

EARLY PROGRESSIVE MOBILITY PROGRAM FOR VENTILATED ADULT CRITICAL CARE PATIENTS

Pam Bills, RN, CCRN

Staff Nurse IV, ICU/CCU Washington Hospital, Fremont, CA

Our Evidence Based Practice Project Team

- Dr Carmencita Agcaoili, MD, FCCP (Physician Champion)
- Pam Bills, RN, CCRN (Team Leader)
- Evangeline Bayani, RN, CCRN
- Elvira Ballar, RN, CCRN
- Christy Casey, OTR/L
- Kelly Franco, RN, CCRN
- Kelly Gabrielson, MSN, RN
- Thomas Gray, RRT, RCP

Our Evidence Based Project Team, Continued

- MaryJo Hildenbrand, RN, CCRN
- Kent Joraanstad, MPA, RRT, RCP
- Elizabeth Riker, RRT, RCP
- Emanuel Rivera, RRT-NPS, RCP
- Rowena Sigler , RPT
- Rudolfo Teodosio, RRT-NPS, RCP

Purpose and Background

- Our multidisciplinary evidence based practice project evaluated the implementation of an early mobility program in an effort to improve outcomes in mechanically ventilated adult critical care patients.
- Pre-implementation data revealed that patients in our unit were on bed rest with head of bed elevated at 30 degrees as their activity event

Purpose and Background continued

- Recent literature states that de-conditioning, muscular atrophy and ventilator associated pneumonia (VAP) can result from immobility
- We hypothesized that immobility can prolong time on the ventilator and increase critical care length of stay and overall hospital stay

Methods and Approach

- Our Critical Care evidence base practice project team conducted a literature search
- Critically appraised and analyzed the evidence
- Developed the early mobility protocol guidelines which included inclusion and exclusion criteria as well as the steps of the protocol
- Obtained Institutional Review Board, (IRB) approval to go forward with the project
- Obtained baseline data by performing retrospective chart reviews

Methods and Approach continued

- Prior to implementing the project, staff were educated through the use of huddles, and by the use of a power point presentation that was loaded on to our hospital Health Stream
- Developed a rewards program for staff that participated in an activity event by entering their name into a raffle for gift cards
- Came up with the catch phrase the “FAB 5” as a way to remember the 5 activities

Methods and Approach continued

- A convenience sample of 22 patients meeting specific criteria were enrolled in our project
- A retrospective chart analysis yielded a pre-implementation control group of 44 patients
- The program consisted of 5 activity events: range of motion (ROM); HOB elevation; edge of bed (EOB)/dangle; stand, pivot to chair; and ambulation
- These patients participated in 215 activity events during the project

Methods and Approach continued

- These patients were compared to a retrospective usual care group
- A daily progressive mobility data collection tool was developed and used by the study team and staff
- Descriptive and inferential statistics were used for analysis

Results

- Analysis revealed that ventilator days decreased from 11.75 days to 10.59 days
- Critical Care length of stay decreased from 15.84 days to 14.68 days
- Hospital stay decreased from 22.93 days to 19.32 days
- Though the decreases are not statistically significant due to sample size, they are clinically meaningful
- There were no occurrences of ventilator associated pneumonia (VAP)

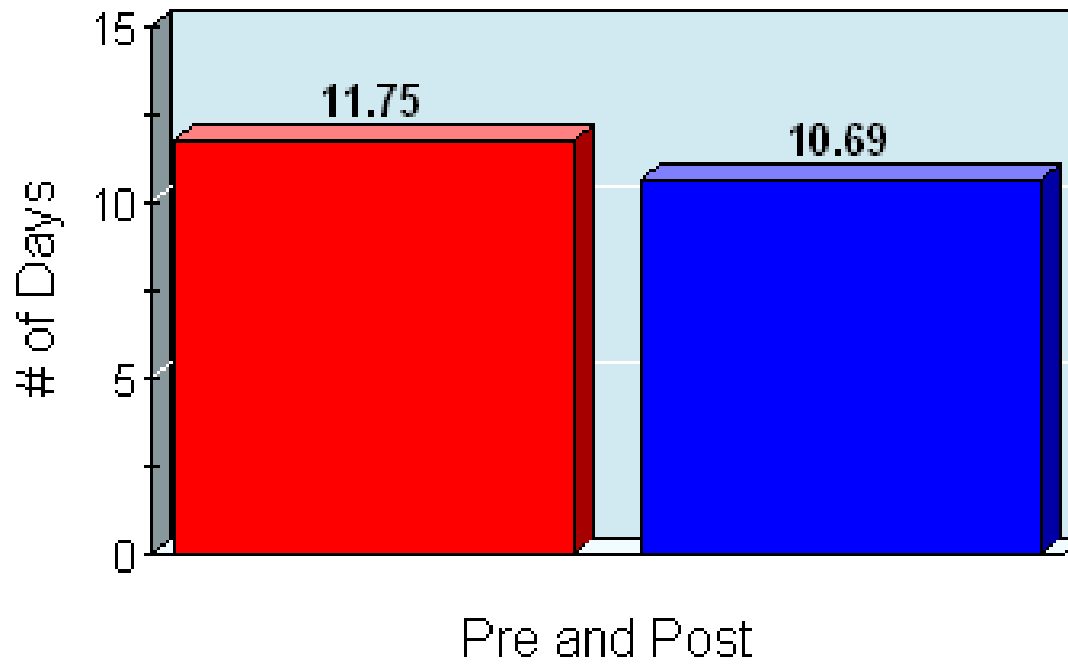
Results continued

- The highest activity level achieved for 5% of the patients was range of motion (ROM)
- For 58% of patients was head of bed (HOB) up 60 degrees with legs in dependent position
- For 18% of patients it was sitting at edge of bed (EOB), dangling
- For 14% of patients it was stand, pivot to chair
- For 5% of patients it was ambulation

