# Assessing Inpatient Nutrition Evaluation System: based on the Experience of a Regional Teaching Hospital in Taiwan

Min-Chi Liao<sup>1,2</sup>, I-Chun Lin\*<sup>2</sup> Chu-Nien Chen<sup>1</sup>

 Department of Nursing National Taiwan University Hospital Yunlin Branch, Taiwan
Department of Industrial Engineering and Management National Yunlin University of Science and Technology, Taiwan

### Background/Problem/Objective

A timely and appropriate dietary support is important for inpatient care. One of the key tasks is completely nutrition evaluation. It usually starts with nurses making an initial nutrition evaluation temporarily note for inpatient on the bedside, then nurses re-turning to station to complete the report. Each report in theory will be reviewed by doctors in the next 24 hours, though exceptions do happen from time to time. The completion rate of evaluation was only 76.3% in the case hospital.

#### Methods/Interventions

The new system is the case hospital's plan to raise the performance of nutrition evaluation for inpatient. The development of system consulted the Technology Acceptance Model and involved a sample group of end users in concept discussion and interface design, who then also took part in testing, training and problem soothing during the initial stage of system launch. In March 6, 2017 the system was officially installed in 15 care units and 4 intensive care units, with continued further performance assessments.

### Results (of Evaluation)

Using the system to complete nutrition evaluations directly during bedside visits proves to be timesaving and efficient for nurses. Nurses are able to spend more time and efforts on patient care, that is the more valuable part of their job.The up-to-date nutrition evaluations enable doctors to make immediate and well-informed judgement calls and to consult nutritionists if necessary for improved diets. Statistics showed that the completion rate rose up to 96.3%, save 40,070 papers and reduce cost 24,042 NTD.

## Conclusions

The advance of Information and Communication Technologies enables hospitals to modernize existing procedures with customized information systems, softwares and hardwares. This trend, like the Smart Ward, brings new challenges to nurses and doctors as they learn to adapt. The initial resistance to change can be lessened with user-friendly interfaces and well-designed functionalities which prove to enhance work efficiency and better results.

#### Relevance to HPH

In digitalizing the procedure of nutrition evaluation, the new system provides better performances that reduce workload, while enabling better care for inpatients to shorten the length of stay and alleviate the burden of visiting relatives. The case hospital's experience showed that the implementation of IS can help create a friendly work environment for healthcare personals that deliver safe, effective and patient-centred care.

Key Words: Inpatient, Nutrition Evaluation, Information Technology, Performance Evaluation