A study to describe the feeding Practices in critically ill patients and development of nutritional algorithm in intensive care units at selected hospital, puducherry-06

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ABSTRACT

Background of the study:

Nutrition is an integral component of general care for critically ill patients. Enteral feeding in critical care unit is largely managed by nurses; however feeding practices differ between and within the critical care units. These variations in enteral feeding practice can be linked to the shortage of reliable and valid research into the many issues associated with the effective delivery of enteral nutrition. In the absence of a strong research tradition and practice, rituals are embraced and rarely challenged, further contributing to the wide variations in enteral feeding practice.

Methodology:

This study seeks to identify and describe the feeding practices in critically ill patients and to develop the enteral feeding protocol for critically ill patients. A prospective observational design was conducted at critical care units of a tertiary care center, Puducherry. Critically ill patients who met inclusion and exclusion criteria were included in the study. One thousand feeding observation was done by purposive sampling technique.

Results:
Study included 121 patients. 65% of the patients were males, and 71% of the patients from Neuro intensive care unit. The prescribed volume for the intensive care patients is $1772.55\pm319.5\text{ml}$; the mean received volume is $1722.99 \pm 447.43\text{ml}$.

These data shows that, the patients have been adequately fed during their stay in intensive care unit. The average deficiency of the enteral feeding is 503 ml; the average excess of the feed volume is 292 ml. The both deficient and excess volume of feed occurred, when it was given by bolus method. Out of 1000 feeding observations 85% of the observation feeding was administered through bolus method only. Remaining 15% it was given by intermittent method. Mean duration taken for initiation of feeds after admission in to the ICU is 31 hrs. However if we see it ICU wise , in neuro medical ICU patients enteral feeding was started early that is within 6 hrs, but in general ICU it was 30 hrs. In general the maximum time of 45 hrs is taken for 4% of the patients. 48% of the observation, it was started within 6-15 hrs of hospital admission. In regard to feed delivery aspects, the nurses washed the hands in 43 % of the observations. The head end of the bed was elevated more than 30 degrees in 78% of the observation. The placement of the enteral tube was not checked in 73% of the observations; the feed was mixed with the medications in 48% of the observation. The motility agents were not used in 99.3% of the observations. The enteral feeding was not interrupted in 70.6% of the observations. It was interrupted in 9% of the observation for weaning from the ventilators, 17% of the observation for hemodynamic instability reason and 2% of the observation for surgical intervention purpose. In 89% of the observation no problem was reported, in 0.7% of the observation patients had insertion related problem like nasal damage. Conclusion: Adequate nutrition should be part of the management of the patients in critical care units to improve their clinical outcome. Enteral feeding protocol should be implemented in critical care units to improve the delivery of enteral nutrition in critical care units.
Keywords: Enteral feeding, nutrition in Critically ill patients; feeding practice, Feeding guideline; Feeding adequacy; mode of delivery of enteral feeds