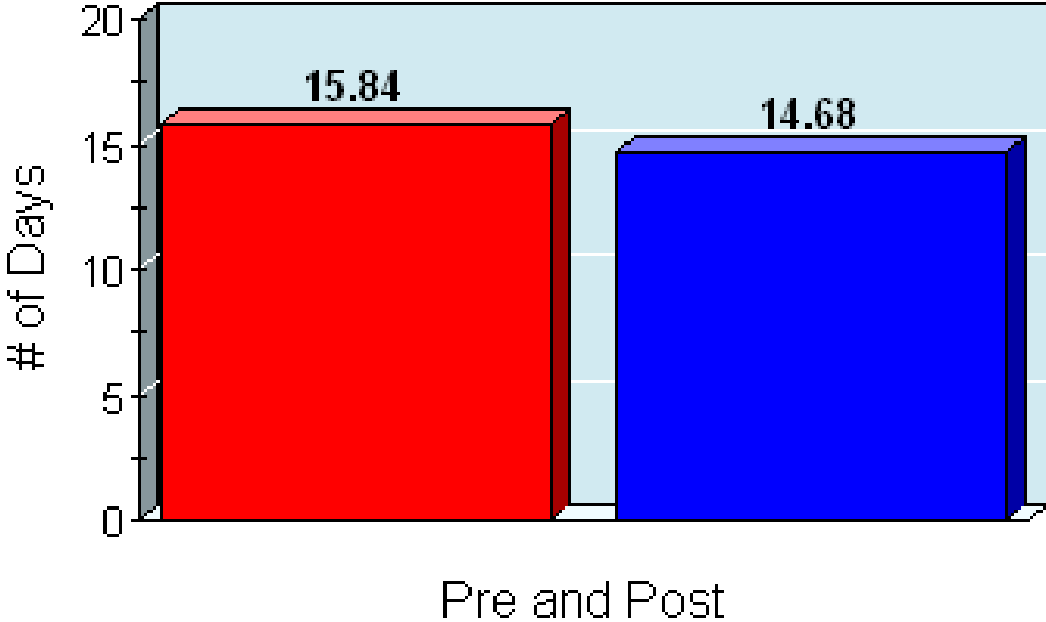
Conclusions

- An early progressive mobility program decreases time on the ventilator by 1.16 days, critical care length of stay by 1.16 days, and overall length of stay by 3.61 days
- Another positive outcome of this project is that we are beginning to see a culture change in our unit regarding the value of early mobility in this patient population

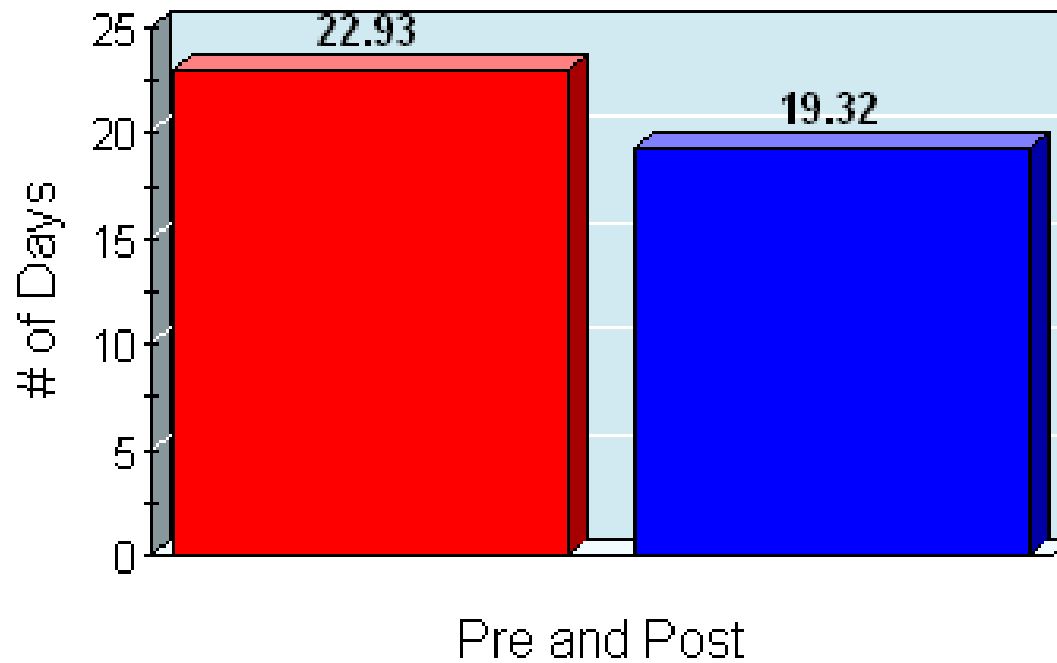
Ventilator Days



Critical Care Unit LOS Days



Hospital LOS Days



Highest Activity Level Achieved

Fab 5 - Early & Progressive Mobility Activities

(N=22 patients) (n=215 activities)

ROM

5%

Ambulation

5%

Chair

14%

Dangling

18%

HOB

58%

