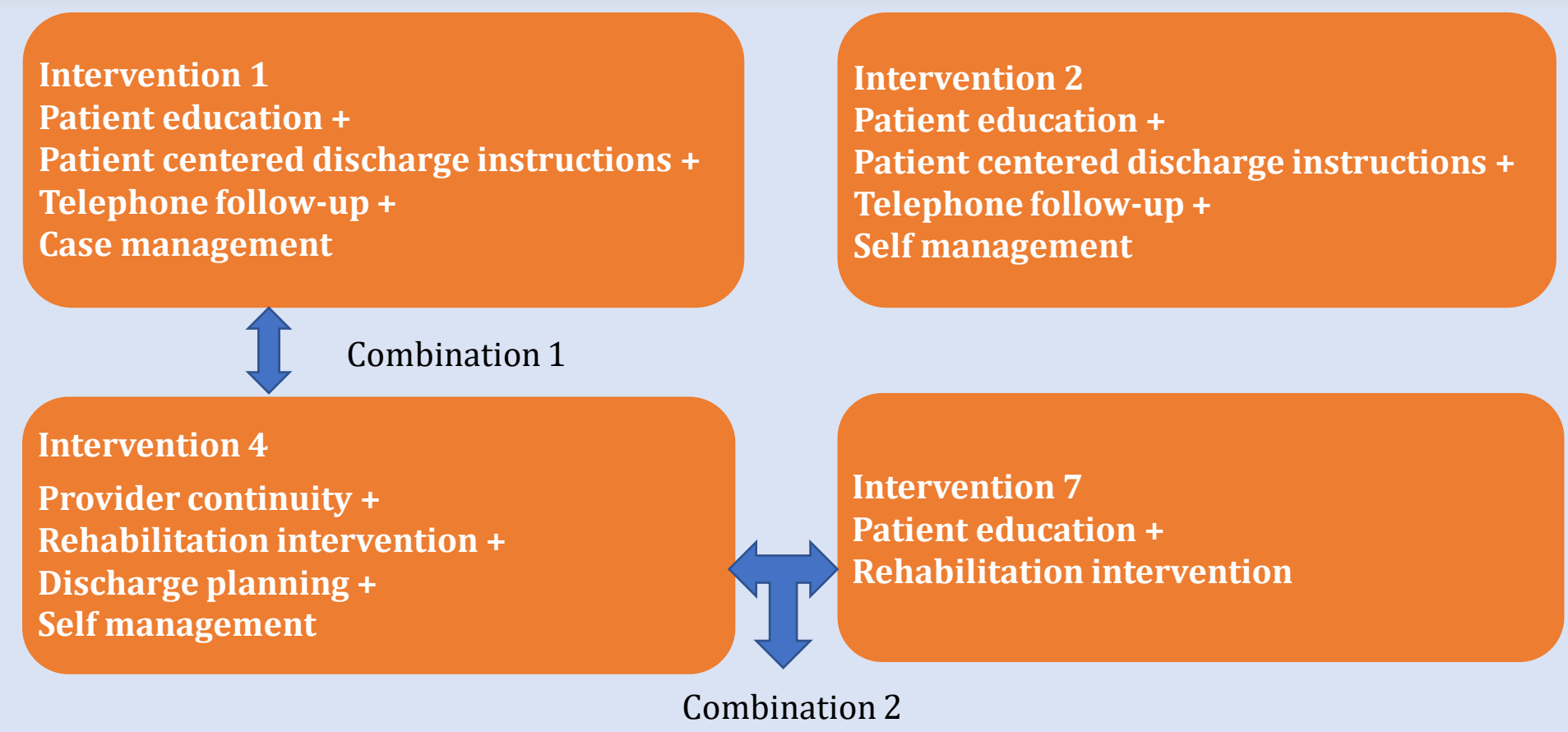


Fig.1. Components of the four NMA-supported peri-discharge interventions and two important combinations reached positive consensus after the two-round Delphi study

