

## INTRODUCTION

- Huff airway clearance maneuver is recommended by the CF foundation to help remove mucus and recruit airways in combination with other airway clearance techniques.
- Little is reported on the understanding of huff coughing among pediatric CF patients or the effectiveness of the technique.

## OBJECTIVE

- Measure patient knowledge and use of the huff cough before and after implementation of routine instruction of consistent huff use.
- Monitor effect of the educational intervention on patient FEV1%.

## METHODS

- Demonstration of huff was assessed on patients ages 5 to 17.
- Patients were classified as having full, partial, or no knowledge.
- Three basic steps of the maneuver were assessed: deep inhalation, 3 second breath hold, and active exhalation.
- Patients with limited knowledge or use of the huff were routinely instructed on huff technique.
- Lung function was measured by spirometry, and the FEV1 was averaged over an annual period in both 2018 and 2019.

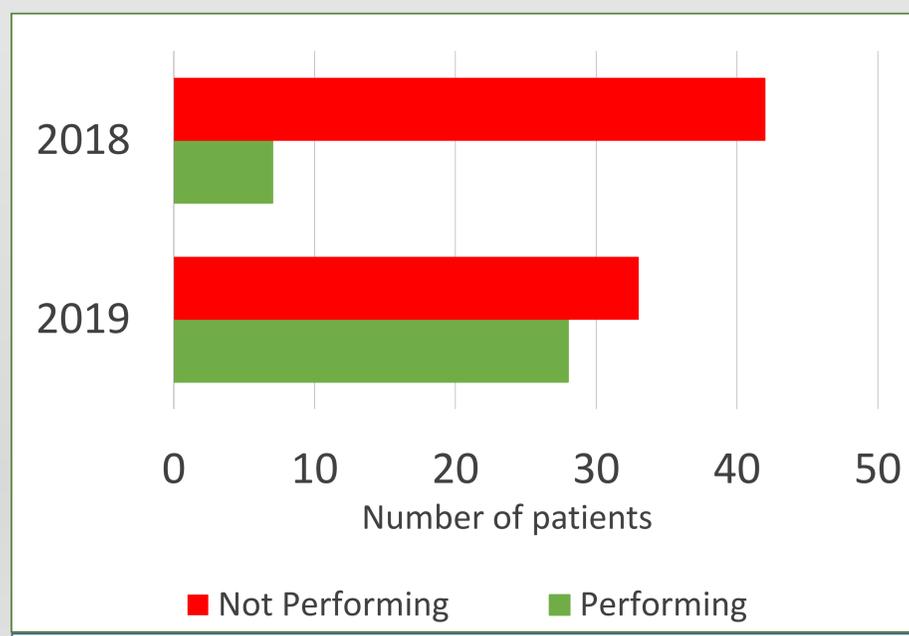


Figure 1. Number of patients performing huff

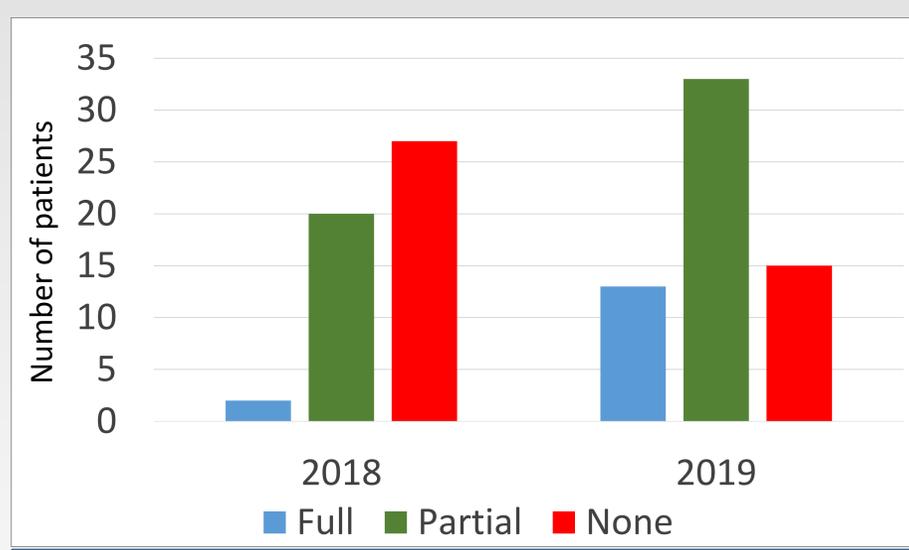


Figure 2. Assessment of huff knowledge

## RESULTS

- In 2018, 45% of 49 patients knew how to perform the huff with 41% partially knowing and 4% fully knowing. In 2019, 75% of 61 patients knew how to perform the huff with 54% partially knowing and 21% fully knowing.

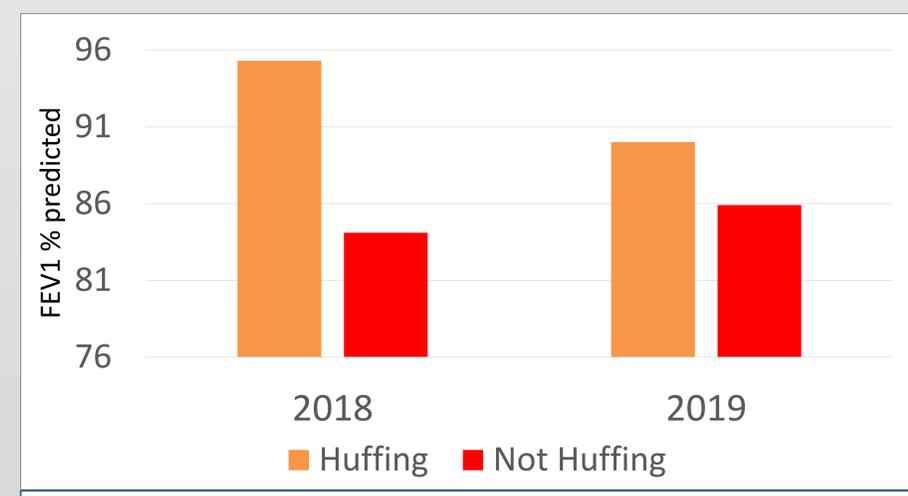


Figure 3. Average Annual FEV1% predicted

## RESULTS

- In 2018, 14% of patients performed the huff with airway clearance compared with 46% performing in 2019.
- Average FEV1% in 2018 for group performing huff was 95.3% vs. 85.9% in the group not performing the huff. Average FEV1% in 2019 for the group performing huff was 90% vs. 84.1% in the group not performing.

## CONCLUSION

Implementing instruction of huff maneuver during CF clinic visits can increase patients' knowledge of the huff technique and number of patients using a huff cough.

## DISCLAIMER

The authors report no conflicts of interest.