

# Using statistical process control charts to reduce the incidence of inpatients fall accident

Mei-Lan Cai

Supervisor, Department of Nursing, Mennonite Christian Hospital, Hualien, Taiwan



## Purpose

The purpose of this project is to use the continuous monitoring of statistical process control charts to reduce the incidence of falls for inpatients.

## Methods

- According to the annual indicator of the previous year, the annual threshold and statistical process control chart are set to monitor the trend and variation of monthly fall .
- Judging criteria:
  1. Use the mean  $\pm 2\sigma$  as the warning boundary (internal boundary).
  2. a Quality Management Cycle (PDCA) is required, and quarterly audits and monitor.

## Results

Strengthen nursing staff to prevent falls awareness during the period, statistical process control chart interpretation, Timely intervention measures, the incidence of falls fell from 0.11% in 2016 to 0.07% in 2017. In 2018, added individual health education leaflets to patients and raised their awareness of preventing falls. Jointly maintain patient safety, As a result, the incidence of falls from January to September fell to 0.06%.

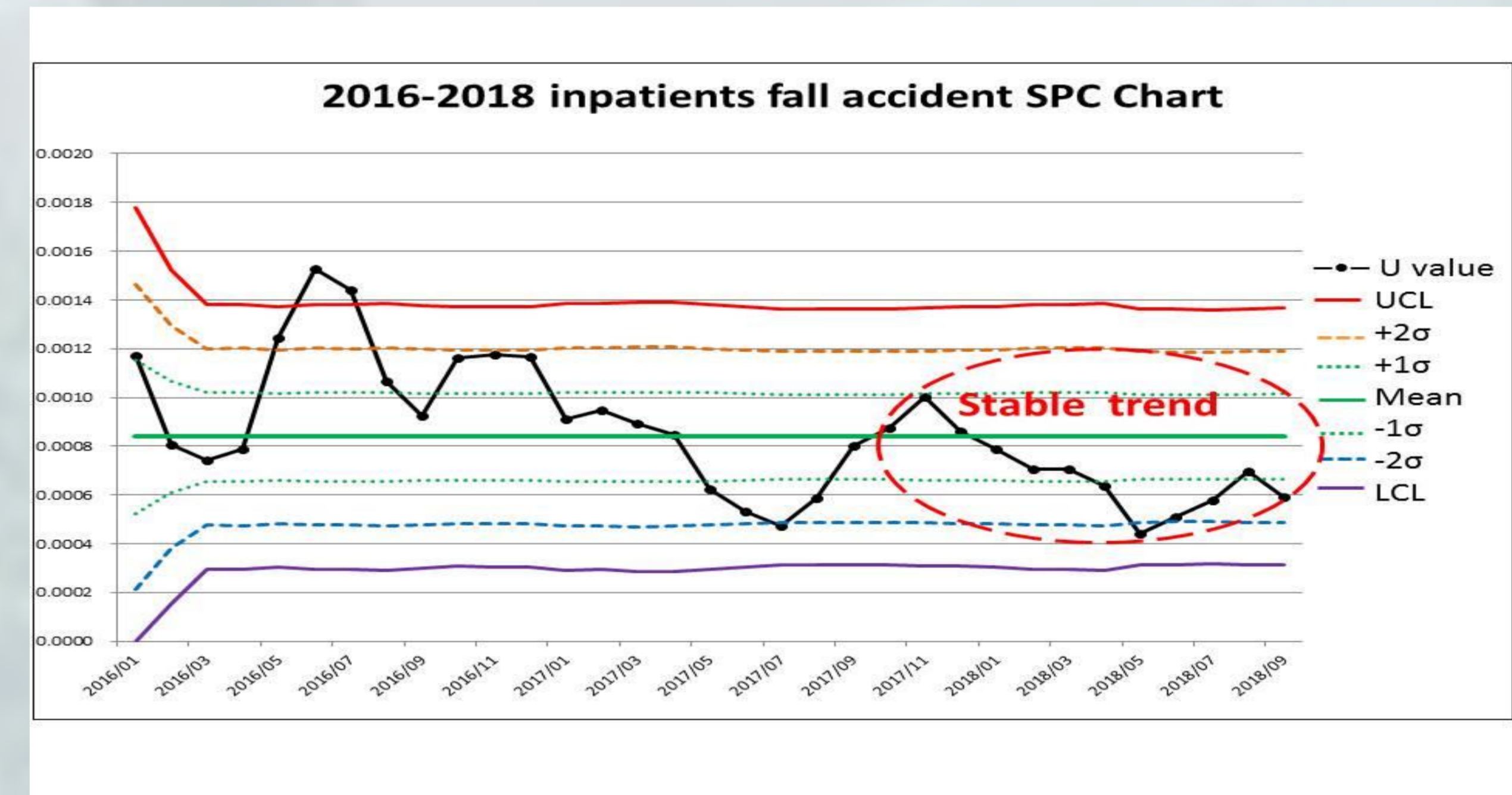


Figure 1: The inpatients fall accident statistical process control chart for 2016-2018.

## Conclusions

Strengthening the prevention of falls through the integration of educational resources, at the same time, the drug evaluation is carried out early by monitoring the control chart. Linked Discharge Preparation Service (DP) for follow-up care, Promote cross-team communication effectiveness, to improve medical quality and patient safety.