

Just Breathe...The Importance of the Incentive Spirometer (IS)

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Just Breathe...The Importance of the Incentive Spirometer (IS)

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Background

- At LVHN, observation and patient **questioning** showed that patients were not aware on proper IS use and technique and that nursing staff were not completely sure on IS education and hospital policy and practices.
- Studies have shown that between 17 and 88% of people having abdominal surgery will suffer a postoperative pulmonary complication (do Nascimento Junior et al., 2014).
- These numbers have been shown to decrease with careful treatment that encourages deep breathing, which helps to increase lung volume (do Nascimento Junior et al., 2014).
- Incentive spirometers (IS) are devices that assist patients in deep breathing (do Nascimento Junior et al., 2014).

PICO

Project Purpose: To increase patient use of incentive spirometers post surgery

- PICO Question – In post abdominal surgery patients, does nursing reeducation on IS use compared to patient knowledge prior to nursing reeducation increase patient knowledge on IS use and technique?
 - P- Nurses on 4K and 5K
 - I – Nursing reeducation on proper incentive spirometer technique
 - C – Patient knowledge on incentive spirometer prior to nurse reeducation
 - O – Increase patient knowledge on incentive spirometer use and proper technique



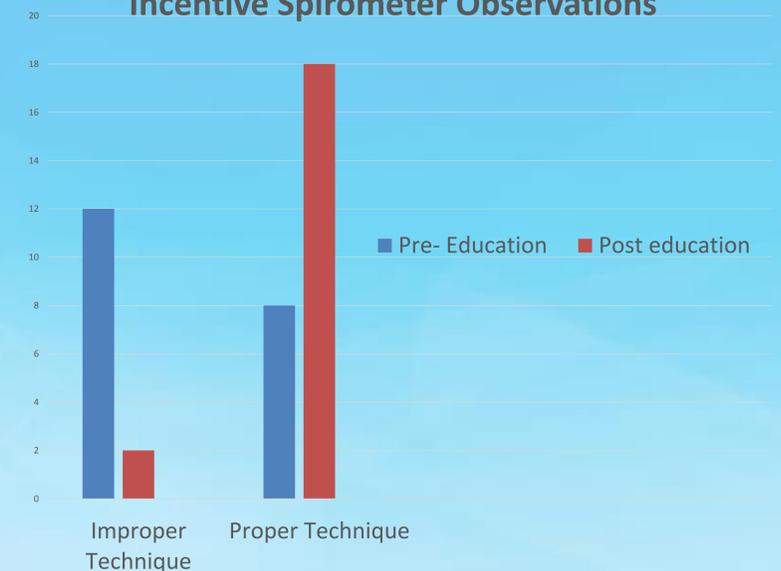
Evidence

- Across the United States, respiratory therapists and nurses were surveyed and responses showed that 86% said adherence is poor and 95% said that this should be improved (Eltorai et al., 2018).
 - Most common reasons for lack of adherence were forgetfulness of patients (83%), incorrect use and technique (74%) and infrequent use (70%) (Eltorai et al., 2018).
- Planned teaching programs have proven to be effective in assessing knowledge and practice on IS use among patients undergoing abdominal surgeries in hospitals
 - Knowledge questionnaires were distributed to sample sizes of 60 – observation checklists were also used (Jerin & Binutha, 2017) .
 - Results showed an increase in scores from the pre scores (8.27+/-1.57) and the post scores (16.1 +/- 20.26) (Jerin & Binutha, 2017) .

Implementation

- Direct observation of 20 post abdominal surgery patients that are alert and oriented
 - Showing RN proper use/technique of equipment
 - Observation over a two week period
- After observation of 20 patients, educate nurses on proper incentive spirometer technique
 - Demonstrate proper technique to nurses in morning and evening huddles
 - Show flyer to RNs on proper technique, contraindications and benefits
 - Educate nurses on other available education and resources
- Direct observation of 20 post abdominal surgery that are alert and oriented
 - Showing RN proper use/technique of equipment
 - Observation over a two week period

Incentive Spirometer Observations



Conclusions

- 12 out of 20 patients demonstrated proper knowledge of IS use pre-education
- 18 out of 20 patients demonstrated proper knowledge of IS use post-education
- This project could be replicated with a larger sample size and could also include patients hospitalized with other surgeries.
- Nurses should be educated on how to teach patients the appropriate way to use an IS.
- Collaboration with respiratory therapy might be something to consider.

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