



Service Priorities and Programmes Electronic Presentations

Convention ID: 230

Submitting author: Ms Nora Wan CHU

Post title: Registered Nurse, Prince of Wales Hospital, NTEC

To minimize the non-value added time in retrieval of equipment in ICU

*Chu WN(1), Yap HYF(1), Poon ST(1), Yeung CK(1), Ho KM(1)
(1)Intensive Care Unit, Prince of Wales Hospital*

Keywords:

Common shared equipment

Lean Concept

5S

Non-value added time

Introduction

Since the expansion of the ICU floor space and its separation into 2 different floors, there had been difficulties in locating and retrieval of patient care items and equipment which are shared between the two floors, including ECHO, AIRVO, nerve stimulators and USG Dopplers. Any shared item required by one patient might be in another patient's bedside, sent for maintenance check, sent for repair, inside dirty utility room waiting for cleansing, or located in another floor, and much non-value added (NVA) time was spent in searching, leading to unnecessary communication, staff motion and frustration.

Objectives

1.To measure the non-value added time in equipment retrieval process. 2.To reduce the equipment searching time and transportation time to enhance patient care, and reduce staff NVA time, motion and frustration. 3.To minimize equipment transfer between the two floors of the ICU.

Methodology

We calculated the Process Efficiency Percentage (PEP) of equipment retrieval by observing consecutive 12 episodes of equipment search and transport. We found that the NVA time (1170sec) is nearly three times longer than the value added time (420sec), leading to a low PEP of 26%. Then using the 5S concept, we introduced some measures to reduce the non-value-added time in equipment search and retrieval. 1.Relocate the ECHO machine in the ward area (rather than storage room, which is far from the ward area). (Sort-in-order) 2.Provide a small white board indicating location of the equipment when not in its designated place. (Set-in-order) 3.Update the current stock of the equipment by every staff after they take the equipment to the bedside. (Sustain) 4.Provide "Smart Point" indicating the location of equipment, using e-mail and notices posted in ward. (Standardize) 5.Simplify the workflow on disinfection of ECHO machine. (Shine)

Result

We measure the outcome over a period of two weeks after introducing the new

measures. The frequency of retrieving equipment between two floors of ICU was reduced from 13 times to 2 times and the actual retrieving time was decreased from 26 minutes to 7 minutes. Positive feedback was received from colleagues.