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Team Resource Management Strategy on Reducing Unplanned Extubation Events Rate of Endotracheal Tube

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ABSTRACT

Background:

Unplanned removal of endotracheal tube during stay in ICU not only could prolong the treatment period and increased the length of stay in hospital, but also threaten life.

Purposes:

The purpose of this study is to reduce the rate of unplanned endotracheal tube removal in ICU.

Methods:

The team resources management mode was utilized to build up certain interventions in order to improve this situation, such as leadership, situational monitoring, team supporting and communication.

Results:

January 2012 to May 2013, the rate of unplanned endotracheal tube removal has decreased from 0.27% in 2011 to 0.14% in 2012 by 12 cases. This reached the study goal.

Conclusions:

This study not only applied the team resources management mode to prevent unplanned endotracheal tube removal which had achieved significant positive result, but also increased patients' safety. Besides, positive negotiation climate in working place had established through management strategy.

Keywords: Team Resource Management Strategy, Unplanned endotracheal tube removal.

Introduction

There are more than 80% patients who stay in Intensive Care Unit (ICU) has to proceed endotracheal intubation treatment due to server respiratory failure. Unplanned removal of endotracheal tube during stay in ICU not only could prolong the treatment period and increase the length of stay in hospital but also threaten life.

Materials and Methods

The 20 cases who were suffered unplanned endotracheal tube removal in ICU in 2011 were under cause analyzing. The team resources management mode was utilized to build up certain interventions in order to improve this situation, such as leadership, situational monitoring, team supporting and communication.

TRM mode

leadership

- Education
- Establish the standard unplanned endotracheal tube removal
- Holding up combine meeting in the morning

Situation control

- Holding "I'M SAFE" activity

Support system

- Establish the partner system Innovate zero extubation by patient

Communication

- Inter-professional meeting take place for effectively to communicate the patient clinical care plan.



