# Development and implementation of the Cyber Education Program for Quality management and patient safety

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### **Abstract and Objective**

As the importance of quality management in a hospital is increasing continuously, Seoul National University Hospital tried to find an effective way to educate staffs for quality improvement and patient safety. The web-based training program provided meaningful results. The objectives of the project are to develop education programs for quality improvement and patient safety for a hospital and to carry out the programs to all staffs in the hospital. The project was developed in three steps which are 1) writing manuscripts, 2) making storyboards and 3) programming. By and large, four programs were completed from the project. The researchers implement the project four times hospital-wide. More specific programs will be developed considering various types of jobs and roles. In addition, a way to evaluate the effectiveness and efficiency will be figured out in further research.

#### Keywords:

Healthcare quality assurance, Risk management, Computerassisted instruction, Staff development, Education

# Introduction

Education in hospitals is not only an important way for quality improvement and risk management but also a type of criteria for evaluation hospitals. However, there are many limitations in educating staffs such as lack of training programs, shift of works and limited resources. Therefore, the researchers developed education programs for quality improvement and risk management with Seoul National University Hospital Cyber Institute. The program is called as 'Cyber Education Program'.

# Methods

The three steps for developing 'Cyber Education Program; are like below:

Firstly, the quality manager and staffs wrote out manuscripts to guide detailed processes. Four modules were developed from April to May 2008. The topics of each module are 'The Concepts and Methods of Healthcare Quality Management', 'The Example of Quality Improvement in Hospital', 'The Concepts and Needs of Patient Safety' and 'The Management

of Health Care Incidents'. The Example of Quality Improvement in Hospital includes a case to reduce the waiting time oat the emergency room at Seoul National University Hospital. Besides the case, there are other practices for risk management.

Secondly, the storyboards were prepared until December 2008. The researchers collaborated with an external professional education company for storyboards and programming.

Finally, four programs were completed until March 2009. Those programs were provided in animation. In the animation, characters discuss, question and answer about quality of healthcare and patient safety. Each animation consists of 16~24 pages to help learners to concentrate on the program. While learners use the programs, they have to click an icon to pass each page. Printed materials and quizzes were provided to help the study as well.

Cyber Education Program were executed four times from May to August 2009. Clinicians and other staffs decided the period to be involved in the program by themselves and registered the course through Seoul National University Hospital Cyber Institute. They could use the program regardless time and place through the web site.

## Results

The researchers developed a web-based education program for quality improvement and patient safety from April to March 2009.

The program was implemented four times over four months. Among the whole staffs 5,216, 4,112 staffs completed the courses (78.8%). Especially 1,859 nurses and 579 clinicians who had to do shift works enrolled in the program. The rate of course completion were 84.3% and 46.7% respectively

The researchers are going to develop more programs for healthcare quality management for various types of jobs and roles of the hospital. A way to evaluate the effectiveness and efficiency of this Cyber Education Program will be defined in further research.