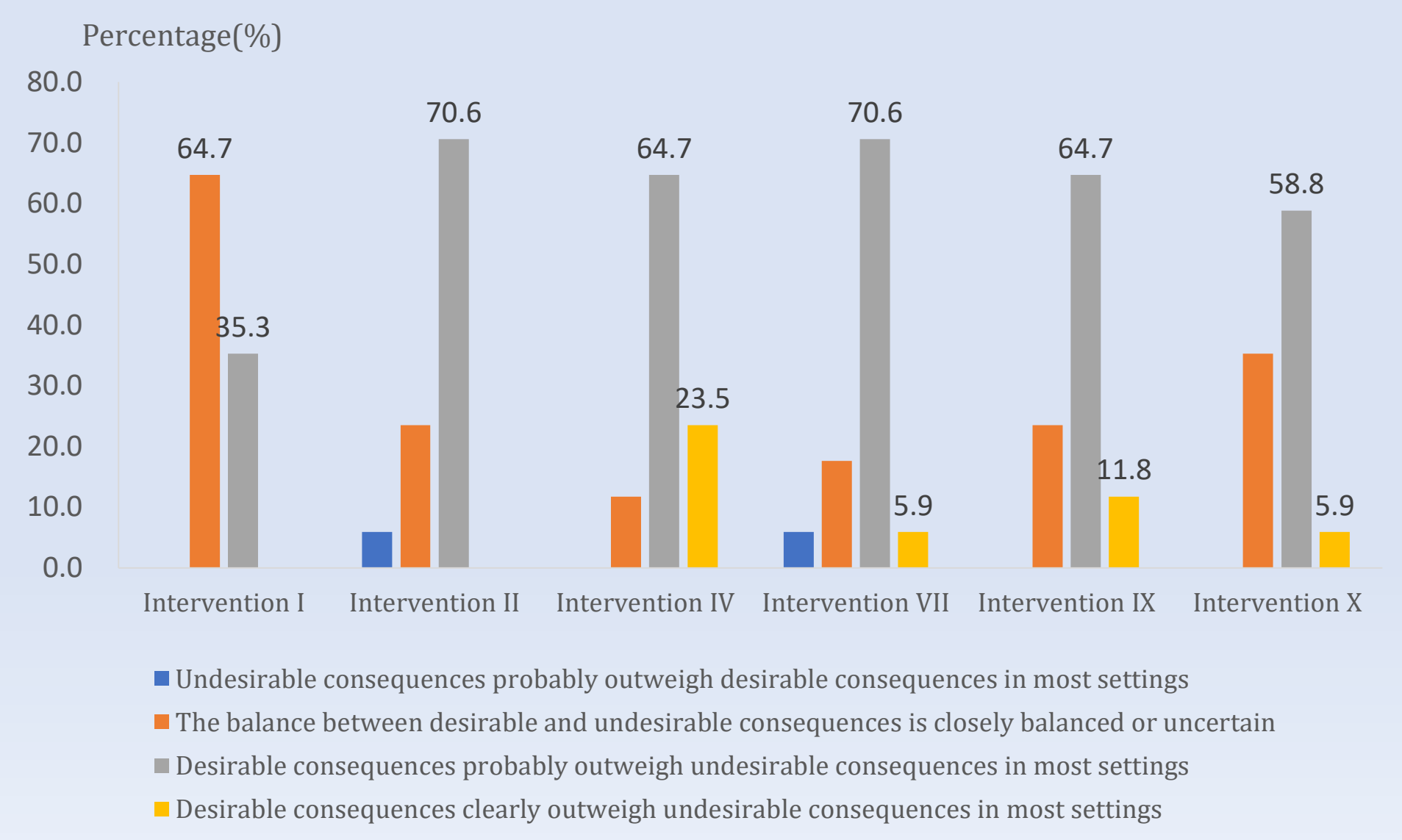


Fig.2. Balance of desirable and undesirable consequences for the six endorsed peri-discharge interventions after considering all the GRADE EtD criteria

Results

- Four NMA-supported peri-discharge interventions and two important combinations reached positive consensus. Detailed components included in the endorsed peri-discharge interventions are presented in Fig.1.
- The percentage agreement ratings for these six endorsed interventions ranged from 70.6% to 94.1%. After considering all the GRADE EtD criteria, over 60% of local stakeholders agreed that the desirable consequences of implementing these six endorsed interventions probably or clearly outweigh the undesirable effects (Fig.2).
- Preliminary implementation issues are in the areas of financing, governance and leadership, health workforce development, service access and readiness, and empowerment of patients and caregivers.

Conclusion

- This study successfully applied the GRADE EtD framework for starting the adaptation process of complex interventions and established a list of local stakeholders-endorsed Interventions for reducing 30-day hospital readmissions for HF and COPD in Hong Kong.
- Before implementing and maintaining these endorsed Interventions at scale in local context, further study to improve intervention-context fit as well as piloting and evaluation is necessary.
- *Ethic approval: The Survey and Behavioral Research Ethics Committee, The Chinese University of Hong Kong (No. 012-19). Written informed consent was collected from all participants via email. The authors declared no competing interests.*