HA Convention 2013

- Presentation Topic:

  The effectiveness of a Nurse implemented Sedation Management on Unplanned Extubation.
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- Workplace: KCC -QEH Ventilator Ward

Background

- Majority of the patients received mechanical ventilation are cared in ICU/HDU. Ventilator Ward was established in 2002 which provides 16 beds for the patients that received mechanical ventilation (MV) but cannot be admitted to ICU/HDU due to issue of bed occupancy and triage criteria.
- Qualified nurses were trained and have the autonomy to titrate sedation and ventilator setting according to protocol.

Study Design

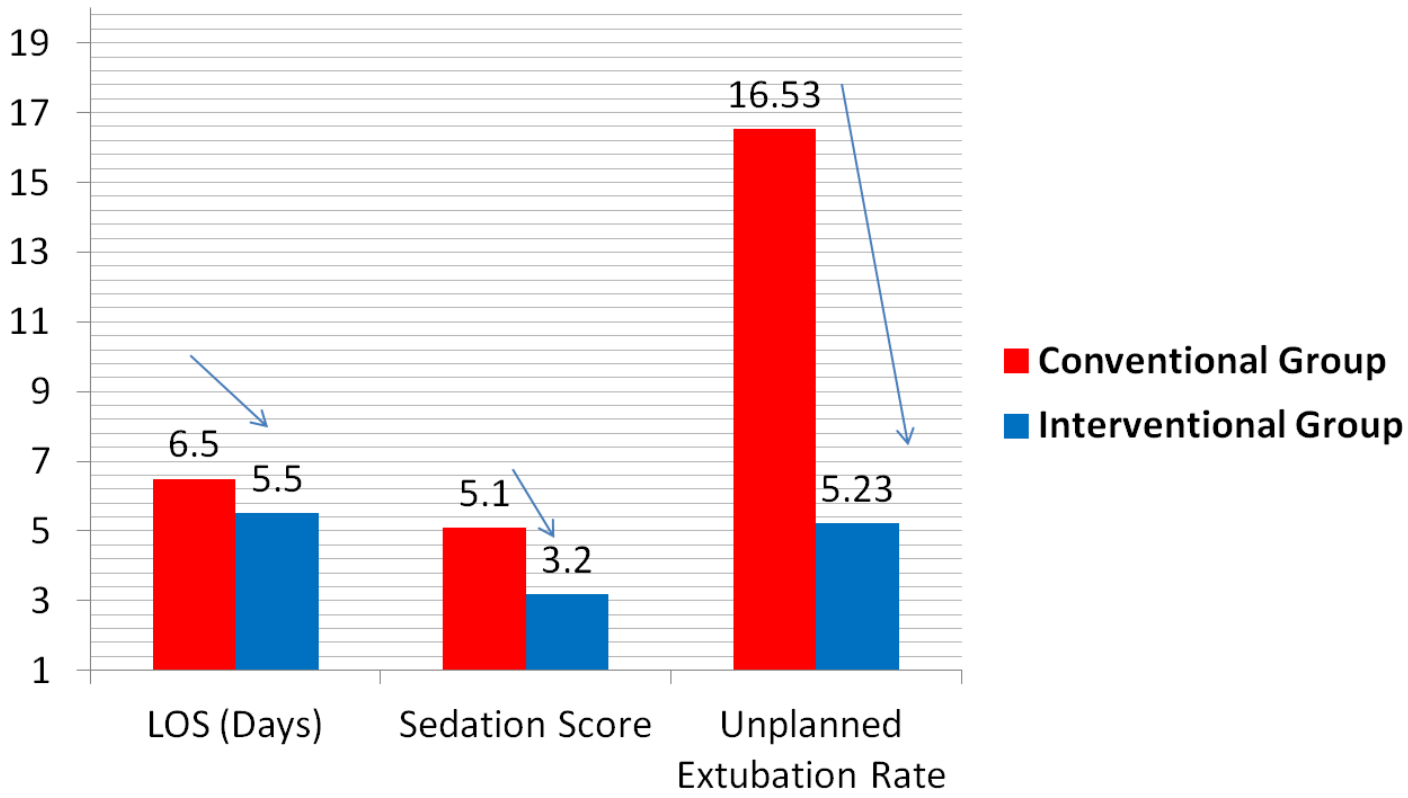
- A quasi-experiment method
- Aims: to see the effectiveness on the test instrument on unplanned extubation rate, LOS, sedation score.
- Conventional Group recruited those subjects who were prescribed with a fixed dosage of sedated medication or even no sedation prescribed.
- Interventional Group recruited those who were using the tested instrument with (i) Alogorithm-based sedation protocol; (ii) Daily awakening protocol, and (iii) Spontaneous breathing trial protocol and titrated by qualified nurse.

Methodology

- By comparing the group differences focusing on:

1. The length of stay (LOS) of ventilators days;
2. The rate of successful extubation;
3. The incident rate of unplanned extubation and
4. The sedation score.

Result


19
17
15
13
11
9
7
5
3
1
6.5
5.5
5.1
3.2
16.53
5.23
LOS (Days)
Sedation Score
Unplanned Extubation Rate
Conventional Group
Interventional Group

n=364		Results Comparison Between 2 Groups		
	Conventional	Intervention		
	Mean (SD)	Mean(SD)	Mann-Whiteney Test	p-value
Age	75.8(20.23)	78.9(23.47)	794	0.65
LOS	6.5(10.2)	5.5(19.23)	783	0.53
Sedation Score	5.1(13.42)	3.2(14.32)	812	p<0.005
Unplanned Extubatio	16.53(19.82)	5.23(28.9)	901	p<0.001

Conclusion

- The implementation of nurse-implemented sedation management showed effectiveness in the unplanned extubation rate.
- It may reduce duration of MV and length of stay in ventilator ward.
- It provides immediate response to relieve patients discomfort on MV and helps to deliver appropriate sedation.
- It may improve patient safety by minimizing unplanned extubation.