Introduction
Group treatment is a common “way out” to shorten waiting-list in public setting. Although group treatment represents a cost-efficient means of treatment delivery, it offers limited opportunities for attention to the specific needs of particular individuals. Patient clinical outcomes and cost-effectiveness of two different class formats are studied to search the best possible practice in the views of both patients and staff. The first format is historic arrangement that all treatments are provided in group setting. The second format are formulated and reformed after analyzing the pros and cons of the use of group treatment of different procedures, only desirable procedures are conducted in group format. To our knowledge, this is the first investigation to explore the desirable group treatment format in physiotherapy intervention in Hong Kong.

Objectives
To compare the cost-efficient and the clinical outcomes of two group treatment formats in physiotherapy management of non-traumatic shoulder cases

Methodology
During the period of 2/2017 to 8/2017, a prospective cohort study of pre-post design was conducted. Non-traumatic shoulder cases were managed in exercise class combining group intervention and individual management like tailor-make therapeutic exercises, manual therapy and individual treatment progression. The primary outcomes were the Disabilities of the Arm, Shoulder and Hand (DASH) score, the number of treatment session and the change in new case intake comparing with individual treatment intervention. The outcomes of the class were compared with the outcomes of historic exercise class which all treatments were provided in group setting.

Result
62 participants enrolled in the study. The mean number of sessions attended in reformed exercise class and historic exercise class are both 3. The DASH score improvement of the reformed exercise class and historic exercise class were 31% and 13% respectively (P=0.03). The monthly intake of new cases within the same
time-slot comparing with individual treatment increased 2 folds in reformed class, the number was 3.5 folds in historic exercises class.

CLINICAL IMPLICATION

Although superior cost-effectiveness can be achieved if all treatment procedures are provided in group setting, patient clinical outcome and treatment effectiveness may be sacrificed. In people-centred point of view, group treatment format should be employed in procedures that are beneficial to both patient and staff but not in all processes. Desirable clinical outcome and efficiency would both be achieved in a balance way with careful planning and design.