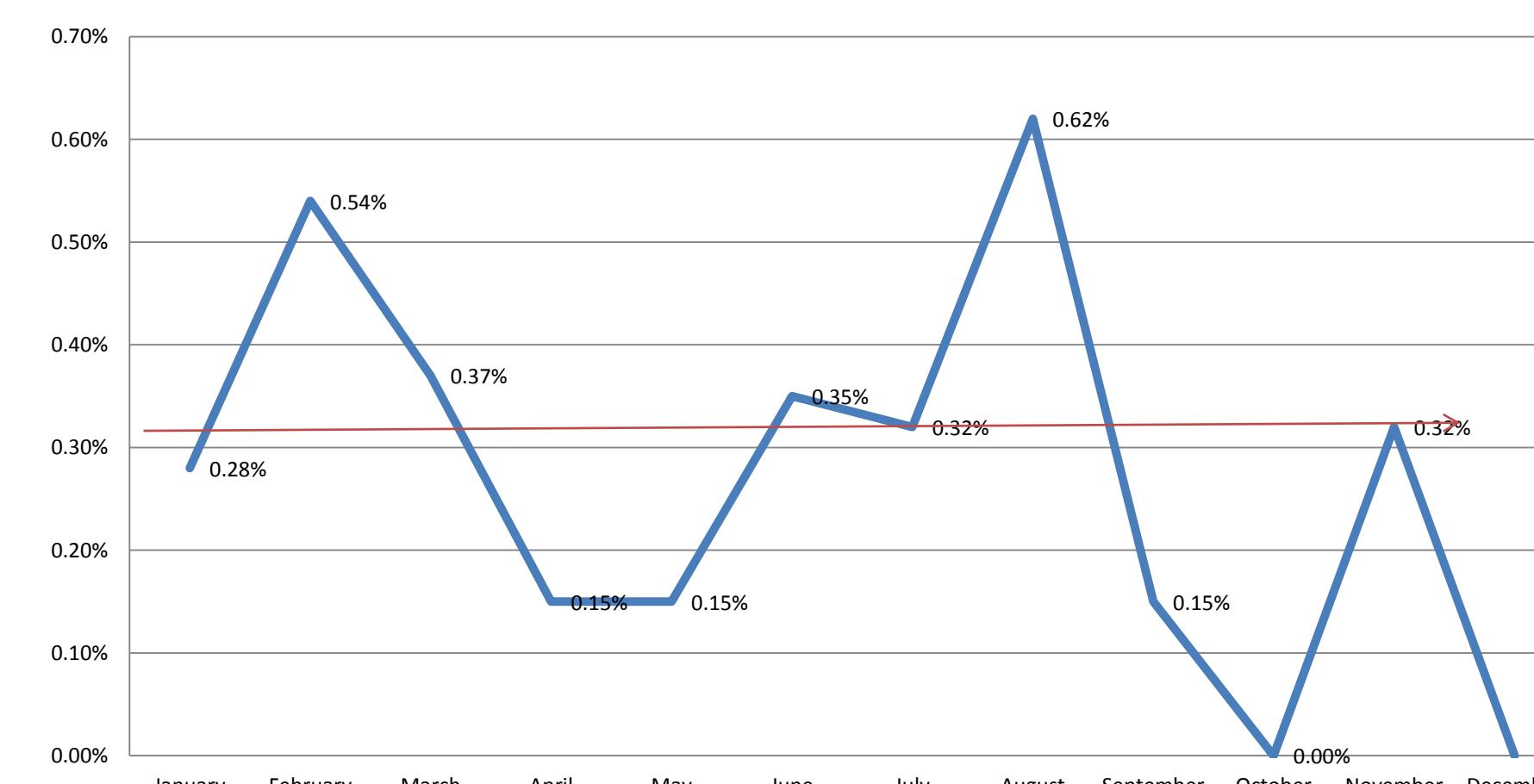
coffee car



Promote I'M SAFE

Results

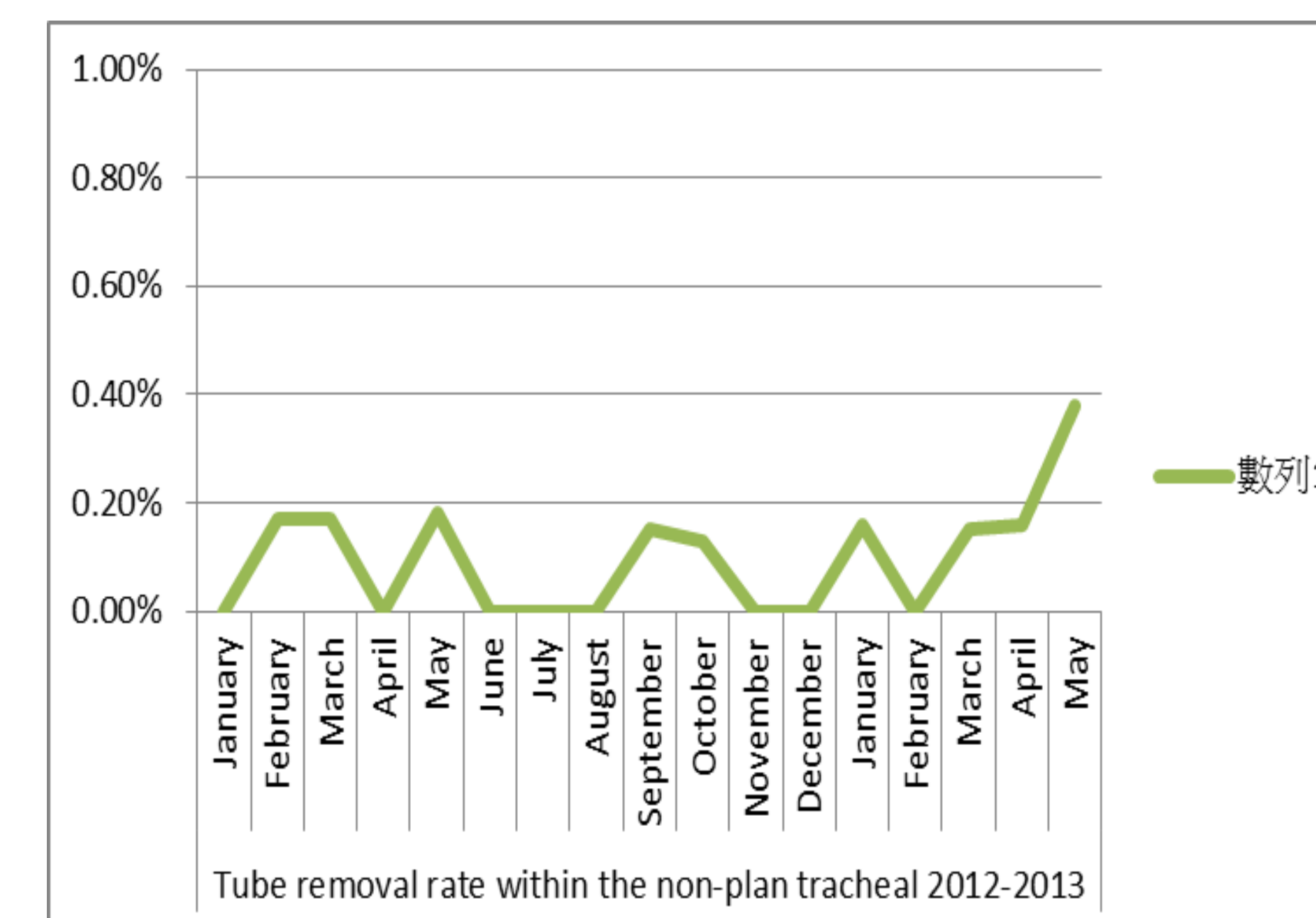
After engaging interventions from January 2012 to May 2013, the rate of unplanned endotracheal tube removal has decreased from 0.27% in 2011 to 0.14% in 2012 by 12 cases. This reached the study goal. The zero extubation by patient from January 2012 to May 2013, we calculated the days no patient extubation by him/herself in the duration was achieve 104 days. The Inter-prerfessional meeting all participants attendance rate was 95%.



