Evaluation on clinical significance of pharmacists' recommendations on nutrition support at Princess Margaret Hospital
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Introduction
Appropriate nutrition care plan and safe prescription are crucial to optimal treatment of patients on nutrition support especially those on parenteral nutrition (PN). Overseas studies showed that pharmacists could deliver beneficial pharmaceutical care services to patients receiving PN therapy through provision of important information on compatibility, stability and choice of PN products.

Objectives
This study aimed to evaluate the clinical significance of pharmacists’ recommendations on nutrition support in Hong Kong and to explore the role of pharmacists on nutrition support.

Methodology
The study was a retrospective, single centered study carried out in Princess Margaret Hospital. Multidisciplinary nutrition support team composed of physicians, pharmacists, nurses and dietitians would perform nutrition round every week with focus on adult patients requiring nutrition support. Pharmacists would provide suggestions on the nutrition care plan and PN prescriptions received on daily basis. Pharmacists’ recommendations made during the nutrition rounds and on the PN prescriptions from July 2016 to July 2017 were retrieved for analysis. These recommendations were classified into different categories of drug related problems. The clinical significance of the recommendations was assessed and ranked by two independent pharmacists not involving in making the recommendations using Hatoum’s scale.

Result
A total of 176 recommendations were suggested by pharmacists on nutrition support in adult patients during the study period. All recommendations were accepted by physicians. The most common recommendations were stability and compatibility issue (31.8%), followed by infusion rate (24.4%), electrolyte content (18.2%), and choice of PN products (14.2%). The vast majority (78 cases) of recommendations were judged to be significant with score 4 (44.3%) which meant these recommendations would bring care to a more acceptable and appropriate level. Fifty-five cases (31.2%) were classified into very significant recommendations with
score 5 which represented these suggestions qualified for a potential or existing major organ dysfunction if not identified.

In conclusion, the recommendations of pharmacists on nutrition support in adult patients were significant. Pharmacists, in addition to performing aseptic compounding of PN products, also play an essential role in patient care by providing information on stability, compatibility of PN products, suggesting of most appropriate component and electrolyte content for patients to ensure the best nutritional outcome. Pharmacists, in collaboration with other healthcare professional, help to optimize patients’ nutrition care plan and improve patients’ outcome.