METHODS

Perioperative patients admitted to the East Carolina University IM/Orthopedic service in the 24-bed orthopedic surgery unit were assessed to see if their spirometer was within reach on day zero. Then, written reminders were placed on every staff computer in the unit. On day two of their month-long rotation, the primary team residents were verbally educated with a discussion about the importance of spirometry in the perioperative period. The orthopedic unit was reassessed on day 5 and day 30 to determine how many patients had their spirometer within reach. The nurses were not given any education and there was no re-enforcement of recommendations with the residents after the initial education session. Patients admitted to the service but managed nonoperatively were not included in the data set. Fisher’s exact test was then utilized to compare the difference between day zero, five, and 30.

RESULTS

On day zero, 27.8% of patients (5/18) had their spirometer within reach. On day five, 40% of patients (4/10) had their spirometer within reach. On day 30, 72.7% of patients (8/11) had their spirometer within reach. The difference between day 0 and 30 was assessed using the Fisher’s exact test, resulting in a p-value of 0.023 and was found to be statistically significant. There was no statistically significant difference between day 5 and day 30.

CONCLUSIONS

Resident education regarding incentive spirometry with concurrent placement of reminders for unit staff can be an efficacious and low-cost method of improving access to perioperative pulmonary hygiene. While access does not guarantee patient adherence, it overcomes the most basic barrier, access to the spirometer. Future studies can evaluate the impact of this quality improvement on general surgery patients.

REFERENCES


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