**BACKGROUND**

- A Core Respiratory Therapist (RT) Team was organized in 2015 to execute the Neurocritical Care Unit Ventilator Protocol and to improve responsiveness to the unique needs of neurological and neurosurgical patients.
- The Core RT Team was stationed within the unit, attended physicians’ rounds, and made changes to the ventilator settings in response to abnormal blood gas results.
- The response time to correct abnormal blood gas results was recorded prior, during, and post-implementation of the Core RT Team in NCCU.
- A survey was conducted among MDs and RNs prior and post-implementation of the Core RT Team to assess the impact.

**OBJECTIVES**

- To improve vent change response time to abnormal blood gas results for critically ill neurological patients where the normalization of PaCO2 is crucial.
- To increase communication between MDs, RNs, and the RTs and to assess the perceived impact on patient care by means of a survey.

**METHODS**

- Patients in NCCU with diagnosis of CNS or PNS disease at pre-implementation period of August to September 2014, during the transition, January to February 2015, and post-implementation of October to November 2015 were studied.
- Intubation duration > 6 h.
- A study began with a pH or CO2 level out of range in the blood gas result following intubation and ended when normalized.
- The endpoint was extubation or tracheotomy.
- The survey was conducted at pre- and post-implementation period among MDs/RNs, and the results were collected in February 2015 and March 2016. A total of 21 MD/RNs responded in 2015, and 30 MD/RNs in 2016.
- Patients were assigned a study number that had no PHI associated with.

**RESULTS**

- Since the initial implementation of the Core RT Team, the response time has shortened by 80% in the NCCU.
- Having an RT physically in the unit and getting the blood gas results to their workphone enabled quicker response time.
- NCCU staff survey results demonstrated that creating a Core RT Team has been a beneficial change for the unit.

**CONCLUSIONS**

- 80% faster response time.
- A complete satisfaction level in both RTs’ availability and the communication level between MDs, RNs, and RTs.
- 93% agreed to improved efficacy of the NCCU overall operations by the dedicated Core RT Team.

**REFERENCES**

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