unplanned endotracheal tube removal in ICU in 2011



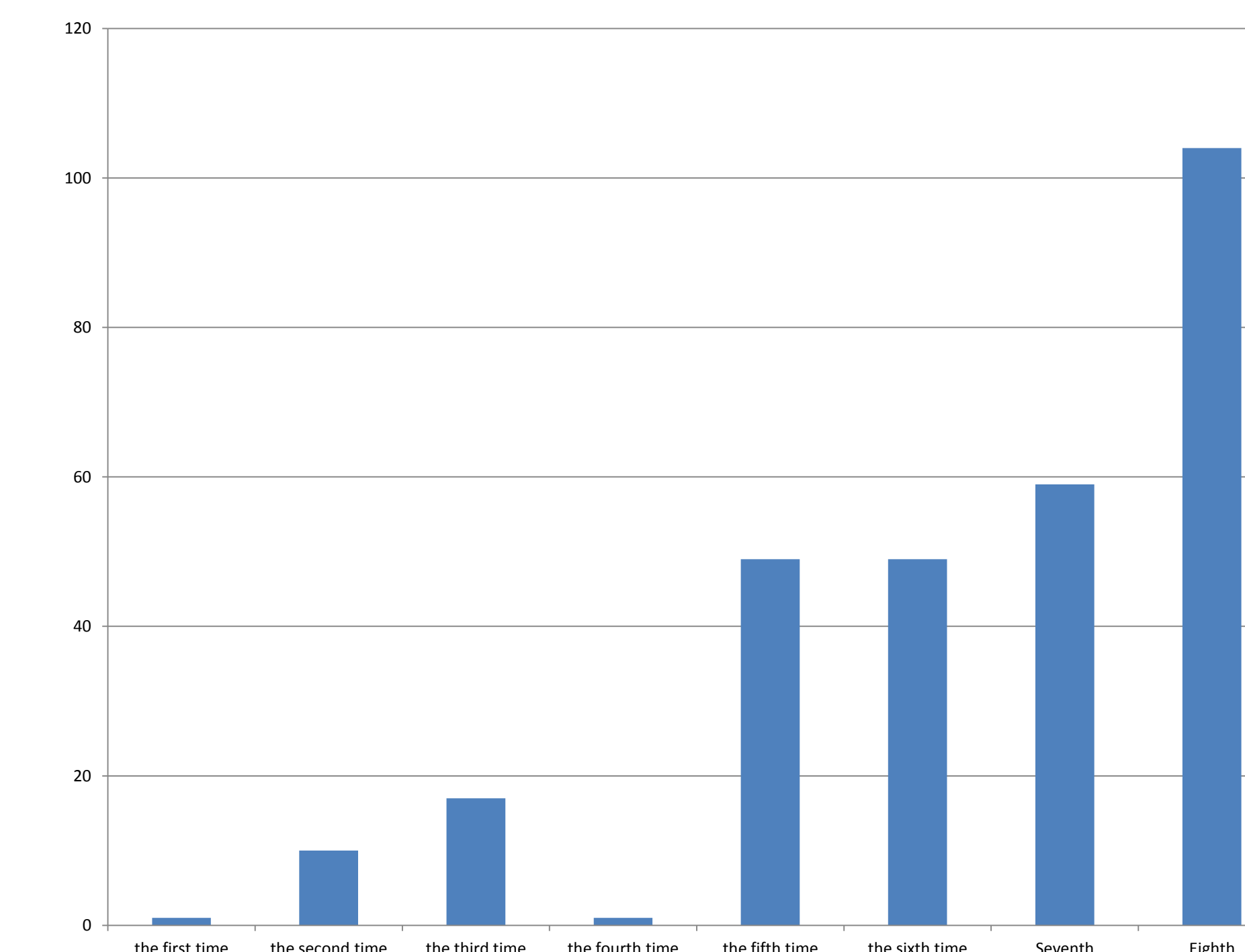
Prevention of non-plan endotracheal tube removal
rate of job specifications



Tube removal rate within the non-plan tracheal 2012-2013

Conclusion

This study not only applied the team resources management mode to prevent unplanned endotracheal tube removal which had achieved significant positive result, but also increased patients' safety. Besides, positive negotiation climate in working place had established through management strategy.



Zero extubation cumulative number of days